



# Former Faccenda Chicken Farm, Bicester, Oxfordshire

Written Scheme of Investigation for An Archaeological Excavation



for: Albion Land

CA Project: MK0255

May 2021



# Former Faccenda Chicken Farm Bicester Oxfordshire

Written Scheme of Investigation for an Archaeological Excavation

CA Project: MK0255

Document Control Grid								
Revision	Date	Author	Checked by	Status	Reasons for revision	Approved by		
А	19/04/21	Adam Howard	Richard Greatorex	Internal review	General Edit	Richard Greatorex		

This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.

Cirencester	Milton Keynes	Andover	Suffolk				
Building 11	Unit 8, The IO Centre	Stanley House	Unit 5, Plot 11				
Kemble Enterprise Park	Fingle Drive, Stonebridge	Walworth Road	Maitland Road				
Cirencester	Milton Keynes	Andover	Lion Barn Industrial Estate				
Gloucestershire	Buckinghamshire	Hampshire	Needham Market				
GL7 6BQ	MK13 OAT	SP10 5LH	Suffolk IP6 8NZ				
t. 01285 771 022	<b>t.</b> 01908 564 660	t. 01264 347 630	t. 01449 900 120				
e. enquiries@cotswoldarchaeology.co.uk							

# **CONTENTS**

1.INTRODUCTION		2
2.ARCHAEOLOGICAL	BACKGROUND	3
3.AIMS AND OBJECTIV	/ES	3
4.METHODOLOGY		3
5.PROGRAMME		7
6.PROJECT STAFF		7
7.POST-EXCAVATION	, REPORTING AND ARCHIVING	7
Reporting	7	
Archive deposit	tion10	
8.HEALTH, SAFETY AI	ND ENVIRONMENT	11
9.INSURANCES		11
10.MONITORING		11
11.QUALITY ASSURAN	NCE	12
12.PUBLIC ENGAGEM	ENT, PARTICIPATION AND BENEFIT	12
13.STAFF TRAINING A	ND CPD	12
14.REFERENCES		13
APPENDIX A: COTSW	OLD ARCHAEOLOGY SPECIALISTS	14
Figure 1	Site Location	
Figure 2	Site Location and red line	
Figure 3	Site Location and archaeological remains to the north of the site of Catalyst Bicester	on
Figure 4	Faccenda Chicken Farm site in relation to known Roman Heritagassets	ge

# 1. INTRODUCTION

- 1.1. This document is a Written Scheme of Investigation (WSI) by Cotswold Archaeology (CA) for an archaeological excavation at the Former Faccenda Chicken Farm, Bicester, Oxfordshire centred on National Grid Reference (NGR) 457521 221039. This WSI has been prepared for Albion Land.
- 1.2. Outline Planning permission (ref: 19/01746/OUT) (with all matters reserved excluding access) for B1 development (B1a and/or B1b and/or B1c); access and associated landscaping and infrastructure works was granted by Cherwell District Council (CDC) conditional on a programme of archaeological work etc. Immediately external to the site, to the west, TVAS (2010) excavated a single trench which uncovered the remains of a Roman Road and a moderate amount of 3rd to 4th century Roman pottery. The Catalyst Bicester site immediately to the north, has identified a MIA-LIA settlement, the Roman Road leading north from Alchester, approximately 60 (Roman) cremation burials and a partial (perhaps abandoned) Roman settlement. It is clear, that both Iron Age and Roman activity extends from that to the south into the current site. There was localised (south-west corner) evaluation of the site in 1983 (Foreman and Rhatz 1984) which also confirmed the site's Iron Age and Roman archaeological potential. For this reason, it has been agreed with Richard Oram (OCC Lead Archaeologist and Advisor to Chilwell District Council (CDC)), to forego further trial trench evaluation and move straight to mitigation (comprising excavation of the entire footprint within the red line boundary, subject the usual TPO restrictions etc). Should archaeological remains be encountered which might be deemed of exceptional value or conditions encountered (such as a high-water table) which might prevent significant remains being fully recorded, agreement between the client (Albion Land), Richard Oram of OCC and Cotswold Archaeology will be reached to formulate an appropriate solution. Such an approach has been extremely successful on the neighbouring development, Catalyst Bicester. This WSI will be submitted to Richard Oram for his review and approval.
- 1.3. This WSI has been guided in its composition by the Brief, Standard and guidance: Archaeological excavation (ClfA 2014, June 2020), the Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide and the accompanying PPN 3: Archaeological Excavation (Historic England 2015) and any other relevant standards or guidance contained within Appendix B. This WSI has also been informed by previous targeted evaluation of the site and that of other neighbouring investigations.

#### The site

1.4 The site comprises agricultural land located at Promised Land Farm, within the parish of Chesterton, to the south of Bicester in Oxfordshire. The area covered by the Catalyst Bicester development area is 2.9ha. The separate Hybrid, and neighbouring application site, has previously been evaluated indicating LIA and Roman activity including burials. The Faccenda site has since the later 20<sup>th</sup> century been occupied by buildings of the former chicken farm, in the eastern part of the site and by a pond and modern house in the western part of the site. The underlying geology within the site is mapped as Kellaways Sand Member, comprising interbedded sandstone and siltstone of the Jurassic Period. This is overlain by superficial Quaternary river terrace deposits and by superficial alluvial deposit, comprising clay, silt, sand and gravel across the remainder of the site (BGS 2020)

# 2. ARCHAEOLOGICAL BACKGROUND

2.1. An archaeological and historical background of the site has been presented in a heritage desk-based assessment (CA 2016a). A geophysical survey was undertaken of the neighbouring Catalyst Bicester site (AS 2018). The following section is summarised from these sources.

# Prehistoric (pre-43 AD)

- 2.2. A Mesolithic flint scatter, comprising worked flints and cores was recovered approximately 500m to the north-east of the site, with a Neolithic axe recorded, approximately 620m to the north-east.
- 2.3. Two interrupted ring ditches representing possible Bronze Age barrows are located c. 440m north of site. A further two ring ditches are located approximately 910m to the south-east of the site, which have produced Early Bronze Age pottery.
- 2.4. Approximately 50m to the north-west of the site an Early Bronze Age barrow and evidence of Late Iron Age settlement with associated field systems have been excavated (WA, 2009).
- 2.5. Further evidence of Iron Age activity comprises a banjo enclosure and possible hut circles and trackways, located approximately 840m south-west of the site.

2.6. Material spanning the Late Neolithic to Late Iron Age was recorded as part of the excavations outside Roman Alcester, at the crossroads between the A421 and Chesterton Lane approximately 360m south-west of the site.

