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The Wiltshire Archaeological and Natural History Society

The Society was founded in 1853. Its activities include the promotion of the study of archaeology (including industrial archaeology), history, natural history and architecture within the county; the issue of a Magazine, and other publications, and the maintenance of a Museum, Library, and Art Gallery. There is a programme of lectures and excursions to places of archaeological, historical and scientific interest, and an archaeology field group for members who wish to become actively involved in the archaeological scene in the county.

The Society's Museum contains important collections relating to the history of man in Wiltshire from earliest times to the present day, as well as the geology and natural history of the county. It is particularly well known for its prehistoric collections. The Library houses a comprehensive collection of books, articles, pictures, prints, drawings and photographs relating to Wiltshire. The Society welcomes the gift of local objects, printed material, paintings and photographs to add to the collections.

The Wiltshire Archaeological and Natural History Magazine is the annual journal of the Society and is issued free to its members. For information about the availability of back numbers and other publications of the Society, enquiry should be made to the Museum Shop Manager.

Publication by the Wiltshire Archaeological and Natural History Society does not imply that the Society endorses the views expressed; the factual content and the opinions presented herein remain the responsibility of the authors.

Notes for Contributors

Contributions for the *Magazine* should be on subjects related to the archaeology, history or natural history of Wiltshire. While there is no fixed length, papers should ideally be under 7,000 words, though longer papers will be considered if of sufficient importance. Shorter, note length, contributions are also welcome. All contributions should be typed/ word processed, with text on one side of a page only, with good margins and double spacing. Language should be clear and comprehensible. Contributions of article length should be accompanied by a summary of about 100 words. Please submit two copies of the text (with computer disk if possible) and clear photocopies of any illustrations to the editors at the Museum, 41 Long Street, Devizes, Wiltshire, SN10 1NS. A further copy should be retained by the author. The editors will be pleased to advise and discuss with intending contributors at any stage during the preparation of their work. When submitting text or graphics on disk, Word or Rich Text Format files are preferred for text, jpeg

or tiff format for graphics. Contributors are encouraged to seek funding from grant-making bodies towards the Society's publication costs wherever possible.

Referencing: The Harvard System of referencing (author, date and page, in parentheses within the text) is preferred: e.g. '... one sheep and one dog lay close together (Clay 1925, 69)'. References in footnotes should be avoided if at all possible. Only give references which are directly applicable, repeating as little as possible. All references cited in the paper should be listed in the bibliography using the following style, with the journal name spelled in full, and the place and publisher of books/ monographs given :

For a paper:

PITTS, M. W. and WHITTLE, A. 1992. The development and date of Avebury. *Proceedings of the Prehistoric Society* 58, 203-12

(Note that in citations *Wiltshire Archaeological and Natural History Magazine* is abbreviated to WANHM)

For a book or monograph:

SMITH, I.F., 1965, *Windmill Hill and Avebury: Excavations by Alexander Keiller, 1925-39*. Oxford: Clarendon Press

For a paper in a book or monograph:

FITZPATRICK, A., 1984, 'The deposition of La Tène metalwork in watery contexts in Southern England', in B. Cunliffe and D. Miles (eds), *Aspects of the Iron Age in Central Southern Britain, 178-90*. Oxford: University Committee for Archaeology

Endnotes can be used for specific information that cannot otherwise be comfortably incorporated in the main body of the text.

Illustrations need to be clear and easily reproducible, the format and proportions following that of the *Magazine*. If possible, all original artwork should not exceed A3 before reduction. If not supplied as computer graphic files, drawings should be produced on drafting film or high quality white paper using black ink. Detail and lettering should not be so small that it will become lost in reduction. Mechanical lettering (dry transfer or computer generated) is preferred over hand lettering. Photographs should be supplied as good quality black and white prints, and transparencies and colour prints avoided wherever possible. Original illustrations and photographs should only be sent once a contribution has been accepted. Digital files (in jpeg or tiff format) should be of at least 300 d.p.i. resolution.

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Dr Lorna Haycock: an appreciation

On 16 July 2010 Wiltshire Archaeological and Natural History Society bade farewell to a staunch, capable and long-serving member of staff – Sandell Librarian and Archivist Dr Lorna Haycock. For twenty-three years Lorna has served the Society faithfully, assisting innumerable family and local historians, visiting archivists, scholars and archaeologists in her calm, efficient manner. ‘Are you aware of this?’, ‘Have you seen this particular print?’ or ‘You might find this useful’ were typical remarks made to Library users, all of whom were treated with helpfulness. In the job she had the good fortune to be aided by a small band of loyal and capable assistants, particularly Barbara Fuller and Robert Moody. Typical of Lorna was that she encouraged each to undertake research and commit their findings and conclusions to paper for publication, thereby strengthening her team’s calibre and profile. In consequence, Library users were always treated to benign, courteous and effective assistance – all requisite hallmarks of scholarly study. All of this, however, was, in fact, a second career for Lorna.

Between 1939 and 1947 Lorna attended Andover Grammar School, gaining her School Certificate in 1945 and her Higher Certificates in 1946 and 1947, with distinctions in History and Latin and credits in English and French. Talent was already apparent. In 1947, awarded a Hampshire Major Scholarship and a State Scholarship, she registered to read History at Bedford College, University of London, from where she graduated in 1950. From there she proceeded to Hughes Hall, Cambridge, for teacher training, emerging with a Certificate of Education in 1951. Devizes Grammar School appointed her Head of History that year and there she remained for the next eight years.

Between 1971 and 1983 Lorna worked at Devizes School as a part-time assistant teacher in History and English. There then followed a change in direction. The teacher went to work for the Trust for Wessex Archaeology as Finds Supervisor for the Potterne Dig. In 1987 she was appointed Research Librarian



to Wiltshire Archaeological and Natural History Society assisting Sandell Librarian Pamela Colman. Two years later, and following in Pamela’s footsteps, Lorna enrolled at Portsmouth Polytechnic to read for the one-year part-time Postgraduate Diploma in English Local History. This, it was felt, would enable her to discharge her Devizes duties even more efficiently and effectively. Such a ploy was in fact to work in several ways. Awarded the Diploma with distinction, she also received the Gale prize for Local Studies, for putting up the best performance on the course. We also, in the process, became great friends. The links forged between WANHS and Portsmouth grew stronger, by my joining the *WANHS* board

in 1991 and by Lorna registering, five years later, for a higher degree on her beloved Devizes, opting to work again under my supervision. Her extensive labours came to fruition in a PhD thesis entitled 'In the Newest Manner: The Economy and Society of Devizes 1760-1820', awarded in 2002.

Lorna's research, however, was but one facet to her extremely busy life. She found writing easy and by 1999 had five local history books and a number of journal articles to her credit. Her published work on Devizes has been wide in range, with studies on business history, the Civil War of the 1640s and an educational history. Her converted Diploma dissertation became a book on John Anstie, with a Foreword by eminent historian Dr Joan Thirsk, while there was also a study of local building firm Messrs Chivers. The Civil War came under scrutiny with *Devizes in the Civil War*, published by the Society in 2000. There was *How Devizes won the War*, a guidebook to Devizes and, more recently, *On the Crest of the Hill: Devizes Grammar School 1906-1969* (2006), which Lorna compiled and introduced. Appropriately, her scholarly labours had achieved formal recognition with election as a Fellow of the Royal Historical Society in the previous year.

Lorna has always seen her role as being supportive and she has done this admirably in various ways. She has lightened the duties of the various Honorary Editors of *WANHM* by serving as Editorial Assistant to the Board where she worked with a range of Honorary Editors including Drs Kate Fielden, John Chandler, Joshua Pollard and, more recently, Andrew Reynolds. Her input was always constructive and positive. She also provided considerable assistance when I edited the volume of essays to mark the Society's 150th Anniversary in 2003, contributing an essay herself, as well as discharging various other duties. Furthermore, she shows no sign of letting up as we prepare for

publication a joint volume of essays, bringing together a range of previously published papers with one central theme – Wiltshire's social and economic development between 1650 and 1914. Tireless in her efforts on behalf of both the Library and the Society, Lorna has always found time for others. She has been able, for example, to deliver research papers, to give talks to a great swathe of audiences, give lunch-time lectures in the Museum, conduct guided tours, work with the Wiltshire Local History Forum and chair the Devizes Local History Group. It is almost as though the word 'no' does not exist in her vocabulary!

As she looks back over her two careers, Lorna can reflect upon all of those she has helped, enlightened, encouraged and supported. While Society members will miss her services greatly, they can be safe in the knowledge that there will be further tomes, papers and talks – evidence of a deep commitment to the county and Society she has loved so much. Now there will be more time for her treasured garden, for more reading and walking, all pursuits which inspire her and provide her with so much happiness. For me, it has been a privilege to supervise her (twice), to work with her and count her as a dear friend. Our correspondence, voluminous over the years, always opens with 'Dear Doctor' and closes with 'Another Doctor', symptomatic of a firm professional and personal friendship. To paraphrase, very loosely, Edward Gibbon (1737-1794), author of the masterly *Decline and Fall of the Roman Empire* 'a library of thousands of volumes, attested the variety of her inclinations; and from the productions which she left behind her, it appears that the latter were designed for use rather than ostentation'. I am sure that the Society is at one in extending thanks to Lorna for all her labours and in wishing her a long, happy and healthy retirement.

Dr James Thomas

Wiltshire Life Society and WANHS

As readers may already be aware, during 2010 the Society acquired the collection of the former Wiltshire Life Society. This extensive collection of agricultural and rural craft tools and household objects, together with a related library and photograph collection represents a major expansion of our collections in a field that was previously under-represented. Until 1997 the artefacts were displayed in the Great Barn at Avebury, since when most of the collection has been stored at Lackham College, in a building that had to be demolished this year, when they were offered to us, together with an endowment for their curation. We are most grateful to the former trustees of the Life Society and to Lackham College for the gift of this important collection on the history of rural Wiltshire.

We shall not be able to display more than a few objects at present though we hope to be able to incorporate more of them into the displays as our planned rearrangement of galleries progresses. There are some large objects, for example a shepherd's hut, that we shall never be able to display at our present site, but we are exploring the possibility of loaning these to other institutions

with suitable premises and displays. Meanwhile the collection will be accessible to researchers wishing to study particular artefacts.

The endowment that accompanied the collection has made it possible for us to rent an off-site store to house it and also new acquisitions to the archaeology collection. This is an important benefit as our present archaeology store was already full. The books and photographs will be incorporated into the Library at Long Street.

Former members of the Wiltshire Life Society are being invited to join WANHS, and we hope in due course to include subject matter of interest to them in our programme of lectures and other events. The Wiltshire Life Society also published a (now discontinued) journal, *Wiltshire Folklife*, with articles on the past social, economic and domestic life of Wiltshire. These subjects overlap with WANHS' own field of interest and we would invite those interested in them to submit articles for future publication in this journal.

Bill Perry

The detailed petrography of six orthostats from the Bluestone Circle, Stonehenge

by Rob A. Ixer¹ and Richard E. Bevins²

Samples from six bluestone orthostats (SH34, 35a, 38, 40, 46 and 48) from the outer Bluestone Circle at Stonehenge are petrographically described. SH34 and 35a are spotted dolerites (so-called 'preselite') and belong to the most abundant class of Stonehenge preselites known as the SH33 group; their petrography is very similar to rock samples collected from Carn Menyn.

The other four orthostats are more siliceous and of volcanic origin with distinctive petrographies. SH38 and 40 are two, different, dacitic crystal-vitric-lithic ash-flow tuffs. SH46 and 48 are rhyolitic crystal-vitric-lithic ash-flow tuffs and, although petrographically similar, are probably not from the same source. The geographical origins for the four lithologies remain unknown, but outcrops within the Fishguard Volcanic Group exposed in the north Pembrokeshire area, between Strumble Head in the west and Crymych in the east, are the most likely.

Comparing the detailed petrographies of the four volcanic orthostats with the abundant 'debitage' from Stonehenge and its environs demonstrates that SH40, 46 and 48 lithologies do not correspond with any loose material and that only SH38 can be matched to a volumetrically very minor, but distinctive, class of 'debitage'. Buried orthostat 32e, macroscopically described by Atkinson but not sampled by him, is recorded as being a 'rhyolite' and classed alongside the four standing siliceous orthostats. Macroscopically it appears to share many characteristics with a major class of Stonehenge debitage, the so-called 'rhyolite with fabric', some, or all, of which may originate in the Pont Saeson area just north of the Preseli Hills.

Introduction

Although both the bluestone circle and oval/horseshoe have gaps within them suggesting the former presence of 'lost' orthostats, they mainly comprise spotted and less-spotted dolerites (this rock type when discussed in the context of Stonehenge is commonly known as 'preselite') and indeed all the known orthostats forming the inner bluestone oval/horseshoe comprise preselite. Within the outer bluestone circle, however, there are 12 non-dolerite bluestones (used here in the sense of any non-sarsen, Stonehenge orthostat material), including both standing orthostats (SH38, 40, 46 and 48) and

buried stumps (32c, 32e, 33e, 33f, 40c, 40g, 41d, 42c) (Atkinson 1979). Of these, 32e is described as a rhyolite, 40c as a calcareous ash, 40g and 42c as micaceous sandstones and 32c, 33e, 33f and 41d as altered, dark olive green ash (Atkinson 1979; Thorpe *et al.* 1991).

Flaked and unflaked bluestone 'debitage' is abundant within Stonehenge and present in the surrounding area and this too comprises a variety of non-dolerite lithologies in addition to preselite. It has long been suggested that this material is waste from the dressing of the stones, or true debitage from stone axe manufacture or that it has been removed for souvenirs (Darvill and Wainwright 2009). So it would be of more than a passing interest to know if

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some or all of this 'debitage' has been derived from the orthostats.

The four non-preselite (spotted/unspotted dolerite) standing orthostats (SH38, 40, 46 and 48) have been officially sampled only twice in the last 130 years, once by Maskelyne (1878) and later by an Open University team in 1987 (Thorpe *et al.* 1991) and in both cases very little material was collected. Although Maskelyne chipped off his material, SH 38, 40 and 46 were drilled by the Open University team, with a total of just over 250g being collected, while in addition, six chipped samples from SH 40 were recovered (Thorpe *et al.* 1991, table 11, 140).

Current Methodology

Six polished thin sections and three polished blocks were prepared from six orthostats (SH34, 35a, 38, 40, 46 and 48). Preselite orthostats SH34 and 35a were collected during the April 2008 Stonehenge excavation (Darvill and Wainwright 2009), while SH38, 40, 46 and 48 are non-preselite bluestones collected by the Open University team in October 1987. All six rock samples were sectioned and a polished thin section prepared from each. The Open University material was prepared in the early 1990s and the preselites in 2009. Detailed 'total petrography', as defined by Ixer (1994) and Ixer *et al.* (2004), was undertaken on the six polished thin sections using both transmitted and reflected light. In addition, three polished blocks from SH38, 46 and 48 were investigated in reflected light (there was insufficient material to make a block for SH40) and their opaque and semi-opaque mineralogy described. No hand specimens were available for the four siliceous orthostats but there were samples for the two spotted dolerites.

The original 19th and early 20th century thin sections of the Stonehenge orthostats are part of the Natural History Museum collections and these were examined there in transmitted light. Sadly time has been unkind to the early thin sections and there are a number of problems with them. Some are thicker than the standard 30 micron thickness, some are unevenly made, and in all the resin (most probably Canada balsam) has deteriorated and darkened. In addition it is difficult to match the given orthostat numbers and labels (some are un-numbered and instead a pre-restoration locality is offered) to those presently used. One thin section, however, from Hoare's Orthostats 9, 11 and 17 and three

thin sections from Hoare's Orthostat 19 could be identified and so were briefly described. The original Open University thin sections are also part of the Natural History Museum collections and are in good condition, well-made and of a standard thickness. They were petrographically described and found to be essentially identical to those used in the present study. Finally, Atkinson's 1954 photographs P50775 and P50777 of 'rhyolite' Stump 32e were studied on the English Heritage website.

All the orthostat polished thin sections were compared with polished thin sections of lithics from the Cursus Fields (Ixer and Bevins 2010), the Stonehenge April 2008 excavation, the Heel Stone area (Pitts 1982), Aubrey Hole 7 and material from Carn Menyn (Darvill *et al.* 2009).

Thin section mineralogical identifications in transmitted light were made following Kerr (1959) and Deer, Howie and Zussman (1992) and in reflected light following Ixer (1990), while petrographical and lithological descriptions were made with reference to MacKenzie *et al.* (1982), Howells *et al.* (1991) and the British Geological Survey Rock Classification Scheme.

Rock names are in accordance with those proposed by Ixer and Bevins (2010). Finally, polished sections were studied using an Oxford Instruments Scanning Electron Microscope housed in the Department of History and Archaeology, Cardiff University. Samples were examined in backscatter mode in order to confirm/identify the minor phases present. Semi-quantitative analyses were obtained for some phases using energy dispersive techniques.

Previous studies: siliceous orthostats SH38, 40, 46, 48 and 32e

Maskelyne (1878) provided the first detailed, transmitted light microscopical description of each of the four orthostats including a sketch of 'felstone 17'. His 19th-century orthostat numbers 9, 11, 17 and 19 equate to the present day numbers 38, 40, 46 and 48. He believed that the earlier description of them by Sowerby, as 'hornstones, felsites or felstones' was imperfect as they had 'fluxion-structures' (especially in 11 (40) and 17 (46)) but thought these were combined with non-igneous features. Macroscopically he noted a marked 'schistoid

structure' (?a strong foliation) and that the 'stones' (sic) are harder than quartz.

In thin section he recognised that the rocks were fine-grained mixtures of quartz, feldspar and chlorite along with 'fragments of rock' (lithic clasts) and fragmentary skeletal feldspar replaced by chlorite or by the groundmass, and that locally the rocks comprised more crystallised quartz, vermicular chlorite, microliths (?feldspar microliths), especially in 9 (38), and hexagonal, prismatic crystals he identified tentatively as apatite. He correctly recognised pyrrhotite (rather than pyrite) as the dark, opaque mineral, especially in 17 (46).

Although Maskelyne noted that similar rocks were being correctly described from the Lake District and North Wales as volcanic ash he was unconvinced and so classified them as 'a variety of sedimentary and somewhat metamorphosed rock ... a quartzose felsite' partly because he believed the quartz in the groundmass to be rounded and hence 're-distributed by aqueous action'. He offered no provenance, as at that time there was too little *in situ* material sectioned in Britain for any useful comparison.

The four samples were subsequently re-examined by Judd (1902) who noted the striking 'fluxion structures' and fragmentary nature of the rocks previously recognised by Maskelyne but realised that these 'seem to indicate... tuffs or agglomerates rather than lavas'. He suggested from the petrographical characteristics and (limited) geochemistry of the rocks, 'that they represent old lavas of an acidic composition which were either originally hornstone-like in structure (hornsteinartig) or more probably were more or less perfectly glassy and have acquired their present hornstone-like lustre by secondary devitrification'. He further suggested that the rocks were quartz-andesites or dacites rather than rhyolites and that some 'might be the consolidated and altered tuffs of such lavas'.

Although Thomas in the very early 1920s correctly provenanced the spotted dolerites of the orthostats to outcrops on the Preseli Hills and suggested that rhyolite and felsites from Carn Alw and Foel Trigarn were the origin of some Stonehenge 'debitage' (Thomas 1923, 249) he said little about the four siliceous orthostats other than saying Judd's description was 'excellent' (Thomas 1923, 243).

In 1954 Atkinson partially excavated buried stump 32e and subsequently grouped it together with orthostats SH38, 40, 46 and 48 as rhyolitic. Although he photographed it (Atkinson 1979, photograph 19a; <http://viewfinder.englishheritage.org.uk/search/results.aspx>) there is no record of his sampling it for petrographical analysis. However, this stump along with the four orthostats were collectively described as 'a dark blue-grey colour with hard flinty texture and sharp fracture' with 'often a delicate flow-structure of thin white parallel lines or more rarely bands of small white globular masses as if a stream of stony sago had been trapped within the solidifying siliceous matrix ... spherulitic rhyolite' (Atkinson 1979, 48). This is the only description of orthostat 32e, the fifth 'rhyolite'. He also stated that SH46 was less flinty than SH48.

Thorpe *et al.* (1991) re-sampled the four orthostats and made new thin sections; based on their transmitted light petrography they classed SH38 and 40 as pyroclastic flows and SH46 and 48 as probable lava flows. The samples 'comprised alkali feldspar \pm plagioclase phenocrysts in a fine grained/microcrystalline/cryptocrystalline matrix and variable alteration to epidote, chlorite and carbonate'. SH38 and 40 had 'phenocrysts and polycrystalline aggregates, lithic clasts and flattened fiamme in a fine-grained matrix'. SH46 had 'abundant feldspar as single crystals and glomeroporphyritic clusters unlike SH48 where feldspar is rare'; both lithics have a fine-grained matrix. An 'imposed tectonic fabric has deformed the feldspar' in SH46 (Thorpe *et al.* 1991 134).

They suggested that these petrographical features are widespread in many Lower Palaeozoic rhyolites and are therefore non-diagnostic. Hence they preferred to provenance the four orthostats geochemically, suggesting that SH38 was from Carn Clust-y-ci in north Preseli, that SH40 might be from Pembrokeshire and that SH46 and 48 were possibly from the north coast of Pembrokeshire but did not come from the same locality. In addition, they recognised that none of the four orthostats had a geochemistry that matched Carn Alw (Thorpe *et al.* 1991, 140), one of the sources suggested by Thomas for some of the Stonehenge 'debitage'.

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Descriptions of SH38, 40, 46, 48

SH38 and SH40 dacitic crystal-vitric-lithic ash-flow tuffs

Based on the geochemistry of Thorpe *et al.* (1991) these are dacitic in composition.

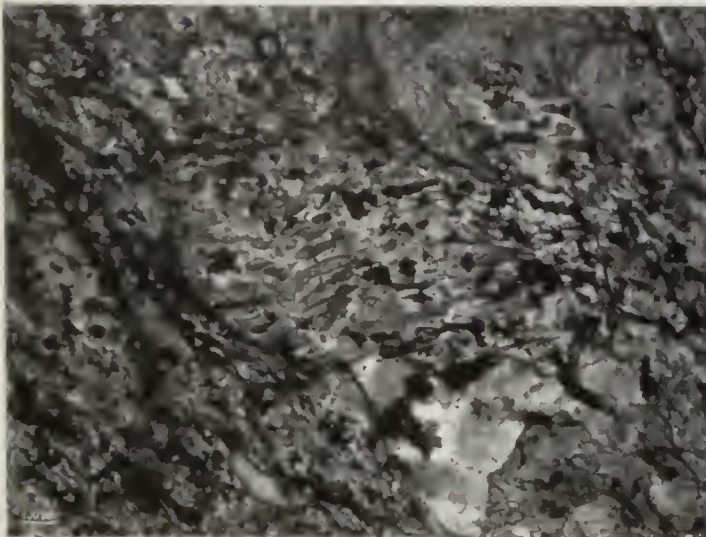


Plate 1. Stonehenge 38. A tube pumice clast orientated west-east (centre) with titanite and green chlorite infilling tubes lies at an angle to the main fabric. Pale brown to colourless small feldspars (bottom centre) belong to feldspar-rich lava (bottom right corner). Plane polarised transmitted light. 100µm bar for scale.

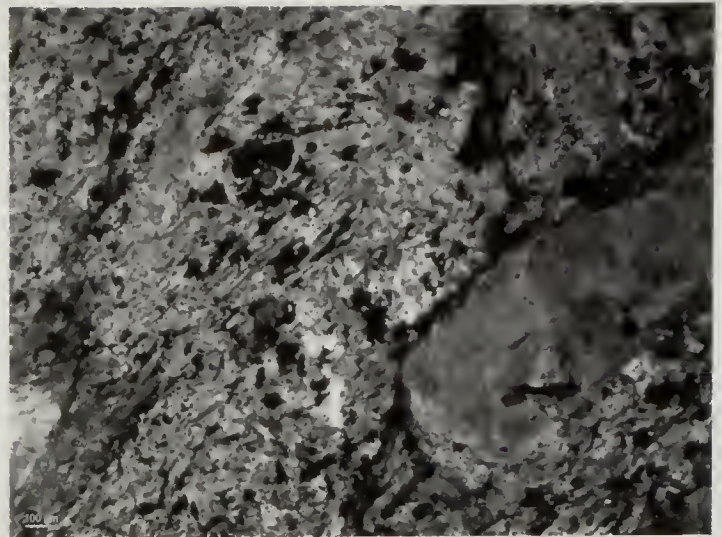


Plate 3. Stonehenge 38. A pale brown large, euhedral plagioclase lath (centre right hand side) and a tube pumice clast orientated northeast-southwest (centre) and an elongated, chlorite-rich lithic clast (bottom left corner) are present in feldspar-chlorite-rich matrix. Plane polarised transmitted light. 100µm bar for scale.



Plate 2. Stonehenge 38. A large dark argillaceous clast showing a planar fabric. The clast has one smooth surface and one flame-like surface. The main pale-coloured matrix is vesicular lava. Plane polarised light. 1000µm bar for scale.

SH38

The 1987 polished thin section is labelled STONEHENGE 38, while the polished block is labelled SH38. The polished thin section is slightly thick. The rock has a poorly defined sub-planar foliation and locally a superimposed lensoidal fabric. It has a large, centimetre-thick, dark, very fine-grained lithic clast lying in the plane of the main fabric. The rock is heterogeneous with small, equant to blocky pumice clasts up to 1200µm in diameter, some orientated at moderate angles to the main fabric; cloudy, tabular megacrysts of simply

and polysynthetically twinned feldspar up to 1000 x 300µm in size and large volcanic clasts, including vesicular lavas and non-vesicular, calcite-bearing ?acid volcanics. Randomly-orientated pumice clasts now comprise chlorite and titanite infilling tubes within a feldspar-quartz-rich groundmass (Plate 1). A centimetre-thick, dark argillaceous rock clast (probably a mud clast) comprises very fine-grained 10 – 20µm long titanite-albite-high relief phyllosilicate-low relief chlorite intergrowths. It has one smooth contact surface but the other is highly irregular and flame-like (Plate 2). Lighter coloured probable lithic clasts include fine-grained ?quartz-feldspar intergrowths with thin, lath-shaped calcite and a variety of vesicular lavas comprising intergrown albite-titanite-chlorite showing different sized vesicles infilled by albite or titanite and more locally by chlorite. Locally, non-vesicular, void spaces are infilled with albite within a chlorite rim.

Large, cloudy, euhedral feldspar laths are slightly zoned, albitic plagioclase (Plate 3), but other laths are simply twinned and may be potassium feldspar. The feldspars are unaltered and show no sign of replacement/recrystallisation. Ilmenite laths up to 250 x 200µm in size are progressively altered to speckled ilmenite and to pale-coloured TiO₂ within 5 – 10µm wide, pale-coloured, titanite rims. Titanite locally forms 40 – 60µm diameter, rhombic crystals but most has infilled spherical, 20–40 but up to 80µm in diameter vesicles. Locally, titanite vesicle-infills are zoned or possibly flattened and lie along the poorly-defined fabric. Very small, euhedral,

probable epidote forms rims to radiating titanite. Minor amounts of 5–40 μm diameter, hexagonal pyrrhotite are altered to fine-grained mixtures of pyrite and marcasite and to limonite with very red internal reflections. The alteration is initiated along pyrrhotite (0001) crystallographic planes. Trace amounts of intergrown pyrrhotite-chalcopyrite up to 20 μm in diameter and 2 – 20 μm pyrite altering to limonite are present. Graphitising carbon is locally present within thin veinlets, in patches or at the dark argillaceous clast-tuff matrix boundary. It occurs as round 'droplets' up to 30 μm in diameter or as irregular shapes 10–40 μm across and is associated with pyrrhotite altering to limonite or locally with sparry calcite. Chalcopyrite and pyrrhotite crystals 1–2 μm in diameter are present as small inclusions within the carbon. Limonite up to 80 μm in size has replaced undetermined sulfides. Semi-quantitative SEM chemical analyses confirmed the presence of ilmenite, titanite, iron sulfide(s) and that magnetite and apatite are also present.

Natural History thin sections SH38 and 1911.349.3 and .4

Thin section labelled Hoare 9 (equivalent to SH38) shows a fragmental rock with vesicular lava clasts, simply twinned feldspar megacrysts, feldspar with irregular edges and much chlorite with blue interference colours. Thin sections 1911.349.3 and 1911.349.4 (unmatched to any lithic) are very distinctive, they are the same rock and very like Stonehenge38 with thin, black, argillaceous areas/streaks.

Lithic Summary

The random orientation and lack of evidence of flattening of the pumice clasts, combined with the presence of graphitising carbon and possible mud clasts suggest that orthostat SH38 is made from a non-welded ash-flow tuff which was emplaced in a subaqueous environment.

SH40

The 1987 polished thin section is labelled, STONEHENGE40. The tuff displays no strong fabric and mainly comprise fine-grained albite, chlorite, titanite and quartz. The rock is heterogeneous with blocky pumice clasts in different orientations, cloudy megacrysts of untwinned to polysynthetically twinned feldspar and large volcanic clasts, including vesicular and non-vesicular lavas. Pumice clasts, with long tubular vesicles, are widespread and randomly orientated showing no signs of flattening. They now

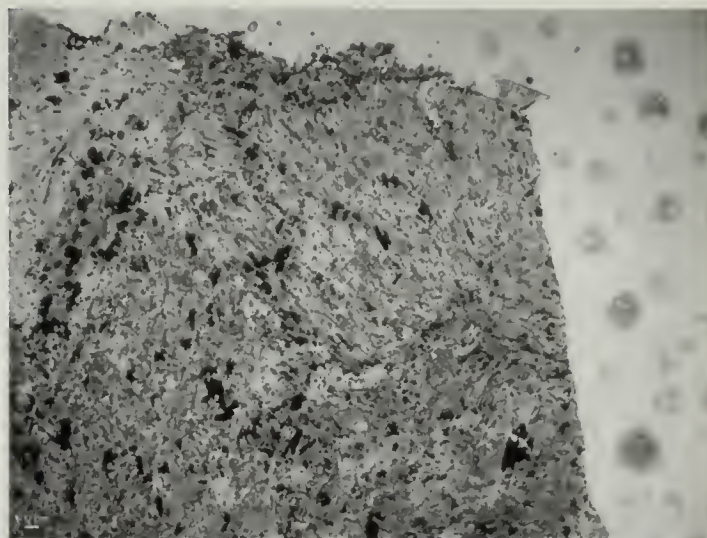


Plate 4. Stonehenge 40. A number of tube pumice clasts, many orientated NNW-SSE are present within a green chlorite-pale brown feldspar-rich matrix. Thin, tabular limonite after pyrrhotite laths (black) is widespread. Plane polarised transmitted light. 100 μm bar for scale.

comprise fine-grained chlorite-poor, quartz-albite intergrowths (Plate 4).

Rock clasts include undeformed, vesicular lava retaining its rounded vesicles; here, larger vesicles are infilled with albite and smaller ones with chlorite; yet larger void spaces are infilled with quartz-albite, or zoned titanite-albite-quartz or fine-grained quartz mosaics, the last spatially close to altered pyrrhotite. Locally, similar chlorite-albite-rich clasts with large plagioclase crystals have a fine-scale spheroidal texture whereas other areas show more lensoidal vesicles. Small, very fine-grained, non-vesicular, dark lava comprises feldspar microliths-chlorite-titanite intergrowths associated with euhedral, very fine-grained, 1 - 5 μm diameter, pyrite. Other areas (possible clasts) are chlorite-titanite rich and are associated with large, discrete plagioclase crystals. Large feldspar laths mainly comprise polysynthetically twinned, zoned, albitic plagioclase that shows little alteration but has a slight perthitic texture; they carry trace amounts of apatite (Plate 5). Some feldspars are fractured and re-cemented by chlorite. An untwinned potassium feldspar has a symplectite-like intergrowth with chlorite and is surrounded by small albite crystals. Titanite, 20–40 but up to 100 μm in diameter, is mainly spherical in shape and infills vesicles and encloses trace amounts of 5 - 20 μm long, pale-coloured TiO_2 minerals. Locally this vesicle-infilling titanite is zoned but a different generation of radiating, acicular titanite also infilling voids is intergrown with later, euhedral albite. Minor amounts of 40 - 200 μm diameter pyrrhotite are



Plate 5. Stonehenge 40. A large plagioclase lath within vesicular lava with both ?flattened and rounded vesicles infilled with pale green chlorite. Plane polarised transmitted light. 100µm bar for scale.