# Roman (AD 43-AD 410)

- 2.7. Alchester Roman Town is a Scheduled monument, comprising a small town with a defended area of approximately 10.5ha. Several known Roman roads enter Alchester and more are suspected although undiscovered. The southern and eastern boundaries of the site are coincidental with the boundaries of the scheduled area of Alchester Roman Town.
- 2.8. The settlement probably developed in the early first century AD, with activity lasting until the fourth century. The defences of the Roman Town are almost square in plan, with each of its sides c. 350 yards in length. The town was originally bounded by a wall-faced rampart and ditch, remains of the ditch are well preserved to the west, where they still form a field boundary, while the earthwork rampart remains are easily distinguishable on the eastern and western sides. The northern rampart has disappeared as a result of road construction, and the course of the Chesterton Brook to the south has replaced the former ditch.
- 2.9. Excavations 1km to the north of the current site revealed the extent of the Roman hinterland surrounding the town. Evidence broadly dated to the Roman period included small rectangular enclosures delineated by narrow deep ditches. A number of corndrying kilns were recorded within these enclosures. A single wide shallow ditch was interpreted as a drainage channel, moving water off site to the south-west, towards a tributary of the River Ray suggesting an engineered solution to water management. However, the proximity of water was clearly important for industrial processes on site, the evidence for which included stone lined tanks, a possible sluice and system of water channels. Together with the corn drying kilns these features were interpreted as the remains of a malting and brewing site (WA, 2009).
- 2.10. A localised evaluation (south-west corner) at the Faccenda Chicken Farm site was carried out in 1983 by the Oxford University Department for External Studies (Foreman & Rahtz, 1984). Trenches recorded first century AD drainage channels, 'part of a wider scheme to utilise the River Ray wetlands associated with the major settlement at Alchester' (Foreman & Rahtz, 1984). Evidence for wood and stone revetment and a fragment of a possible sluice-gate recovered from a pit, suggested a high level of

investment in land reclamation and water management. Excavation of pits, some of which contained crop processing waste, was interpreted as further evidence for agricultural activity within the hinterland to the north of Alchester. second century activity was sealed by a deposit of dredged river sediment approximately 1.2m thick, marking the abandonment of the site.

- 2.11. An evaluation trench was excavated with the footprint of Wendlebury Road immediately west the entrance to the Faccenda chicken farm and located the metalled surface and underpinning of a north/south aligned Roman road lying approximately 1.1m below the modern road surface (TVAS 2010). This was interpreted as the original route running from the north gate of Alchester towards Towcester (hereafter Alchester to Towcester Road; Margary, 1973: 163). The surface was sealed by material containing a single residual fragment of first-century pottery and several fragments of second to fourth century pottery, with the interpretation that the metalled surface had fallen out of use by the late second to third centuries. A second trench in Wendlebury Road, level with the northern end of the adjacent Hybrid application site found no trace of a Roman road surface.
- 2.12. Excavations in the extramural settlement of Roman Alchester (1991) in advance of road construction on the A421 (Oxford Road), immediately to the west, and approximately 30m south-west of the site recorded extensive evidence of Roman, and earlier, activity (Booth et al 2002). The investigations identified evidence for activity dating from the first to second century AD, characterised by ditches on alignments relating to Akeman Street, while a complex system of ditched plots developed later, on each side of the lane running parallel to, and north of, Akeman Street. South of the lane, the earliest structures dated to the mid-second century. North of the lane, plots contained Roman structures of various plan and construction, and the character of this settlement appeared to indicate a predominantly agricultural use. Settlement and agricultural activity appeared to have continued into the post-Roman period. A late Roman cemetery was recorded, alongside a large pottery assemblage, with numerous other finds.
- 2.13. Archaeological investigations in the area approximately 650m south-west of the site, recorded details of an internal road, alongside evidence of a workshop, granary, an early fort, a tower, gate and water channel. Plans of buildings have also been recorded elsewhere within the Scheduled Monument and during the construction of the railway line, in 1848, sixteen skeletons were recorded approximately 660m to the south of the proposed development site. The remains of a further 28 inhumation burials, along with

pottery sherds and demolition material, were located approximately 560m to the south, and a single inhumation, Samian pottery and a cremation burial were uncovered during non-archaeological trenching approximately 260m south of the site.

# Early medieval (AD 410-1066) and medieval (1066-1539)

- 2.14. Bicester is recorded in the Domesday Survey of 1086. The earliest account of King's End comes from the record for the Prioress of Markyate, who held a small manor, with eleven villeins holding six virgates between them (Victoria County History 1959; Craig 2009).
- 2.15. Bicester House, formerly known as Burcester Hall, is located on the site of the former manor-house of the nuns of Markyate. The nuns are suggested to have leased their estate in 1530, which in 1584 was purchased with the house by John Coker.
- 2.16. Further evidence of medieval activity within the environs of the site includes evidence of agricultural activity and settlement in the form of miscellaneous findspots, including tokens, pottery and coins, and recorded features such as ditches, pits and postholes, ridge and furrow earthworks, trackways and quarries located immediately to the west of the site, c. 800m to the north, c. 970m to the north-east, c. 310m and 900m to the east, c. 760m to the south-west and 1km to the west, and c. 50m, 70m and 740 to the north-west.

#### Post-medieval (1539–1800) and modern (1801-present)

- 2.17. Post-medieval evidence within the wider area largely comprises evidence of agricultural activity and quarrying immediately to the west of the site, and c. 740m to the north-west.
- 2.18. During this period, the site is likely to have comprised agricultural farmland. The 1793 Enclosure Map for King's End and the Bryant Map of Oxfordshire of 1824 indicate that, during the late 18th century, the site and its surroundings formed part of King's End Inclosure and King's End Mead, and that the former Roman road from Alchester to Towcester ran through the western margins of the site.
- 2.19. Further evidence of post-medieval activity comprises finds of pottery and demolition material associated with farm buildings, boundary ditches, and demolition material recorded approximately 800m to the north, and 530m to the north-east of the site.

- 2.20. The Buckinghamshire Railway, located approximately 140m east of the site, was established through the merging of two companies proposing lines from Bletchley to Banbury, and Aylesbury to Oxford. The Bletchley-Banbury section opened in 1850 and the Oxford-Verney Junction on the Bletchley-Banbury line opened a year later. The Banbury line remained a branch-line throughout the late 19th and early 20<sup>th</sup> century, while the Oxford Line developed into a major cross-county link, until its closure to passengers in 1968. The Banbury line closed to passengers in 1961, although a truncated spur to Buckingham remained open for a further three years. The use of Banbury line for goods traffic ceased in 1963, while the Oxford section remains fully operational.
- 2.21. Britain's largest military railway system, the Bicester Military Railway, is located approximately 200m to the east of the site, and functions as the primary mode of transport at the Central Ordnance Depot, Bicester. Surveyed prior to construction in August 1942, six passenger platforms were built around the Graven Hill depot, although all except the Graven Hill platform have since been demolished.
- 2.22. The site underwent only limited alterations during the 20th century, as depicted on the 1900 and 1922 Ordnance Survey maps. By 1952, the A41 (Oxford Road) was constructed and by the late 20th century, the chicken farm to the east, Bicester Village to the north and the sewage works to the north-east, had all been established. Within the wider landscape, Bicester to the north, Chesterton to the east and Wendlebury to the south-west were subject to rapid expansion, with agricultural land remaining to the south, south-west and north-west of the site.

# **Undated**

- 2.23. Two possible hearths located approximately 110m to the west of the site, and several small, burnt deposits located approximately 500m to the north-east have been recorded (Network Archaeology 2007).
- 2.24. Within the wider environs of the site, a series of cropmarks, suggesting possible ring ditches and/or curvilinear ditches are located approximately 410m and 840m to the north of the site, 1km to the north-east and 500m to the north-west.
- 2.25. Within the south-western corner of the central portion of the site, a linear earthwork, orientated north/south, may possibly represent the line of the Alchester-Towcester Road, with the modern roadway diverted slightly to the west. This earthwork has not been recorded by the RCHME aerial photographic interpretation project (1990). A

spread of stone recorded to the east of the modern bridge across the A41 (Oxford Road) may represent a former ford or a road crossing over the brook, although excavations at Faccenda Farm (1983) did not record any evidence of the road in this area. However, excavations at Wendlebury Road, Bicester: Phase 2 excavation (2010), and excavations within the extramural settlement of the Roman Town (Site B: 1991) recorded evidence of this road to the west and south-west of the site. There is a possibility that this linear earthwork represents a Roman ditch, which was either originally located adjacent to the Roman road or was otherwise utilised for agricultural purposes.

2.26.A few cropmarks visible on the aerial photographs, to the east of the current site, appear to represent earlier activity, as they do not conform to the alignment of the modern field pattern. Prominent amongst these is a reasonably large, rectilinear enclosure within the central portion of the site, which is aligned west/east. This appears to be associated with a series of smaller enclosures aligned north/south, which is typical of a late Romano-British or medieval nucleated settlement. A few other linear features crossing the site on a north/south alignment are also not aligned with the modern field system and could represent former trackways. The enclosure and ditches within the central portion of the site are visible on the Environment Agency Lidar coverage of this area and have been recorded as part of the RCHME Alchester aerial photography interpretation project.

#### **Recent Works**

- 2.27. In September 2016, Cotswold Archaeology (CA) carried out an archaeological evaluation of land at Bicester Gateway, Bicester, Oxfordshire, adjacent to the current site. The fieldwork was undertaken to inform a forthcoming planning application for the commercial development of the site. The fieldwork comprised the excavation of twenty-one trenches.
- 2.28. The evaluation identified a concentration of archaeological remains within the southwestern part of the site. The archaeological remains dated to the Roman period, spanning the 1st to 4th centuries AD, with activity concentrated in the 2nd to 4th centuries AD. An isolated and undated ditch was recorded within the central part of the site and a Roman pit was also recorded within the northern part of the site. The earliest features encountered comprised two ditches containing pottery dating to the 1st to 2nd centuries AD. Overlying these early ditches was a substantial deposit of made-ground identified across approximately one hectare of land at the southern end of the site. This

would have raised the local ground level above the seasonal floodplain of the River Ray and the evaluation results suggest that this allowed for the construction of a new road surface during the to the middle second century AD. No definitive structural evidence was identified; however, floor surfaces were recorded along with a possible cereal drying oven/kiln, which appear to indicate small scale roadside settlement during the late 2nd to 3rd-centuries AD. In addition, the evaluation also recorded an undated ditch which followed the alignment of the ridge and furrow ploughing identified by the geophysical survey.

# **Geophysical Survey**

2.29. A geophysical survey undertaken in October and November 2018 by Archaeological Surveys Ltd (AS 2018), comprising detailed magnetometry, was carried out over 14ha on land outlined for Phase 2 of the Bicester Gateway (Catalyst Bicester) development. The results indicate the presence of a few positive linear, rectilinear and discrete anomalies that may relate to cut features with archaeological potential in the northern and western parts of the site. Elsewhere, clusters of discrete positive responses have also been located, although it is not possible to determine if these relate to modern anthropogenic features, or if they have archaeological potential or whether they relate to possible natural features. Numerous naturally formed pit-like anomalies can be seen in the centre of the site. Ridge and furrow in the north western part of the site has also been identified, with possible land drainage elsewhere and infilling of former meanders in the watercourse adjacent to the eastern edge of the site.

#### **TVAS Evaluation**

2.30. This evaluation (TVAS 2010), external to the site (to the west) succeeded in finding archaeological deposits dating from the Roman period. The finds included pottery, iron, glass and animal bone which all came from a soil build up above a cobbled limestone surface. This surface was located along the presumed route of a Roman road and almost certainly represents its remains. The surface did not appear to be lying on the natural geology but on another potential archaeological deposit which may be an original bedding layer, although the existence of several resurfacing episodes cannot be ruled out. The pottery has been dated to the 3rd-4th centuries AD but is nearly all abraded and may have been old when deposited; it need not mean the road had already gone out of use by that date. The surprising quantity of finds is no doubt related to the close proximity of the Roman town, rubbish from which would have been spread widely across a zone within its hinterland.

2.31. Ongoing works at the neighbouring Catalyst Bicester linked development site (to the north) have identified the Roman Road running northwards from Alchester, a predating a MIA/LIA small farmstead settlement on a SW/NE alignment with enclosing parallel flanking ditches to manage the high-water table. We currently believe that at some point in the Roman period the subsequent Roman activity on the site was abandoned as a result of rising water tables. There are at least 60 cremations on the site and one inhumation. The cremations are all thought to be Roman (including one bustum and approx.. six casket burials) and the inhumation (of a partly dismembered skeleton) is thought most likely to be Iron Age. There do appear to be groupings amongst the cremations which may reflect family associations etc. A number of wells and water holes have been identified along with at least 3 roundhouses thus far. There also appears to be Bronze Age activity on the site in the form of some isolated pits. A considerable amount of metalwork (including horseshoes, brooches and coins) has been retrieved both from the overburden and from features. There are also many quarry pits for gravel and shingle extraction alongside the Roman road, which examination of the Roman road confirms they were using as a bedding material for the larger limestone blocks. There appears to have been two phases of metalling to the Roman road.