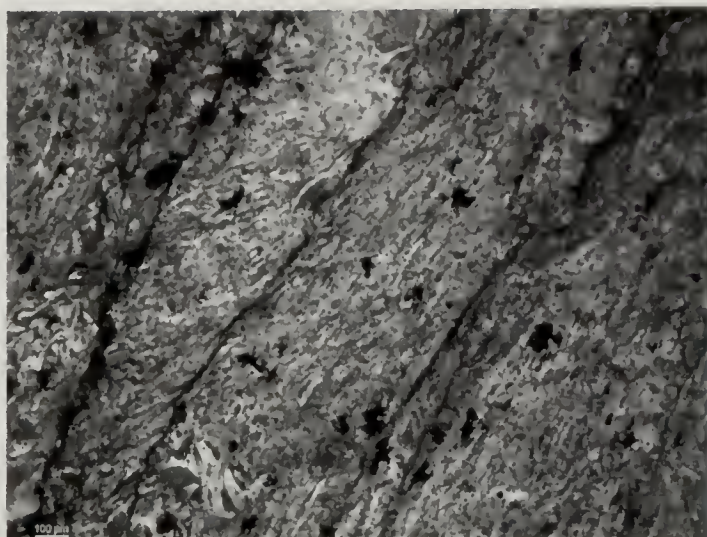


Plate 7. Stonehenge 46. Small glass shards clear (top centre) and abundant pumice orientated northeast-southwest along the main fabric. Plane polarised transmitted light. 100µm bar for scale.



Plate 6. Stonehenge 46. Abundant small glass shards (clear) in a chlorite-pale brown feldspar-rich matrix. Plane polarised transmitted light. 100µm bar for scale.

altered to fine-grained, 1-5µm diameter mixtures of pyrite and marcasite, or to marcasite and finally to limonite with very orange-red internal reflections. The alteration is initiated along pyrrhotite (0001) crystallographic planes and locally bird's eye textures are present. Trace amounts of chalcopyrite up to 10µm in diameter, 40µm diameter, late-stage, iron-poor sphalerite and 180 x 50µm size, poorly crystalline pyrite are present. Semi-quantitative SEM chemical analysis confirmed the presence of iron sulfide and iron-poor sphalerite.

Natural History thin section SH40

Thin section Hoare 11 (equivalent to SH40) shows a heterogeneous rock with euhedral, feldspar

megacrysts with both single and multiple twins within a fine-grained feldspar-titanite-rich matrix that carries small, euhedral ?zircon. Characteristically the feldspars have fine-grained, brown cloudy cores and show no signs of recrystallisation. Chlorite has blue interference colours and is present in the groundmass or within veinlets.

Lithic summary

The random orientation and lack of evidence of flattening of the pumice clasts suggests that orthostat SH40 is made from a non-welded ash-flow tuff.

SH46 and SH 48, rhyolitic crystal-vitric ash-flow tuffs

Based on the geochemistry of Thorpe *et al.* (1991) these are rhyolitic in composition.

SH46

The 1987 polished thin section is labelled STONEHENGE 46 and is a little thick. The polished block is labelled SH46. The rhyolitic tuff is a fairly uniform rock with a poorly-defined planar fabric partially picked out by thin, pale brown phyllosilicate (?limonite-stained muscovite) wispy partings and concentrations of altered opaque minerals. The tuff comprises pumice fragments, abundant glass shards (Plate 6) and equant feldspar megacrysts. Other than the megacrysts the rock now comprises recrystallised, fine-grained quartz/feldspar-chlorite; the matrix shows grain size variations. Large

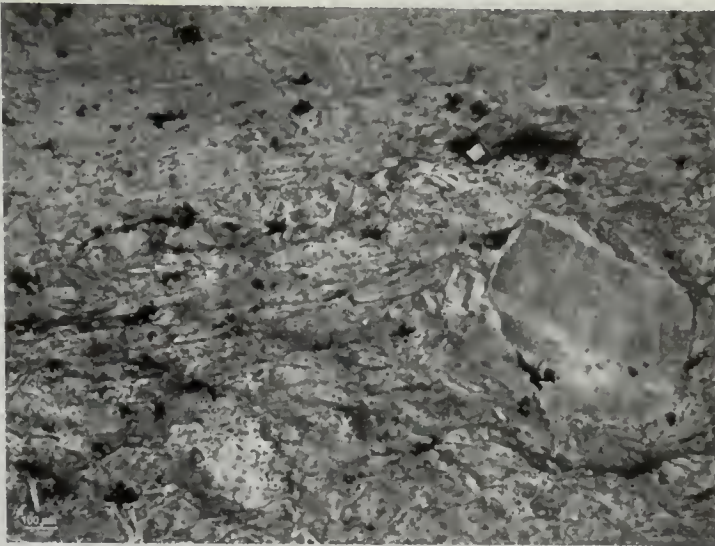


Plate 8. Stonehenge 46. Abundant small glass shards (clear) bottom left and tube pumice (centre) and orientated east-west. A large plagioclase megacryst shows little alteration. A small square zircon (clear) is present in limonite after pyrrhotite (black) top right centre. Plane polarised transmitted light.
100 μ m bar for scale.

tube pumice clasts have sharp boundaries and are heavily silicified but retain their original structures (Plate 7); they show no signs of flattening and are randomly orientated. They are less common than short, curved individual, recrystallised, glass shards. Polysynthetically twinned feldspar megacrysts with a faint probable perthitic texture are equant rather than lath-shaped; most have irregular edges that look caries-like and some are fractured. Many feldspars comprise polycrystalline, dark brown, cloudy cores within lighter brown, irregular margins and clear, optically uniform rims. Euhedral, 50-80 μ m diameter zircon crystals are associated with altered sulfides (Plates 8 and 9). Some zircon crystals are fractured. Irregular grains of monazite are associated with euhedral apatite.

Although titanite forms 10-30 μ m long rhombs most is irregular in shape and 20-60 μ m in diameter. Trace amounts of 5-30 μ m long, pale-coloured TiO₂ minerals occur as discrete laths. Pyrite and pyrite-marcasite intergrowths/mosaics are up to 200 μ m in diameter and comprise 10-20 μ m diameter crystals; some of these aggregates partially infill void spaces. Pyrite encloses very small, 2 μ m diameter, relict pyrrhotite. Elsewhere, minor to trace amounts of 10-30 μ m diameter pyrrhotite altering to fine-grained marcasite with characteristic bird's eye textures, 10-70 μ m diameter, orange sphalerite and a single, 10 μ m diameter grain of galena are present. Semi-quantitative SEM analyses confirmed the presence of zircon, titanite, sphalerite and iron sulfides

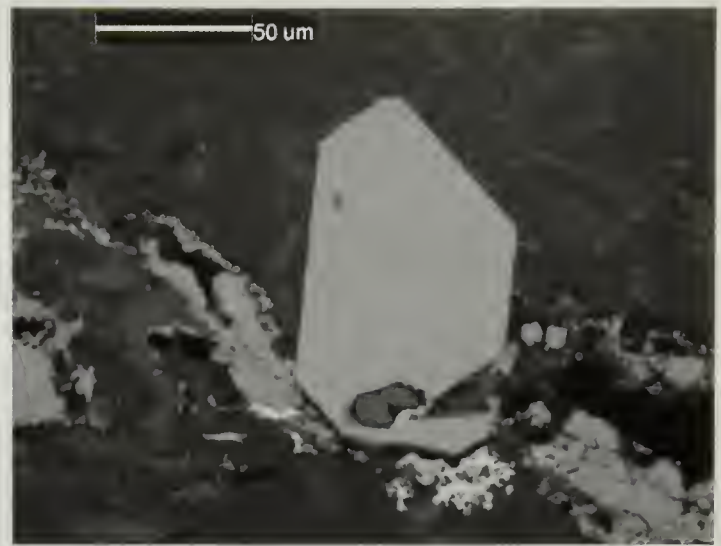


Plate 9. Stonehenge 46. Back scatter SEM image of a euhedral zircon crystal (pale grey centre) associated with irregular monazite (very white). Iron sulfides (moderate grey) make up most of the veinlet. 50 μ m bar for scale.

(pyrite/marcasite) as well as monazite and possible epidote.

Natural History thin section SH46 and Maskelyne thin section sketch

Thin section Hoare 17 (this is equivalent to SH46) shows a fragmental rock with pumice and single and polysynthetically twinned feldspar, some showing possible recrystallisation to multiple crystals. Local quartz patches and fine-grained opaques are widespread but zircon is rare. Examination of plate 6 'Felstone. Hoare 17' in Maskelyne (1878, 161) clearly shows tube pumice lying in a number of different orientations (his 'fluxional structure'), a feldspar megacryst and perhaps, small glass shards.

Lithic Summary

The random arrangement of the pumice clasts, which retain their internal structure and the nature of the glass shards, remaining as random-orientated identities, suggest that this is a non-welded ash-flow tuff.

SH48

The 1987 polished thin section is labelled STONEHENGE 48, while the polished block is labelled SH48. This fine-grained tuff has no strong fabric but comprises abundant, tube pumice fragments and feldspar megacrysts set within a uniform, fine-grained, albite-chlorite-?quartz matrix that locally shows grain size variations or a poorly defined, 'spherulitic' texture. Lensoidal to rhombic, pale brown carbonate is present within

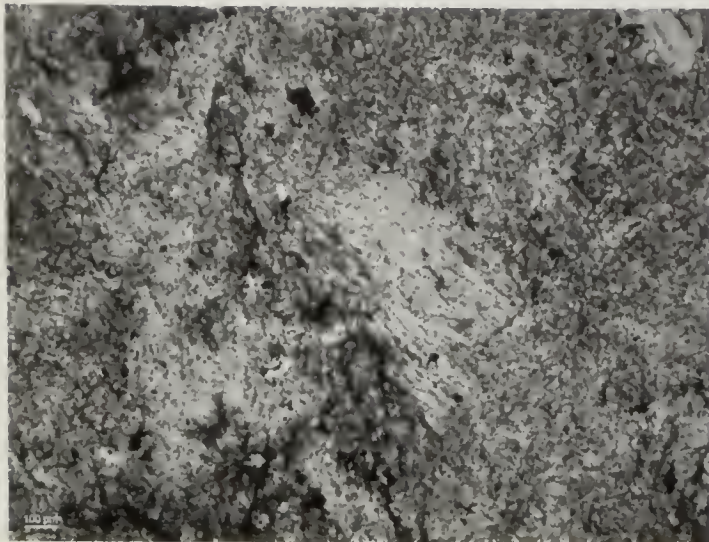


Plate 10. Stonehenge 48. A large pumice clast lies at an angle to the main fabric, it now comprises green chlorite, pale brown feldspar and clear quartz. A feldspar megacryst (top right) is also present in a fine-grained feldspar-quartz matrix. Plane polarised transmitted light. 100µm bar for scale.

the matrix associated with limonite. The tube pumice fragments have sharp edges and lie in random orientations. They are silicified or comprise quartz/feldspar-chlorite and often display a different grain size from their surrounding matrix (Plate 10). Lath-shaped, polysynthetically twinned feldspars comprise dark brown, cloudy, polycrystalline, randomly orientated, albite cores within lighter brown, irregular margins and optically uniform, clear rims (Plate 11). Some feldspars are associated with pumice clasts. Euhedral, 15 - 80µm diameter zircon crystals are present as are 100µm diameter, accessory mineral aggregates comprising intergrown zircon, monazite, xenotime and apatite. Titanite forms 20 - 40µm long rhombs but mostly is irregular in shape and 5-60µm in diameter. Trace amounts of 5-20 but up to 40µm long, lobate, ilmenite laths are unaltered to slightly oxidised. Pyrite forms 10-30µm diameter, discrete, cubic crystals or up to 100µm in diameter aggregates comprising 1-5µm diameter crystals. Pyrrhotite is 20-80 but up to >200µm in diameter but is now altered to fine-grained mixtures, commonly showing bird's eye textures, of secondary minerals including pyrite, carbonate and limonite. Locally altered pyrrhotite is associated with 5 - 10µm long, pale coloured TiO₂ minerals. Trace amounts of rounded, rare, 20 - 50µm diameter, brown, low reflectance, carbonaceous matter occur, but this is not graphitising carbon. Minor amounts of 10 - 80µm diameter sphalerite with orange internal reflections, some with fine-grained pyrite on their rims and a single, 1µm diameter chalcopyrite grain are present.

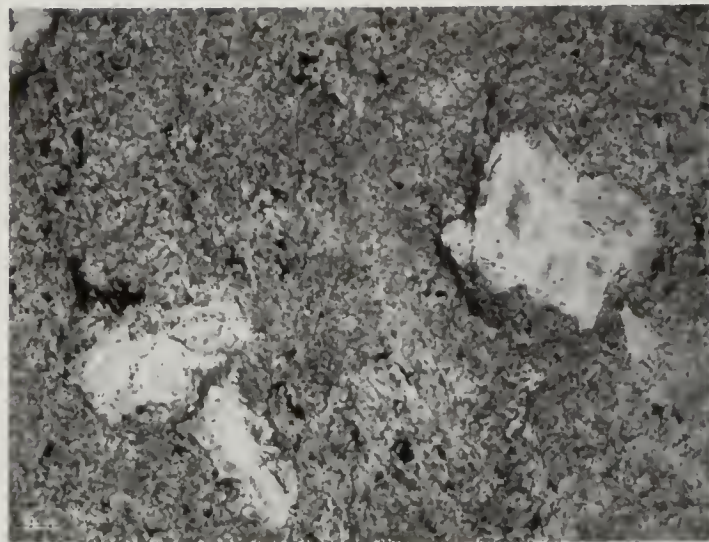


Plate 11. Stonehenge 48. Feldspar megacrysts with irregular edges and now comprising relict albite (pale brown) intergrown with potassium feldspar (clear) in fine-grained quartz/feldspar matrix. Plane polarised transmitted light. 100µm bar for scale.

Limonite as 40 - 200µm diameter patches and as millimetre long, thin veinlets carries very fine <1µm diameter, relict sulfide. Semi-quantitative SEM analyses confirmed the presence of zircon, ilmenite, and sphalerite plus identified monazite, xenotime, apatite and a light rare earth-bearing epidote.

Natural History thin sections SH48

The three Hoare 19 (equivalent to SH48) thin sections show a fragmentary rock with pumice and single and polysynthetically twinned feldspar and zoned plagioclase megacrysts, some showing recrystallisation to multiple crystals. Locally a fine-grained quartz/feldspar matrix carries fine-grained feldspar microliths or appears spherulitic. Dirty brown carbonate within a thin opaque rim is present, as is rare zircon.

Lithic Summary

The random orientation of the blocky pumice suggests a non-welded ash-flow tuff.

Discussion

The Open University and 19th-/ early 20th-century samples held in the Natural History Museum taken from each of the four siliceous orthostats are recognisably similar, although the samples were very probably collected from different places on the orthostats. This suggests that debitage from the four orthostats found loose at Stonehenge can be matched

to its appropriate orthostat.

Orthostat 38 differs in detail from the other three orthostats and from most of the analysed Stonehenge material in having trace amounts of graphitising carbon (a highly unusual phase in igneous rocks (Andy Gize, pers. comm.)) associated with altered pyrrhotite. This, plus the presence of lath-shaped, altered ilmenite gives a characteristic mineralogical fingerprint to the lithology and shows that SH38 is comparable to a rare, but recognisable, lithic sub-class found within the Stonehenge 'debitage' known informally as 'graphitising carbon-altered ilmenite-no muscovite'. This sub-class belongs, in turn, to a major class of Stonehenge 'debitage' known as 'rhyolite with sub-planar fabric' (Ixer and Bevins 2010). Graphitising carbon is rarely recognised in unmineralised rocks. However, it has been noted once before within Stonehenge-related rocks as it was found in a rhyolitic crystal-lithic tuff namely sample Cursus Field 142/1947.25 collected by Stone in 1947 (Ixer and Bevins 2010, 6). There are, however, significant differences between SH38 and the Cursus Field sample as the latter sample is typified by characteristic late-stage intergrowths between titanite-albite-chlorite-quartz that are missing in SH38, whilst SH38 carries long, altered ilmenite laths not seen in the Cursus Field sample. The differences are sufficient to cast doubt on their being from exactly the same lithology.

Within Stonehenge 'debitage' material, however, there are samples that share petrographical characteristics with SH38. Re-examination of material, briefly described by Howard (Pitts 1982), from the Heel Stone area excavations shows typical examples of the 'graphitising carbon-altered ilmenite-no muscovite' sub-class. In particular sample SH79+ 212 D/L2 described by Howard as a very hard, blue-grey, basic tuff (Pitts 1982, 118) has graphitising carbon associated with pyrrhotite and 200 μ m long ilmenite laths now replaced by pale-coloured TiO₂ minerals. Slightly less like SH38 are SH79+64 F/L3 31.5.79 and SH80+1142 122 L13/4 for, although these have graphitising carbon and altered pyrrhotite, they have little or no altered ilmenite.

Elsewhere, sample SH08 Context 12/8 FN 267 collected during the Stonehenge April 2008 excavation (Darvill and Wainwright 2009) has graphitising carbon associated with calcite and TiO₂ laths replacing ilmenite and like SH38 has fine-grained, dark-coloured, argillaceous rock clasts. Although detailed descriptions of this 'rhyolite' sub-class and its possible provenance will form the basis

of another paper it appears that SH38 and minor amounts of 'debitage' from Stonehenge may share a common origin. This is the only one of the four orthostats to share close petrographical similarities with any of the Stonehenge 'debitage'.

Like SH38 orthostat SH40 is a dacitic crystal-vitric-lithic ash-flow tuff and belongs to the major class of 'rhyolite with sub-planar texture', but in petrographical detail it cannot be matched to any 'debitage' found at Stonehenge or its environs.

Petrographically orthostats SH46 and SH48 are similar to each other, as recognised by Thorpe *et al.* (1991) and their geochemistry suggests that they are rhyolitic in composition as their SiO₂ content is greater than 70wt%. Thorpe *et al.* (1991) interpreted the feldspar megacrysts as primary phenocrysts and the textures within the tube pumice fragments as flow banding in lava and so identified the rocks as rhyolite lava flows. The present re-examination, however, shows abundant evidence for the clastic nature of these rocks, in particular the presence of pumice clasts, and so they are better described as ash-flow tuffs. They are both rhyolitic crystal-vitric ash-flow tuffs with a number of petrographical features in common, namely the presence of non-deformed tube pumice clasts, feldspar megacrysts showing very distinctive alteration/recrystallisation, and similar suites of opaque and accessory minerals including zircon, monazite and apatite (minerals that are absent or extremely rare in SH38 and SH40). They lack the highly vesicular lavas found in SH38 and 40. It is worth noting that SH46 and 48 are not exactly the same since SH46 is characterised by abundant, recrystallised, glass shards that are not seen in any of the other three orthostat lithologies.

Similar lithologies with the characteristic feldspar alteration seen in SH46 and SH48 have not been recognised from the Cursus Field or Stonehenge 'debitage'. In particular SH46 and SH48, despite being rhyolitic tuffs, lack the strong and highly distinctive planar fabric characteristic of the rhyolite/rhyolitic tuffs that are present in much of the Stonehenge 'debitage' including the Cursus Field, Heel Stone area, Aubrey Hole 7 and Stonehenge 2008 April excavation areas. This 'debitage' lithology, the so-called 'rhyolite with fabric,' is described in some detail in Ixer and Bevins (2010, 4) and believed to come, at least in part, from the Pont Saeson area to the north of the Preseli Hills.

The detailed petrographic descriptions given above show that all four of the non-preselite monoliths in the outer bluestone circle at Stonehenge are ash-flow tuffs, comprising varying amounts of

pumice clasts, crystals and volcanic lithics, with one also being noticeably rich in recrystallised glass shards; in addition, one contains an argillaceous lithic clast and graphitising carbon. The random nature of the pumice clasts, as well as their well preserved textures, especially the tubular form to the gas channels, suggest that the ash-flow tuffs have not been welded during emplacement. The argillaceous lithic is considered to be a mud rip-up clast, incorporated as the ash-flow tuff was emplaced in a subaqueous environment; the incorporation of such a clast in a moderately hot ash-flow tuff is consistent with a source for the carbon from a thermally influenced, organic-rich mud clast (Andy Gize, pers. comm.).

All of the above, along with the nature of the recrystallisation and the deformation state of the rocks, are consistent with the nature of non-welded ash-flow tuffs exposed in the Fishguard Volcanic Group which crops out in the north Pembrokeshire area between Strumble Head in the west and Crymych in the east, as described in detail by Bevins (1979) and Lowman and Bloxam (1981). Given that extensive studies have strongly indicated that the spotted and non-spotted dolerites come from the Preseli Hills area (Thomas, 1923; Thorpe *et al.*, 1991; Ixer 1997) and that the 'rhyolite with planar fabric' appears to come from the nearby Pont Saeson area (Ixer and Bevins 2010) it seems a logical assumption that the four orthostats described in this paper also come from the north Pembrokeshire area.

Given the evidence from the geochemistry presented by Thorpe *et al.* (1991), however, it appears that there would need to be a minimum of two sources, as two of the orthostats have dacitic compositions whilst the other two have rhyolitic compositions, seen not only in their SiO₂ contents, but also in a range of other major and minor elements including TiO₂, Fe₂O₃, MgO and P₂O₅ (and reflected also in differences between their accessory minerals). Indeed, Thorpe *et al.* (1991, table 11, 139) suggested four separate sources namely that SH38 came from Carn Clust-y-ci and that the other three came from Pembrokeshire (SH40) and more especially different locations on its north coast (SH46 and SH48). However, petrographically SH38 does not correspond with the exposure at Carn Clust-y-ci, which is a microtonalite.

Both the petrography and geochemistry combine to suggest that the provenance for the four orthostats is in north Pembrokeshire. Hence, the next stage in this investigation will be to review more thoroughly the exposures of non-welded ash-flow

tuffs in the Fishguard Volcanic Group and to combine more rigorously aspects of their petrology and geochemistry.

Comparing the relative size and preservation of the fifth (buried) 'rhyolite' orthostat (SH32e) with the other four provides a tantalising hint that could partially explain the seemingly antipathetic relationship between the four standing orthostats and their presence within the Stonehenge 'debitage'.

Atkinson's macroscopical description of the five 'rhyolites' as being blue, flinty and with delicate flow-structures of thin white laminae or more rarely bands of small white globular masses (1979, 49) could easily describe much of the 'dark flinty rhyolite' and 'rhyolite with fabric' sub-classes of 'debitage' seen throughout Stonehenge, but is less like the four standing orthostats. The 1954 photographs of stump 32e show a homogeneous, blocky lithology with a thin but strong planar fabric, seen as alternating pale and darker layers, that conforms well with his description given above but it also corresponds well with the current macroscopical descriptions of 'rhyolite with fabric' 'debitage'. The preferential 'quarrying' of this buried orthostat but not of the other four could explain their present day relative sizes as well as the relative amounts of their 'debitage' at Stonehenge and is in line with Thorpe *et al.* (1991) who noted that 'the chemical composition of most of the fragments (12 'debitage' 'rhyolites' from Aubrey Holes and the Heel Stone area) do not correspond to those of the four sampled rhyolite monoliths and are clearly derived from unexposed or destroyed bluestones'.

A yet more seductive hint is that the rhyolite of buried stump 32e may belong to the foliated rhyolitic rocks now recognised from Pont Saeson. However, only a thorough petrographical and geochemical investigation of a sample from this buried orthostat can answer that question.

Previous studies: spotted dolerite orthostats SH34 and SH35a

The spotted dolerites of the Preseli Hills have been of special interest since Thomas first recognised them as being the same lithology as the majority of the bluestone orthostats from Stonehenge in the early 1920s (Thomas 1923). Despite this, and for almost the next seventy years, little systematic

petrographical work was done on the spotted dolerites until the transmitted light descriptions by Bevins *et al.* (1989), later repeated and augmented by Thorpe *et al.* (1991, 127). The opaque mineralogy (reflected light petrography) of sample SH61 was first given by Ixer in appendix a) in Thorpe *et al.* (1991, 150-152) and this was later expanded when a further 10 dolerite orthostats (SH33, 37, 42, 43, 44, 45, 49, 62, 65 and 67) were described by Ixer (1996, 1997). These were compared with a restricted number of *in situ* dolerite samples collected by the Open University team from outcrops in the Preseli Hills (Thorpe *et al.* 1991).

Mindful of the limitations imposed by the restricted sampling, Ixer strongly recommended that the other Stonehenge dolerite orthostats should be petrographically investigated and compared with significant numbers of geological samples from all the proposed sources in Preseli (Ixer 1997, 16).

Despite concerns, Ixer believed that there were sufficient petrographical differences between the Preseli Hills dolerite outcrops to allow the preselite orthostats a provisional provenance. He suggested that SH33, 37, 43, 49, 62, 65, 67 and 61 came from the Carn Menyn-Carn Gyfrwy or Cerrig Marchogion-Carn Goedog areas and SH44 and SH45 from Carn Ddafad-las, and SH42 from Carn Bica or Carn Ddafad-las. No geological match was found for SH62 (Ixer 1997).

Subsequently, as part of SPACES, material from the Carn Menyn outcrops, collected by Darvill and Wainwright, became available. A total of 15 polished blocks and polished thin sections from 11 samples collected from Carn Menyn were prepared and described. Although they showed greater petrographical variations within Carn Menyn than had previously been recorded from the three samples described in 1997, they still formed a petrographically coherent group with the exception of the heavily altered and epidotised sample CM14 (Darvill *et al.* 2009). It is worth noting that CM14 was collected some distance from the other samples (Tim Darvill pers. com.).

Descriptions SH34 and SH35a

Spotted dolerite

SH34

A single polished thin section is labelled BS34. In the

hand specimen the weathered surface is a moderate yellowish brown (10YR 5/4 on the Geological Society of America rock-color chart) with very pale orange (10YR 6/2) spots up to 7mm in size. The freshly cut surface is a medium light grey (N6), but the rock is mottled with pink, (pinkish grey 5YR 6/1), euhedral feldspars up to 4mm in length intergrown with dark mafics. Using a x20 hand lens the thin section shows that the dolerite is a mottled yellow grey (5Y 7/2 to 5Y 6/2 on the Geological Society of America rock-color chart). It comprises 1mm diameter, irregular opaques and clear clinopyroxene that locally shows a subophitic texture with feldspar. Dark spots are 1–5mm in size and carry very fine-grained, dark, secondary minerals. Petrographically the dolerite comprises small, pale, equant areas of secondary minerals (spots) within medium-grained intergrowths of lightly altered plagioclase, tabular to equant clinopyroxene and altered titanomagnetite-ilmenite intergrowths. Locally, smaller plagioclase laths are ophitically intergrown within clinopyroxene. Large plagioclase laths are altered to fine-grained, chlorite and subhedral clinozoisite with very low interference colours; coarser grained, equant, epidote with high interference colours also replaces plagioclase. Most clinopyroxene is unaltered, as are acicular apatite crystals. Secondary minerals include epidote mosaics and epidote-chlorite intergrowths; within these intergrowths zoned, euhedral epidote and very rare, rhombic titanite are enclosed within radiating chlorite. Rare, acicular laths in chlorite may be amphibole.

White spots comprise abundant, fine-grained clinozoisite with very low interference colours intergrown with unaltered, twinned plagioclase. Equant titanomagnetite crystals, up to 150 - >200 μ m in diameter, are extensively altered. Magnetite has altered totally to fine-grained, 2 μ m diameter, titanite with white internal reflections whilst crystallographically orientated, 0.5-2 μ m wide ilmenite oxidation-exsolution lamellae have altered to fine-grained, colourless TiO₂ minerals, titanite, or, if thicker, up to 10 μ m wide, to TiO₂ minerals with orange internal reflections. Some altered titanomagnetite is limonite-stained. Ilmenite, up to 150 x 20 μ m in size, is intergrown with titanomagnetite, mainly as an internal, but also as an external sandwich but much forms discrete, lobate laths up to 200 x 200 μ m in size. Most ilmenite is very altered to 2–5 but up to 10 x 2 μ m long, pale-coloured TiO₂ minerals. These are crystallographically controlled with respect to the original ilmenite grain and so lie along the original (0001) crystallographic

planes. Small, 2-40 μ m diameter, relict ilmenite is commonly present. Wispy titanite rims up to 10 μ m in thickness enclose ilmenite. Sulfides are present in trace amounts. Pyrite, forming 10 μ m diameter, euhedral crystals, is altered to limonite, and 2 - 10 μ m diameter chalcopyrite crystals, some with 1 μ m diameter valleriite/mackinawite, are present in large epidote crystals. Limonite pseudomorphs after sulfides are up to 40 μ m in diameter. Elsewhere 5-50 μ m diameter limonite cements silicates (?chlorite).

SH35a

A single polished thin section is labelled BS35a. In the hand specimen the dolerite has weathered to a greyish orange (10YR 6/4 on the Geological Society of America rock-color chart) and has pale spots up to 17mm in length. The weathering crust is 2mm thick. The freshly cut surface is a light bluish grey (5B 6/1) with 8mm diameter, pinkish grey (5YR 8/1) spots. The rock comprises 1mm diameter, dark green, mafic minerals intergrown with patches of 2mm diameter, pale green epidote and pink feldspar up to 10mm in length. Using a x20 hand lens the thin section shows that the rock has pinkish grey (5YR 9/1) spots in a mottled, pale olive (10Y 5/2) groundmass. It comprises 1mm diameter, equant, skeletal opaques, 0.5-1.0mm diameter, clear clinopyroxene and yellow-green to green chlorite patches up to 2mm in size. Alteration spots are up to 9mm in diameter and consist of dense, dark secondary minerals. Petrographically the dolerite comprises large pale, rounded areas of secondary minerals (spots) within medium-grained intergrowths of slightly to heavily altered plagioclase, equant clinopyroxene and altered titanomagnetite-ilmenite intergrowths. Locally plagioclase laths are ophitically intergrown within the clinopyroxene. Large plagioclase laths are altered to fine-grained, subhedral clinozoisite with very low interference colours and chlorite plus coarser grained, equant, epidote with high interference colours. Other feldspars are untwinned.

Most clinopyroxene, some twinned, is unaltered as are acicular apatite crystals. Clinopyroxene encloses rare, rounded chlorite inclusions that may be altered olivine.

Secondary minerals are extensive and include brown, limonite-stained, radiating chlorite; epidote mosaics with high interference colours; quartz-deep green chlorite \pm apatite, and epidote-chlorite intergrowths. Within these intergrowths zoned, (brown cores and clear rims) euhedral epidote is enclosed within radiating chlorite. Trace amounts

of fibrous amphibole (probably actinolite) surround clinopyroxene and a brown phase in altered titanomagnetite may be secondary amphibole. Large alteration spots comprise very dense, fine-grained clinozoisite intergrown with pale green chlorite and epidote with high order interference colours. The epidote is coarser grained than the other components and is often concentrated towards the edges of the spots. Relict twinning and feldspar grain boundaries are retained in the spots suggesting that feldspar was their precursor. The spots characteristically carry 100 - 200 μ m diameter rounded, ?relict chrome spinel with 10 μ m wide ferritchromit/magnetite rims. Chrome spinel only occurs within the spots. Equant crystals of titanomagnetite up to 120 - >160 μ m in diameter are extensively altered. Magnetite has altered totally to fine-grained titanite with white to lemon-yellow internal reflections, whilst crystallographically orientated, 1-5 μ m wide ilmenite oxidation-exsolution lamellae have altered to fine-grained, colourless TiO₂ minerals, or, if thicker, up to 20 μ m wide, to TiO₂ minerals with orange internal reflections.