# 3. AIMS AND OBJECTIVES

- 3.1. The general objectives of the archaeological excavation are to:
  - record the nature of the main stratigraphic units encountered
  - assess the overall presence, survival and potential of structural and industrial remains
  - assess the overall presence, survival, condition, and potential of artefactual and ecofactual remains
  - A further objective of the project is to compile a stable, ordered, accessible project archive (see Section 7).
- 3.2 The specific aims of the work are to:
  - · record any evidence of past settlement or other land use

- recover artefactual evidence to date any evidence of past settlement that may be identified
- sample and analyse environmental remains to create a better understanding of past land use and economy

#### Early Neolithic

- Identifying and investigating sites with both late Mesolithic and early Neolithic material present, especially where these can be linked to environmental and datable sequences.
- Establishing the extent and character of settlement away from monument complexes, especially in areas where early settlement has traditionally been thought to be thin

# Late Neolithic/Early Bronze Age

- Better dating of key sites and deposits in order to improve an understanding of chronological sequences across the region.
- Investigating sites with good environmental sequences with potential for environmental reconstruction
- Establishing the extent and character of settlement away from monument complexes, especially in areas where early settlement has traditionally been thought to be thin

# Late Bronze Age/Early Iron Age

- The location and exploitation of woodland should be explored through palaeoenvironmental data.
- For field systems in the Solent-Thames area, their origin and purpose, including the reason for co-axial fields and the form taken by field boundaries, would merit further study.
- Changes in the relationship of fields to settlements across the region should also be investigated.
- Reasons for increases in the intensity of settlement should be explored, for example whether this reflects a switch from family to more communal management of animals and crops, and the role of land-use divisions in this process

- More remains to be learnt about storage pits, such as the establishment of a minimum size, their reuse as latrines and the implications of this for burials in pits.
  - Late Iron Age/Early Romano-British
- Identify any evidence for Late Iron Age/Early Romano British transition evidenced through changing material culture and evolving new forms of habitation
- Identify evidence of changing landscape management in the hinterland of Alchester in the early Romano-British period and its relationship with the adjacent Roman road
- Identify evidence of early Romano-British crop processing in the hinterland of Alchester
- · Identify any evidence of smithing in the suburbs of Alchester

#### Conquest to Decline

- Assess evidence for change and development of the hinterland of Alchester through the Roman period
- Assess evidence for changes in the local economy during the Roman period
- Assess evidence for light industry and smithing in the hinterland
- Assess evidence for the decline of activity in the hinterland of Alchester in the late Roman period

#### Early medieval

- There is little evidence from the immediate area of the site for early medieval activity and it will be very important to assess whether there is any settlement activity which predates the Domesday Book
- 3.3 Research aims identified from the regional research framework *Solent-Thames*Archaeological Research Framework (Chapters published 2006-2009) [further details of the regional research frameworks available can be found at <a href="http://www.algao.org.uk/england/research\_frameworks">http://www.algao.org.uk/england/research\_frameworks</a>]) include:

# 4. METHODOLOGY

#### Excavation and recording

4.18 As it has been agreed with Richard Oram of OCC (Advisor to CDC) to wave initial trial trench evaluation, there is a requirement for the developer to strip the entire construction footprint of all overburden (see Figure 1). Note that a portion of the north-west quarter of the site has already been removed for the installation of a large/deep pond by the previous owners of the Chicken Farm, which is known to be at least 1.5m deep. This would truncate all anticipated archaeology other than deep wells, so monitoring of the drained pond (prior to backfilling) will concentrate on establishing whether the base of such features are located within its footprint. For the purposes of the archaeological works both topsoil and subsoil will be removed and stored externally to the site. The archaeologically monitored strip of the overburden will be undertaken throughout the construction footprint and will include the monitoring of the removal of concrete slabs associated with the chicken sheds and the access road. Other areas of modern truncation include the existing foul sewer (north-west corner of the site), the 20th century house footprint (south-west corner) and drainage/cess pit also in the south-west corner, the removal of the foundations for all of which will be monitored as part of the site wide strip. All of the above will be removed carefully by machine deploying a toothless ditching bucket under constant guidance. As areas of the site are cleaned to bedrock, the extent of any excavation areas will be agreed with Richard Oram and areas only signed off by him as when supported by detailed plans and photographs of the significant features having been appropriately excavated. The level of recording in each of these will be agreed with Richard Oram and reflect the level of significance of the archaeology uncovered. For example, if furrows are identified, these will be mapped only, in order to understand their relationship and impact on any earlier remains that might survive. In addition, where sufficient understanding/characterisation/phasing/dating has been evidenced, a reduced level of recording may be agreed with Richard Oram (i.e. the gravel pits as recorded on the Catalyst Bicester Site). Excavation areas will be set out on OS National Grid (NGR) co-ordinates using a Leica GPS. Areas for excavation and recording will scanned for live services by the Main Contractor using CAT and Genny equipment prior to archaeological guidance of the machine strip commencing. Any live services will be identified by the main contractor and provided with a clearly marked exclusion zone. The position and size of excavation areas may be adjusted on site to account for services and

other constraints, with the approval of Richard Oram (the archaeological advisor to CDC). The final 'as dug' areas will be recorded with GPS by CA.

- 4.19 Initially works will comprise the mechanical removal of non-archaeologically significant soils, under constant archaeological supervision, using a toothless ditching bucket. The generated spoil will be monitored in order to recover artefacts, including systematic sweeping with a metal detector. Metal detecting and hand-cleaning of the stripped surface, to better define any identified archaeological deposits/features and record the distribution of unstratified/surface artefacts, will be undertaken if deemed appropriate. All machining will be conducted under archaeological supervision and will cease when the first archaeological horizon or natural substrate is revealed (whichever is encountered first). All archaeological features will be recorded in plan using Leica GPS.
- 4.20 Examination of features will concentrate on recovering the plan and any structural sequences. Particular emphasis will be placed upon gaining a secure understanding of the stratigraphic and chronological development of the site, including the recovery of samples suitable for radiocarbon dating where appropriate, and on upon obtaining details of the phasing of the site.
- 4.21 All funerary/ritual activity and domestic/industrial deposits/structures will be 100% excavated. All discrete features (post holes, pits) will be sampled by hand excavation (average sample unlikely to exceed 50%) unless their common/repetitious nature suggests they are unlikely to yield significant new information. All linear features (ditches, pathways etc) will be sampled to a minimum of 10%. Bulk horizontal deposits will as a minimum be 10% by area hand excavated, after which a decision may be taken (in conjunction with Richard Oram) to remove the remainder with machinery. Priority will be attached to features which yield sealed assemblages which can be related to the chronological sequence of the site. Features and bulk deposits will be sampled initially by hand in order to recover sufficient artefactual and biological assemblages and feature profiles/sections/elevations with which to date and phase them, after which systematic mechanical excavation of additional sections, and coarse inspection and metal detecting of the arisings for finds recovery, may be applied, to recover additional data (or more secure dating evidence where finds are meagre). Priority for hand-investigation will be attached to features which yield sealed assemblages which can be related to the chronological sequence of the site.

- 4.22 Throughout the course of fieldwork this reflexive strategy will continually utilise new information recovered from the site (and where necessary subject to preliminary assessment by appropriate specialists during the course of the fieldwork) to further inform and develop the site investigation strategy and methodology which are in turn dictated by a desire to address the research questions set out in section 3. This will require a collaborative approach to strategy formulation between curator, consultant, CA site staff and specialists. The strategy will be driven by a series of principles:
  - Our emphasis is on collecting high-quality data, rather than large quantities of less good evidence. It is the quality of the evidence, not just the quantity that matters.
  - We will collect, and analyse, data in a format that permits comparison with that recovered from comparable sites, both locally and nationally, and also evidence that will accrue from future work. We will institute a programme of volumetric analysis which will allow the quantities of artefacts and ecofacts recovered from cut features (ditches; pits) to be related to the volume of fill from which they have been recovered (eg. *X* kg pottery per m³).
  - Amend as necessary We will seek to establish a total quantification of all metalwork recovered from the site, and look for intra-site distribution patterns. We will put an emphasis on metal-work recovery through the controlled use of a metal-detector and will plot the locations of recovered finds with a GPS.
  - Whilst there are no universally accepted sample sizes, we will as a rule take the view
    that a sample of more than ten sherds of pottery should be sufficient to date major
    features. Where hand sampling produces a meagre return of artefacts, we will consider
    as a second stage the machine removal of fill and the careful scanning of the excavated spoil for artefact recovery.
  - We will look to recover assemblages of animal bones in excess of 100 NISP per principal site phase.
  - Amend as necessary We will prioritise sealed deposits resting upon any surviving floors or surfaces for the application of scientific techniques which might provide insights into the formation of those deposits, and any activities or processes that occurred nearby.

4.23 All archaeological features revealed will be planned and recorded in accordance with CA Technical Manual 1 *Fieldwork Recording Manual*. Each context will be recorded on a pro-forma context sheet by written and measured description; principal deposits will be recorded by drawn plans (scale 1:20 or 1:50, or electronically using Leica GPS or Total Station (TST) as appropriate) and drawn sections (scale 1:10 or 1:20 as appropriate). Where detailed feature planning is undertaken using GPS/TST this will be carried out in accordance with CA Technical Manual 4 *Survey Manual*. Photographs (digital colour) will be taken as appropriate. All finds and samples will be bagged separately and related to the context record. All artefacts will be recovered and retained for processing and analysis in accordance with CA Technical Manual 3 *Treatment of Finds Immediately after Excavation*.

#### Artefact retention and discard

4.24 Artefacts from topsoil and subsoil and un-stratified contexts will normally be noted but not retained unless they are of intrinsic interest (e.g. worked flint or flint debitage, featured pottery sherds, and other potential 'registered artefacts'). All artefacts will be collected from stratified excavated contexts except for large assemblages of post-medieval or modern material. Such material may be noted and not retained, or, if appropriate, a representative sample may be collected and retained.

#### Human remains

4.25 If human remains are encountered, the client and the Richard Oram will be informed immediately. Where excavation of human remains is undertaken, this will be conducted following the provisions of the Coroners Unit in the Ministry of Justice.

#### Environmental remains

4.26 Due care will be taken to identify deposits which may have environmental potential, and where appropriate, a programme of environmental sampling will be initiated. This will follow the Historic England environmental sampling guidelines outlined in *Environmental Archaeology*, A guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (English Heritage 2011), and CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites. The sampling strategy will be adapted for the specific circumstances of this site, in close consultation with the CA Environmental Officer and Richard Oram of OCC but will follow in general the selection parameters set out in the following paragraphs. An initial meeting on site between Richard Oram and Sarah Wyles will be arranged to assess the nature of the archaeological potential revealed

by the site strip to agree the initial priorities of the environmental sampling strategy. The scope of the strategy will then subsequently be kept under review as the full archaeological potential of the site is revealed through exacavation.

- 4.27 Secure and phased deposits, especially those related to settlement activity and/or structures will be considered for sampling for the recovery of charred plant remains, charcoal and mineralised remains. Any cremation-related deposits will be sampled appropriately for the recovery of cremated human bone and charred remains. If any evidence of *in situ* metal working is found, suitable samples for the recovery of slag and hammer scale will be taken.
- 4.28 Where sealed waterlogged deposits are encountered, samples for the recovery of waterlogged remains, insects, molluscs and pollen, as well as any charred remains, will be considered. The taking of sequences of samples for the recovery of molluscs and/or waterlogged remains will be considered through any suitable deposits such as deep enclosure ditches, barrow ditches, palaeo-channels, or buried soils. Monolith samples will also be taken from this kind of deposit as appropriate to allow soil and sediment description/interpretation as well as sub-sampling for pollen and other micro/macrofossils such as diatoms, foraminifera and ostracods.
- 4.29 The need for any more specialist samples, such as OSL, archaeomagnetic dating and dendrochronology will be evaluated and will be taken under the direction of the relevant specialist.
- 4.30 The processing of the samples will be done in conjunction with the relevant specialist following the Historic England general environmental processing guidelines (English Heritage 2011). Flotation or wet sieve samples will be processed to 0.25mm. Other more specialist samples such as those for pollen will be prepared by the relevant specialist. Further details of the general sampling policy and the methods of taking and processing specific sample types are contained within CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites.

Treasure

4.31 Upon discovery of Treasure CA will notify the client and the curator immediately. CA will comply fully with the provisions of the Treasure Act 1996 and the Code of Practice referred to therein. Findings will be reported to the coroner within 14 days.