Magnetite without fine-grained ilmenite oxidation exsolution lamellae is up to 200 μ m in diameter and has altered to pale yellow titanite and encloses 10-60 μ m wide ilmenite altering to pale-coloured TiO₂. Ilmenite, up to 400 μ m in length, is intergrown with titanomagnetite as internal or external sandwiches but much forms discrete, lobate laths 40-1000 μ m in length. Most ilmenite is altered extensively; some ilmenite alters to orange TiO₂ minerals but most is replaced by fine-grained mixtures of bireflecting, colourless ?carbonate and small, 2 - 5 but up to 10 x 2 μ m long, pale-coloured to yellow TiO₂ minerals. The latter are crystallographically controlled with respect to the original ilmenite grain. The alteration sequence is: ilmenite to 'pitted' ilmenite to carbonate plus TiO₂ phases. Despite the alteration relict ilmenite up to 100 μ m in size is present. Rhombic or feathery titanite rims 5 - 20 μ m wide surround altered ilmenite. Sulfides are present in trace amounts. Pyrite, surrounding altered ilmenite and forming 120 - 200 x 50 μ m size crystals, is altered to limonite. Two - 20 μ m diameter chalcopyrite some with 1 μ m diameter valleriite/mackinawite is present in epidote crystals. Trace amounts of 1 - 2 μ m diameter chalcopyrite/pyrrhotite are present in clinopyroxene and ilmenite or form 50 - 200 μ m patches of 1 - 5 μ m grains. Banded limonite pseudomorphs after sulfides (?chalcopyrite) are up to 20 - 200 μ m in diameter. The surface of the lithic is partially covered with a

post-burial, 200 μ m thick, fine-grained, pale brown micrite enclosing single quartz grains; this is interbanded with fine-grained sparite.

Discussion

Both orthostats are described as spotted dolerites (Thorpe *et al.* 1991, table 1, 106) and their opaque petrography, especially the relationships between the iron titanium oxide minerals, show them to belong to the largest Stonehenge preselite group, informally known as Group SH33 (Ixer 1997, 13).

BS34 (SH34) differs slightly from most of the SH33 group in having no visible chrome spinel ('chromite') but as in most of Group SH33 chrome spinel is only a small and minor phase, this absence may be simply the result of the small sample size.

BS35a (SH35a) belongs to the SH33 group but more especially it is very similar to an outlying member of that group namely SH61. They both share large chrome spinel and pyrite crystals. Additionally both are very similar to many of the recent Carn Menyn samples that carry large chrome spinels within their pink/white spots and where pyrite is the main sulfide. Indeed petrographically BS35a cannot be distinguished from either the recently described Carn Menyn material or the three Carn Menyn samples described in 1997 (Darvill *et al.* 2009; Ixer 1997). Other recent samples from Carn Menyn are closer to the standard SH33 petrography where small chrome spinel crystals are rare or absent.

Conclusions and prognosis

Detailed petrography of the four siliceous orthostats has established that SH38 and SH40 are dacitic crystal-vitric-lithic ash-flow tuffs but are dissimilar to each other. They are significantly different from SH46 and SH48 which are rhyolitic crystal-vitric ash-flow tuffs; these two are quite similar. All four petrographies are consistent with the nature of non-welded ash-flow tuffs from the Fishguard Volcanic Group exposed in the north Pembrokeshire area between Strumble Head in the west and Crymych in the east. This is in broad agreement with the suggested origins, based on whole rock geochemistry given in Thorpe *et al.* (1991).

SH38 has an unusual petrography, notably the presence of graphitising carbon; this characteristic it shares with very small amounts of 'debitage' found

throughout Stonehenge and its environs. This distinctive petrography should make the chances of precisely provenancing this orthostat to its original Welsh source fairly high.

SH40, 46 and 48 are also distinctive and their lithologies have not, so far, been recognised within any Stonehenge 'debitage'. It is anticipated that it will be more difficult to find exact geographical provenances for these three.

SH32e, an unsampled 'rhyolite' stump within the bluestone circle, appears macroscopically to conform to a major class of debitage namely 'rhyolite with fabric' that could originate from Pont Saeson north of the Preseli Hills. If this were correct then it would be the first non-preselite bluestone orthostat to be precisely provenanced.

Petrography of the two preselites SH34 and SH35a confirm that they are spotted dolerites and that they belong to the 'major group of Stonehenge orthostat preselites, namely Group SH33. Petrographical similarities between the two orthostats and rocks from Carn Menyn confirm that those outcrops cannot be eliminated as their source. However, similar intensive sampling and detailed petrography of the other spotted dolerite outcrops in the Preseli Hills are required before a more positive assignment can be made.

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Little flints mean a lot: thoughts on the Mesolithic in the Swindon area

by *Phil Harding*

A small assemblage of Mesolithic worked flints was found during excavations at a Romano-British villa on Groundwell Ridge, Blunsdon St Andrew between 2003 and 2005. The analysis of this material stimulated a search of data held on the Wiltshire Sites and Monuments Record, much of it derived from 'grey literature' reports of work undertaken since the 1970s. The results have demonstrated that the assemblage forms part of a consistent pattern of Mesolithic activity related to geology and drainage patterns, which can be replicated across much of southern Britain.

Excavations in the area of the scheduled ancient monument centred on a Romano-British villa at Groundwell Ridge, Blunsdon St Andrew (Figure 1) from 2003 to 2005 produced a total of 109 pieces of redeposited worked flint from features and associated colluvium. The largest groups of struck flints came from Trenches 6 (38 pieces) and 2 (29 pieces), adjacent trenches across the bath suite, the focus of excavation. It is uncertain whether the material derived from a disturbed, localised scatter or had worked down-slope in the colluvium. Artefacts from Trenches 2, 6 and 7 included three blade cores, eleven blades and a rejuvenation tablet, most of which were patinated and sufficiently similar, both technologically and typologically, to suggest that they were of Mesolithic date.

The remaining 35 pieces from four trenches included three broken blades, but were otherwise dominated by undiagnostic flakes with a large, well-made end scraper made on a flake from Trench 3. This implement appeared to have been broken and re-used. The surface condition of these pieces was more variable and less securely dated than the Mesolithic material from Trenches 2, 6 and 7. They included both patinated and unpatinated pieces; some pieces however were prepared with

abraded striking platforms, a technique that is more frequently associated with Mesolithic and Neolithic assemblages than with Bronze Age industries. There were no other retouched tools.

The production of blades and bladelets, consistently pointed towards at least some of this assemblage being of Mesolithic date, although there were no microliths. Small quantities of comparable worked flint were found during the Time Team 'Big Dig' on Groundwell Ridge (Figure 1.1) in 2003. This work took place concurrently with, but independent of, work centred on the Roman villa. Similar material, listed as also including a scatter of probable Neolithic pieces, was collected during 1975 from Kingsdown (Figure 1.2; *WANHM* 1978, 132), from near a stream course that flows from Groundwell Farm, SE from its source, down the dip-slope of the Corallian Limestone to the River Cole and ultimately to the River Thames. The possibility of Mesolithic activity in the area led to a search of entries recorded on the Wiltshire Sites and Monuments Record (SMR) from fourteen parishes to the north and south of Blunsdon St Andrew. This transect (Figure 1) across the geological strata, 11km wide from Cricklade in the west to Highworth in the east, extended from the alluvium of the River



Fig. 1 Mesolithic sites in the area around Swindon in North Wiltshire in relation to the underlying geology and drainage. For site numbers refer to Table 1. The extent of the scheduled ancient monument site is shown in outline. The geological information is reproduced with permission of the British Geological Survey © NERC. All rights reserved.

Table 1. Mesolithic sites in the area around Swindon in North Wiltshire

No	Site	Parish	NGR	SMR	Other	Contents
1	Groundwell Ridge	Blunsdon St Andrew	14238938	SU18NE052		Worked flints including 2 blades and bladelets
2	Kingsdown	Blunsdon St Andrew	16358867	SU18NE050		Mesolithic flints found 1975
3	The Grange	Blunsdon St Andrew	13668997	SU18NE053		Mesolithic flints found 2004
4	Abbeymeads	Blunsdon St Andrew	14508960	SU18NW051		Blades and cores found in 2003
5	Groundwell Farm	Blunsdon St Andrew	15238884	SU18NE052		Flints in pits thought to be Mesolithic
6	Groundwell West	Blunsdon St Andrew	15018885	SU18NE053		Mesolithic flint implement found 1999
7	Kingsdown Crematorium	Stratton St Margaret	17368906	SU18NE054		Worked flints, including scrapers and two leaf arrowheads
7	Kingsdown Crematorium	Stratton St Margaret	17208899	SU18NE055		Mesolithic industry with blades and microliths
8	The Willows	Highworth	20639254	SU29SW050		Cores, blades, flakes and backed knife.
8	Priory Green	Highworth	20509260	SU29SW053		Residual flakes and blades
8	Spa Spring	Highworth	20609300	SU29SW052		Mesolithic core, flakes and blades
9	Cloverlands	Haydon Wick	13048791	SU18NW050		Two blades
10	Abingdon Court Farm	Cricklade	10309366	SU19SW050		Two Mesolithic tools
11	The Beeches	Swindon	173828	SU18SE059		Flakes, blades, bladelets, blade core
11	The Lawns	Swindon	161836	SU18SE058		Blades and core
11	Wood St	Swindon	156837	SU18SE052		Flakes and 'saw'
11	Westlecott	Swindon	150832	SU18SW050		Mesolithic pick
11	Market Square	Swindon	159837	SU18SE051		Microliths, flakes and cores
12	The Hermitage	Swindon	159837	SU18SE054		Blades, flakes, scrapers, microliths
13	Mill Lane	Swindon	146831	SU18SW051		Flints including a microlith
14	Coate Water Boathouse	Swindon	176823	SU18SE056		Flakes and blades
14	Coate Water	Swindon	178822	SU18SE050		Flakes, blades, microliths and cores
14	Coate Water Quarry	Swindon	179821	SU18SE057		Flakes, blades and microlith
15	North West of Chiseldon	Chiseldon	183805	SU18SE055		Blades, flakes and cores
16	Coate Water, New Lake	Swindon	178827		Jacobi Records	Microlith
16	Coate Water, Car Park	Swindon	174826		Jacobi Records	Microlith
16	Coate Water, Horton's Land	Swindon	178821		Jacobi Records	Microburin
17	Bradley's Building Site	Swindon	146830		Jacobi Records	Microliths and microburins
18	Croft Campus	Swindon	154823	SU18SE053		Mesolithic activity
19	Toothill	Swindon	126834		Jacobi Records	Blades, flakes and cores
20	East of Foxbridge	Wanborough	20518411	SU28SW050		Microlith
21	Stratton Park	Stratton St Margaret	18718613	SU18NE051		Flakes, fragments, discoidal knife and scraper.

Thames to the Chalk of the Marlborough Downs. This relatively large area made it possible to examine whether the material from Groundwell Ridge was an isolated occurrence or fitted into a wider pattern of Mesolithic land use.

The Mesolithic of Wiltshire has not been studied in great detail. Rankine (1955) attributed the lack of sites to the fact that, after the war, only 25% of the total county area was under arable cultivation, although the deficiency was more probably due to the lack of field work in appropriate areas. Wymer (1977) listed 224 locations of which only two were

in Swindon, with one other from Wanborough. The SMR for the county is more comprehensive, containing 529 entries; nevertheless the Mesolithic remains largely unstudied in the county. Apart from isolated descriptions of small groups of Mesolithic material found as by products of other projects (Butterworth and Seager Smith 1997; Harding 1983, 2006), notes (Tucker 1985) and numerous summaries of field work in the county (*WANHM* 1978; 1980; 1991; 1999) the Wiltshire Archaeological Magazine last included a paper dedicated to the Mesolithic in 1969 (Radley 1969). At this time

Mesolithic activity was known primarily from discoveries in the major river valleys; the Nadder, Wylye, Salisbury and Bristol Avons and the Kennet. Radley (*ibid.*) concluded his review by stressing that not only was there a need for people to be able to recognize Mesolithic material but also record it in sufficient detail that maps could be compiled of its distribution.

The notable increase in SMR entries for the Swindon area has arisen from records of small scale watching briefs and excavations, many undertaken in the area as a result of development since the 1970s (WANHM 1978; 1980; 1991). Associated 'grey literature' reports have escalated in number in recent years and are now recognised as an acknowledged source of data (Ford 2010) for detailed academic research. Those relevant here frequently refer to small collections of worked flints, similar to those at Groundwell Ridge, with blades and bladelets, but no microliths, that were found as unstratified or residual artefacts on excavated sites from later periods. The restricted quantities of material were often insufficient for detailed analysis and permitted no more than broad levels of dating; nevertheless the database does catalogue precise locations of these discoveries, which have accumulated in number over time.

The SMR search identified 36 locations from the fourteen parishes in the survey area, of which some were too vague to be considered worthy of inclusion. Swindon with 11 records and Blunsdon St Andrew with six entries, were the most prolific locations; four parishes contained no entries. Of particular interest to the material from Groundwell Ridge were other assemblages from Blunsdon St Andrew that are often linked to the natural drainage pattern. This can be locally complex and has been influenced latterly by modern culverts; however find spots include material from The Grange (Figure 1.3) itself located at a spring head which drains into the River Ray and which later became utilised as a water source for the Romano-British bath house on Groundwell Ridge. Blades and cores have also been found nearby at Abbeymeads (Figure 1.4). Further to the south worked flints, including blades and bladelets, were found in three shallow pits at Groundwell Farm (Figure 1.5) and a Mesolithic implement from an adjacent location at Groundwell West (Figure 1.6). These two sites were both located at or above the spring line that forms at the contact of the Corallian Limestone with the underlying Oxford Clay and apparently at the watershed that drains westwards into the River Ray and south towards the River

Cole. Not only do these assemblages share similar technologies, they also cluster along the south facing fringes of the Corallian Limestone spur, on which Groundwell Ridge is situated and at, or within easy reach of spring heads. These locations therefore offered not only access to water and vantage points over low lying ground but also to a diverse range of resources provided by the contrasting geologies.

To these locations can be added the material from Kingsdown (Figure 1.2; WANHM 1978) and further groups collected from Kingsdown Crematorium (Figure 1.7). This location also occupied a south facing slope overlooking the headwaters of the Bydemill Brook, which was similarly exploited subsequently as a water source for a high status Romano-British building with tessellated pavements in Stanton Fitzwarren (Goddard 1913). The assemblage from Kingsdown Crematorium contained not only Mesolithic material, confirmed by a number of microliths, but also two Early Neolithic leaf arrowheads, suggesting transitional or repeated activity of the Late Mesolithic and Early Neolithic periods.

Further along the junction of the Corallian scarp and the Oxford Clay, east of Groundwell Ridge, worked flints have been recorded at Highworth from three closely spaced locations (Figure 1.8), primarily in silt derived from a spring and from a tributary stream draining to the River Cole. Two blades were recorded to the west from Cloverlands, Haydon Wick (Figure 1.9), also near the spring line at the junction of the limestone with the clay, at a point coincidental with a tributary stream of the River Ray. The Ray provided an important route from the River Thames near Cricklade, from where two Mesolithic tools were recovered during excavations at Abingdon Court Farm (Figure 1.10), through the Corallian scarp to locations in the south. These included six sites on sandy outliers of Portland Beds at Swindon (Figure 1.11 and 1.12) with one at the junction with the Kimmeridge Clay (Figure 1.13), three at Coate (Figure 1.14; WANHM 1978) with one on Upper Greensand at Chiseldon (Figure 1.15; Tucker 2003). The SMR from this area around Swindon itself includes not only references to blades and bladelets but also five locations that are specifically mentioned as containing isolated microliths, type fossils of the Mesolithic. To these records can be added a number of find-spots (Fig. 1.16 and 17) collected by the late Dr Roger Jacobi (unpublished card index), primarily of individual microliths, some of which may refer to material included on the SMR.

Very few of these assemblages have been

examined in great detail; however work at the Hermitage, Swindon (Figure 1.12: Butterworth and Seager Smith 1997) demonstrated that the potential persists for Mesolithic material to be found around the fringes of these limestone outliers. A total of 206 residual Late Mesolithic flints, including flakes, blades, three scrapers, a possible burin, hammer stone and two microliths, were found during excavations of a primarily Romano-British site in 1994. The recovery of additional material from the immediate vicinity, most locally an adjacent site in Market Square, indicates that the eminence of Old Swindon Hill, at 137m OD, was an attractive centre of Mesolithic activity.

These locations in the southern part of Swindon repeat the pattern of activity noted at Blunsdon where sites were frequently located around the south facing fringes of well drained land at (Figure 1.17) or above the spring line with the underlying clay. They are clustered around the watershed of the Rivers Ray and Cole and also benefitted from the diverse range of natural resources, raw materials and options for land use provided by the Portland Limestone, Lower and Upper Greensand, Chalk, Gault and Kimmeridge Clays.

Entries citing occupation on the Oxford, Gault and Kimmeridge Clay are relatively sparse. A collection including blades and bladelets from the Croft Campus (Figure 1.18; *WANHM* 1991) on the Kimmeridge Clay, also near the headwaters of the River Ray, is one of the more convincing. In the same area Jacobi (unpublished card index) recorded blades, flakes and micro-cores at Toothill (Figure 1.19) an upstanding area of Kimmeridge Clay, mapped by the British Geological Survey as being capped with undifferentiated drift deposits of Pleistocene age. It seems likely that this knoll, overlooking the River Ray and later exploited as a site of a medieval village, was identified as a more favourable location for Mesolithic occupation within the clay vale. Further east a microlith was found in a pit filled with soil and ash on the Gault at Wanborough (Figure 1.20; *WANHM* 1972), although records of a scraper and a 'hand pick' from two other locations in the parish (SU27NW 063 and 051) might be regarded with more caution.

Other records of Mesolithic flints on the clay are similarly questionable, lacking blades, bladelets or microliths. An entry for Stratton Park (Figure 1.21) is listed as Mesolithic; however the original excavation report (Gingell 1981) describes only undated flakes, core fragments, a scraper and a discoidal knife, objects that might be more indicative

of Neolithic activity. The SMR contains numerous entries that record both Mesolithic and Neolithic occupation at the same site on the limestone, as at the Kingsdown Crematorium (Figure 1.7), which produced two leaf arrowheads.

A relatively thin spread of Mesolithic material is entered on the SMR from parishes that fringe the chalk of the Marlborough Downs. This area provided the primary source of flint for tool manufacture in areas to the north; however very few records of Mesolithic worked flints are known. Listed artefacts are primarily of quartzite and include a pebble hammer from the Late Bronze Age settlement on Burderop Down, Chiseldon (Gingell 1992), two pebble mace heads from Liddington (SU28SW U01, SU27NW 054) and a further possible example from Barbury Castle, Wroughton (SMR SU17NW 050). These implements enjoyed a prolonged use in prehistory (Roe 1979) and so may not necessarily be Mesolithic but are known from that period. Blade and microlith based assemblages similar to those on the limestone and sands to the north are rare on the Downs, but are known from the Kennet valley (Allen 2005), providing a distribution that dovetails with activity around the Swindon area. These assemblages were primarily centred along the valley, although Mesolithic activity could be traced, rising via coombes onto the Chalk plateau, by the presence of tranchet axes and picks. These large core tools, which are currently unknown from the sites around Swindon, were produced in relatively large numbers from the local Clay-with-Flints, a pattern that has been noted across many parts of the Chalk in southern England (Care 1979).

Mesolithic sites, many sourced from the SMR, can be traced beyond the area of the detailed search around Swindon, confirming patterns of activity. Late Mesolithic blades, microliths and retouched tools, were recorded from tree throw features at Watchfield, Oxfordshire (Birbeck 2001) north-east along the Corallian ridge, while to the west two groups of material were found near the headwaters of the Thunder Brook at the junction of the Corallian Limestone and Oxford Clay, north of Wootton Bassett (Tucker 2003). Similar trends are also visible along the Lower and Upper Greensand ridges. An assemblage containing blades and cores was recorded at Broad Town, on an outlier of Lower Greensand, at a spring head. Blades, cores and a tranchet axe have also been recorded at two locations at Freeth Farm, Compton Bassett (Tucker 2003), in a shallow valley near the confluence of three small streams that form the headwaters of the Abberd Brook at the

Lower Greensand and Kimmeridge Clay contact. Mesolithic sites are also known along the Upper Greensand. South west of Chiseldon a Mesolithic scraper is listed from Compton Bassett at the interface of the Upper Greensand and Chalk, near a spring head of the Abberd Brook. Most familiarly Late Mesolithic occupation was revealed at Cherhill (Evans and Smith 1983), a site sealed beneath tufa up to 0.5m thick, but also located near the head of a small valley at the junction of the Gault Clay and a belt of Upper Greensand. It is not unreasonable to assume that similar sites, perhaps also sealed, probably exist in comparable locations elsewhere along the Chalk escarpment.

Models of Mesolithic behaviour (Mellars and Rheinhardt 1978; Barton 1992) propose two site types; long term, possibly winter, low-lying base camps, and short term, 'upland' hunting camps. The former were often located in river valleys and were characterised by a wide range of retouched flint implements that have been assumed to indicate a diverse range of domestic activities, including butchery, bone and antler working and hide processing. The 'upland' sites served as temporary camps to allow retooling of hunting equipment and contained relatively restricted numbers of tool types principally microliths, scrapers, microdenticulates and tranchet axe sharpening flakes. Most of the assemblages listed in the SMR have produced virtually no retouched material, although a few microliths are known from around Swindon and Coate, suggesting that these sites might best be viewed as short term hunting camps, which may have been revisited on a regular basis. It is clear that water sources formed a fundamental component in the location of sites and periods of use may have been influenced by seasonal fluctuations in the flow of water from these springs. The water courses formed a vital arterial network; nevertheless mobile groups undoubtedly also gravitated into the area along the Chalk scarp, the only source of good quality flint, as well as the Corallian and Greensand ridges. These ridges afforded high vantage points but lacked fresh water supplies.

The data compiled from the SMR provides a compelling record of the distribution of Mesolithic occupation in this part of north Wiltshire, influenced by a combination of geology and drainage. These trends replicate patterns that are known from other parts of Britain including the Weald of SE England, where dense scatters of Mesolithic worked flints are well known on the Lower Greensand ridge (Clark 1934; Jacobi 1978). Detailed analysis of the

distribution of Mesolithic sites at the watershed of the Rivers Len and Great Ouse in north Kent (Harding forthcoming), which flow in opposite directions, but parallel to the Greensand ridge has confirmed that these simple land bridges provided favourable conditions for linking one drainage system with another. In addition the distribution of sites also demonstrated a preferential use of tributary valleys that flow perpendicular to the strike of the geology and provide links to the spring line emanating from the base of the Chalk scarp. The exploitation of these tributary streams made it possible to exploit the respective raw materials and natural resources of individual geologies in much the same way that the more formalised Anglo-Saxon and medieval strip parishes, with river valley based or spring line villages, did across much of southern England in later periods.

It is also possible to consider how site density in the Swindon area might compare with sites and locations in other parts of the country on similar geologies. Comparable data held by the West Sussex SMR lists 136 sites on the Greensand ridge within that county, an area that has been studied extensively (Clark 1934; Keef *et al.* 1965; Holgate *et al.* 1986) and one that might serve as a bench mark by which to compare density in north Wiltshire. A more detailed assessment of five parishes, selected at random, east and west of Midhurst, contains 16 individual records, much of this material representing the work of E. W. and H. C. Holden. Parish entries range from six at East Lavington, centred on an area of approximately two square kilometres on the banks of a tributary stream of the River Rother, to one for both Lodsworth and Duncton. Assemblage size ranges from over 6,000 artefacts excavated from Iping Common (Keef *et al.* 1965) to records that refer to individual flakes and blades, quantities that are not dissimilar to those from Swindon. Site density is undoubtedly greater in this better studied area of West Sussex than around Swindon, nevertheless the concentration of activity at Coate is arguably comparable and given the lack of research in this area it seems to illustrate how great that potential might be.

The search of the Wiltshire SMR database was initiated to locate comparable material and sites to those found at Groundwell Ridge. This simple exercise has demonstrated that considerable information, much of it unpublished, has accumulated in recent years. This data, often contained within small groups of material that are in themselves of insufficient size and poorly dated to

warrant detailed examination, can be amalgamated to demonstrate recurring patterns of technology and location in the area. The results suggest that it may be possible to compare Mesolithic site location and density in the Swindon area favourably with similar distributions in better-studied areas of southern England. This neglected period of Wiltshire prehistory may be ready for reassessment.

Acknowledgements

Dr Roger Jacobi died during the time that this short paper was in preparation. He was the unchallenged authority on the Mesolithic of Britain. He would have welcomed new work in this field, the opportunity to read the draft and undoubtedly provide innumerable improvements to its content from his own encyclopaedic knowledge. It is my regret that this was not possible but it is dedicated nevertheless to his memory. The study was written following post-excavation analysis of the flint assemblage from the English Heritage funded excavations at Groundwell Ridge. My gratitude is extended for permission to use the results of the work on this material for inclusion here. Thanks are also extended to Rachel Salter, Historic Environment Officer for West Sussex County Council for providing details of Mesolithic sites from the West Sussex SMR. The figure was prepared by Linda Coleman of Wessex Archaeology.

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An early Neolithic pit group at Knook Reservoir, Wiltshire

by *Cai Mason*

with contributions from Matt Leivers and Lorrain Higbee

An archaeological watching brief at Knook Reservoir uncovered six early Neolithic pits, which produced a substantial assemblage of worked flint, pottery and animal bone indicative of settlement activity.

Introduction

A watching brief by Context One Archaeological Services Ltd in November 2007, during groundwork associated with the construction of a new reservoir adjacent to an existing facility at Knook, revealed six early Neolithic pits.

The site (centred on NGR ST 94511 43564) is situated on the edge of Salisbury Plain, 5.5km east of Warminster, on a broad level plateau at the highest point (c. 177m above OD) of an east to west aligned ridge overlooking the Wylde valley to the west and two deep dry valleys to the north and south (Figure 1). The underlying geology is Upper Chalk overlain by shallow freely draining loamy soils.

The site is close to a number of known prehistoric sites ranging from the Neolithic to middle Bronze Age. The earliest activity in the site's environs are worked flints of Neolithic date, discovered c. 320m to the north-east of the area investigated (Wiltshire and Swindon Sites and Monuments Record (WSSMR) ST94SW105) (Figure 1, No. 3). Knook Neolithic Long Barrow (WSSMR ST94SE400) (Figure 1, No. 8) is visible from the site despite being c. 1.6km to the north-west. More substantial evidence of activity was identified c. 230m to the north-east by

Wessex Archaeology in 1998, which comprised a late Neolithic or early Bronze Age ditch (WSSMR ST94SW108) (Figure 1, No. 1), cut by a more substantial middle Bronze Age ditch (WSSMR ST94SW153) (Figure 1, No. 2) that contained large quantities of pottery, animal bone, worked flint and querns stone fragments. Two middle Bronze Age pits were also identified during the excavation. Overall, the evidence is strongly suggestive of domestic activity (Ellis and Powell 2008). An excavation undertaken in 1997, c. 290m to the north-east, revealed a further two pits and a ditch of Bronze Age date (WSSMR ST94SW151) (Figure 1, No. 4). A Bronze Age bowl barrow (WSSMR ST94SW610) (Figure 1, No. 5) is also located c. 340m north-east of the Site. Excavated by Sir Richard Colt Hoare in the early 19th century, the barrow contained a crouched inhumation burial and a possible secondary cremation burial in a circular cist. Two undated enclosures (WSSMR ST94SW643) (Figure 1, No. 6) and (WSSMR ST94SW708) (Figure 1, No. 7) have also been identified c. 270m north-east and c. 340m east of the site respectively. There is no record of later activity in proximity to the area investigated and it is likely that the locale was open agricultural land throughout its later history.

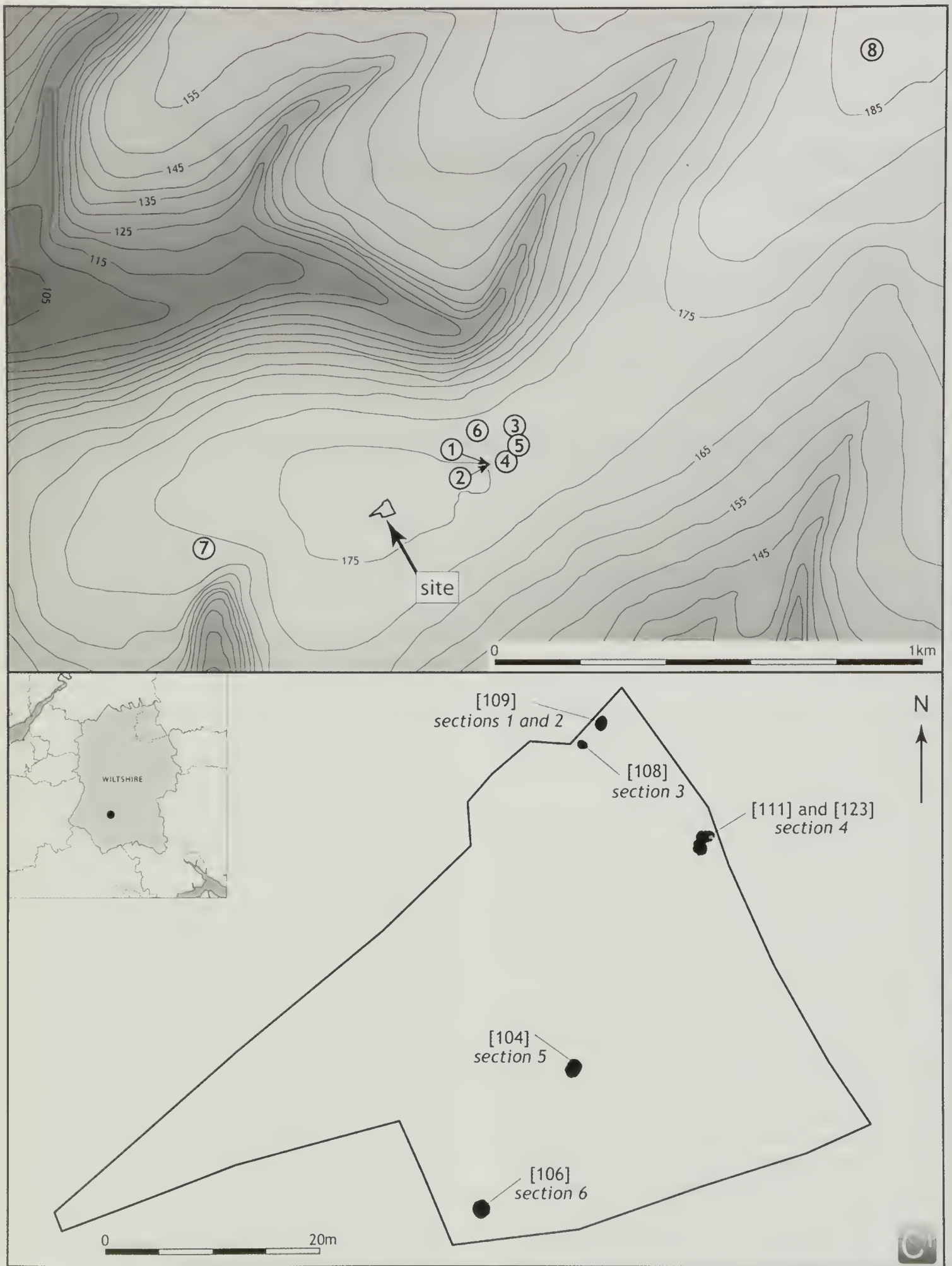
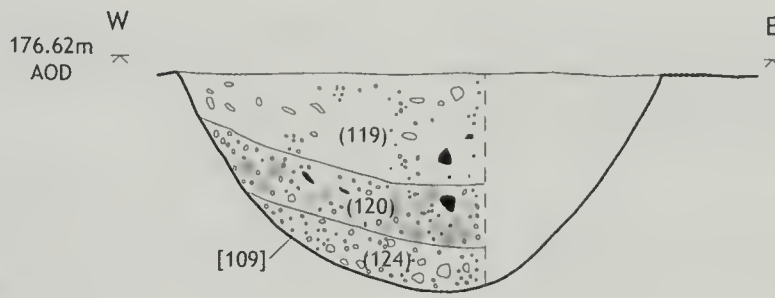


Fig. 1 Site setting showing known archaeological landscape within 200m of the investigated area, including Knook Long Barrow and other excavated archaeological features



section 1



section 2



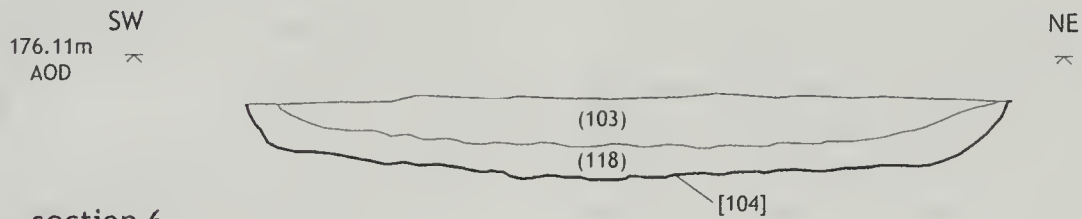
section 3



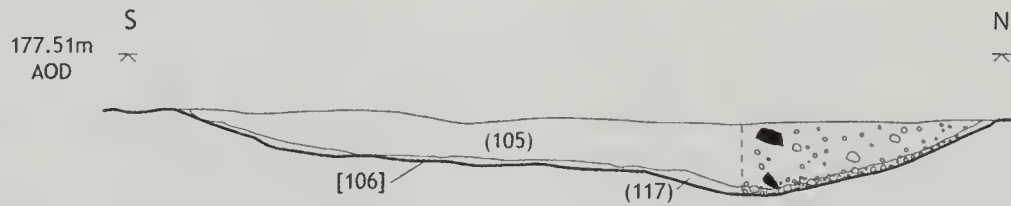
section 4



section 5



section 6



- charcoal
- flint
- animal bone
- burnt chalk

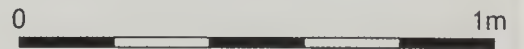


Fig. 2 Neolithic pit sections

Results

A group of six pits was identified and fully excavated and these are described individually below. All were relatively shallow, circular or sub-circular in plan (Figure 2) and contained pottery or worked flint of early Neolithic date.