#### 5. STAFF AND TIMETABLE

- 5.1 This project will be under the management of Richard Greatorex, Principal Fieldwork Manager, CA.
- 5.2 The staffing structure will be organised thus: the Project Manager will direct the overall conduct of the evaluation as required during the period of fieldwork. Day to day responsibility however will rest with the Project Leader who will be on-site throughout the project.
- 5.3 Given that there will be a gradual release of area for excavation following demolition it is envisaged that the field team will consist of a maximum of 10 staff for an estimated two/three-month program (e.g. 1 Project Officer; 2 Project Supervisors and 8 Archaeologists), though, the size of the team may be increased in due course as a greater area for excavation becomes available
- It is envisaged that the project will require approximately 8 12 weeks of fieldwork, dependent on results. The production of a post-ex assessment\ of the results will take up to 12 months and subsequent analysis and publication a further 12 months thereafter.
- 5.5 Specialists who will be invited to provide advice and report on specific aspects of the project as necessary are:

Ceramics Ed McSloy MCIfA (CA)
Metalwork Ed McSloy MCIfA (CA)

Flint Jacky Sommerville PCIfA (CA)

Animal Bone Andy Clarke BA (Hons) MA (CA)/

Matty Holmes BSc MSc ACIfA (freelance)

Human Bone Sharon Clough MCIfA (CA)
Environmental Remains Sarah Wyles PCIfA (CA)

Conservation Pieta Greeves BSc MSc ACR

(Drakon Heritage and Conservation)

Geoarchaeology Agata Kowalska (CA)

Depending upon the nature of the deposits and artefacts encountered it may be necessary to consult other specialists not listed here. A full list of specialists currently used by Cotswold Archaeology is contained within Appendix A.

# 6 POST-EXCAVATION, ARCHIVING AND REPORTING

- 6.1 Following completion of fieldwork, all artefacts and environmental samples will be processed, assessed, conserved and packaged in accordance with CA Technical Manuals and Oxfordshire Museums Service guidelines. A recommendation will be made regarding material deemed suitable for disposal/dispersal in line with the relevant recipient Museums' collection policy.
- A post-excavation assessment will be undertaken following completion of all site works. This will be prepared in accordance with the specification given in Appendices 4 and 5 of *Management of Archaeological Projects 2* (English Heritage 1991). Any variations to these post-excavation requirements will require the written approval of the Richard Oram. The post-excavation assessment report will include:
  - (i) an abstract containing the essential elements of the results preceding the main body of the report and a summary of the project's background;
  - (ii) description and illustration of the site location;
  - (iii) a methodology of the works undertaken;
  - (iv) include plans and reports of all documentary and other research undertaken;
  - (v) a description of the project's results;
  - (vi) an interpretation of the results in the appropriate context;
  - (vii) a summary of the contents of the project archive and its location (including summary catalogues of finds and samples);
  - (viii) a site location plan at an appropriate scale on an Ordnance Survey, or equivalent, base-map;

- (ix) a plan showing the location of the trenches and exposed archaeological features and deposits in relation to the site boundaries;
- (x) plans of each trench, or part of trench, in which archaeological features are recognised. These will be at an appropriate scale to allow the nature of the features exposed to be shown and understood. Plans will show the orientation of trenches in relation to north. Section drawing locations will be shown on these plans. Archaeologically sterile areas will not be illustrated unless this can provide information on the development of the site stratigraphy or show palaeo-environmental deposits that have influenced the site stratigraphy;
- (xi) appropriate section drawings of trenches and features will be included, with OD heights and at scales appropriate to the stratigraphic detail being represented. These will show the orientation of the drawing in relation to north/south/east/west. Archaeologically sterile trenches will not be illustrated unless they provide significant information on the development of the site stratigraphy or show palaeo-environmental deposits that have influenced the site stratigraphy;
- (xii) site matrices, if appropriate;
- (xiii) photographs showing significant features and deposits that are referred to in the text. All photographs will contain appropriate scales, the size of which will be noted in the illustration's caption;
- (xiv) a consideration of evidence within its wider local/regional context;
- (xv) a summary table and descriptive text showing the features, classes and numbers of artefacts recovered and soil profiles with interpretation;
- (xvi) specialist assessment or analysis reports where undertaken;
- (xvii) an evaluation of the methodology employed, and the results obtained (i.e. a confidence rating).
- 6.3 Specialist artefact and palaeo-environmental assessment will take into account the wider local/regional context of the archaeology and will include:
  - (i) specialist aims and objectives
  - (ii) processing methodologies (where relevant)
  - (iii) any known biases in recovery, or problems of contamination/residuality
  - (iv) quantity of material; types of material present; distribution of material
  - (v) for environmental material, a statement on abundance, diversity and preservation
  - (vi) summary and discussion of the results to include significance in a local and regional context

6.4 Copies of the <u>draft post-excavation assessment report</u> will be distributed to the Client or their Representative and to the CDC's Archaeological Advisor thereafter for verification and approval. Thereafter, copies of the <u>approved report</u> will be issued to the Client, CDC's Archaeological Advisor and the local Historic Environment Record (HER). Reports will be issued in digital format (PDF/PDFA as appropriate) except where hard copies have been specifically requested and will be supplied to the HER along with shapefiles containing location data for the areas investigated, if required.

#### Academic dissemination

- 6.5 Should the post-excavation assessment identify the potential for further analysis, an updated project design will be prepared for agreement with the OCC Archaeologist, Richard Oram prior to the commencement of the detailed analysis and reporting. Arrangements will be made for an appropriate level of academic publication of the results of the excavations. A summary report will also be published in the Oxoniensia Journal.
- 6.6 Copies of any reports arising from the fieldwork will be deposited with the Oxford Historic Environment Record (HER). A summary of information from the project will also be entered onto the OASIS online database of archaeological projects in Britain, including the upload of a digital (PDF) copy of the final report, which will appear on the Archaeology Data Service (ADS) website once the OASIS record has been verified.

#### Public dissemination

In addition to the ADS website, a digital (PDF) copy of the final report will also be made available for public viewing via Cotswold Archaeology's *Archaeological Reports*Online web page, generally within 12 months of completion of the project (<a href="http://re-ports.cotswoldarchaeology.co.uk/">http://re-ports.cotswoldarchaeology.co.uk/</a>).

#### Archive preparation and deposition

An ordered, indexed, and internally consistent site archive will be prepared in accordance with Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (ClfA 2014; updated June 2020), Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation (Archaeological Archives Forum 2007) and Standard and Guide to Best Practice for Archaeological Archiving in Europe: EAC Guidelines 1 (Europae Archaeologia Consilium 2019), as well as Oxfordshire Museum's Service guidelines.

6.9 CA will make arrangements with the Oxfordshire Museums Service for the deposition of the site archive and, subject to agreement with the legal landowner(s), the artefact collection. Oxfordshire Museum Service will be consulted at this stage concerning their requirements and notified in advance of the expected time limits for deposition of the archive.

# Selection strategy

- 6.10 As noted in para. 4.8, artefacts from topsoil, subsoil and unstratified contexts will normally be noted but not retained unless they are of intrinsic interest. All artefacts from stratified excavated contexts will be collected, except for large assemblages of post-medieval or modern material. Such material may be noted and not retained or, if appropriate, a representative sample may be collected and retained.
- 6.11 The site-selected material archive returned to the CA offices will be reviewed following analysis. Stakeholders will make selection decisions based on CA Finds Manager/Officer reports and selection recommendations. The selection will take place during archive compilation. After discussion with the relevant museum Curator and the CA Finds Managers/Officers, it is possible that no material postdating AD 1800 will be retained for inclusion in the preserved archive.

#### **Digital archive**

6.12 A digital archive will be deposited with the Archaeology Data Service (ADS). This archive will be compiled in accordance with the *ADS Guidelines for Depositors*.

#### Data management

- 6.13 All born-digital and digitally transferred project data created during fieldwork and postexcavation (other than duplicated files) will be stored by CA. Upon project completion and deposition, the data will be transferred to a secure external server. Data will be selected for inclusion in the final digital archive, as detailed below. It is proposed that data selection will occur following completion of post-excavation work.
- 6.14 Selected digital files will be transferred to Oxfordshire Museum's Service with the documentary and material archive and to the ADS, in line with the relevant guidance and standards for both organisations. In adherence to CA's Digital Data Guidance, it is proposed that the selected files will include final versions only. Digital photographs will be selected for inclusion in the archive in line with CAs Digital Data Guidance and Digital Image Capture and File Storage: Guidelines for Best Practice (Historic England

2015). Data produced by external specialists or sub-contractors will be granted under license to CA to allow inclusion in the digital archive as required.

# 7. HEALTH, SAFETY AND ENVIRONMENT

7.1 CA will conduct all works in accordance with the Health and Safety at Work Act 1974 and all subsequent Health and Safety legislation, CA Health and Safety and Environmental policies and the CA Safety, Health and Environmental Management System (SHE), as well as any Albion Land policies or procedures. A site-specific Construction Phase Plan (form SHE 017) will be formulated prior to commencement of fieldwork.

#### 8. INSURANCES

8.1 CA holds Public Liability Insurance to a limit of £10,000,000 and Professional Indemnity Insurance to a limit of £10,000,000.

# 9. MONITORING

9.1 Notification of the start of site works will be made to CDC's Archaeological Advisor, Richard Oram, so that there will be opportunities to visit the excavation and check on the quality and progress of the work. It is currently anticipated that fieldwork (initially comprising the monitoring of intrusive foundations and overburden strip in the SW corner) will commence from 10<sup>th</sup> May 2021.

#### 10. QUALITY ASSURANCE

10.1 CA is a Registered Organisation (RO) with the Chartered Institute for Archaeologists (RO Ref. No. 8). As a RO, CA endorses the Code of Conduct (ClfA 2014) and the Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology (ClfA 2014). All CA Project Managers and Project Officers hold either full Member or Associate status within the ClfA.

10.2 CA operates an internal quality assurance system in the following manner. Projects are overseen by a Project Manager who is responsible for the quality of the project. The Project Manager reports to the Chief Executive who bears ultimate responsibility for the conduct of all CA operations. Matters of policy and corporate strategy are determined by the Board of Directors, and in cases of dispute recourse may be made to the Chairman of the Board.

# 11. PUBLIC ENGAGEMENT, PARTICIPATION AND BENEFIT

11.1 It is not envisaged that this project will afford opportunities for public engagement or participation during the course of the fieldwork. However, the results will be made publicly available on the ADS and Cotswold Archaeology websites, as set out in Section 6 above, in due course.

#### 12. STAFF TRAINING AND CPD

- 12.1 CA has a fully documented mandatory Performance Management system for all staff which reviews personal performance, identifies areas for improvement, sets targets and ensures the provision of appropriate training within CA's adopted training policy. In addition, CA has developed an award-winning Career Development Programme for its staff, which ensures a consistent and high-quality approach to the development of appropriate skills.
- 12.2 As part of the company's requirement for Continuing Professional Development, all members of staff are also required to maintain a Personal Development Plan and an associated log which is reviewed within the Performance Management system. All staff are subject to probationary periods on appointment, with monthly review; for site-based staff additional monthly Employee Performance Evaluations measure and record skills and identify training needs.

#### 13. REFERENCES

Anderson, R. 2005 'An annotated list of the non-marine Mollusca of Britain and Ireland', Journal of Conchology 38, 607-637

APABE (Advisory Panel on the Archaeology of Burials in England) 2017 Guidance for best

- practice for the treatment of Human remains excavated from Christian Burial Grounds in England, 2nd Edition.
- Archaeological Surveys Ltd, 2018, Bicester Gateway Phase 2, Bicester, Oxfordshire, Magnetometer Survey Report
- BGS (British Geological Survey) 2020 Geology of Britain Viewer <a href="http://maps.bgs.ac.uk/geology-viewer\_google/googleviewer.html">http://maps.bgs.ac.uk/geology-viewer\_google/googleviewer.html</a>
- Booth, P., Evans, J. and Hiller, J. 2001 Excavations in the Extramural Settlement of Roman Alchester, Oxfordshire 1991, OA Monograph 1
- CA (Cotswold Archaeology) 2012 The taking and processing of environmental and other samples from archaeological sites: Technical Manual No. 2
- CA (Cotswold Archaeology) 2016a Land at Bicester Gateway, Oxfordshire: Heritage Desk-Based Assessment, CA Report No. 16322
- CA (Cotswold Archaeology), 2016b, Land at Bicester Gateway, Bicester Oxfordshire: Archaeological Evaluation.CA typescript report 16560
- CA (Cotswold Archaeology) 2018, Bicester Gateway Phase 2, Bicester, Oxfordshire: Written Scheme of Investigation for an Archaeological Watching Brief
- CA (Cotswold Archaeology) 2019 Catalyst Bicester, Bicester, Oxfordshire: Archaeological Evaluation. CA typescript report Ref 770893\_01 CA (Cotswold Archaeology) 2019
- CA (Cotswold Archaeology) 2020 Catalyst Bicester, Bicester, Oxfordshire: Written Scheme for Investigation for an Archaeological Excavation CA Ref MK0254
- Foreman and Rhatz 1984 Excavations at Faccenda Chicken Farm, near Alchester, 1983 Oxoniensia
- WA 2009 Prehistoric, Romano-British and Anglo-Saxon Activity at Whitelands Farm,
  Bicester

#### APPENDIX A: COTSWOLD ARCHAEOLOGY SPECIALISTS

#### **Ceramics**

Neolithic/Bronze Age Ed McSloy BA MCIFA (CA)

Emily Edwards (freelance)

Dr Elaine Morris BA PhD FSA MCIFA (University of Southampton)

Anna Doherty MA (Archaeology South-East) Sarah Percival MA MCIFA (freelance)

Steve Benfield BA (CA)

Iron Age/Roman Ed McSloy BA MCIFA (CA)

Kayt Marter Brown BA MSc MCIFA (freelance)