Pit 104 (Figure 2, section 5) measured 1.6m by 1.2m wide and 0.17m deep and was filled with compact chalk rubble (118) overlain by a dark grey silt (103) that contained 109 sherds of pottery (including 90 sherds from two or three incomplete bowls), 177 pieces of worked flint (including a hammerstone), 31 pieces of fire-cracked flint and a small quantity of animal bone including a roe deer antler.

Pit 106 (Figure 2, section 6) measured 1.7m in diameter and 0.14m deep and was also filled with compact chalk rubble (117), overlain by a dark brown silty clay (105) that contained 23 sherds of pottery, 106 pieces of worked flint and a small collection of bone including a roe deer mandible.

Pit 108 (Figure 2, section 3) was sub-circular in plan and measured 0.7m across and 0.18m deep. The pit was filled with a dark greyish-brown silty clay (125) that contained only nine pieces of worked flint and one fragment of unidentified animal bone.

Pit 109 (Figure 2, sections 1 and 2) measured 1.20m by 1m across and was 0.39m deep with three fills. The primary fill (124) was a pale brown chalky silt that contained 11 pieces of worked flint. This was overlain by a black silty clay (120) that contained 16 sherds of pottery, 53 pieces of worked flint, four pieces of fire-cracked flint and 24 animal bone fragments; the majority of which were pig bones. The uppermost fill, dark grey brown silty clay (119), contained four sherds of early Neolithic pottery, 36 pieces of worked flint and 15 fragments of animal bone including two pig left scapulae.

Pit 123 (Figure 2, section 4) measured 1.65m by 1.04m and was 0.14m deep. The pit was filled with a brown silty clay (122) that contained 8 pieces of worked flint. Pit 123 was cut by pit 111 which measured 1.34m by 1.2m across and 0.32m deep and was filled with grey silty clay (121) that contained 15 pieces of worked flint but no other finds. Fill (121) was overlain by a dark grey sandy silt (101) that contained 12 pottery sherds, 66 pieces of worked flint including two scrapers and three pieces of fire-cracked flint. A small assemblage of animal bone, including a fragment of red deer metacarpal, was also recovered from the fill.

Finds

Prehistoric pottery, by *Matt Leivers*

Introduction

The prehistoric pottery consists of 161 sherds weighing 1102g, mainly in moderate condition. The material is all of Early Neolithic date, based on typology and associated material (primarily lithics). Even when taking post-depositional factors into account, breaks tend to be rather worn and surfaces have some degree of abrasion. Several sherds have spalled, while others have been burnt. Refitting indicates that at least some of the burning took place after vessels had been broken.

Fabrics

Seven fabric groups were identified, three shell-tempered (SH1-3), two flint-tempered (FL1-2), one sandy (QU1) and one oolitic (C1). The breakdown and description of ceramics by fabric group is given in Table 1. There is nothing to suggest anything other than relatively local manufacture of the assemblage, although the occurrence of sherds from a single vessel tempered with oolitic limestone indicates a source in the west or south-west (e.g. the Cotswold Hills, the Isle of Portland, around Bath).

Forms

The assemblage includes 11 rim sherds, derived from a minimum of six vessels. Using Cleal's expanded version of Smith's classification as applied to the assemblages from (initially) Windmill Hill and Carn Brea (Smith 1965; 1981) and (subsequently) Maiden Castle (Cleal 1991, 171-81), five different rim forms were identified:

Simple

- R3 Upright, round to flat (one example: Figure 3, PRN [Pottery Record Number] 17)
- R5 In-turned, pointed (one example: Figure 3, PRN24)

Rolled-over

- R1 Out-turned, rounded (two examples: Figure 3, PRNs 9 and 10)
- R2 Upright, rounded (one example: Figure 3, PRN11)

Expanded

- R4 Upright, flattened (one example: Figure 3, PRN19)

The variability of Early Neolithic rim forms is

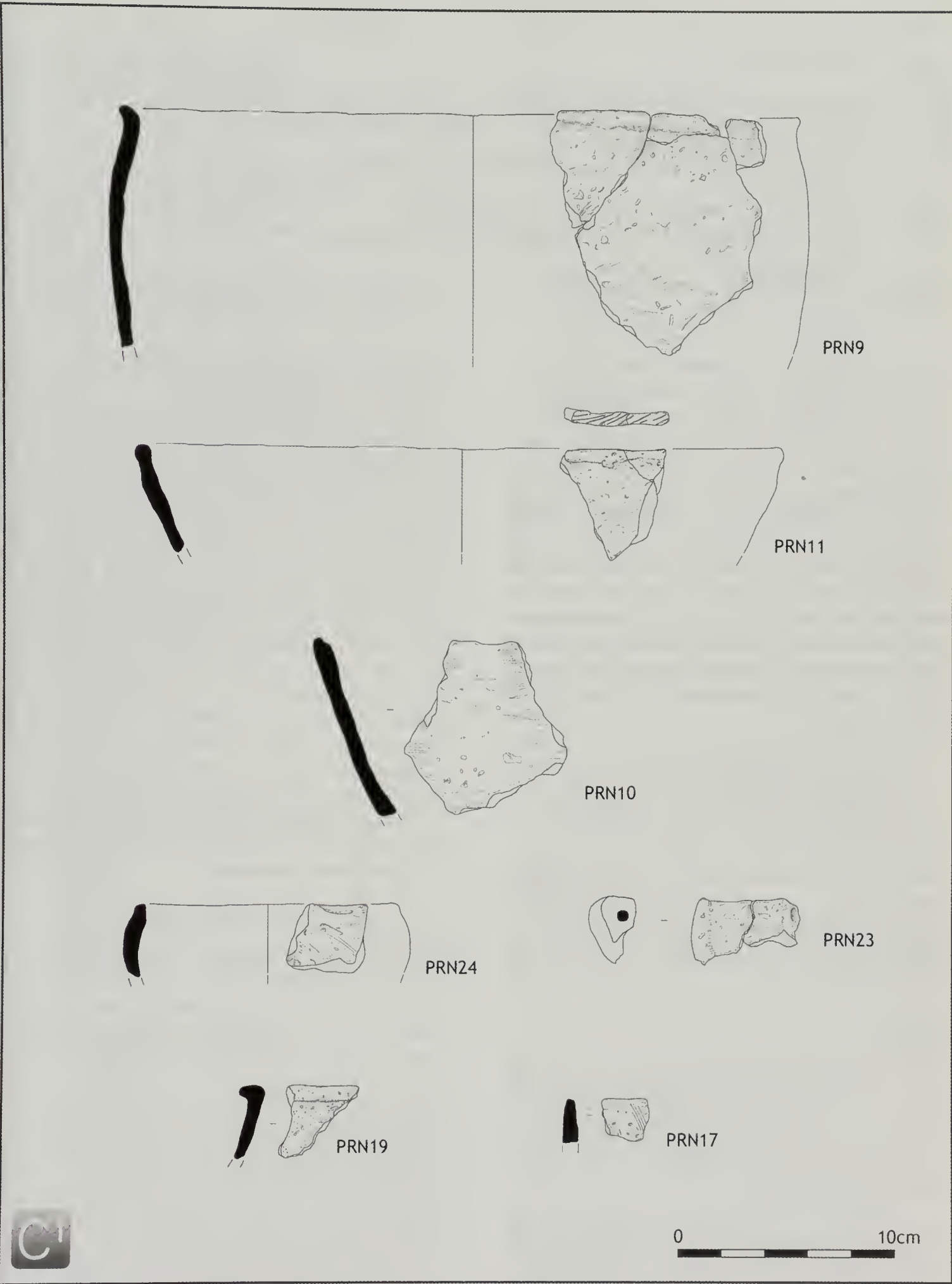


Fig. 3 Neolithic pottery

Table 1: Pottery fabric totals by sherd count and weight

Fabric code	Fabric description	No. sherds	Weight (g)	Average sherd weight (g)
C1	Frequent moderate to coarse well-sorted Oolite	4	13	3.25
FL1	Sparse to moderate, fine to coarse, poorly-sorted, angular crushed calcined flint; micaceous fine sandy matrix	10	32	3.20
FL2	Frequent fine to medium well sorted crushed calcined flint; micaceous sandy matrix	12	46	3.83
QU1	Fine quartz sand matrix; no visible added temper	13	59	4.54
SH1	Sparse, medium and coarse poorly-sorted sub-angular shell	13	141	10.85
SH2	Sparse to moderate, medium and coarse poorly sorted sub-angular shell; micaceous sandy matrix	37	218	5.89
SH3	Frequent fine and medium well-sorted shell	72	593	8.24
TOTAL		161	1102	6.84

illustrated by the four non-joining sections of PRN 9 which belong to the same vessel, but differ in profile. No complete profiles were retrievable and in most instances rims were represented by small irregular fragments from diameters that could not be determined. As a result, it has not been possible to place the vessels in any classificatory scheme such as that proposed by Cleal (1992), although most appear to derive from open or neutral vessels without carinations (vessel walls are markedly irregular, but none have what could be considered formal carinations or shoulders). One vessel appears to be a cup, while the rest are bowls. Following Cleal (1991), vessels with measureable diameters break down as follows:

- 1 cup (up to 120mm diameter) PRN24
- 1 small bowl (130-200mm diameter) PRN10
- 1 medium bowl (210-300mm diameter) PRN19
- 2 large bowls (>300mm diameter) PRNs 9 & 11

Two vessels not represented by rim sherds are absent from the above quantification: one has an applied horizontally perforated trumpet lug (Figure 3, PRN23); the other represented by ten small body sherds in fabric FL1.

Context

The assemblage (a minimum of eight vessels) was recovered from four pits. Portions of four bowls came from pit 104. There is a further small cup or bowl in pit 106 and another three vessels in pit 109 (two further rims and a portion of a vessel with a perforated lug handle).

Although no sherds could be refitted between features, on fabric grounds it is probable that some of the vessels are present in more than one feature. The ten featureless sherds in fabric FL1 came from pits 104, 106 and 111; the coarse shell tempered fabrics SH1 and SH2 were present in pit 104 in some

quantity, with much smaller amounts in pits 111, 106 and 109 – each fabric is likely to represent only a single vessel. Instances of sherds from one vessel only being present in a single pit are the trumpet lug in fabric FL2 in pit 109; the portions of rim and wall from the fine shell-tempered vessel in fabric SH3 in pit 104; the small rim fragments (both in fabric QU1 but from different vessels) in pits 106 and 109; and the small oolitic rim sherd, also in pit 109. No ceramics were recovered from primary fills, which suggests that sherds were incorporated into pits as they were backfilled, rather than being placed into them during their use. Consequently, it seems likely that the material recovered is secondary waste, derived from activity elsewhere. Corroborating this assertion, numerous sherds from individual vessels might be present, but they seldom refit. Furthermore, conjoining sherds of the SH3 vessel in pit 104 are in markedly different condition – some good, some having been burnt – indicating differing pre-depositional conditions.

Discussion

Parallels for the assemblage are widespread in the locality and include material from the Coneybury 'anomaly' and Henge and pits on King Barrow Ridge (Cleal 1990), Robin Hood's Ball (Thomas 1964) and Amesbury G132 (Gingell 1988) – all of which belong to the South-Western regional style (Whittle 1977), formerly known as Hembury Ware. Diagnostic traits of this type present in the Knook assemblage includes horizontal perforated lugs, a predominance of simple rim forms, little or no decoration and a lack of carination in favour of very slight shoulders. These traits tend to occur in assemblages belonging in or about the 3700 century BC in the south and west, where parallels can be found at Poundbury (Leivers, forthcoming), Flagstones (Cleal 1997) and Maiden Castle (Wheeler 1943; Cleal 1991).

Animal bone, by Lorrain Higbee

A total of 112 bone fragments was recovered from six pits. The material is poorly preserved - cortical surfaces are pitted and corroded - and this has effaced surface details such as butchery marks. A small number of cattle, sheep/goat, pig, roe deer and red deer bones have been identified; the number of specimens identified to species is presented in Table 2 below.

A fragment of distal cattle radius and a fragment of proximal red deer metacarpal were identified from pit fill (101). A number of cattle, sheep/goat and pig teeth, mostly loose uppers, and a roe deer antler were identified from pit fill (103). The antler was collected after being shed. Identified bones from pit fill (105) include a roe deer mandible, sheep/goat metatarsal and pig lower third premolar. A fragmented pig maxilla and two left scapulae were recovered from pit fill (119). A reasonably large number of pig bones were recovered from pit fill (120); identified bones include a mandible, femur, scapula, two radii and two ulnae. Most of the bones are from the right side of the body and probably belong to the same individual. A single unidentifiable fragment was recovered from pit fill (125).

Table 2: Number of specimens identified to species (or NISP).

Taxa	NISP
Cattle	3
Sheep/goat	4
Pig	16
Roe deer	2
Red deer	1
Larger mammal (Cattle or red deer)	20
Medium mammal (sheep, goat or pig)	9
Mammal	57
Total	112

Flint, by Matt Leivers

A total of 491 pieces of worked flint, generally in good condition, was recovered from several pit fills and most likely represents deliberately deposited residue from knapping activity at or very close to the site. Complete reduction sequences do not seem to be present (very few primary flakes) suggesting either that only elements of the debitage were deposited or that cores had been prepared elsewhere prior to reduction. Table 3 gives the breakdown of the assemblage by type. There are very few tools (three

end scrapers and one battered cobble, probably a hammer); the technology and morphology of the debitage points to a Neolithic date and the presence of relatively high numbers of blade-like flakes among the smaller element (although only one true blade) suggests that the material should be dated to the earlier rather than the late Neolithic.

Table 3: Worked flint totals by type

Type	Number	%
Flakes	429	87.37
Blades	1	0.21
Irregular debitage	50	10.18
Cores and fragments	7	1.42
Scrapers	3	0.61
Hammers	1	0.21
Total	491	100

Discussion and conclusions

Of the six heavily truncated pits identified in the watching brief, several contained significant assemblages of early Neolithic worked flint and pottery. Although unstratified finds of Neolithic worked flint and to a lesser extent pottery are fairly widespread in the region, relatively few *in-situ* assemblages are known, making the discoveries reported upon here important in both local and regional terms. Similarly dated pit groups are known from the wider area, including Coneybury Hill (WSSMR SU14SW138), Salisbury Livestock Market (WSSMR SU12NW100), Hemp Knoll (WSSMR SU06NE109) and Bishops Cannings Down (WSSMR SU06NE110, 111 and 129).

Due to the localised nature of the investigation it is not possible to determine whether the Knook pits form part of a settlement, although the nature of the finds is strongly indicative of domestic activity. In view of the evidence for later Neolithic and Bronze Age settlement in close proximity (Ellis and Powell 2008), it is entirely feasible that an early Neolithic settlement also existed in the vicinity.

The area investigated is situated on the same spur of land as Knook long barrow which lies 1.6km to the north-east. The barrow and pits are intervisible and it is tempting to associate the two with the barrow acting as both a burial place for the inhabitants of the putative settlement and as a visible marker to establish a claim or right to the surrounding land.

Acknowledgements

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Bronze Age metalwork from Manton Copse, Preshute, Wiltshire

by Andrew J. Lawson¹, Paul Robinson² and Gill Swanton³

This article documents the discovery of a group of bronze axes, and notes the valuable opportunity of recording a hoard under controlled excavation conditions. It also reviews previous metalwork finds from the immediate area, and considers the likelihood of original association between the new and old finds in the light of other Bronze Age hoards known from Wiltshire.

The circumstances of discovery

On Thursday, 10 June 1999, two bronze socketed axes were found by metal detectorists on the edge of a field on Weir Farm, situated to the east of Manton Copse, and in the southern part of Preshute parish (at NGR SU 173673: Wilts SMR SU16NE156). The first axe (No. S3, below) was found by Mr Paul Hart on the surface of the stubble field, but soon afterwards Mr David Philpotts and his son, John, found a fragment from a second axe (presumably No. S5) while searching the area around the initial discovery. Mr Hart later located the second half of this axe.

The field itself lies immediately to the south of the chalk ridge that defines the southern flank of the Kennet Valley to the west of Marlborough. Far reaching views across the valley and the Marlborough Downs beyond are gained from the ridge, but in the area of the find the views to the south are more restricted by the undulating topography and the woodland that grows on the Clay-with-flint capping of the Chalk.

The next day, the find was reported to Dr Paul Robinson at the Wiltshire Heritage Museum, Devizes, who immediately recognised the site from

an earlier discovery (referred to here as the Manton Copse 1 hoard; below), and the similarity between the axes represented in the new and old finds. He advised the finders that the locations of any further finds from the ploughsoil should be recorded accurately. Furthermore, any material found beneath the ploughsoil should be left in place, and the discovery reported so that it, if possible, it could be investigated by a suitably qualified archaeologist.

Metal-detecting resumed on Saturday, 12 June, when John Philpotts found a third, complete socketed axe (No. S1) within the topsoil. However, the careful investigation of a further faint signal was rewarded by the discovery of a palstave (No. 1) buried at a depth of 'about 6 inches' (15cm) from the surface, and another bronze could be seen immediately below it. Heeding the advice they had been given, and without disturbing the objects further, the finders contacted Dr Robinson to seek assistance. Consequently, Mrs Gill Swanton, who was visiting Wiltshire Heritage Museum at the time, was asked to visit the site, and with two student helpers she oversaw the excavation and recording of the buried objects. A further nine axes (Nos. 2-10), comprising seven more palstaves and two more socketed axes, were found tightly packed in a shallow pit cut into the orange clay subsoil, such that the deepest was no more than 20cm below the base of

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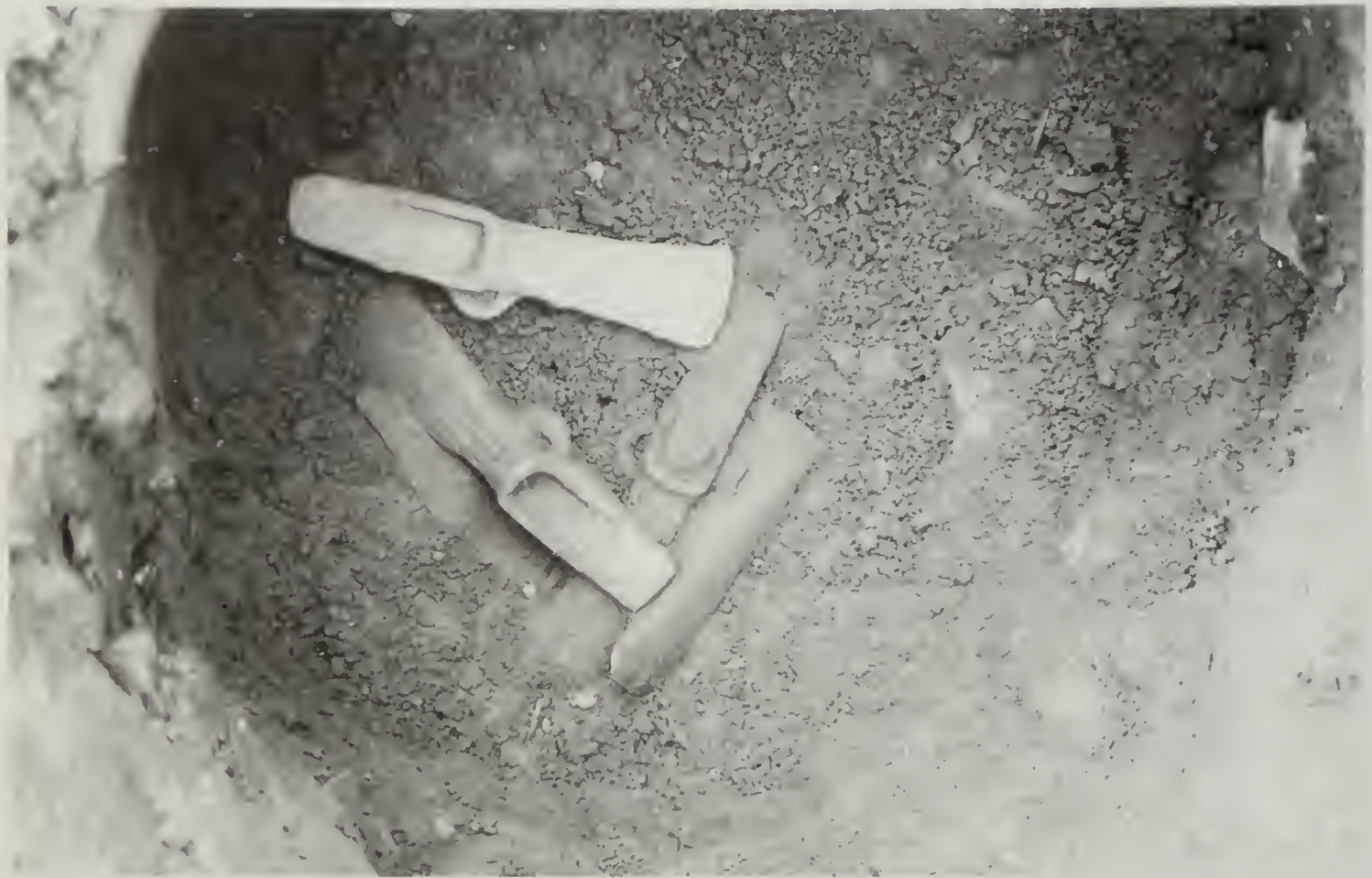


Fig. 1 Manton Copse Hoard 2: one of a series of photographs taken on 12 June 1999 during the excavation. A palstave (No.1) was the latest to be deposited. The butt of the palstave beside it (No.2), rests across the blade of a third example (No.3). To the right, a socketed axe (No. 4) lies on its side, and on the left, the side of a fourth palstave (No.5) slopes beneath the blade of the third palstave. Photo: Gill Swanton.

the topsoil (Figure 1). During the site investigation, the objects were numbered in sequence, and a series of photographs was taken to record the physical relationship between them. Because of the record made during the recovery of the buried objects, it is possible to state exactly how they were positioned in the ground (Appendix A). No evidence for a container was found. Nonetheless, there seems little doubt that the ten axes found together were buried simultaneously as a hoard, and that the types represented were current at the same time.

In addition to the axes, a worn Romano-British copper alloy coin and several pottery sherds of a similar date were collected from the general area. A single flint-gritted sherd from the shoulder of a carinated jar with finger-tip impressions was also recovered. The latter is probably of later Bronze Age date (*cf.* All Cannings Cross (Cunnington 1923, fig 40.2) or Potterne (Gingell and Morris 2000, 151-2)) and is broadly contemporary with the bronzes.

Once they had been lifted from the ground, all the objects were taken to Devizes, but subsequently the detector users located another socketed axe (No.

S2) nearby, bringing the total number of surface finds to four complete socketed axes and two fragments of a fifth (as well as the ten objects from the hoard and the miscellaneous items noted above). None of the axes was found more than 10m away from the buried deposit.

In 2001-2, all the axes were cleaned and conserved by Wiltshire County Council Conservation Laboratory (refs J483, J636). Thanks to a generous bequest from the landowner the 'A. Powys-Lybbe collection', as the finds should be correctly called, has been accessioned at Wiltshire Heritage Museum (DZSWS 2008.30.1-16: Appendix B). Two axes (Nos. S1 and 10) are currently retained by Mr Powys-Lybbe, but replicas of them are displayed with the others adjacent to earlier finds from the site (below).

Description

The bronzes discovered in 1999 are considered below in two groups: those from beneath the ploughsoil



Fig. 2 Manton Copse Hoard 2: numbered from 1 (top left) to 10 (replica; bottom right).

(referred to as the Manton Copse 2 hoard: Figure 2), and the dispersed pieces (Figure 3). Both groups comprise solely bronze axes, no other types having been found in the vicinity. Their surface appearance suggests that all the axes were manufactured from a copper alloy, almost certainly bronze, although the composition of the metal has not been analysed. They are all in good condition with a dark green patina, with some areas of superficial surface corrosion, but also some more-lustrous areas. Only one of the surface finds (No. S2) is more heavily corroded on one side, presumably reflecting the long exposure of that face. Dimensions and basic details are given in Table 1.

Table 1: Dimensions and characteristics of the axes found in 1999 at Manton Copse.

No.	L	W	Th	Flare	Ribs	Other decoration	Wt
Buried palstaves							
1	151	35	32		3	2 septum ribs	378
2	148	40	39	slight	3		383
3	148	47	37	*	3		424
5	142	42	33	*	3	2 edge ribs	370
6	157	41	34	slight	3	2 edge and 1 median ribs on one side	433
8	142	43	36	slight		2 recessed triangles	384
9	139	43	33	*	2	2 septum and 2 edge ribs	368
10	142	36	35	slight	3		387



Fig. 3 Manton Copse surface finds 1999: numbered replica of S1 (top left) to S5 alb (bottom right).

Table 1: Continued

No.	L	W	Th	Flare	Ribs	Other decoration	Wt
Buried socketed axes							
4	111	48	38	slight		Facetted; 11 mouth mouldings	203
7	103	46	30	*		Facetted; stepped collar	186
Surface socketed axes							
S1/A/1	96	50	42			Plain; faint collar	281
S2/F	96	44	39	*		Plain; faint collar	226
S3	98	50	43			Plain; faint collar	264
S4	90	47	35	*		Second moulding	178
S5a,b	(114)	47	31	slight		Deep collar; wing ornament	149, 48

L: length; W: width of cutting edge; Th: maximum thickness (all mm); Wt: weight (gm)

The Manton Copse 2 hoard

The hoard comprises eight palstaves and two socketed axes. The palstaves are similar to each

other in form, having narrow blades and minimally expanded cutting edges. However, the tips of the cutting edges are variable, so that some are noticeably more flared than others (for example in Nos. 3, 5 and 9). In profile, the rounded stop ridge is characteristically high above short, low flanges that meet the septum below the butt. Each palstave bears a single lateral loop, but the decoration of the blades is varied. In five examples (Nos. 1, 2, 3, 5, 10) the upper part of the blade is decorated with three short longitudinal ribs, two examples (1 and 9) also having two longitudinal ribs on each face of the septum. Another palstave (6) has a single median rib with additional ribs on the edges of the blade, while another (9) has two median ribs and edge ribs. The final example (8) has two recessed triangles on the upper part of the blade. The butt of each palstave shows where the casting gate has been detached without further fettling.

Palstaves are a characteristic form of the Middle Bronze Age. However, all the palstaves represented in the Manton Copse 2 hoard can be placed in the 'Late' type. Such axes are found throughout Britain in a variety of subtly different forms (the closest to the Manton axes, has been labelled Type Isleham: Schmidt and Burgess 1981, 160). Late Palstaves probably developed in the Late Bronze Age Wilburton Tradition around the 11th century cal BC, as the examples in the hoard from Bentley, Hampshire show (Lawson 1999, 102-3). However, they are also frequently present in the hoards of the succeeding Ewart Park Tradition, dated to the centuries either side of 900 cal BC (Needham 2007).

Both socketed axes from the Manton Copse 2 hoard have slender facetted bodies and a single lateral loop, and belong to the common form known simply as Facetted Axes (also known as Type Meldreth; Schmidt and Burgess 1981 204). However, one axe (7) has an octagonal sectioned body and a plain trumpet-shaped collar, the lower margin of which is defined by a step. The body of the second

(4) has ten facets and a flared cutting edge, while the trumpet-shaped collar is formed from 11 fine transverse ribs.

As these two examples indicate, variations in the form of the broader grouping of Facetted Axes can be isolated, but generally they are a characteristic component of hoards of the Ewart Park Tradition. Examples can be cited from many hoards in south-east England and northern France, such as Petters Sports Field, Egham, Surrey (where Needham (1986, 44-5) segregates them into his Class D), and the hoard from Wick Farm, Stogursey in Somerset (McNeil 1973, 49-50). The latter not only contains Late Palstaves and Facetted Axes but fragmentary Ewart Park swords and a range of other types that have been used profitably to demonstrate links between a number of contemporaneous metalwork traditions. Although the Facetted Axe was probably developed in south-east England, local manufacture is suggested by the rare bronze mould, probably for axe patterns, in the Donhead St Mary hoard, Wiltshire (below).

The dispersed axes

Four complete and one broken socketed axes were recovered in 1999. With the exception of the fragmentary axe (No. S5), all the dispersed bronzes are plain socketed axes, each with a single vertical lateral loop. They are poorly finished, dull castings with little elaboration. Each has a rounded mouth moulding and a trumpet-shaped collar, the lower margin of which is faintly marked on two of the examples (Nos. S3 and S4) but not on the others. One example (No. S2) has a hole in the body, a casting flaw. This axe and another (No. S1) have imperfectly cast loops. The rims of the sockets are poorly finished: once the casting jets had been broken off, the scars were not fettled. Two of the axes (Nos S1 and S3) are so similar in size and shape that they may have been formed from the same pattern. All four axes can be accommodated within the broad 'South Eastern Type', the predominant form in the Late Bronze Age Ewart Park Tradition. The type does not occur in hoards of the preceding Wilburton tradition, or in the succeeding Llyn Fawr phase (Schmidt and Burgess 1981, 212-6).

The fifth socketed axe is incomplete but is represented by two substantial fragments (Nos S5a/b). It has a relatively long, slender body and a trumpet shaped-collar that curves upward and

outward, the lower margin of which is defined by a step. A single lateral loop spans the base of the collar. The upper part of the body is decorated in an unusual manner with slightly raised 'wing' motifs. The narrowest part of the body beneath the collar is almost circular in section, whereas its lower part is sharply angular. The general form of this axe is related to Facetted Axes (above). A very similar axe with wing ornament, but with the lower margin of its collar defined by four grooves, forms part of the small hoard discovered in 2005 at Pencoyd, Herefordshire (Dr Brendan O'Connor pers. comm.).

The types of axes amongst the dispersed material are broadly contemporary with those in the hoard, even if the forms are not matched precisely. The slender axe with wing ornaments (No. S5a/b) belongs to the same general form as the Facetted Axes from the hoard, and it may have been broken by the plough when it was prised from its burial environment. Nonetheless, despite the proximity of the dispersed Bronze Age metalwork found 'nearby', it cannot be stated with certainty that it was originally deposited with the hoard. The axes may have been placed in the ground separately. Equally, they may have been lost accidentally at a different date or dates. In fact, they may result from events that were quite unrelated to the deposition of the hoard. This question of the integrity of the assemblage also needs to be viewed in the light of earlier discoveries near Manton Copse, and from Wiltshire as a whole.

The Manton Copse 1 hoard

Prior to the discovery in 1999, a different assemblage of socketed axes had been reported from near Manton Copse (Wilts SMR SU16NE150, referred to here as the Manton Copse 1 hoard: Figure 4).