Steve Benfield BA (CA)

(Samian) Gwladys Montell MA PhD (freelance)

Steve Benfield BA (CA)

(Amphorae stamps) Dr David Williams PhD FSA (freelance)

Anglo-Saxon Paul Blinkhorn BTech (freelance)

Dr Jane Timby BA PhD FSA MCIFA (freelance) Sue Anderson, M Phil, MCIFA, FSA (freelance)

Medieval/post-medieval Ed McSloy BA MCIFA (CA)

Kayt Marter Brown BA MSc MCIFA (freelance)

Stephanie Ratkai BA (freelance) Paul Blinkhorn BTech (freelance) John Allan BA MPhil FSA (freelance) Richenda Goffin BA MCIFA (CA)

Sue Anderson M Phil, MCIFA, FSA (freelance)

South-West Henrietta Quinnell BA FSA MCIFA (University of Exeter)

Clay tobacco pipe Reg Jackson MLitt MCIFA (freelance)

Marek Lewcun (freelance) Kieron Heard (freelance) Richenda Goffin BA MCIFA (CA)

Ceramic building material Ed McSloy MCIFA (CA)

Dr Peter Warry PhD (freelance)

Sue Anderson M Phil, MCIFA, FSA (freelance)

Richenda Goffin (Roman painted wall plaster) CBM, BA MCIFA (CA)

Steve Benfield BA (CA)

Other finds

Small finds Ed McSloy BA MCIFA (CA)

Richenda Goffin, (non-metalwork) BA MCIFA (CA)

Steve Benfield CA Dr I Riddler (freelance)

Dr Alison Sheridan, National Museum of Scotland

Metal artefacts Ed McSloy BA MCIFA (CA)

Dr Jörn Schuster MA DPhil FSA MCIFA (freelance)

Dr Hilary Cool BA PhD FSA (freelance)

Dr I Riddler (freelance)

Lithics Ed McSloy BA MCIFA (CA)

Jacky Sommerville BSc MA PCIFA (CA)

Michael Green (CA) Sarah Bates BA (freelance)

(Palaeolithic) Dr Francis Wenban-Smith BA MA PhD (University of Southampton)

Worked stone Dr Ruth Shaffrey BA PhD MCIFA (freelance)

© Cotswold

Dr Kevin Hayward FSA BSc MSc PhD PCIFA (freelance)

Inscriptions Dr Roger Tomlin MA DPhil, FSA (Oxford)

Glass Ed McSloy MCIFA (CA)

Dr Hilary Cool BA PhD FSA (freelance)

Dr David Dungworth BA PhD (freelance; English Heritage)

Dr Sarah Paynter (Historic England)

Dr Rachel Tyson (freelance)

Dr Hugh Wilmott (University of Sheffield)

Coins Ed McSloy BA MCIFA (CA)

Dr Ruth Beveridge (CA)

Dr Peter Guest BA PhD FSA (Cardiff University) Dr Richard Reece BSc PhD FSA (freelance)

Jude Plouviez (freelance)

Dr Andrew Brown (British Museum) Dr Richard Kelleher (Fitzwilliam Museum) Dr Philip de Jersey (Ashmolean Museum)

Leather Quita Mould MA FSA (freelance)

Textiles Penelope Walton Rogers FSA Dip Acc. (freelance)

Dr Sue Harrington (freelance)

Iron slag/metal technology Dr Tim Young MA PhD (Cardiff University)

Dr David Starley BSc PhD Lynne Keys (freelance)

Worked wood Michael Bamforth BSc MCIFA (freelance)

Biological remains

Animal bone Dr Philip Armitage MSc PhD MCIFA (freelance)

Dr Matilda Holmes BSc MSc ACIFA (freelance)

Julie Curl (freelance)

Lorrain Higbee (Wessex Archaeology)

Human bone Sharon Clough BA MSc MCIFA (CA)

Sue Anderson M Phil, MCIFA, FSA (freelance)

Environmental sampling Sarah Wyles BA MCIFA (CA)

Sarah Cobain BSc MSc ACIFA (CA)

Dr Keith Wilkinson BSc PhD MCIFA (ARCA)

Anna West BSc (CA) Val Fryer (freelance)

Pollen Dr Michael Grant BSc MSc PhD (University of Southampton)

Dr Rob Batchelor BSc MSc PhD MCIFA (QUEST, University of Reading)

Diatoms Dr Tom Hill BSc PhD CPLHE (Natural History Museum)

Dr Nigel Cameron BSc MSc PhD (University College London)

Charred plant remains Sarah Wyles BA MCIFA (CA)

Sarah Cobain BSc MSc ACIFA (CA)

Wood/charcoal Sarah Cobain BSc MSc ACIFA(CA)

Dana Challinor MA (freelance) Dr Esther Cameron (freelance)

Insects Enid Allison BSc D.Phil (Canterbury Archaeological Trust)

Dr David Smith MA PhD (University of Birmingham)

Mollusca Sarah Wyles BA MCIFA (CA)

Dr Keith Wilkinson BSc PhD MCIFA (ARCA)

Dr Mike Allen (Allen Environmental Archaeology)

Ostracods and Foraminifera Dr John Whittaker BSc PhD (freelance)

Fish bones Dr Philip Armitage MSc PhD MCIFA (freelance)

Geoarchaeology Dr Keith Wilkinson BSc PhD MCIFA (ARCA)

Soil micromorphology Dr Richard Macphail BSc MSc PhD (University College London)

Dr Mike Allen (Allen Environmental Archaeology)

Scientific dating

Dendrochronology Robert Howard BA (NTRDL Nottingham)

Radiocarbon dating SUERC (East Kilbride, Scotland)

Beta Analytic (Florida, USA)

Professor John Hines (Cardiff University)

Archaeomagnetic dating Dr Cathy Batt BSc PhD (University of Bradford)

TL/OSL Dating Dr Phil Toms BSc PhD (University of Gloucestershire)

Conservation Karen Barker BSc (freelance)

Pieta Greaves BSc MSc ACR (Drakon Heritage and Conservation)

Julia Park-Newman (Conservation Services, freelance)







#### **Andover Office**

Stanley House Walworth Road Andover Hampshire SP10 5LH

t: 01264 347630

#### Cirencester Office

Building 11 Cotswold Business Park Cirencester Gloucestershire GL7 6BQ

t: 01285 771022

# Milton Keynes Office

Unit 8 - The IO Centre Fingle Drive, Stonebridge Milton Keynes Buckinghamshire MK13 0AT

t: 01908 564660

# Suffolk Office

Unit 5, Plot 11, Maitland Road Lion Barn Industrial Estate Needham Market Suffolk IP6 8NZ

t: 01449 900120