This hoard was ' . . . found by Ernest Pile, a labourer, in the middle of a field near Manton Copse, in the parish of Preshute, March 18th, 1914. Seven whole and two broken socketed celts were found lying together, with ashes. Nothing else is recorded as found with them (Goddard 1917a 478). The brevity of this account means that little more can be said about the circumstances of discovery, or the precise location of the field in which the bronzes were found. It is not known what Ernest Pile was doing to have unearthed the objects, how thoroughly he searched the area, whether the objects had been



Fig 4 Manton Copse Hoard 1: numbered 1 (top left) to 10 (bottom right). No. 10 was recovered from a barn.

brought to the surface by ploughing or by some other activity. It has been assumed from the report that the objects 'found lying together' originally formed a single closed deposit or hoard.

However, '... in addition to the above nine celts, another was found about 200 yards from the site of the celts, at the same time' (Goddard 1917a, 478). There is nothing to account for the separation of this tenth axe from the others, and it may be a false assumption that originally it had been deposited with them. It was apparently retrieved from a barn (Annable and Simpson 1964, 70).

All ten axes were acquired by Mr J. W. Brooke, of Marlborough, a well-known collector, and in May 1916 they were purchased from him by the Wiltshire Archaeological and Natural History Society (Goddard 1917b). In February 1934, Devizes Museum suffered a burglary, during which four of the axes, together with other items from the collections, were stolen, and the remaining axes

became mixed with other bronzes. Fortunately, the hoard had already been described by Rev. E. H. Goddard (Goddard 1917a), and seemingly the axes had been drawn on record cards for the Ancient Bronze Implements Register held at the British Museum, so that the individual items could be recognised. Eventually, it became clear that the stolen material had been sold with false provenances to Ipswich Museum. Similarly, Bronze Age material from northern Germany (Lawson 1985, 65) that had been purchased from Pastor J. C. Zimmermann for the Stourhead Collection was also given bogus find spots in East Anglia. All pieces attributable to Devizes were returned to the museum in 1985. Because of the confusion caused by these events, the published catalogue of the hoard (Annable and Simpson 1964, Nos. 604-8; Piggott 1973, fig. 31) is incomplete but can now be revised.

Basic details of the socketed axes from the Manton Copse 1 hoard are given in Table 2. The

numbering follows that of Rev. Goddard (1917a), and is correlated with later publications in Appendix B.

Table 2: Dimensions of the axes found in 1914

No.	L	W	Th	Wt	C	F	Form
1	10.6	5.6	4.2	449	*		Welsh; 3 slightly oblique ribs
2	11.2	5.1	4.5	373	*		Ribbed; 2 median, 2 edge
3	11.1	5.0	4.5	364	*		Ribbed: 2 median, 2 edge; flaw
4	11.5	4.8	4.7	342		*	Ribbed: 2 median, 2 edge
5	(8.9)	(3.9)	(4.6)	191		*	Ribbed: 3 median, 2 edge
6	10.6	4.6	4.6	321	*		Ribbed; 5 median, 2 edge
7	9.1	5.0	4.4	246	*		Plain
8	8.9	4.9	4.1	215	*		Plain
9	10.7	5.0	4.4	174	*		Facetted; 13 ribs on collar
10	(8.6)	4.6	(3.3)	184		*	Ribbed: 3 median

L: maximum length; W: width of cutting edge; Th: maximum thickness; Wt: weight (gm); C: complete; F: fragmentary. Figures for incomplete dimensions are shown in brackets

Several different forms are represented in the Manton Copse 1 hoard, and both complete and fragmentary axes are present. All are in a similar sound condition with dark green patina, as previously described, although one (No. 8) appears to have been stripped by electrolysis. The finds comprise:

- 1 complete massive axe (1) with flat-topped, out-splaying mouth moulding, high-placed loop, no collar but three slightly oblique dependent ribs
- 2 complete ribbed axes (2 and 3) and another near complete axe represented by two conjoining fragments (4), with trumpet-shaped collars, squared but slightly curved cross-section, and decorated with dependent ribs, one on each edge of the blade, and two median ribs between. Although the dimensions are not particularly great, the axes have a massive feel to them. The two complete examples are so similar in dimensions and form that they could have been cast from the same pattern
- one similarly massive ribbed axe (5) represented by a substantial fragment lacking the cutting edge but with a trumpet-shaped collar, dependent ribs on each edge of the body, and three median ribs on each face

- 1 complete massive axe (6) with trumpet-shaped collar, the lower margin of which is defined by a transverse moulding from which depend five median and two edge ribs
- 2 complete plain axes (7 and 8), with simple trumpet-shaped mouths.
- 1 complete facetted axe (9), with octagonal body and trumpet shaped collar decorated with 13 fine transverse ribs

The socketed axe found about 200 yards away (No. 10) is represented by a substantial fragment lacking the mouth. Each face is decorated with three vertical ribs.

The axes are of typical Late Bronze Age types that can be matched elsewhere. No.1 belongs to the South Welsh type (Evans 1881, 119) which is also known more locally as the Stogursey type due to the large number of examples found in the Wick Farm, Stogursey hoard from Somerset (Needham 1981, 7; above). A large number of clay mould fragments discarded after the manufacture of this form of axe have also been found at Sigwells, near South Cadbury, Somerset, where evidence suggests the manufacture of Wilburton Type swords.

A distinct metalworking tradition that specifically used stone moulds for the production of Stogursey axes has been defined and named after the find spots of two such moulds from Bulford, Wiltshire, and Helsbury, Cornwall (Needham 1981). Similar moulds are known from another three sites, including Burderop Down, Wiltshire (Gingell 1999, 109-11). This Bulford-Helsbury tradition may have emerged during the currency of the broader Wilburton/Wallington traditions (Burgess 1976) but it is also securely linked to the succeeding Ewart Park tradition by the stratified find of a mould and hoarded metalwork from Petters Sports Field, Egham, Surrey (Needham 1986 and 1990), as well as by the Stogursey hoard itself.

Plain 'South Eastern Type' socketed axes, and forms with longitudinal ribs, are also frequently found in Ewart Park tradition hoards. Examples of both are represented in the Petters Sports Field hoard, where Needham has classified them as Class A and B respectively. The numbers of ribs varies but it is not clear whether the number has any great significance in defining the social groups who used the axes.

As noted above, the ribbed axes in the Manton Copse 1 hoard have rectangular cross sections and have a massive feel to them. Schmidt and Burgess (1981, 222) suggest that massive forms appear late in

the Ewart Park phase. Perhaps the form anticipates the altogether larger Sompting Type axes of the succeeding Llyn Fawr tradition (below).

Links between the hoards and the dispersed finds

The contexts of the different axe forms represented at Manton Copse are tabulated below (Table 3). The Stogursey type is only represented by a single axe in the Manton Copse 1 hoard. Similarly, ribbed forms only occur in the Manton Copse 1 hoard and by the fragment said to have been recovered from the nearby barn. Late Palstaves only occur in the Manton Copse 2 hoard and are not represented in the dispersed material. By contrast, Facetted Axes occur in both hoards and in the dispersed material, albeit that each axe has a different form. Plain socketed axes occur in the Manton Copse 1 hoard and similar (collared) forms appear in the 1999 dispersed material.

Table 3: Contexts of different axe forms at Manton Copse

	<i>Stogursey</i>	<i>Ribbed</i>	<i>Plain</i>	<i>Facetted</i>	<i>Collared</i>	<i>Palstave</i>
Manton Copse 1	*	*	*	*		
Barn		*				
Dispersed				*	*	
Manton Copse 2				*		*

A number of different interpretations can be considered to account for this pattern of occurrence. First, the evidence could be taken at face value, so that the finds represent two separate hoards and a number of dispersed objects. The latter may have derived from further hoards, or from individual events, yet were buried or lost in the same general area. This suggestion is supported by evidence from a number of locations where it has been conclusively demonstrated that a number of separate hoards of similar date were buried at the same location (for example at Ebbsfleet, Kent (Lawson 1995) or Langton Matravers, Dorset (Peter Woodward pers. comm.)). Furthermore, individual items of bronze metalwork have been found scattered across later Bronze Age sites: for example, from the settlement sites of Bishops Cannings Down and Burderop Down (Gingell 1992, 105-11), and from the accumulations at Potterne (Gingell 2000) and East Chisenbury

(McOmish *et al.* 2002, 60). The single Bronze Age sherd from the area (above) demonstrates the use of a different material, but adds little more to the general picture of Bronze Age activity in the area.

A second interpretation restricts the find to two separate hoards, and accepts that the dispersed material was dislodged from the buried contexts by different episodes of ploughing. Thus, it would be accepted that all the 1914 finds were originally buried together, and that the axe found 'about 200 yards' away had been displaced by the plough and recovered separately. Similarly, it would be accepted that all the 1999 finds had originally been buried together but that five of them had been displaced by ploughing. The dispersal of hoards by ploughing is a commonly accepted phenomenon. The wing-ornamented axe found in 1999, though not precisely the same as the buried Facetted Axe in Manton Copse 2, is of the same general character as the axes in both hoards. The plain collared axes are, however, not represented at all in the Manton Copse 2 material. If these had been part of that hoard, then it would be possible to suggest a coarse layering of the deposit: the palstaves formed the lowest element, the facetted axes lay to one side, while the plain axes formed the uppermost element. However, apart from an assumed proximity to the Manton Copse 2 hoard, and the typological similarity of certain axes, there is no proof that ties the dispersed objects directly to either hoard.

A third interpretation posits that all the objects originally comprised a single hoard that contained at least 26 axes (and no other types). Support for this suggestion comes from the fact that all the axe types represented were probably produced during the Ewart Park Tradition, and hence could have been in use at much the same time. Facetted Axes, albeit of different forms, were recovered on both occasions, and in the 1999 group from both surface and buried contexts. Similarly, plain axes, though again not of precisely the same form, are represented amongst the 1914 group and the 1999 dispersed material. The scale of the hoard would not be unusual for the Ewart Park tradition, and bearing in mind the general dearth of Late Bronze Age hoards from Wiltshire (below), it is tempting to group all the material together. Set against these observations is the lack of direct evidence for association, and the knowledge of multiple deposits from other sites (above).

Based on the currently available evidence, it is not possible to be certain about the original circumstances of burial of all the axes from Manton Copse. At least one hoard is represented (Manton

Copse 2) but it seems equally certain that ploughing (and possibly other activities in the case of Manton Copse 1) has disturbed the area and the burial context of the other objects. Moreover, the lack of precise details of the location and circumstances of the 1914 find hampers a more definitive conclusion.

Late Bronze Age hoards and associated finds from Wiltshire

At the time of reporting the Manton Copse 1 hoard, Rev. Goddard noted that the find was ‘... the more important, in that only one other “founder’s hoard” has been recorded for Wiltshire...’ (Goddard 1917a, 478). The ‘other’ hoard was discovered on ‘1 May 1896 by a labourer, L. Lewis, while digging for chert at the ‘Cliff’, near Donhead St Mary (Passmore 1932). The finder had taken the hoard to Lt. Gen. Pitt Rivers, who purchased the objects, and then displayed them at Farnham Museum, Dorset. Subsequently the hoard passed with other archaeological material from the Pitt Rivers Collection to Salisbury and South Wiltshire Museum, where it is on public view. As noted above, the hoard contains a bronze mould for Facetted Axes similar to No. 7 of the Manton Copse 2 hoard. It also contains two ribbed socketed axes of the same general type as those from the Manton Copse 1 hoard. Amongst the bronzes were eight winged axes, a type that arguably stimulated the design represented in No. S5 amongst the dispersed socketed axes recovered from Manton Copse in 1999. The socketed gouge, socketed hammer, bronze cake and whetstone in the Donhead St Mary hoard are not represented amongst Manton Copse finds. Nonetheless, the hoards are broadly similar in date, if not composition. The final components of the unusual Donhead St Mary hoard comprise a bronze bangle and three coils of heavy wire.

Since 1914, only two further substantial collections of Late Bronze Age metalwork have been found in Wiltshire. In 1971, a hoard of 25 socketed axes was discovered by soldiers cutting a trench at Figheldean on Salisbury Plain (Coombs 1979). All the types represented in the hoard are characteristic of the Llyn Fawr tradition, which marks the transition to the Iron Age during the 8th and 7th centuries cal BC (Needham 2007: O’Conner 2007).

The following year at least nine objects were

retrieved from sediments cut from beside the River Avon at Melksham. They all came from the same small area but were reported in two groups. The first group comprised three bronze spearheads, part of a bronze dirk, and two iron spearheads (Gingell 1979), and the second comprised three bronze discs or phalerae (Osgood 1995). The authors argued that all these objects could also be dated to the Llyn Fawr tradition, the manner of their disposal reflecting the depositional practices of the time, even if the objects were not strictly buried simultaneously. Dr Roger Thomas (1989, 272) has pointed out a particular depositional practice in the Wessex area at this time: when compared with other areas of England, the rate of deposition of bronze metalwork increases, while in other regions there is a marked reduction.

In 1985 two metal detectorists found at least 600 bronze artefacts in a field at Netherhampton, near Salisbury. The discovery contained artefacts from every stage of the Bronze Age, as well as later pieces. However, investigation of the site by Dr Ian Stead of the British Museum in 1994 demonstrated conclusively that the material had been buried in one of a number of large pits of Middle Iron Age date (Stead 1998). The site investigation revealed further bronze metalwork. These remarkable finds were clearly not concealed in the Bronze Age, and therefore they will not be discussed further here. Nonetheless, the ‘Salisbury Hoard’ and a small number of others demonstrate that a tradition for depositing bronze metalwork continued long after the end of the ‘Bronze Age’.

Association between Late Bronze Age metalwork has also been claimed from at least ten further locations in the county (Appendix C). However, the associations are not asserted with any confidence, and in some instances the types represented do not sit happily together. Evidence that the objects found at each of these sites were buried together is not forthcoming. Even if they were from the same location, they may derive from a variety of different activities (above).

This review of associated finds shows that verifiable hoards of Late Bronze Age metalwork are not common in Wiltshire. The few examples are varied in their composition, but the Manton Copse 2 hoard is the only proven example comprising a mixture of late palstaves and socketed axes. Although all the Manton Copse bronzes can be ascribed to the Ewart Park tradition and dated to the centuries either side of 900 cal BC, the overall character of the collection is different from many of the substantial hoards of southern England because it includes

neither swords nor spearheads. This absence of weapons doubtless reflects a prevailing philosophy on the way in which different types of metalwork should be treated. Contemporaneous swords and spearheads are known in small numbers from the county, but it appears that it was not appropriate to bury them with the more common axes.

The hoards from Figheldean and Melksham can be associated with a later metalworking tradition than the Manton Copse finds. A relative increase in the deposition of metalwork in this phase continues to mark distinct regional practices of deposition (above), but the context of the Melksham finds reflects the particular practice of disposal in watery places characterised by the eponymous Llyn Fawr hoard.

The recording of the Manton Copse 2 hoard *in situ* marks an important 'first' for Wiltshire. Never before in the county has a Bronze Age hoard been excavated under such controlled conditions. The value of an accurate record lies in the fact that it is possible to state with confidence the nature of the context of the deposit, the arrangement of the individual pieces in the ground, and the contemporaneity of the types represented. The arrangement of the objects does not seem to follow a regular pattern and, in the absence of any comparable records from the county, it is impossible to state whether the apparently random array is typical or not. Nonetheless, because the find lay directly beneath the topsoil, and because other axes have been recovered from the vicinity, it is appropriate to question the integrity of the hoard at the time of discovery. The importance attached by Rev. Goddard to the Manton Copse finds (by virtue of the rarity within the county of other substantial hoards) remains undiminished. Moreover, the significance is enhanced by the new finds from the same locality.

Acknowledgements

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Appendix A: Description of the disposition of the objects in Manton Copse 2 hoard

Ten objects were found in a small pit or depression at the base of the ploughsoil. At the base of the small pit three palstaves lay parallel to each other, two (Nos 8 and 9) on their edges and with their loops uppermost, while the third (10) lay flat. A socketed axe (7) lay obliquely to the palstaves, its body partly covering the haft of one of them (10). Its cutting edge was orientated in the opposite direction, and was lodged between the hafts of two of the palstaves (9 and 10). A fourth palstave (6) lay flat, directly above one of the lower examples (9), but placed in the opposite direction.

The remaining objects lay above the lowest five, and partly overlay each other in the following sequence: one palstave (5) lay roughly parallel to No.6 but on its side, with its blade orientated in the opposite direction and with its loop beneath it; another (3) lay flat and nearly at right angles to those below it; a second socketed axe (4) lay on its edge, orientated in the same direction, with its loop upwards and its blade partly overlapping the palstave beneath (3); above these was another palstave (2) orientated in the same direction as one at a lower level (6), but at a slight angle to it and with its haft laying across the blades of the axes directly beneath it (3 and 4).

Finally, the uppermost palstave (1) lay flat, once again orientated in the opposite direction to those beneath. It largely covered the socketed axe below it (7), while its cutting edge overlapped the haft of a palstave (3).

It is possible that at the time of burial some or all of the objects were strung together, because vegetable fibres, possibly from a string, were preserved in the loop of one of the lowest palstaves (9).

Appendix B: Correlation of numbering for bronzes from Manton Copse

1: Manton Copse Hoard 1: Nos 1-9 were reported to have been found together, but No. 10 was found nearby

<i>This report</i>	<i>Annable and Simpson 1964, 70 & 130</i>	<i>VCH I.2(1973) Fig 31</i>	<i>Brooke No.</i>	<i>Accession No. Devizes Museum</i>
1				1985.56
2				1985.57
3				1985.58
4	605	d		DM 1133
5	604	f		DM 1133
6				1985.54
7				1985.55
8	607	e	309	DM 1133
9	608	g	306	DM 1133
10	606	b		DM 1133

2: Manton Copse 1999 finds: Nos 1-10 were found buried together and are referred to here as Manton Copse Hoard 2. Nos S1-5 were surface finds.

<i>Site record/ this report</i>	<i>Conservation laboratory</i>	<i>Other</i>	<i>Accession No. All DZSW'S 2008.30.</i>
1	1202		7
2	1204		4
3	1206		3
4	556		14
5	1199		6
6	1200		5
7	557		11
8	1205		2
9	1203		1
10	1201		(replica)
S1	558	A, 1	(replica)
S2	559	F	13
S3	560		9
S4	561		12
S5a,b	562		15,16

Appendix C: Possible Late Bronze Age Hoards in Wiltshire

This list presents details of ten small collections of Late Bronze Age metalwork where an association between the objects has been stated or claimed. Some of the collections are housed in the Wiltshire Heritage Museum (Devizes) or Salisbury and South Wiltshire Museum, but the current whereabouts of the others are unknown and they are assumed to be in private hands.

In some instances, the lack of detailed records hampers verification: the hoards claimed from Ansty and from Brixton Deverill, for example, sound very similar (below). The large assemblages from Donhead St Mary, Figheldean, Melksham, Manton Copse and Netherhampton are noted in the main text (above) but are not listed here. Neither is the exceptional hoard of seven gold bracelets from Tisbury (Hawkes and Clarke 1963, 231-5).

A number of additional associations have been claimed but the assertions appear to be based merely on the fact that the objects were found in the same parish, even though the discoveries may have been made on different occasions. For example, the spearhead and socketed axe from North Wilsford and now in Newbury Museum, or the two socketed axes from Norton Bavant have been reported in this way, yet separate entries for each of these items occur in Grinsell (1957, 122 and 93 resp.).

1. Alderbury: SU175282 approx.: in 1907, 1 socketed chisel and 1 fragmentary socketed sickle were 'dug up in a field' (Moore and Rowlands 1972, Nos 67-8): in Salisbury Museum.
2. Alvediston or Ansty: ST956258 assumed: before 1949, 1 socketed axe and some broken bronze scraps were found in a gravel pit near Ansty Hollow (Shortt 1950).
3. Ansty: ST9628 approx.: in September 1984, 2 socketed gouges and 1 tanged chisel found by a metal-detectorist near Castle Rings, Tisbury were sold through Fox & Co of Yeovil. This is probably the same group of finds as that offered for sale by a metal-detectorist in 1984 but allegedly found near Castle Rings, Donhead St Mary (inf. Salisbury Museum).
4. Brixton Deverill: from the Cold Kitchen Hill area: ST8438 approx.: in 1987 Devizes Museum purchased from an antiquities dealer (Seaby) a socketed hammer and a narrow tanged chisel, said to have been found with six socketed axes, which were sold separately. A socketed gouge bought with the two objects is thought to be from Hanging Langford: in Devizes Museum.
5. Downton: site unknown: in 1864, 1 palstave was found *near* Downton, and in 1865, 1 socketed axe was found *at* Downton. Evidence for their association appears to be based only on the similarity of their patination (Moore

- and Rowlands 1972, Nos 38-9): in Salisbury Museum
6. Figheldean: site unknown: in 1971, 1 socketed axe and 1 piece of bronze scrap were shown to Peter Saunders of Salisbury Museum. They were thought to have come from a site 'nearer to Bulford' than the findspot of the Figheldean Hoard (Coombs 1979, 253): in Salisbury Museum
 7. Melksham Without: ST930650: in 1973, 1 socketed axe said to have been found in association with a fragment of a bronze sword (Devizes Museum Daybook)
 8. 'Shrewton': SU1043 assumed : 1892 or before: 1 socketed axe, 1 tanged chisel and 1 tanged razor were 'picked up by A Brinsdon ploughed out barrow in place called Oldfield, 1¼ m NW of Stonehenge.' 'Bt of E Scruse, Shrewton Oct 1892'. The site has not been located but the description would place it in Winterbourne Stoke parish: formerly part of the Pitt Rivers collection, now in Salisbury Museum
 9. Steeple Langford: SU02973516: in 1924, 1 socketed axe and 1 chisel found by R. S. Newall (OS Record Card SU03NW12). This is possibly the same as the palstave and Taunton-Hademarschen socketed axe also reported by R S Newall (Moore and Rowlands 1972, 55); in Salisbury Museum
 10. Wyllye: SU006348 assumed: On 23 June 1881, 'Charles Hibberd brought in from fields near Dinton Beeches, a lump of metal for casting and a small socketed celt...' A socketed spearhead had been found by Mr Hibberd's brother in 1880, and a fragment of a socketed axe was found later by R. S. Newall, who also claimed that Mr Hibberd had found other bronzes at the same place (Moore and Rowlands 1972, Nos 54, 66 and 49 resp.); in Salisbury Museum
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Late Bronze Age/Early Iron Age transition sites in the Vale of Pewsey: the East Chisenbury midden in its regional context

by *Paul C. Tubb*

Publication of the 1993 East Chisenbury midden excavation (McOmish et al. 2010) provided opportunity to consider this remarkable site in the context of recent and continuing work in the Vale of Pewsey and environs (Tubb 2009). Until recently, this part of Wiltshire has been neglected by the emphasis of prehistorians on the ancient landscapes of Salisbury Plain and the Marlborough Downs situated to the north and south of the Vale. New fieldwork has identified and quantified the nature and distribution of Late Bronze Age/Early Iron Age activity over an area of 240 square kilometres from Burbage to Bishop's Cannings. A combination of non-intrusive fieldwork, re-analysis of museum archives and aerial photographic analysis has shown that the previously known Late Bronze Age/Early Iron Age sites such as All Cannings Cross, Potterne and East Chisenbury were not isolated anomalous places but part of an unusually densely settled and utilised landscape.

Introduction

The East Chisenbury excavation indicated that the mound had accumulated between 850-600 BC (McOmish *et al.* 2010, 83). This period has been referred to as the Earliest Iron Age (Needham 2007, 40; Cunliffe 2005, 88-90) but, following Sharples (2010, 318-22), it will be termed in this paper the Late Bronze Age/Early Iron Age (LBA/EIA) transition. Prehistorians' understanding of the chronology of the LBA/EIA transition is hampered by the unsuitability of radiocarbon dating for the period, caused by a 'plateau' in the calibration curve, making for very poor resolution in dating determinations (Needham 2007, 42). Consequently, the interpretation of the timescale over which the transition from the Late Bronze Age to the Early Iron Age took place in central southern Britain is largely dependent on the identification of trajectories

of change in ceramic assemblages from a restricted number of sites.

The period between 800 BC and 600BC is characterized in northern Wiltshire by the replacement of Post Deverel-Rimbury Plain Wares (Barrett 1980) with All Cannings Cross Wares (Cunliffe 2005, 90-92), the deposition of Llyn Fawr bronze metalwork (Needham 2007; O'Connor 2007) and the appearance of iron artefacts (Cunnington 1923, 122-126) for the first time in the archaeological record. The gradual nature of the Late Bronze Age/Early Iron Age transition is emphasised by a recent analysis of Llyn Fawr metalwork (O'Connor, 2007). O'Connor argues, on the basis of evidence from Europe, the Llyn Fawr phase began around 800BC and lasted nearly 200 years (*ibid.* 73-4) and that it represents 'the final metalworking stage in the 1500-year-long sequence of the British Bronze Age'.

The Late Bronze Age/Early Iron Age transition is defined by the currency of All Cannings Cross Wares

assemblages, the composition of which change over time. Early All Cannings Ware assemblages comprise round-shouldered large jars with stamped in-filled decoration, bipartite bowls, sometimes burnished, and tripartite jars (Cunliffe 2005, 90). The Late All Cannings Ware series is defined by declining numbers of large decorated jars, an increase in the number of furrowed, carinated bowls, some long-necked and increasing use of haematite coating (*ibid.*, 92). Cunliffe is not able to assign a date to the emergence of the Late All Cannings Cross group, and some doubt its existence altogether (Sharples 2010, 321, f.n. 5), but at Potterne long-necked bowls were the dominant bowl form in Zones 7 to 2 (Morris in Lawson 2000, 150). The majority of All Cannings Cross wares were made using local raw materials although a minority of vessels incorporated inclusions from the wider region (Morris in Lawson 2000, 140-9). Whether the presence of these 'exotic' inclusions represent regional exchange of ceramics or raw materials, especially limestone, is debatable. The evidence from surface collection suggests many sites were producing their own All Cannings Cross type pottery evidenced by the presence of wasters and burnishing pebbles. Given the apparently local manufacture of the pottery, superficially the degree of uniformity across the All Cannings Cross ceramic tradition is striking. Many of the so-called fineware forms in the All Cannings repertoire imitate sheet copper vessels, especially the furrowed bowls, and the vast majority of vessel forms are strongly associated with the storage, preparation, presentation and consumption of foodstuffs.

The appearance of these novel forms of pottery may be a result of the reservation of increasing quantities of bronze for deposition, the search for new competitive media based on locally available resources and a marked expansion in feasting and middening activity. The rapid innovation of a repertoire of finely made, thin walled vessels intended for presentation and consumption of food that consciously imitate copper alloy vessels suggest LBA/EIA society was striving to maintain an established, and probably, expanding material culture strongly associated with feasting and display. Avery (1981, 32-4) has highlighted the strong stylistic links between furrowed bowls and copper alloy vessels (*e.g.* the Welby cup (Hawkes and Smith 1957, GB24 no. 6)) and, significantly, copper alloy sheet metalwork fragments, including a possible furrowed bowl, were recovered from Zones 10 to 4 of the Potterne Deposit (Lawson 2000, 191, fig. 72; Needham 2007, 44).

This ceramic repertoire is gradually replaced by the All Cannings Cross-Meon Hill group marking, Cunliffe argues, the beginning of the Early Iron Age (600 BC - 400/300 BC). Many of the pottery techniques employed in the Late Bronze Age/Early Iron Age transition persist into the later period but at a subsequent, undefined, stage in the Early Iron Age, a distinctive form of haematite-coated bowl, scratch cordon wares, with decoration incised onto the surface after firing (Cunliffe 2005, 99-100) appeared.

Previously known sites

Before the discovery of the East Chisenbury midden, a few spectacular sites dating from this period were known from the Vale and environs. The Cunningtons' excavation at All Cannings Cross (Cunnington 1923) resulted in the recognition of a Hallstatt phase to the British Iron Age for the first time. The excavation in Hither Combe beneath Clifford's Hill highlighted the wealth of material culture produced during the Late Bronze Age/Early Iron Age transition. A total area of 3400 square metres was excavated with the largest trench, some 2356 square metres, being opened in 1920-21. The findings of the excavations at All Cannings Cross continue to shape how the LBA/EIA transition is perceived. The site is currently the subject of re-examination by a team from the University of Sheffield led by Professor John Barrett and David McOmish of English Heritage.

The publication of the excavations at Potterne (Lawson 2000), although only based on analysis of a portion of the material recovered from a sample excavation of approximately 0.17% of the site, revealed a massive accumulation of 'midden' material. Situated 1km north of the only large re-entrant valley cutting the northern scarp of Salisbury Plain between Upavon to Bratton, the site is located on the north-western facing spur of Potterne Field, an outlier composed of Lower Chalk and Upper Greensand. Following the discovery of a gold bracelet during grave digging at Potterne cemetery, three seasons of excavation were undertaken between 1983 and 1985 with the main trench (Cutting 12) being excavated in 1984 (*ibid.*, 8-12). Initially it was assumed that the site was small but the results of the 1983 excavation and a subsequent auger and magnetic susceptibility survey indicate that it covers a minimum of 3.5 hectares. The LBA/EIA black-

earth deposit reached a maximum depth of 1.3m to the immediate north of the ridge edge (*ibid.*, 12-3). Significantly the LBA/EIA site overlay a Middle Bronze Age site.

The Hassocks site on Martinsell Hill, Pewsey, was identified by Owen Meyrick following wartime ploughing (1946, 157). A series of significant LBA/EIA finds were subsequently made in the 1970s (SMR SU 16 SE 207). The site (cent. SU 1715 6347) covers approximately 2.5ha on the south-western slope of Martinsell Hill running towards the Giant's Grave spur end enclosure and is the subject of ongoing fieldwork. The site consists of a group of ploughed-out palisades or small ditches along with a number of black-earth patches and is located at the upper end of a transverse track running up Martinsell's southern slope to the saddle between the main hill and the Giant's Grave spur. One palisade forms an enclosure, still partially visible on the ground, and others form structures associated with the herding of livestock. When ploughed, patches of black earth are visible both within and without the enclosure and are associated with a series of hut platforms and terraces.

Blacknall Field, or Black Patch, Pewsey was identified as an artefact scatter during a programme of fieldwalking by the WANHS Field group in the late 1960s. The site (cent. SU 1530 5807) was subject to a programme of excavation between 1969 and 1976: the archive has remained untouched for some thirty years but has recently undergone basic finds processing in preparation for publication (Tubb forthcoming a). The site comprised a substantial spread of black-earth, although ploughing has reduced the depth of the deposit considerably. When excavated, it was found that the site had been reused as an Early Anglo-Saxon cemetery (Annable and Eagles 2010) and a number of the grave cuts were intrusive into LBA/EIA subsurface features. The prehistoric pits and postholes were most visible where they cut into the underlying chalk with LBA/EIA pottery and animal bone recovered largely from these cut features. The site continues to produce surface scatters of material, some of which have been deposited in the Wiltshire Heritage Museum (Accession No. DZSWS: 1990.292). The excavation only investigated one part of the site and the full extent of the black-earth deposit has not yet been quantified.

During fieldwork in the 1980s Tom McCulloch unwittingly collected LBA/EIA ceramics from a field to the west of Church Farm Field Barns, All Cannings (McCulloch 1998), but never recognised

the potential of the site. The site was 'rediscovered' by Sheffield University during their excavations at All Cannings Cross in 2003 and trenches were excavated the following year. The site is visible from the air as a patch of black-earth centred on SU 0880 6295 and bears a striking similarity to soilmarks at All Cannings and Allington Bridge.

New LBA/EIA sites

Fieldwork, aerial photographic analysis and re-evaluation of museum archives have identified new sites dating from the Late Bronze Age/Early Iron Age transition in the Vale of Pewsey and its surroundings (Tubb 2009). In total, 51 sites (Figure 1) have been identified as potential LBA/EIA sites: 29 sites show definite LBA/EIA activity. These locations (Table 1) were confirmed as dating from the LBA/EIA transition on the basis of artefactual evidence combined with aerial photographic analysis and site survey. Sites such as the Hassocks/Giant's Grave complex at Martinsell were subject to further intensive surface collection, geophysical analysis and surveying.

An additional 12 sites are probably LBA/EIA in origin (Table 2), but there is currently insufficient confirmatory evidence. Evidence generally consists of an individual find from the period; other sites are placed in this category on the basis of morphology or association. These are unsatisfactory and any attempt to define further the dating of these possibilities requires further fieldwork *e.g.* All Cannings Down (Tubb forthcoming b).

A further 10 sites possibly date from the LBA/EIA transition (Table 3) but currently have either no chronologically diagnostic evidence associated with them or the evidence is contradictory. The Cunningtons' excavation of the Wilsford Hill Iron Age pits (NMR SU 05 NE 6), for example, found haematite coated All Cannings Ware alongside metalwork dating from the first century BC/AD in what was probably a deliberate act of redeposition. In a number of instances, however, the similarity to other known LBA/EIA sites is sufficiently strong to suggest these may well date from the same period.

Black-earth sites

McOmish *et al.* (2010) define the East Chisenbury site as a midden, stating that a substantial component of

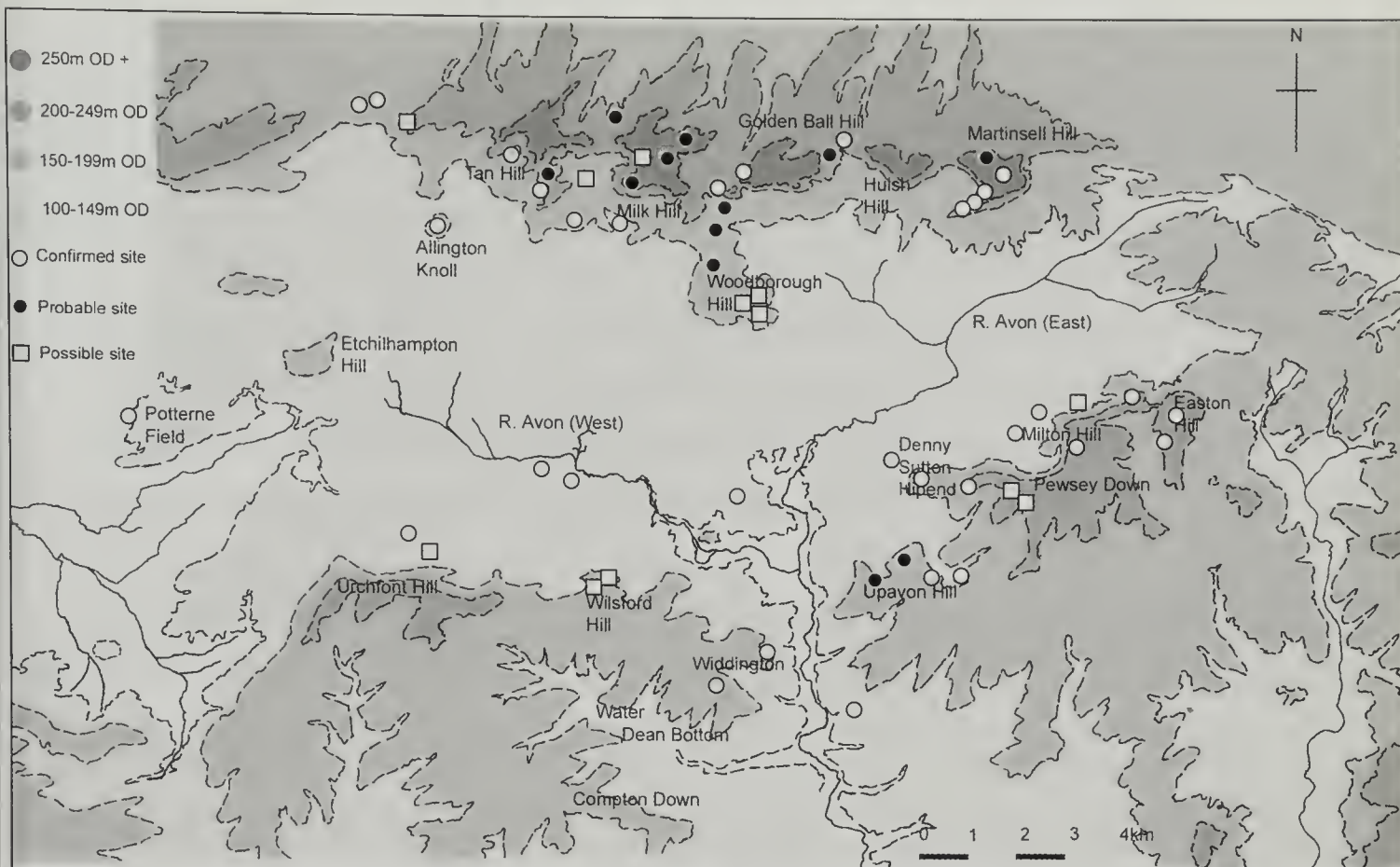


Fig. 1 Distribution of LBA/EIA sites in the Vale of Pewsey and environs

the site comprised 'disposed domestic rubbish' (*ibid.*, 84). They argue the site came into being in three ways: the accumulation of refuse from domestic settlement; as a result of sporadic and massive depositional events incorporating the consumption and disposal of huge quantities of meat, the disposal of pottery, some associated with food processing and presentation, and the incorporation of large quantities of animal and human bedding or, thirdly, the final resting place for the disposal of deposits that had been first accumulated elsewhere. None of these formation processes are, of course, inimical to each other. The emphasis by McOmish *et al.* on disposal of what they interpret as 'rubbish', however, may be inappropriate. Excavations at Dunch Hill, Tidworth, Wiltshire (Bradley *et al.* 1994, 49-50; Andrews 2006) have shown that middening was taking place in the Salisbury Plain area during the Plain Ware phase of the Late Bronze Age. The site at East Chisenbury, however, is the product of complex processes far in excess of anything seen in the area previously.

Sharples (2010) has drawn attention to the work of Mary Douglas (1966, 1970) on what became known as Cultural Theory, specifically her concepts of boundedness and pollution within small-scale societies. He argues that artefacts deriving from outside the normal bounds of a society can be potentially polluting to that society (Sharples

2010, 301) resulting in their disposal in 'structured deposits'. It has already been noted that the great majority of vessel forms in the All Cannings Cross ware series were strongly associated with the storage, preparation and consumption of food and drink. Potentially, the vast majority of All Cannings Cross wares were intended only for feasting activities, an impression strengthened by the deliberate imitation of high status sheet copper vessels. Parker Pearson's (2003) observation that almost all the archaeological evidence for the consumption of foodstuffs dating from prehistory results from feasting is insightful in this context; consumption of meat may have only taken place at events we would term feasts in the LBA/EIA transition. Perhaps the process of combining the remains of feasts with the by-products of the subsistence process rendered them beyond the bounds of normal society and emphasised both the importance of the subsistence base and feasting to the continued success of the group. Accordingly, these sites probably represent complicated processes of curation, feasting, competition and social reproduction that defy categorisation as middens.

Both open and enclosed black-earth sites are present in the Vale of Pewsey suggesting that these sites may have performed a diverse range of roles. Evidence from the Hassocks and Milton Hill Clump sites indicate that these were settlements

Table 1: Confirmed LBA/EIA Transition Sites in the Vale of Pewsey

Site	Parish	OS NGR	Type	Source
Bourton	Bishops Cannings	SU 0450 6524	Black-earth site	Robinson & Swanton 1993
Roughridge Hill	Bishops Cannings	SU 0450 6550	Pottery scatter	SMR SU 06 NW 205
Wedhampton	Urchfont	SU 0590 5720	Find spot	SMR SU 05 NE 203
Allington Down	All Cannings	SU 0930 6640	Pottery scatter	Swanton 1987, 13
Allington Down	All Cannings	SU 0975 6650	Pottery scatter	Grinsell 1957, 24
All Cannings Cross (West)	All Cannings	SU 0782 6365	Black -earth site	McCulloch 1998, 414
Allington Knoll	All Cannings	SU 0616 6258	Black-earth site	SMR SU 06 SE 201 & SMR SU 06 SE 210
Church Farm Field Barns	All Cannings	SU 0880 6295	Black-earth site	McC 29C (unpublished scatter)
McCulloch's Fields 32 & 33	All Cannings	SU 0965 6294	Black-earth site	McCulloch 1998, 413-4
Patney Hill	Patney	SU 0680 5990	Pottery scatter	SMR SU 05 NE 153 & SU 05 NE 211
West of Knap Hill	Alton	SU 1170 6370 & SU 1180 6380	Pottery scatter	SMR SU 16 SW 204
Golden Ball Hill	Alton	SU 1282 6435	Excavation	NMR SU 16 SW 92
Marden British Village	Marden	SU 0880 5783	?Black-earth site	SMR SU 05 NE 154 & SU 05 NE 204
Cats Brain	North Newnton	SU 1220 5730	Pottery scatter	SMR SU 15 NW 201
Gopher Wood East	Huish	SU 1435 6441 & SU 1440 6440	Pottery scatter	NMR SU 16 SW16; SMR SU 16 SW 154 ; SMR SU 16 SW 201
Giant's Grave Spur	Huish	SU 1665 6324	Spur end site	NMR SU 16 SE 4; SMR SU 16 SE 201
Manningford Bruce/Bohune Downs	Manningford	SU 1662 5580; SU 1605 5562	Find spots	SMR SU15 NE 151; NMR SU 15 NE 88
Casterley Camp	Upavon	SU 1157 5349	"Ritual" pits	Cunnington & Cunnington 1913
Widdington Farm	Upavon	SU 1278 5412	Enclosure	Fulford <i>et al.</i> , 2006
Martinsell West	Pewsey	SU 1745 6380	Black-earth site ?	Meyrick 1946, 157; NMR SU 16 SE 24; SMR SU 16 SE 203
Hassocks	Pewsey	SU 1715 6347	Enclosure/black-earth site	Meyrick 1946, 157; SMR SU 16 SE 207; Surface Collection
"Hawkes' Mound", Giant's Grave Spur	Pewsey	SU 16976 63333	Pottery scatter	Grinsell 1957, 121: Surface Collection
Southcott Field Barn	Pewsey	SU 1730 5905; SU 17936 58889	Pottery scatter	Anon. 1973, 130; Surface Collection
Pewsey Hill Farm	Pewsey	SU 1675 5765	Enclosure	Thompson N 1971
Denny Sutton Hipend	Pewsey	SU 1595 5777	Black-earth site?	SMR No SU 15 NE 208
Blacknall Field	Pewsey	SU 1530 5807	Black-earth site	Tubb, forthcoming
South-west of Fyfield Field Barn	Milton Lilbourne	SU 1830 5860	Pottery scatter	Devizes Museum Accession No: 1990.296.1
Milton Hill Clump	Milton Lilbourne	SU 1903 5876; SU 1916 5851	Black-earth site & adjacent enclosure	Surface collection; NMR SU 15 NE 49
Liddington	Easton Royal	SU 2018 5942	Enclosure/black-earth site	Surface Collection
Easton Clump	Easton Royal	SU 2121 5938; SU 2126 5796	Black-earth site	NMR SU 25 NW 24; SMR SU 25 NW 201; NMR SU 25 NW 4
Easton Hill (West)	Easton Royal	SU 2080 5800; SU 2060 5830	Black-earth site	NMR SU 25 NW 6; SMR SU 25 NW 209

for at least part of their duration; in both cases, hut platforms are evident. The presence of both an open black-earth spread and an enclosure at Milton Hill Clump may be indicative of change over time with one of the elements, probably the enclosure, succeeding the other. The complicated arrangement of ditches or palisades at the Hassocks suggests the movement and control of livestock was an important feature of these sites. All the black-earth sites have evidence of feasting in the form of butchered bone and All Cannings pottery and the difference in area may indicate a possible hierarchy in feasting/

middening activity. It may also be significant that all of these sites are either situated on or close to a prominent natural feature, visible for some distance. Additionally many, for example All Cannings Cross, Milton Hill Clump and Hassocks, are associated with what appear to be long-established north-south routes linking Salisbury Plain with the Kennet Valley via the Vale of Pewsey.

The presence of a further 10 black-earth sites in the northern and eastern portions of the Vale of Pewsey (Figure 2) has been confirmed by research undertaken by the present writer. The

Table 2: Probable LBA/EIA Sites in the Vale of Pewsey

Site	Parish	OS NGR	Type	Source
All Cannings Down	All Cannings	SU 0999 6529	Earthworks	NMR SU 06 NE 133
Rybury	All Cannings	SU 0832 6396	Hilltop enclosure	SMR SU 06 SE 202; Curwen 1930a&b
Milk Hill West Spur	Stanton St Bernard	SU1008 6381	Earthworks	Site inspection
Oxna Mere, Milk Hill	Stanton St Bernard	SU 1066 6411	Surface scatter/ earthworks	Site Inspection
Eald Burh	Alton	SU 1099 6449	Earthworks	SMR SU 16 SW 651
Foot of Knap Hill by Workway Drove	Alton	SU 1220 6330	Spot find	SMR SU 16 SW 205; surface collection
East Field	Alton	SU 1170 6300	Spot find	McCulloch Archive (unpublished)
Insall's Camp, Burlinch Hill	Alton	SU 1170 6198	Ploughed-out enclosure	SMR SU 16 SW 165 & SU 16 SW 211 ; Surface collection
Gopher Wood Multiple Ditch System	Huish	SU 1392 6421	Earthworks	Monument Survey
South of Bruce Field Barn	Manningford	SU 1567 5629	Ploughed out enclosure	SMR SU 15 NE 608
South-west of Manningford Bohune Field Barn	Upavon	SU 1430 5634	Pottery scatter	SMR SU 15 NW 631
Withy Copse	Savernake	SU 1721 6429	Excavation/find spot	NMR SU 16 SE 1: surface collection

Table 3: Possible LBA/EIA Sites In the Vale of Pewsey

Site	Parish	OS NGR	Type	Source
Black Furlong, South of Urchfont	Urchfont	SU 0505 5645	Soilmark	Local.live.com
Western Spur of Tan Hill	All Cannings	SU 0745 6485	Earthwork	Site inspection
Hill Barn	Stanton St Bernard	SU 0922 6375	Soilmark	Aerial photographs
Milk Hill	Stanton St Bernard	SU 1010 6430	Find spot	SMR SU 16 SW 207
Tawsmead Copse/ Pecked Hill/ Woodborough Hill	Alton/Woodborough	SU1220 6130	Soilmarks	NMR SU16 SW 100; 101; 103; 104; 112
Wilsford Hill	Wilsford	SU 0974 5579	Excavation	NMR SU 05 NE 6
Broadbury Banks	Wilsford	SU 0927 5555	Earthworks	NMR SU 05 NE 14
Black Knoll	Rushall	SU 1290 5614	Earthworks	Aerial Photograph: NMR 58/RAF/T.3021 Frame 165
The Spectacles	Pewsey	SU 1764 5737	Linked enclosures	NMR SU 15 NE 13
Lawn Farm curvilinear soilmarks	Milton Lilbourne	SU 1910 5930	Soilmarks	Aerial photograph

seven previously listed by McOmish (1996); East Chisenbury, Black Patch, Hassocks, All Cannings Cross, Bourton, Potterne and Erlestoke (Chisenbury Field Barn is omitted as there is no evidence of LBA/EIA activity (Fulford *et al.*, 2007)) are thinly distributed across the Vale and beyond. The current distribution shows clusters of sites at Milton Lilbourne and Easton, Martinsell, All Cannings and Stanton St Bernard.

All of these sites are characterized by spreads of black-earth containing LBA/EIA pottery, animal bones and burnt stone. They cover relatively extensive areas although there is considerable variation and further fieldwork is required to confirm the true extent of many sites. The Milton Hill Clump site (field centre: NGR SU 1916 5867) lies on the northern slope of Milton Hill. The site (Figure 3)

is composed of two elements, a 'black patch' to the north and centre of the field (central point NGR SU 1903 5876) and a ditched circular enclosure of approximately 130m diameter (NMR SU 15 NE 49: central point NGR SU 1916 5851) containing several smaller soil marks at the southern and highest end of the field. The pottery evidence, furrowed bowls and situlate jars in typical sandy fabrics, indicates both sites date from the LBA/EIA transition. The existence of both enclosed and open black-earth sites introduces a new element into the morphology of these sites. The existence of an enclosure around the site at East Chisenbury (McOmish *et al.* 2010, 73) is not proven in the absence of either geophysical survey or excavation, appearing on the ground as a series of terraces or hollow ways.



Fig. 2 Distribution of LBA/EIA black-earth sites in the Vale of Pewsey

Enclosures

The dating of enclosures in the Vale to the LBA/EIA transition has been problematic. Only four of 13 sites conclusively date from this period: Hassocks on Martinsell, Pewsey Hill Farm, Milton Hill Clump and Liddington (Easton Royal). A number of other enclosures, including the Spectacles, Rybury and Insall's Camp on Burlinch Hill, probably date from this period but are either too damaged or poorly investigated. These enclosures are on high ground and several either enclose the point of locally highest elevation or are situated in very close proximity to it. Sharples (2010, 57-62) notes that making a distinction between hillforts and 'simple enclosures' in the Iron Age on the basis of morphology alone is misleading. He argues that the size of the area enclosed, the location and what he terms the 'all-round visibility' or viewshed of a site are important defining characteristics. Although enclosures are often located on high ground, particularly spurs, they are situated on slopes that restrict their visibility from the surrounding area. Hillforts, in contrast, are rarely overlooked by higher ground and tend to visually dominate their surroundings. Few of the enclosures identified in the Vale of Pewsey

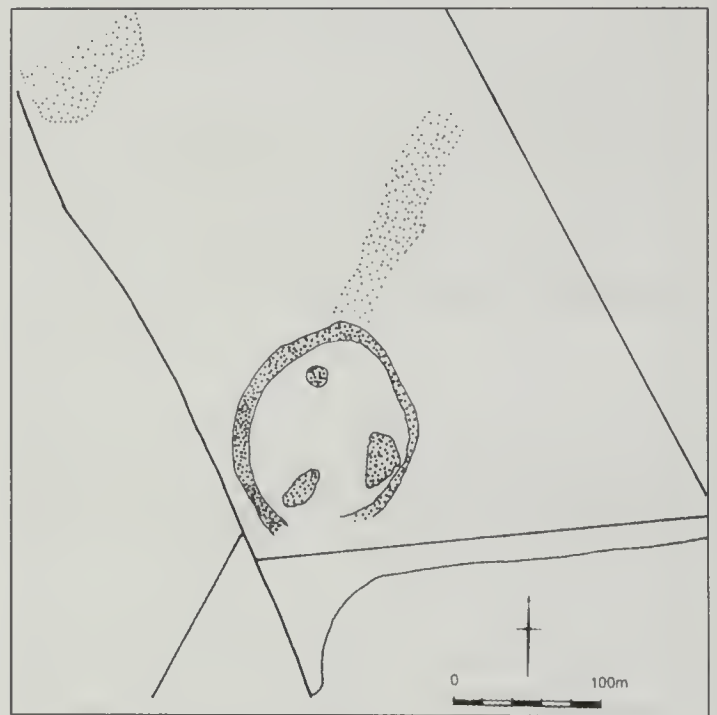


Fig. 3 Milton Hill Clump: transcription from aerial photograph (NMR 422/15: taken 13/11/1972)

visually dominate their surroundings. In terms of area enclosed, Sharples refers to the findings of the Danebury Environs Project (Palmer 1984, fig. 4) where enclosures were a maximum of 2.6ha and

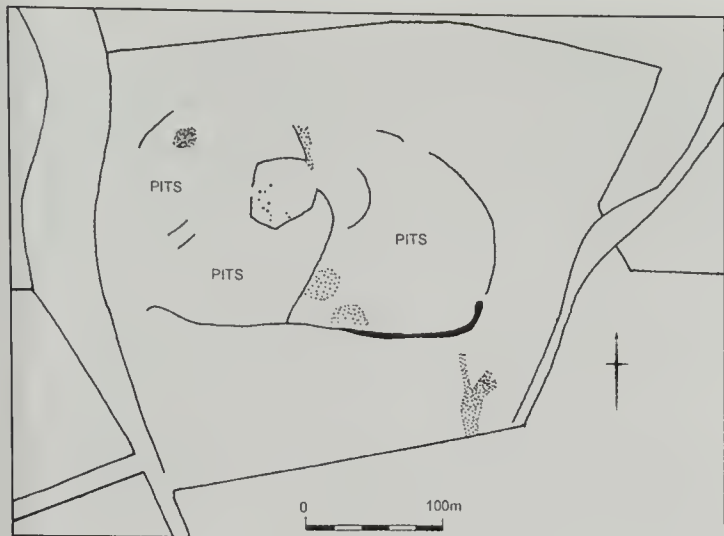


Fig. 4 The Liddington (Easton Royal) enclosure.
Transcription of recent satellite imagery

hillforts 3.7ha and above. In the Vale of Pewsey survey there is considerable variation in the area enclosed from less than a hectare (the enclosure south of Bruce Field Barn) (NMR SU 15 NE 3) to 7.5 hectares (Insall's Camp) but a number of sites have areas between 1.5 hectares and 3.5 hectares. It is interesting to note that Rybury is a small enclosure at 1.85 hectares. Most enclosures were defined by ditch and bank; certainly the extant sites are enclosed by a rampart; but some sites may have been surrounded by a palisade, for example Hassocks.

Variation in enclosure form is commonplace. Several are quite irregular (*e.g.* the *Eald Burh* and the enclosure on All Cannings Down), others (*e.g.* Milton Hill Clump, Pewsey Hill Farm and the Spectacles) are more circular. The complexity and variety of enclosure form in the Iron Age requires further examination, but work in progress on banjo enclosures (Mike McQueen *pers. comm*) suggests that no matter how haphazard the enclosure appears, it is the result of deliberate planning and execution and may be associated with an emphasis on ditches and their contents at this period (Hingley 1990). Given the paucity of dating evidence for a number of these sites, it is possible some of the more irregular ones, for example, All Cannings Down and the *Eald Burh*, predate the LBA/EIA transition (Tubb, forthcoming b).

The Liddington (Easton Royal) site (Figure 4) conforms closely to the *large curvilinear ditched enclosures* said to date from the Early All Cannings Cross phase (Cunliffe 2004, 76). It is larger at 4 hectares than many adjacent enclosures and contains large numbers, possibly hundreds, of pits revealed on recent satellite photography. *Contra* Cunliffe, the

enclosing ditch does not seem to have been very wide or deep on current evidence. A monument survey of the site revealed a LPRIA/RB open settlement imposed on top of the enclosure oriented at 90° to the main axis suggesting that the enclosure itself was no longer a marked feature by the end of the Iron Age.

Distribution of sites

The great majority of LBA/EIA sites in the Vale are located at its topographical fringes (Figure 1), either on the edge of a scarp or on the Vale-side slopes below a scarp. Very occasionally a site is located away from the chalk ridges bordering the Vale: the site at Allington Bridge is located 2 km from the northern ridge at a point where the Vale is 8.8 km wide and Insall's Camp on Burlinch Hill is 1.6 km south of Knap Hill where the Vale is 7.9 km wide. Both are located on chalk outliers. There are clear concentrations of sites in the Vale: Tan Hill and surrounding area; Knap Hill; Martinsell Hill and the Pewsey Hill/Milton Hill/Easton Hill environs. These concentrations reflect both the fact that they have been the focus of fieldwork past and present and also represent genuine concentrations of LBA/EIA activity.

To the north of the Vale, distribution of sites along the edge of the Pewsey Downs has notable gaps between Roughridge Hill and Tan Hill, at Huish Hill and activity seems to tail off east of Martinsell Hill. The westernmost gap may be the result of a lack of fieldwork as the distribution of prehistoric finds recorded by the Wilts SMR in the area is relatively sparse.

The dearth of sites or finds on Huish Hill does seem to reflect a genuine absence. A number of fields have been surveyed in the past six years but no finds later than the Mesolithic or earlier than the Late Pre-Roman Iron Age/Romano-British periods have been made. This suggests that Huish Hill, with its heavy Clay-with-Flints soil, was wooded into the late prehistoric period, clearance or thinning of forest cover only taking place at the end of the 1st millennium BC. Perhaps the area was a relict part of the Wild Wood, evidenced by the continued presence of Small-Leafed Lime (*Tilia cordata*) in Gopher Wood.

It is not clear why LBA/EIA activity dwindles to the east of Martinsell. If the absence is a genuine one, it is not reflected on the southern flank of the

Vale where there are a number of LBA/EIA sites on and around Easton Hill. This disparity between the two sides of the Vale suggests the absence of sites may be, partly at least, a result of the topography and soils of the Wootton Rivers area. Extensive tracts of Clay-with-Flints and the marked diminution of the northern scarp slope towards the east may have made the area less attractive for the LBA/EIA population.

On the southern edge of the Vale, there is an absence of LBA/EIA evidence from the vicinity of Casterley westwards to Urchfont and the Lavingtons, both on the Salisbury Plain scarp and to the north of it. This reflects both a lack of fieldwork in this area and the land management regime for the past century. LBA/EIA sites are most likely to be identified as a result of the practice of arable agriculture. The conversion of Salisbury Plain into military training estate in the late nineteenth century (McOmish *et al.* 2002, 4) largely halted the application of these techniques in this locality. LBA/EIA sites are difficult to identify on the ground if under herbage; the 're-discovery' of the East Chisenbury mound (*ibid.*, 73) is an excellent case in point.

The absence of LBA/EIA sites from the centre of the Vale is marked, with only a few locations such as Marden and two sites of uncertain status: Patney and Cats Brain. Surface collection around Wilcot, Alton and Milton Lilbourne has shown there is a consistent absence of activity throughout the prehistoric period. Apart from the occasional flint flake, very little evidence of activity before the end of the 1st Millennium BC is present. Late Pre-Roman Iron Age and Romano-British activity is focussed on a few locations; Bishop's Cannings, Stanton St Bernard Farm, Allington, Knap Hill and Martinsell (Pollard and Reynolds 2002, 154, fig. 63). The choice of location is very similar to those of the LBA/EIA period and, in a number of instances, Romano-British sites overlie LBA/EIA black-earth sites. The reasons for this paucity of prehistoric activity appear two-fold: the underlying geology of Greensand and the waterlogged nature of the soils in the Vale in the past.

Greensand is considered a difficult environment in which to raise arable crops by modern farmers and considerable intervention is required (Richard Adamson *pers. comm.*). The acidity of the soil would have been difficult to counter in the past without the benefit of modern liming agents. Furthermore, the propensity of Greensand to form impermeable ironpans in its soil structure would lead to waterlogging of the soil. Documentary

evidence for Cannings Marsh in the historic period reports that fields in the centre of the Vale continue to be wet and difficult to work to this day (James Read *pers. comm.*). During surface collection around West Stowell on fields deep ploughed for maize, it was noted that sedge peat was being turned up from beneath the ploughsoil. The elevation of the field in question is around 130m OD and there are substantial areas of the Vale below that height.

The combination of acidic soils and waterlogged soil conditions across much of the western end of the Vale, and isolated areas further east, explains the absence of LBA/EIA sites in the centre of the Vale. The presence of argillic brown earths overlying the Greensand in the Vale suggests dense and continuous woodland cover over several thousand years in the area. Field (2001, 59) criticised Bob Smith's view of the Vale as a 'tangled, marshy, impenetrable morass' (Smith 1985), but the available evidence does suggest that the centre of the Vale was a difficult place to live in successfully throughout the prehistoric period.

LBA/EIA sites, linears and field systems

Prehistoric field systems (Figure 5) are also only found on the edges of the Vale of Pewsey. Mixed farming was restricted to the outcroppings of chalk found intermittently through the Vale where the action of the ard, hoe or plough would combine the acidic topsoil with the chalk subsoil. The distribution of field systems on these chalk outcrops is not even, however, with apparent gaps existing between blocks of fields. One such gap exists along the foot of Huish Hill and may be due to the lack of Late Bronze Age/Early Iron Age sites found in the locality. Other gaps are a result of historical processes, for example the absence of a field system from the vicinity of Liddington (Easton Royal) is due to a re-ordering of field boundaries in the parish during the medieval period.

The orthodox view of the chronology of field systems is that they developed in the Middle Bronze Age and fell out of use during the late Bronze Age/Early Iron Age (Crawford, 1924; McOmish *et al.* 2002, 52-3 and 62; McOmish 2005, 133-6). This model ignores a continuing need for arable resources, unless we dismiss archaeological evidence in the form of quern stones and charred cereals found at LBA/EIA sites in the Vale such as All Cannings, Potterne and Hassocks (Cunnington 1923, 28-9; Lawson 2000,



Fig. 5 Distribution of late prehistoric field systems in the Vale of Pewsey: 1 Easton Hill east slope; 2 Lawn Farm, Milton Lilborne; 3 Martinsell Hill north-west slope; 4 Golden Ball Hill; 5 Eald Burh and New Town Farm; 6 Milk Hill; 7 Stanton St. Bernard; 8 Wayland's Penning, All Cannings; 9 All Cannings Cross; 10 Allington Knoll; 11 Patney Hill

84-91 and 242). Some field systems must have fallen out of use or have been turned over to grazing or hay-making for long periods but the suggestion there was widespread abandonment associated with the construction of defensive enclosures in a period of social stress (Field 2001, 60) is problematic. Fowler (2000, 82-92), in his excavation of Overton Down sites X and XI, demonstrated that arable agriculture continued in a field system first established in the Middle Bronze Age well into the Early Iron Age with the construction of a small open settlement site, the remodelling of the field system and its subsequent replacement by an enclosed settlement of late Early Iron Age date.

Evidence from the Vale of Pewsey indicates that field systems were initially established in the LBA/EIA transition. These include the Lawn Farm, Milton Lilbourne, system (Figure 6) and probably several others in the vicinity of All Cannings Cross, including Allington Bridge and Fields Mc 32 and 33 at Stanton St Bernard. There is no artefactual evidence to support a Middle Bronze Age date of origin for these fields with an absence of Deverel-Rimbury wares from surface collection. Furthermore, the fields in the Vale are somewhat

larger than those characterized as Middle Bronze Age: the latter are said to be between 25 and 35m sq. (McOmish *et al.* 2002, 54), which seems excessively small and may be an error in phrasing on the part of the authors (rather 35m x 35m, giving an area of 0.1225 hectares), whilst the former measure some 150m to 200m in length and width giving an area of between 2.25 and 4 hectares per field. The average size of the Middle Bronze Age fields investigated by Fowler (2000, 86) was 60m by 50m, an area of approximately a third of a hectare. The greater size of the fields in the Vale suggests a later date than the Middle Bronze Age and the strong geographical association between LBA/EIA sites and these field systems indicates an origin in that period.

On the edges of the Vale, Late Bronze Age/Early Iron Age sites are located on the edges of field systems in a manner similar to that seen at East Chisenbury (McOmish *et al.* 2010, 40-1). Many field systems are also found in close proximity to an LBA/EIA site located on the chalk scarp. It is possible the fields predate the LBA/EIA transition as the suggested date is premised on the absence of any earlier pottery from these fields. However, given the success of the Wessex Linear Ditches project



Fig. 6 The Lawn Farm, Milton Lilbourne co-axial field system

(Bradley *et al.* 1994) in collecting and identifying Deverel-Rimbury and Plain Ware pottery scatters from fields on the eastern side of Salisbury Plain, it seems likely that if such ceramics were present in the Vale they would have been found. The Vale has been subject to three major surface collection programmes in the past 40 years and, to date, no MBA material has been identified.

Field systems found in the Vale are largely co-axial in layout. Lawn Farm, Milton Lilbourne (Figure 6), still utilises tracks and some field boundaries first established in late prehistory. Aerial photographic and field boundary evidence suggest there are further co-axial field systems at Stanton St Bernard, Allington Bridge, Stowell and All Cannings Cross. Co-axial field systems are interpreted as being earlier in date (*i.e.* Middle Bronze Age) than aggregate systems (McOmish *et al.* 2002, 56) and there is evidence to support this hypothesis. The findings from the Vale of Pewsey, however, challenge this chronology of field system types with co-axial field systems being constructed well into the Iron Age with aggregate systems being employed on awkward, peripheral plots of land rather than being indicative of any relative chronology.

Field systems previously established on the chalk uplands in the Bronze Age appear to continue in use in the LBA/EIA but there is a marked expansion of field systems into the Vale. The striking degree of congruence between the orientation of linears and the field systems they flank on Tan Hill, Allington Down, All Cannings Down, Milk Hill, Golden Ball Hill, Draycott Hill and Martinsell infer that one was set out in relation to the other. The relationship between linears and field systems on the Pewsey Downs challenges the traditional interpretation of

the former as territorial markers. Recent work by Wickstead (2007) has criticised the use of concepts of territoriality in prehistory and recent analysis of linear earthworks in and around the Vale suggest that they were complex monuments not amenable to a single interpretation (Tubb forthcoming c). Many of these linears appear to define areas of differing land use and facilitate movement through the landscape whilst referencing monuments from previous periods of prehistory. Given the apparent association between LBA/EIA transition sites, field systems and linears at a number of these locations, it seems likely these upland areas were being farmed in the Late Bronze Age/Early Iron Age although the origins of these linears and field systems may pre-date that period.

The evidence suggests Cunliffe's (2004) and others' argument for the abandonment of field systems on the chalk following their slighting by linears in the Late Bronze Age requires revision. Rather it appears field systems were established in the Vale in the Late Bronze Age/Early Iron Age for the first time but were an extension of a long established agricultural framework found on the Pewsey Downs. The accepted view is that linears postdate field systems (Crawford 1924) and tend to 'slight' them, the implication being that the field systems fall out of use when the linear is constructed (Bowden 1990, 12). At times the intrusive nature of linear construction is overstated, for instance Cunliffe's (2004, 63) interpretation of the relationship between the field systems and linears to the north of Sidbury Hill (McOmish *et al.* 2002, fig. 3.6). The double linear running north from Sidbury cuts through very few field boundaries and linears to the east and west of the Sidbury Double may have been intended to create a cordon around the barrows found on Snail Down and Haxton Down (Tubb forthcoming c). The extremities of these linears are oriented on the axis of the respective field systems in order to minimise the number of fields bisected. Bradley *et al.* (1994) concluded many of the Celtic fields post-dated the linears around Sidbury Hill (*ibid.*, 150), although the dating evidence to support this assertion is not robust. It is clear that aerial photographic evidence does not provide data for establishing land-use chronologies and more robust data must be sought to avoid interpretations of land use in the Late Bronze Age/Early Iron Age transition that are not appropriate to every circumstance.

McOmish *et al.* (2010, 90) state that the East Chisenbury site is the focus of six linear features indicating the site's importance in the Later Bronze

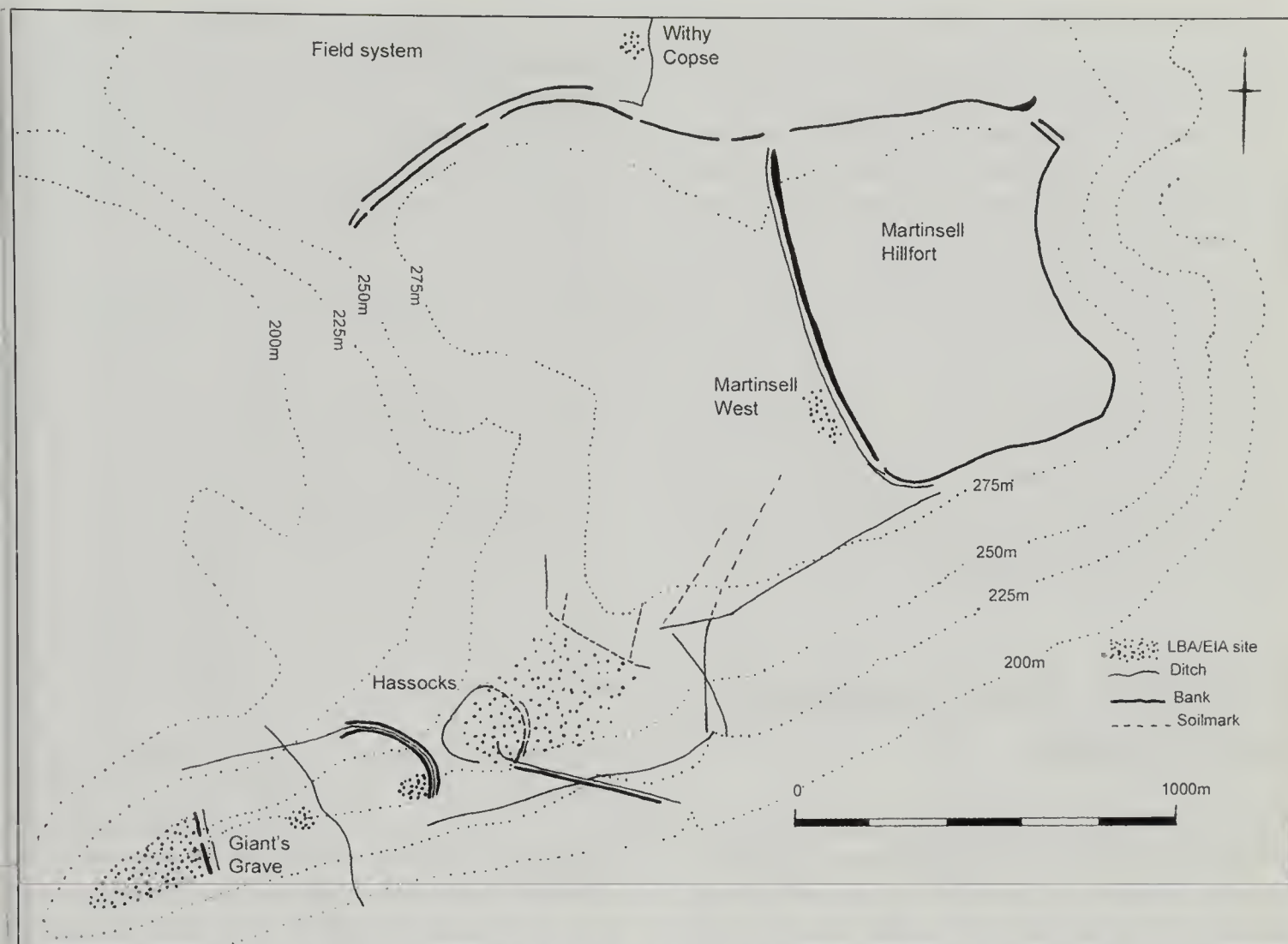


Fig. 7 Martinsell Hill: The relationship between LBA/EIA sites and the hillfort

Age. This association has been questioned (Sharples 2010, 53, fn. 27) and the assertion is not borne out by available aerial photographic plots (McOmish *et al.* 2002, figs i.1, 3.1) or site inspection. A small number of hillforts are also the focus for converging linear earthworks, most notably Sidbury, Quarley Hill and Casterley Camp. It is unclear what, if any, pre-hillfort activity occurred at Sidbury and the currency of at least some of the linear earthworks lasted up until the Middle Iron Age (Bradley *et al.* 1994). At Quarley Hill, recent investigation by the writer has found clusters of small black-earth patches, probably Iron Age hut platforms, located either side of a major (now ploughed-out) linear on the southern slope of the hill raising questions about the amount of significance placed on linears and their association with hillforts by some authorities (Tubb 2009). No black earth site in the Vale of Pewsey is currently associated with a group of converging linear features.

There are few unconforming linears crossing field systems in the Vale of Pewsey and its environs. Linears and field systems share a common orientation

suggesting an integrated system of land use, a pattern noted in the Test Valley around Danebury (Palmer 1984, 67). This suggests that the field systems found in the Vale and its surroundings were established at a later date than the complicated multi-phase systems found on Salisbury Plain and the Marlborough Downs.

The evidence suggests the Vale and its surroundings represent a cohesive agricultural landscape dating from the LBA/EIA transition; a landscape of colonisation and intensification. The location and orientation of field systems, linears and settlement sites indicate that the Vale was divided into a series of strips running from north to south incorporating both chalk upland and Vale floor. This arrangement appears to survive into the Roman period and, via a process of formalisation in the Late Saxon period, survived as the basis of the parish and tithing boundaries found in the Vale up to the local government reforms of the past two centuries. The liminal location of the settlement sites facilitated access to both biomes and, perhaps, the apparent 'pairing' of settlement sites as found at Milton Hill

and Denny Sutton Hipend intimate a degree of seasonal movement. The chalk uplands appear to have been utilised for arable farming together with the rearing of livestock, probably mostly sheep, but some cattle, on both pasture and rough downland grazing and, judging from the evidence of Potterne and East Chisenbury, extensive tracts of hay meadow. It is also likely that areas of managed woodland existed on the substantial deposits of Clay-with-flints found at the eastern end of the study area. A piecemeal and ever changing network of linear earthworks allowed the movement of livestock across this landscape whilst preventing damage to crops growing in field systems; simultaneously the earthworks and field systems reinforced social relationships through shared labour projects and the creation of a mythic landscape.

LBA/EIA black-earth sites and hillforts

Hingley (1978) in his discussion of past excavations at Wittenham Clumps, Oxfordshire, identified a number of hillforts associated with substantial spreads of Iron Age material 'outside' the enclosure circuit. These sites included Wittenham Clumps, Rybury and Martinsell; all these sites are found in proximity to large spreads of black-earth containing LBA/EIA material. Rybury with its anomalous arrangement of ditch and bank may well be the earliest hilltop enclosure present in the Vale. Hampered by the damage inflicted by extensive post-medieval quarrying, Rybury is still defined in terms of Curwen's analysis (1930) strongly influenced by his excavations at a similar site, Wolstonbury in Sussex, where pottery and artefacts of LBA/EIA transition date were found. Curwen's analysis is inconclusive, but the site's location does suggest an origin in this period and the enclosure may represent a stage in the transformation of settlements and spaces enclosed by linears into hill-top enclosures. Hingley's observation concerning Martinsell (Figure 7) was based on the work of Meyrick (1946) in identifying the existence of the Hassocks black-earth site; further spreads have subsequently been recognized at Martinsell, including two (Withy Copse and the west Martinsell spread) that are masked by Late Pre-Roman Iron Age and Roman deposits.

Needham (2007, 57) has suggested East Chisenbury should also be included in this group of hillforts associated with black-earth sites on the

basis of the presence of an enclosure. If that is so then he has misinterpreted the thrust of Hingley's observation: all three sites originally noted are substantial unambiguous structures unlike the putative pre-deposit enclosure at East Chisenbury; all the sites are located in places with recent histories of use as sites of significance in the LBA/EIA. Hingley's observation also holds true for a number of other sites in Wiltshire: a brief analysis of NMR entries for the environs of Oldbury (Cherhill) and Bratton Castle (Bratton) has identified, in the case of Bratton, substantial LBA/EIA activity in the form of casual finds immediately below the site of the Iron Age hillfort (Wilts SMR ST 95 SW 203) and indications of LBA/EIA activity around the flanks of Oldbury Hill (Wilts SMR SU 06 NW 156; 157; 159; 161; 210). Ongoing fieldwork suggests a similar relationship between a large LBA/EIA transition enclosure at Mother Anthony's Well and the hilltop enclosure of Oliver's Castle (Jan Dando pers. comm.)

Re-assessment of past work at Liddington Castle (Rahtz and Hirst 1996) indicates that it is likely that the hilltop enclosure overlies an LBA/EIA transition black-earth accumulation; a number of LBA/EIA black-earth sites are also located on the spurs jutting out westwards from the Liddington ridge. At Danebury, evidence of LBA/EIA activity in the form of a number of anomalous pits, probably featuring upright posts at their centres (*c.f.* Casterley) and structured deposits of animal bones, was identified (Cunliffe 1984a Fiche B1, B2, B4) along with the recovery of a substantial copper alloy hoard including Sompting and Armorican axes and Hallstatt C razors and chisels (*ibid.* 1984b, 335-40). Both hillforts were constructed in locations already rendered significant in the LBA/EIA transition.

Cunliffe (2005, 380-3) has argued for the existence of a group of large hill-top enclosures constructed during the LBA/EIA transition and McOmish *et al.* (2010) have claimed a strong association between the East Chisenbury site and Casterley Camp (Figure 8). This large enclosure is situated on the western side of the Widdington re-entrant and incorporates a 'tributary' re-entrant of the complex Water Dean Bottom system into its circuit. A square enclosure associated with a series of antennae-like linear ditches and reminiscent of similar arrangements found on banjo enclosures was located at the head of this 'tributary'. Casterley was excavated by the Cunningtons (1913) immediately before the outbreak of World War I and has been subject to extensive surface collection in the past

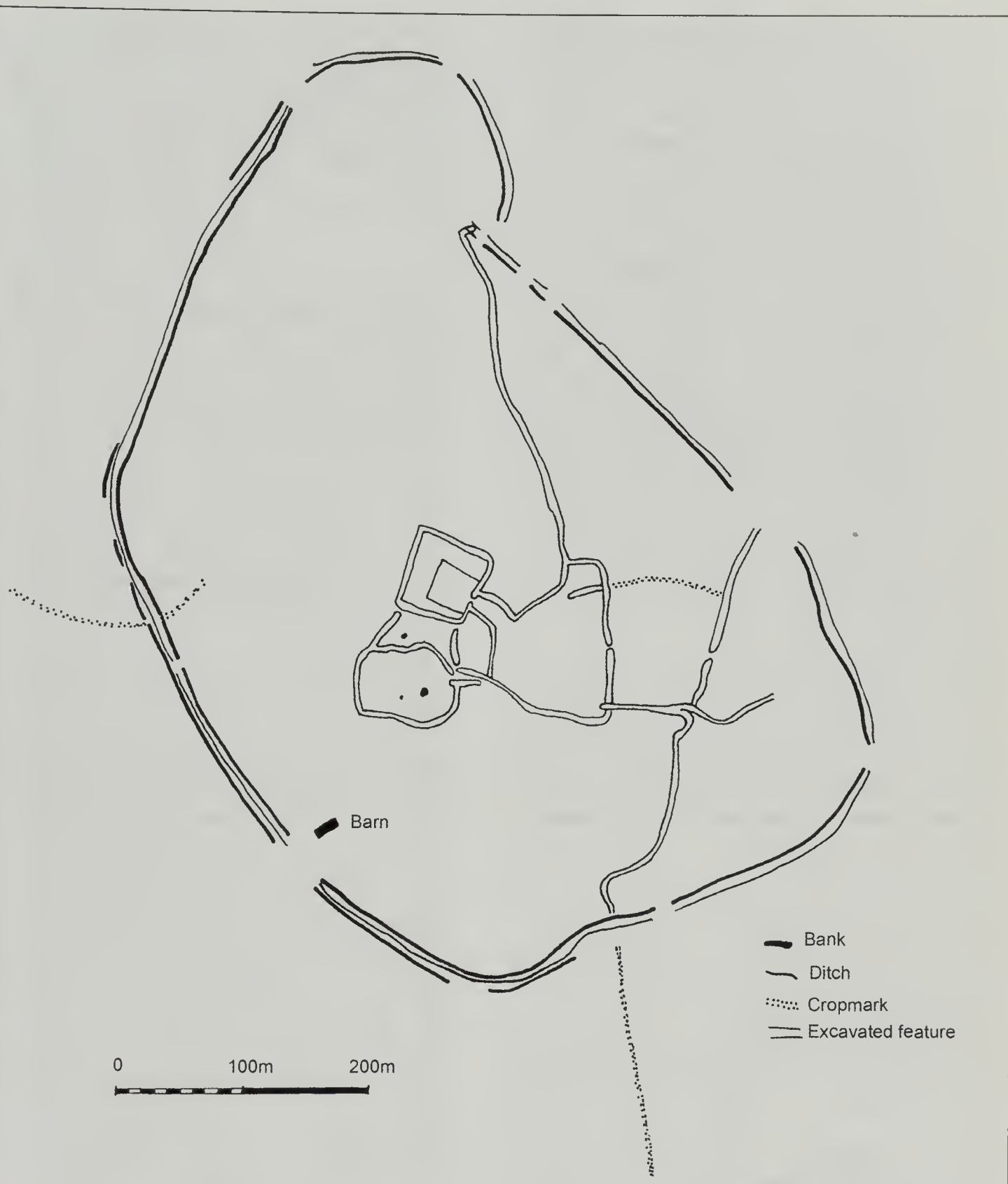


Fig. 8 Casterley Camp

decade (Tubb 2009). The majority of the artefacts and structures excavated by the Cunningtons were dated to the Late Pre-Roman Iron Age or thereafter including the enclosure ditch and rampart and the fill of several of the converging linears. Re-assessment of the excavation archive and the results of fieldwalking show that the site witnessed activity including Middle Bronze Age settlement, Wilburton

phase Late Bronze Age metalwork depositions and the construction of a shrine in the 1st century BC. However evidence of LBA/EIA activity is limited to a pit or ritual shaft with associated inhumations excavated by the Cunningtons (1913, 77) and a single sherd of All Cannings Ware found during fieldwalking from an archive of 980 LPRIA/RB sherds and located immediately above the site of the

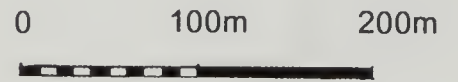
LBA/EIA Phase : Ditches 8a, 9 & 11



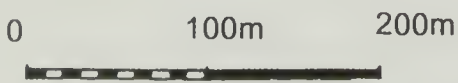
LPRIA Phase 1:



Rectilinear Enclosure, Ditches 8 & 10



LPRIA Phase 2: Irregular Encl. A, Ditches 6, 7 & 10



LPRIA Phase 3: Outer rampart

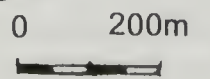
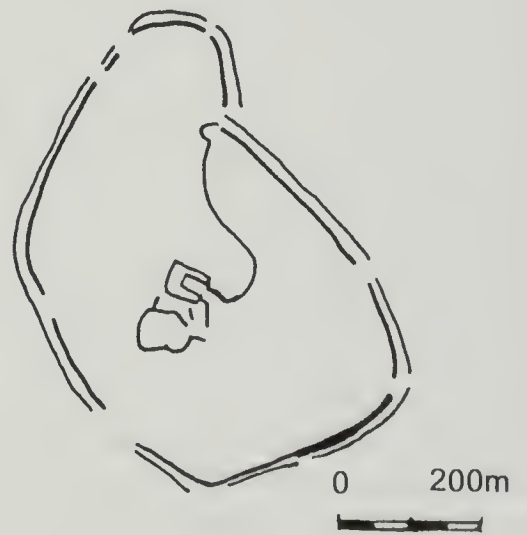


Fig. 9 Casterley Camp: phases of construction

excavated pit (Tubb 2009). The converging linears were, in several instances, either dug or recut in the century before the Roman invasion (Cunnington and Cunnington 1913, 65-9) and the enclosure circuit forms the last phase of Iron Age construction on the site (Figure 9). The case for an association between Casterley and East Chisenbury is hard to sustain beyond the broad contemporaneity of the ritual pit and the deposit.

The association of early hillforts with black-earth sites suggests, whilst the sites retained their importance in the latter phases of the LBA/EIA transition and into the early years of the Early Iron Age, the forms in which that significance was expressed changed. The accumulation of substantial quantities of dung, bedding and feasting debris ceased, although the timescale of this cessation is difficult to quantify, and was replaced by a greater emphasis on the construction of enclosures. These enclosures often consisted of substantial banks and ditches, strongly reminiscent of the structural grammar incorporated into crossdykes and linear ditches arranged to emphasise the 'separateness' of the interior space from the outside surroundings (c.f. Hingley 1984). Sharples (2007) sees the construction of hillfort circuits at this time as the product of competition that drew on labour and resources from a wide area (*ibid.*, 180). This is a very similar model to that proposed for the accumulation of black-earth sites; Sharples places the date of the construction of many of these early hillforts in the Early Iron Age stating that: 'In Early Iron Age Wessex, it would appear that almost everyone was living inside an enclosure' (*ibid.*). The dating of the construction of hillforts to the Early Iron Age is a reasonable assumption; the evidence seems to suggest they were constructed at the point when black-earth sites began to become less important. A limited quantity of Scratched Cordon Ware was recovered by Cunnington from the All Cannings Cross site and only four saucepan type vessels were identified from the same site. The absence of Scratched Cordon or saucepan type pottery and the presence of Jb1 and 2 jars from the Hassocks site on Martinsell Hill supports the notion that the site continued to be active for at least as long as the Widdington Farm enclosure (Fulford *et al.* 2006), perhaps as late as 600-550BC. If the black-earth sites on the summit plateau of Martinsell enjoyed similar longevity and the hillfort rampart is intrusive into some of those sites then, like Liddington Castle, the hilltop enclosure must date from the very last years of the LBA/EIA transition or the Early Iron Age.

If the Martinsell hillfort does date from the Early Iron Age, then it represents a new form of display within the long-established social framework of competitive feasting. Sharples (2007) has argued resources needed to be concentrated at the site of the intended hillfort prior to its construction and, hence, concentrations of storage facilities are often found in hillforts in the form of large pits and four-post structures. This is certainly true for a number of the Middle Iron Age 'developed' multivallate enclosures but the evidence for such a concentration of resources for the building of earlier hillforts is lacking. Early hillforts represent an intermediate step from the enclosure circuits present at sites like Easton Hill, Liddington (Easton Royal) and Pewsey Hill and the larger more complex enclosures seen, for example, at Barbury and Sidbury. Van der Veen and Jones (2006) suggest, on the evidence of preserved grain assemblages, that hillforts were foci of feasting activity. Concentrations of pits inside developed hillforts are interpreted as storage facilities for large quantities of grain intended to provide the basis of both, presumably, labour-feasts during the elaboration of these enclosures and socio-political feasts held once the hillfort had been constructed. Although largely concerned with the Middle and Late Iron Ages, van der Veen and Jones suggest this behaviour had its origins in the Early Iron Age. Hillforts replaced black-earth sites as arenas for feasting activities, remaining in a location strongly associated with a particular individual and/or group. What is more problematic is trying to understand why large sites such as Potterne, All Cannings Cross, and East Chisenbury never made the transformation to a large enclosure: perhaps the construction of larger enclosures at Bratton, Oldbury, Barbury, and Sidbury placed such demands on the existing subsistence structure that it transformed into a system focussed on a series of larger, less frequent places.

Significantly these larger 'developed' hillforts are generally situated away from the Vale (with the exception of Bratton) and this may suggest the area was, by the middle years of the Early Iron Age, becoming more marginal but, perhaps, in this period marginal in terms of settlement rather than subsistence activity. It is possible that crops were still grown in the field systems; the case for continuity of use is strong given the survival of field systems in parish boundaries and, most strikingly, as an extant co-axial system at Lawn Farm, Milton Lilbourne. Perhaps the agricultural land of the Vale formed detached holdings of settlements located on the

chalk to the north and south and the area became a backwater until the upheaval of the last century BC/first century AD.

Conclusions

The evidence indicates the Vale of Pewsey and its environs were densely settled during the LBA/EIA transition in contrast to much of the prehistoric period. The reasons for this sudden and relatively brief period of activity are unclear but are probably linked, at least in part, to the collapse of the long distance bronze trade in the early centuries of the 1st millennium BC. Although located in the part of southern Britain that still received bronze imports from northern France as part of the Llyn Fawr phase (O'Connor 2007), declining quantities of metalwork demanded the use of more local resources to perpetuate established forms of competition and social reproduction. A far greater emphasis on the products of the local subsistence base, combined with the easy availability of clays suitable for finewares and local sources of high quality iron ore (J. Barrett *pers. comm.*) facilitated the development of a thriving regional society in the LBA/EIA transition. The deposition of bronze metalwork was replaced by a new and greater emphasis on what was probably a previously established social arena, feasting. Existing patterns of middening were similarly altered at this time with the collection of monumental quantities of bedding and manure and the addition of material culture strongly associated with feasting. This suggests that middening was as important a social activity as feasting, to which it appears firmly linked at this time, and had become a metaphor of subsistence wealth. The need to maintain, perhaps increase, the output of the subsistence base led to the establishment of field systems and settlements in the Vale of Pewsey with their locations in part influenced by the availability of good soils, easy access to the surrounding downland and proximity to a routeway. The proximity of many sites to a prominent landmark also suggests that sites were intended to be visible from the surrounding area, another form of conspicuous display. By way of contrast, the East Chisenbury site lies on the periphery of this concentration suggesting that there is either a great deal of undetected LBA/EIA activity present on Salisbury Plain or the site is not simply anomalous in terms of its size and complexity. The East Chisenbury site does share locational criteria with its counterparts in the Vale of Pewsey being

located close to a significant routeway and having an extensive viewshed, although it is not located on or near a prominent landmark. Further work in the environs of East Chisenbury would establish whether it represents a particularly well preserved part of an extensive LBA/EIA subsistence system covering part of Salisbury Plain or whether it is an isolated monument located on the southern periphery of an intensively but briefly utilised area.

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Iron Age pits and decorated pottery at Strawberry Hill, West Lavington

by *Elaine L. Morris and Andrew B. Powell*

Part of an Early Iron Age open settlement was revealed in 1986 along the line of a water pipeline on Strawberry Hill, on the northern edge of Salisbury Plain. The exposed features consisted mainly of pits containing domestic waste, including a substantial assemblage of highly decorated Early Iron Age pottery, comparable to material from the nearby midden site at Potterne, as well as the middens at All Cannings Cross and East Chisenbury. The quantities of pottery in a small number of the pits may indicate feasting. A number of Late Iron Age/Romano-British ditches and other features were also recorded.

Introduction

In 1986 Wessex Archaeology undertook a watching brief during construction of a Wessex Water pipeline between Tilshead and West Ashton, Wiltshire. Part of an Early Iron Age settlement was recorded at Strawberry Hill, south-west of West Lavington, on the northern edge of Salisbury Plain (Figure 1). The site lies at the eastern end of a prominent ridge overlooking the Vale of Pewsey to the north, while to the east is a dry valley which joins up with that of the River Till to the south to form the main communication route through the western part of the Plain.

The geology is Lower Chalk, above which was a clayey loam subsoil. Features were recorded over some 210m, between NGR SU 300020 152550 (at c. 148m aOD) at the north and NGR 300100 152350 (c. 139m aOD) at the south. A 15m wide easement was established along the pipeline route, of which a c. 10m width was stripped; this widened to c. 25m at the north, where the pipeline route was altered.

Ninety-five features were identified of which 37 (39%) were either fully excavated or half-sectioned;

a number of others were observed in profile in the pipe trench, with finds being recovered from their exposed sections. The majority of these features were Early Iron Age pits, although a number of Late Iron Age/Romano-British features, mainly ditches, were also recorded. The features produced a substantial assemblage of highly decorated Early Iron Age pottery, comparable to the assemblages from the Potterne, All Cannings Cross and East Chisenbury middens (Lawson 2000; Cunnington 1923; McOmish 1996; McOmish, Field and Brown 2010), but recovered here from settlement features rather than from midden deposits.

Early Iron Age

Most of the Iron Age features, comprising mainly pits and postholes, fell into two distinct clusters, c. 20m apart (Figure 1). The larger cluster at the south, which extended 60m along the easement, comprised 40 pits, while that to the north (Plate 1), which extended for 20m, comprised 14 pits, 13 postholes and a shallow linear feature.

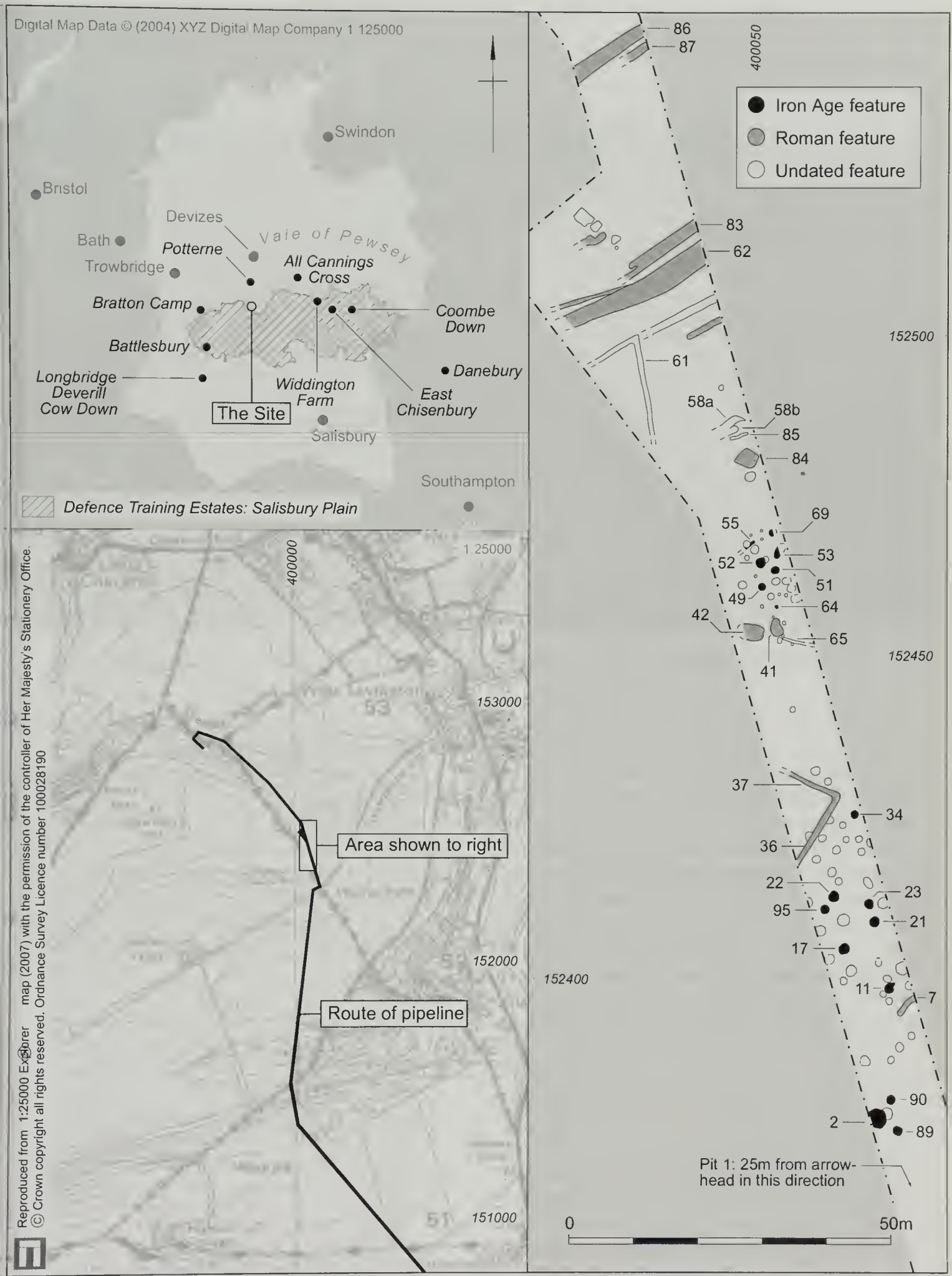


Fig. 1 Strawberry Hill: site location and plan of features



Plate 1 The northern group of features, viewed from south-west, with the Vale of Pewsey to the north

No obvious structures were identifiable, although the linear feature (55), which was at least 2m long, 0.45m wide and 0.1m deep and cut by a pit, was interpreted as a possible beamslot. However, it had no obvious relationship with any of the postholes, and these, despite in many cases being spaced 1–2m apart, formed no coherent pattern. The postholes had average diameters of 0.4m, and the three excavated examples were 0.4–0.5m deep; only one (64), which had a piece of Sarsen packing, contained any dating evidence (Iron Age pottery).

Within these two clusters many of the pits were spaced only *c.* 1m apart (or less), but few intercut with other Iron Age features. There were no significant differences between the pits in the two clusters. Most were circular, 0.8–2m in diameter (average 1.3m) and 0.22–1.05m deep (average 0.6), with steep to vertical sides and usually flat bases. Most had single fills, although one of the deepest (pit 34 in the southern group) had six, including a 0.05m thick charcoal-rich layer (346) on its base (Figure 2). In most cases the pits appear to have been deliberately backfilled, the fills containing a range of artefactual material generally characteristic of domestic and craft activity – pottery (including a piece of briquetage),

animal bone, worked and burnt flint, fired clay and Greensand quern fragments (Table 1).

This material, however, was deposited in widely varying quantities (Table 2), with the amounts from a few pits suggesting at least one special event of consumption and deposition. Notable among these was pit 21 in the southern cluster, which, at 1.6m in diameter and 0.85m deep, was otherwise typical in size and form (Figure 2). Above a thin layer of charcoal (214) on the base, the other three fills

Table 1: Quantification of finds by material type

Material	No.	Weight (g)
Pottery	1507	14286
<i>Iron Age</i>	1127	10419
<i>Romano-British</i>	350	3641
<i>Post-medieval</i>	30	266
Fired clay	31	115
Slag	2	66
Stone	5	2875
Flint	68	1408
Burnt flint	4	11
Human bone	3	36
Animal bone	2034	11968
Shell	24	32
Total	3697	30863

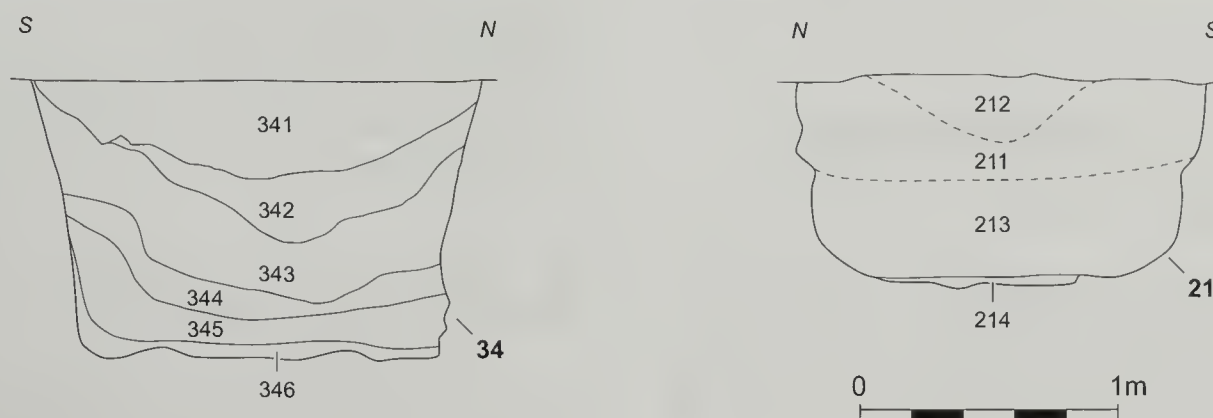


Fig. 2 Sections of Iron Age pits 21 and 34

contained 372 sherds (4391g) of pottery and 1.2kg of animal bone (the largest quantities of both these materials in any of the Iron Age pits), a fragment of Greensand possibly from a quern, and the only find from the site of any human bone (skull fragments).

Table 2: Quantity of Early Iron Age pottery by feature

Feature	No.	Weight (g)	Density g/m^3 *
Early Iron Age			
Pit 2	2	45	45
Pit 11	106	1204	1505
Pit 17	3	16	13
Pit 21	372	4391	2583
Pit 22	7	73	52
Pit 23	129	813	2032
Pit 34	19	283	134
Pit 49	104	551	689
Pit 51	30	271	387
Pit 52	109	748	935
Pit 53	62	1014	1014
Pit 55	1	10	-
Pit 64	10	31	-
Pit 69	28	442	-
Ditch 87	12	62	-
Pit 89	7	59	-
Pit 90	2	25	-
Pit 95	1	10	-
Late Iron Age/Romano-British			
Pit 1	1	2	-
Ditch 7	14	181	-
Ditch 36	6	122	-
Ditch 37	2	10	-
Pit group 41	16	148	-
Ditch 62	3	7	-
Ditch 83	1	8	-
Pit 84	13	111	-
Ditch 86	7	110	-
Unstratified	18	328	-
Total	1085	11075	

* Density of pottery within features only calculable where excavated dimensions recorded

It is probably significant that the closest pit to it (pit 23), which was of the same diameter but only about a quarter of the depth (0.22m), contained a further 129 sherds (813g) – and therefore had a comparable density of pottery (Table 2). These two features account for *c.* 47% by weight of all the Iron Age pottery recovered from the site, and their proximity, just 1.3m apart, suggests that the material in them may well represent sequence of deposition episodes of deposition. There were, however, notable differences in their pottery contents. While the mean sherd weight of 11.8g in pit 21, compared to only 6.3g in pit 23, may indicate that the more easily gathered material was deposited first in pit 21, with the more fragmented material being subsequently deposited in pit 23, there were more bowls (29) than jars (22) in pit 21, compared to the significantly higher number of jars (7) than bowls (2) in pit 23.

The settlement appears to have been unenclosed. Although a number of ditches were recorded to the north of the Iron Age features, those that contained dating evidence proved to be of predominantly Romano-British date and it is likely that the undated ditches were also of that period. The single possible exception was a short length of ditch (87), aligned approximately east–west, 0.55m wide and 0.25m deep with U-shaped profile, containing 12 sherds of Iron Age pottery and no later material. However, this appears too insubstantial to have represented any kind of settlement boundary and, as it was flanked to its immediate north by a more substantial Romano-British ditch (86) on the same alignment, it is possible that it was also Romano-British and the pottery residual.

A number of excavated features, including some pits and postholes, contained no dating evidence. These are assumed to be of Iron Age date, although it

is possible that some may have been associated with the low level of Romano-British activity.

Late Iron Age/Romano-British

Most of the Late Iron Age/Romano-British features were ditches, but those that were not were distinct in form from the Iron Age pits. Many contained varying quantities of redeposited Iron Age pottery (2-16 sherds) and it is likely that some of the other finds from them were also residual. The redeposited Iron Age pottery had a slightly higher mean sherd weight (11.1g) than the pottery from the Iron Age features (10.0g). The most southerly feature was an apparently isolated, shallow circular cut (1), 1.6m in diameter and 0.22m deep, which produced 48 sherds (415g) of Late Iron Age pottery, animal bone, shell, worked flint, fired clay and stone.

Within the southern cluster of Iron Age features was the south-western terminal of a slightly curving ditch (7) with a U-shaped profile, containing 13 Romano-British sherds, worked and burnt flint, animal bone and shell. Among the 14 sherds of residual Iron Age pottery was a grog-tempered sherd from a vessel also found in an adjacent Iron Age pit (11). To its north, an L-shaped ditch (36/37) contained nine Romano-British sherds and a small quantity of animal bone.

Within the northern cluster there were two adjacent features, each apparently comprising a number of intercutting U-shaped pits. Feature 42, one of whose fills consisted of a layer of dark grey ashy loam, contained eight sherds of 1st century AD Romano-British pottery, while feature 41 produced a further 50 Romano-British sherds (and 16 Iron Age sherds), along with animal bone and worked flint. It is possible that an undated gully (65), 0.45m wide and 0.22m deep, aligned south-east-north-west, which stopped just short of feature 41, was associated with it, as may have been a number of undated postholes which flanked both feature 41 and the gully.

Further north, a subrectangular feature (84), 2m wide and up to 0.65m deep with partly vertical sides and a flat base, produced 53 sherds of Romano-British pottery (and 13 Iron Age sherds), a fragment of a Greensand rotary quern and animal bone. It lay immediately south of the terminals of a shallow gully (85) and two parallel ditches (58a/b), all undated. The curving line of one of the ditch terminals gave it the appearance of one side of an entrance, the

opposite side of which would have lain west of the easement. A series of other largely parallel Late Iron Age/Romano-British ditches (as well as possible Early Iron Age ditch 87) was recorded towards the north of the site, one (61) with an arm running off it towards the south.

Prehistoric pottery

A single sherd of Middle Bronze Age and a sizeable assemblage of Early Iron Age pottery (Table 3) were recovered. The pottery is in good condition with a mean sherd weight of 10.2g, and very few abraded sherds or examples of sherd flakes are present. It was analysed and recorded in accordance with the guidelines established by Wessex Archaeology (Morris 1994a) and the Prehistoric Ceramics Research Group (PCRG 1995, 1997).

The assemblage is summarised here. However, due to its significance, based on its size, date and context, full descriptions and analysis of forms and fabrics, including more detailed tables, are available at Wessex Archaeology. An electronic database composed of 18 fields of data and 1:1 sketches of the 133 featured sherds, including rims, shoulder and decorated sherds, is available as part of the site archive.

Middle Bronze Age

A single, grog-and-flint-tempered (GF4) body sherd of Middle Bronze Age pottery was recovered from feature 1. The sherd, which is 10-11mm thick, probably derived from a Deverel-Rimbury urn or jar. This fabric type is similar to three of the fabrics from the assemblage of Early-Middle Bronze Age pottery at the nearby settlement at White Hill (White Hill fabrics GF1-GF3) (Morris, in prep.), and the vessel was likely to have been contemporary with at least some of the activity at that site.

Early Iron Age

Fabrics

Twenty-three fabric types within seven fabric groups (Table 3) were defined using a binocular microscope at x10 power. The terms 'fine', 'coarse', etc, are used to describe the inclusions and refer to the grain-size classifications of sediments (PCRG 1997, app. 7).

The most common fabric group, representing

Table 3: Prehistoric pottery quantification by fabric group

Fabric group	Count	Weight (g)	% by count	% by weight
<i>Middle Bronze Age</i>				
Grog and flint group	1	12	-	-
<i>Early Iron Age</i>				
Calcareous/oolitic limestone group	296	3848	27.3	34.7
Flint group	5	77	0.5	0.7
Grog-tempered group	4	80	0.4	0.7
Micaceous group	1	2	0.1	0.0
Quartz sand group	753	6603	69.4	59.6
of which Q4 + Q9	31	258		
Fossil shell group	22	351	2.0	3.2
Organic-tempered group	4	114	0.4	1.0
<i>Early Iron Age total</i>	<i>1085</i>	<i>11075</i>	<i>100.0</i>	<i>100.0</i>
Site total	1086	11087		

60–70% of the assemblage, is the *quartz sand group* (Q2 to Q9):

- Q3 very fine quartz sand with large flint detritus
- Q8 very fine quartz sand
- Q6 fine quartz sand
- Q2 fine to medium quartz sand, with large flint, shell & limestone detritus
- Q5 medium quartz sand
- Q4 medium to coarse quartz sand, with glauconite (Potterne FT62: Morris 2000a, 329-30)
- Q7 coarse quartz sand
- Q9 coarse quartz sand and glauconite, with shell & flint detritus (Potterne FT78: Morris 2000a, 329-30)

The second most common fabric group is the *calcareous group* (C3-C7), dominated by the presence of oolitic limestone inclusions, which represents 27–35% of the assemblage:

- C3 coarse to very coarse ooliths, oolitic limestone and fossil shell bearing rock, with quartz (Potterne FT51)
- C4 coarse ooliths and oolitic limestone with quartz (Potterne FT52)
- C5 coarse ooliths and fossil shell limestone with quartz and glauconite (Potterne FT53)
- C6 ooliths, iron oxides, quartz and ?glauconite
- C7 coarse ooliths and fossil shell

The *fossil shell group* (S1 to S4) represents just 2–3% of the assemblage:

- S1 fossil shell and limestone

- S2 sparse/moderate fossil shell with medium to coarse quartz
- S3 common fossil shell with fine quartz
- S4 sparse/moderate fossil shell with very common fine/medium quartz

The *flint-bearing group* consists of only five sherds distributed amongst three fabric types (F4, F8, F9) making up less than 1% of the assemblage. The *organic-tempered group* (V1), *grog-tempered group* (G4), and *micaceous group* (M1, just one small sherd), each make up 1% or less of the assemblage and are represented by one fabric each.

Sources of the pottery

Strawberry Hill lies on Chalk, but close to Greensand and Gault deposits (Geological Survey Sheet 282; Jukes-Browne 1905). The two glauconitic quartz fabrics in the assemblage match two found at Potterne, where glauconitic sandy fabrics were the commonest fabrics in the middle and upper parts of the midden (Morris 2000b, fig 43). Potterne, on Upper Greensand, lies next to Gault clay deposits containing quantities of quartz sand, which strongly suggests that its glauconite-rich fabrics had been made from clays in the immediate area. Without detailed scientific analysis, however, it is not possible to determine whether any of the other sandy wares at Strawberry Hill had also been made locally, or traded to the settlement, but it is most likely that at least Q2, the most common sandy fabric, was made from non-glauconitic clays found within 7km of the site (Arnold 1985, 32–60; Morris 1994b, 372; 1995a, 239; 2000b, 140).

The closest source of oolitic limestone rock and clays lies along the Jurassic Ridge over 25km to the north-west. This fabric group can be seen as a distinctive range of wares which had a significant presence in the Vale of Pewsey and Salisbury Plain during this period, as well as a wider distribution (Table 4). The nearest sources of geological fossil shell are the Kimmeridge Clay located 5km to the north and Oxford Clay 15km to the west.

With one exception, the Strawberry Hill fabrics that contain crushed, burnt flint could have been made locally. The most significant sherd of the flint group (F8), however, is the corner base from a brine-drying and salt-transporting container or briquetage saltpot (Figure 3, 5), which originated from the south Dorset coast where flint- or chert-gritted examples are known from the later Iron Age production site on the Fleet shore at Wyke Regis near Weymouth (Farrar 1963, 143). This piece is

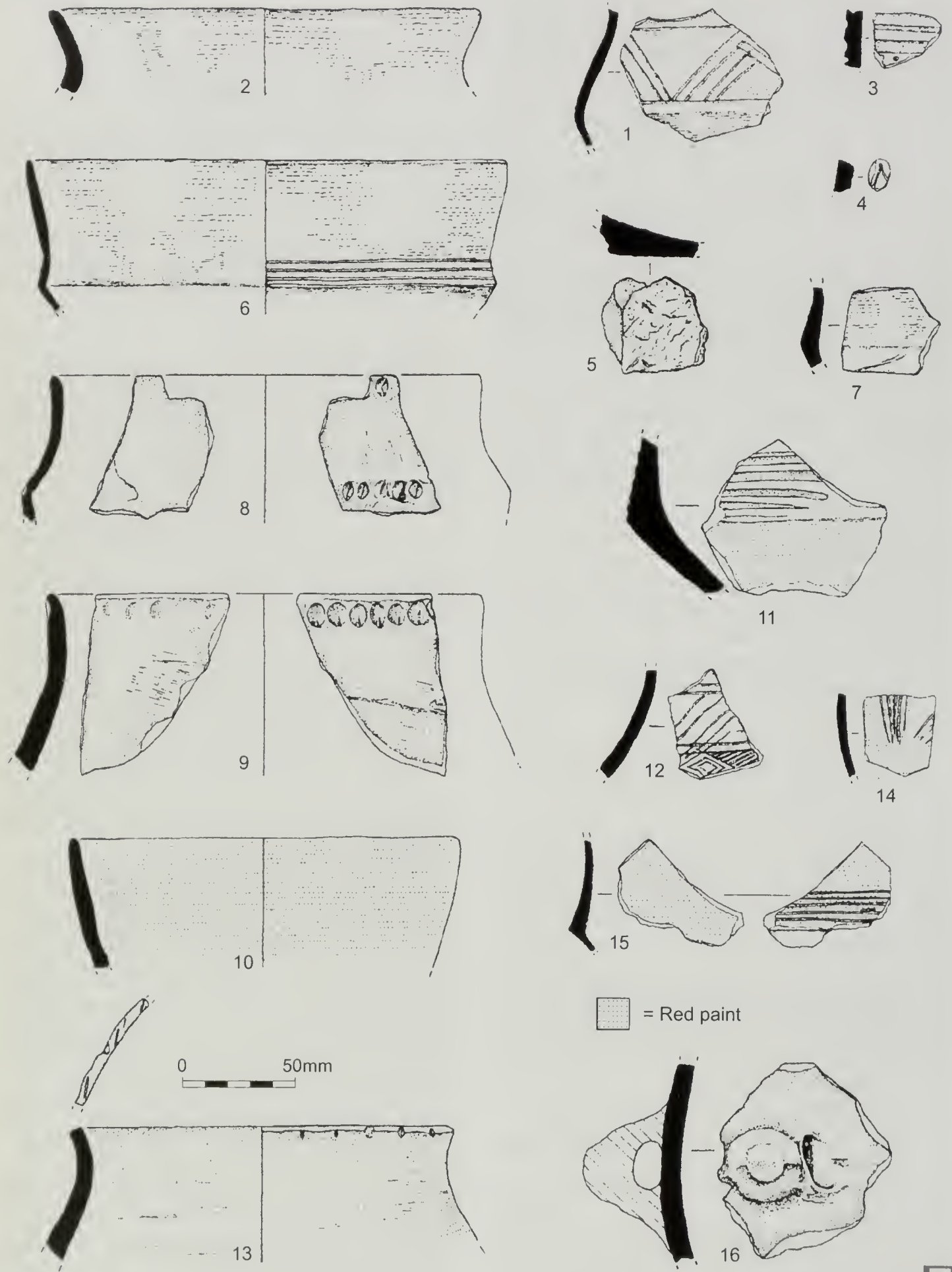


Fig 3 Iron Age pottery (1-16)



Table 4: Parallels for Iron Age fabrics, forms and decoration

Fabrics	Parallels
Glaucanitic quartz (Q4, Q9)	<i>Wiltshire</i> : Potterne, fabrics FT62 and FT78 are exact matches (Morris 2000a, 329-30).
Calcareous fabrics	<i>Wiltshire</i> : Potterne, oolitic limestone fabrics make up 25-28% of assemblage of final, undisturbed midden phase (Morris 2000b, table 19; Zones 3-4); All Cannings Cross, similar fabrics? – inclusions referred to as ‘pounded fragments of limestone’ (Cunnington 1923, 30). <i>Hampshire</i> : Old Down Farm to the east (Davies 1981, 91); Danebury (Cunliffe 1984, 246) and Iron Age sites in the Danebury region (Brown 2000, 121).
Fossil shell fabrics	<i>Wiltshire</i> : Potterne, a similar quantity of fossil shell fabric pottery in the final midden phase (Morris 2000b, table 19); All Canning Cross, fossil shell fabrics present (Cunnington 1923, 29-30).
Flint fabrics	<i>Wiltshire</i> : Potterne, 1–2% of the final phase of the midden (Morris 2000b, table 19) which undoubtedly included some redeposited material derived from centuries of earlier activity.
Organic fabrics	<i>Wiltshire</i> : Potterne, (Morris 2000b, 145); Maud Cunnington commented on this temper type in the All Cannings Cross report (Cunnington 1923, 30).
Grog-tempered fabric	<i>Wiltshire</i> : Potterne, grog-tempered pottery was found in the lowest deposits of Middle–Late Bronze Age date and was thick-walled (Morris 2000b, 143).
Micaceous fabric	<i>Wiltshire</i> : Potterne, micaceous fabric types were represented, but invariably also contained glauconite (Morris 2000a, 143), in contrast the Strawberry Hill glauconite-free fabric.
Forms	
Long necked carinated bowl	<i>Wiltshire</i> : common on Late Bronze Age/Early Iron Age sites in, e.g. Potterne (Gingell and Morris 2000, bowl type 2, fig.47), most common midden zones 3-6, ?date 8th to 5th century cal BC (Lawson 2000, table 1); All Cannings Cross (Cunnington 1923, pl 28,1,6); East Chisenbury (McOmish 1996, fig. 4, 5); Longbridge Deverill Cow Down (Hawkes 1994, fig. 5, 1-13) in House 3, associated with round bodied bowls.
Round-bodied bowls	<i>Wiltshire</i> : Potterne, <i>not found</i> ; All Cannings Cross (Cunnington 1923, pl. 28, 3–8). <i>Berkshire</i> : Blewburton Hill (Bradford 1942, fig. 1, 23–4, fig. 5, 49; Collins 1953, fig. 11, 7–8); Dunston Park (Morris and Mephram 1995, 80, type 9, fig. 39, 7) in association with long-necked carinated bowls. <i>Hampshire</i> : Danebury, round-bodied bowls belong to phases 3–4 which date from 470–310 cal BC (Cunliffe 1995, 17–18).
Shouldered jars and round-shouldered jars	Common forms found on all the sites listed for long necked carinated bowls and round-bodied bowls. <i>Hampshire</i> : Danebury, round shouldered jars characterised Early Iron Age occupation assigned to ceramic phases 3–4 (Cunliffe 1984, 261, fig. 6.28) and radiocarbon dated to the 5th–4th centuries cal BC (Cunliffe 1995, 17–18).
Ovoid jar	<i>Wiltshire</i> : Potterne (Gingell and Morris 2000, types 32, 51, 58; figs 54–9); All Cannings Cross (Cunnington 1923, pl. 29, 5–7, 9, pl. 38, 6; pl. 39, 4–6; pl. 40, 2); Budbury promontory fort, Bradford-on-Avon (Wainwright 1970, fig. 11, 5, 10–11). <i>Berkshire</i> : Dunston Park (Morris and Mephram 1995, types 1 & 4, fig. 39, 12–13, 18; Morris 1995b, fig. 42); Knight’s Farm 1 (Bradley, <i>et al.</i> 1980, fig. 34, 1–21; fig. 35, 22–5); Reading Business Park, in a few pits (Hall 1992, fig. 45, 66–9; fig. 50, 183–93).
Handle	<i>Wiltshire</i> : Potterne, this type of lug was usually found on incurved, biconical jars (Gingell and Morris 2000, jar type 33, fig. 54, 66); examples were also recovered at All Cannings Cross (Cunnington 1923, pl. 38, 4); and Budbury (Wainwright 1970, fig. 16, 117).
Decoration	
Decorative techniques and design	Many sites in the region: e.g. All Cannings Cross, Budbury, Dunston Park, Meon Hill (Liddell 1933, fig. x–xi; 1934, pls 22–5), Potterne, and Danebury, among others.

from a Hobarrow-type pan rather than a trough (Farrar 1975). The discovery of this item so far from its source is not unique; an identical fabric sherd was found at Bourton-on-the-Water in recent excavations of an Early-Middle Iron Age settlement (Morris, Gloucestershire County Council archive), in association with a fragment of Dorset shale bracelet. Shale roughouts and finished bracelets were recovered at All Cannings Cross (Cunnington 1923, pl. 26, 1–5), fragments of at least two bracelets

at Budbury promontory fort in Bradford-on-Avon (Wainwright 1970, 147, fig. 18, 137), beads, vessels, roughouts, bracelets and pendants at Potterne (Wyles 2000, figs 80–1), shale fragments at East Chisenbury (McOmish 1996, 72), and two fragments from an armlet at Battlesbury Bowl (Mephram 2008). Dorset shale objects have also been found in Early–Middle Iron Age deposits as far north as Beckford in Worcestershire (F. Roe, *pers. comm.*) indicating that there was a small, long-distance trade of special

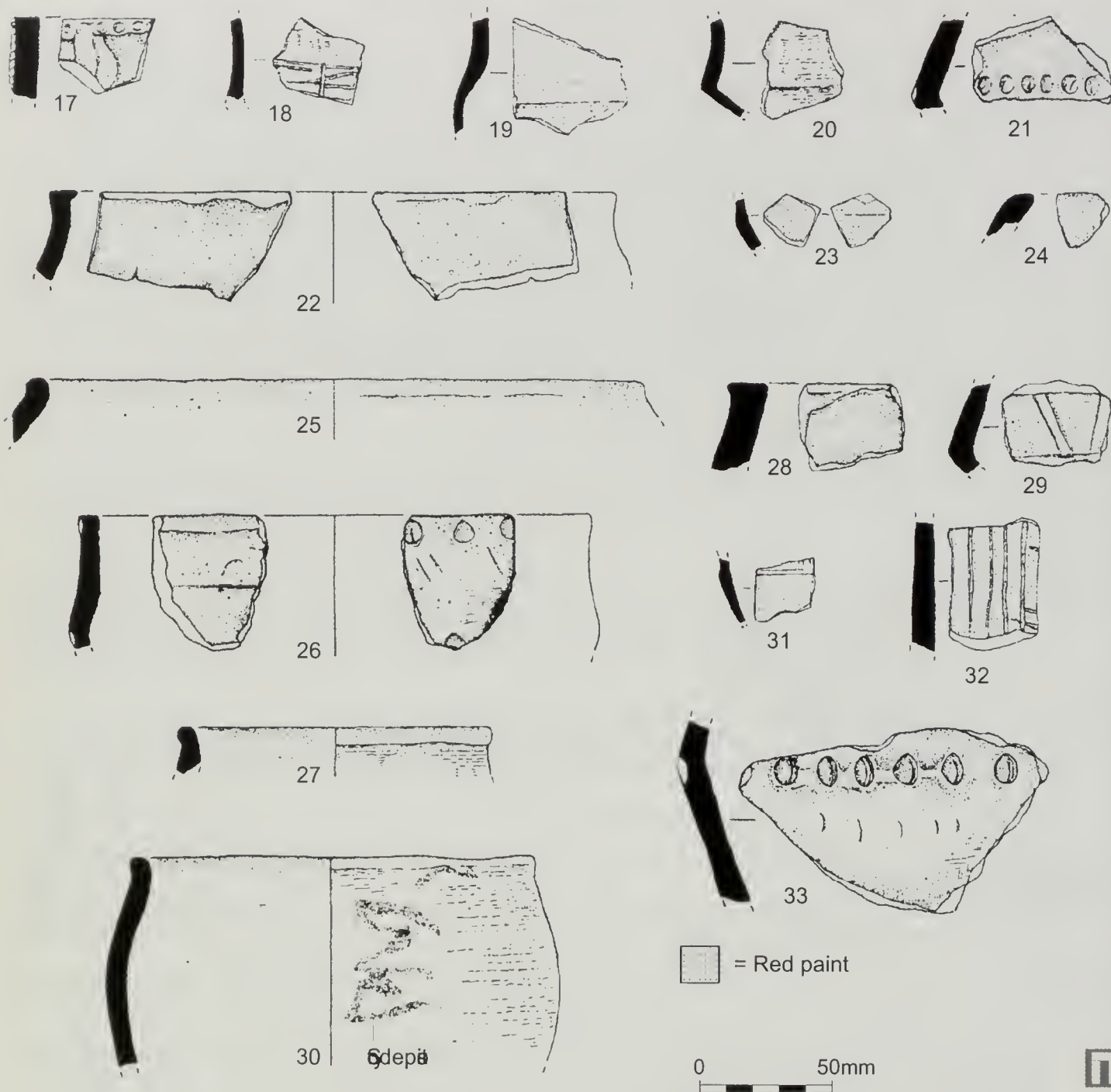


Fig. 4 Iron Age pottery (17-33)

commodities during this period.

Two features, pits 21 and 53, contained sherds from one or more organic-tempered pots. Organic-tempered pottery is not common in the Iron Age although securely stratified examples with glauconitic sandy clay matrices are known in the area (Table 4). It is uncertain whether this fabric was locally made or not. The grog-tempered fabric, from one vessel but found in two adjacent features (Iron Age pit 11 and Romano-British ditch 7), is definitely an unusual Early Iron Age fabric. No examples of Early Iron Age grog-tempered pottery were found in the upper zones of the Potterne midden (Table 4).

Forms and vessel types

The assemblage is characterised by many long-necked, carinated bowls (rim, R8, Figure 3, 6; shoulder A1, Figure 4, 20), a short-necked bowl (R18), sherds from several round-bodied bowls (shoulder A2, Figure 4, 19), various types of shouldered jars (R9, Figure 3, 8; R12, Figure 4, 22), round-shouldered jars (R13, Figure 4, 25; R14, Figure 4, 26) and an ovoid jar (R19, Figure 4, 24).

The most distinctive bowl form present is the long-necked, carinated bowl which is always burnished on both surfaces. It can also be decorated, display additional distinctive surface treatments described below or simply be plain and shiny. The

firing conditions observed on these vessels include completely black or bright red examples, as well as tones with variable firing colours from grey-black to brown-orange.

The most distinctive jar types present are shouldered, round-shouldered and ovoid in profile. Shouldered jars and round-shouldered jars are common forms found on all the above-mentioned sites in this area. The ovoid jar is less frequently recognised on many sites due to difficulty with identification but the presence of one such example at Strawberry Hill is not unexpected. In addition, there is one handle type present in the assemblage, a broad, thick lug applied to the girth of a large, thick-walled jar (Figure 3, 16).

There appears to be no correlation of any vessel type represented by more than one example with any particular fabric type; each such type will occur not only in a sandy fabric but also in either a shell-gritted fabric or an oolitic limestone fabric. This implies either that production of similar vessel types was conducted at many locations, and that all of these wares were made or acquired for use at Strawberry Hill, or that these pots had been brought to the settlement for special events (see below).

Decoration and surface treatment

Very distinctive types of decorative techniques and designs, as well as surface treatments, characterise this assemblage. The most common decorative types (Table 5) include finger-tip or finger-nail motifs impressed into the top or exterior edge of rims and on to the angled point of vessel shoulders of jars in designs composed of single rows; and shallow broad furrows, normally located just above the angled shoulder or carination point if present in designs of multiple, horizontal, parallel rows, on bowls. In addition, there are single examples of a finger-tip impressed strip applied beneath the rim of a jar rim vertically down the vessel neck (Figure 4, 17); a single, raised, horizontal cordon with traces of scratched decoration in a vertical irregular pattern above it (Figure 4, 31) and more complex, geometric designs created by incising (Figure 3, 12; Figure 4, 29), impressing with small pointed tools (Figure 3, 3–4) and infilling with white paste (not illustrated) or tooling (Figure 3, 14; Figure 4, 18 and 32). Impressed dots were found only on bowls (not illustrated); furrows, impressed and incised designs on both jars (Figure 3, 3) and bowls (Figure 3, 11–12); and finger-tip or nail impressions only on jars (Figure 3, 9, 13; Figure 4, 17, 21, 33) in the Strawberry Hill assemblage. There are at least two examples of

finger-tip impressions on both the rim and shoulder zones of the same jar (Figure 3, 8; Figure 4, 26). The range of decorations on bowls is most typical of the All Cannings Cross-Meon Hill style (Cunliffe 1991, figs A:2 & A:6) but it is noticeable that finger-tip decoration and applied strips with finger-tip decoration are contemporary motifs specifically found on jars. All of these decorative techniques and designs are common to assemblages from sites in the region (Table 4).

In addition, vessels may be burnished on the exterior (10.3% of the assemblage records), interior (0.4%) or both surfaces (22%), and prior to this they also may have had a fine slip applied to the exterior (1.7%) or both surfaces (4.2%) before the burnishing was conducted and fired in an oxidising atmosphere to create a red finish (Middleton 1987). Some examples displayed this red-finished effect on the exterior and burnishing on both surfaces (2.7%) or burnishing only on the exterior (2%; Figure 4, 32). Sherds displaying a burnished effect, with or without the slip, on the interior surface derived from open vessel forms or bowls, while burnished effect on exterior surfaces only derived from closed vessel forms or jars. Over 40% of the pottery from this assemblage was burnished on at least one surface. Burnishing provides not only a shiny visual effect but also enhances impermeability, allowing vessels to retain liquids better if burnished on the inside, and preventing moisture from entering if burnished on the outside so improving the storage of dry foods. In some cases, the exterior (6.5%) of jars, and the interior (0.6%) or both (1.7%) surfaces of bowls, had been wiped by hand or with a cloth, creating a coarser visual effect; this may have been deliberate or simply the result of manufacture by hand.

Table 5 presents the correlation of decoration techniques to fabrics and to forms. These show that both major fabric groups, oolitic limestone and quartz sand, were used to make jars with finger-tip or finger-nail impressions and bowls in finer fabrics with furrowed lines. Only quartz sand fabric vessels, however, were found to have incised, impressed, scratched and raised cordon or applied cordon decorations in this assemblage. Vessels made from both of the major fabric groups were burnished and slipped, whether in the form of jars or bowls. In addition, the grog-tempered jar was burnished and at least two finer shell-gritted bowls also displayed burnishing. Therefore, it is clear that the use of burnishing was not restricted to sandy fabric vessels alone; it was a technique employed by potters from several different geological areas

Table 5: Decoration by fabric group and form type

	Decoration and position											Total decoration records*
	applied string, neck/body join	cordon, exterior	finger nail, rim, exterior edge	finger tip, top of rim	finger tip, shoulder angle	fingertip, rim exterior edge	furrows, exterior/ upper vessel exterior	incised, exterior/upper vessel exterior	impressed, exterior/ upper vessel exterior	scratched, upper vessel exterior	tooled, exterior/upper vessel exterior	
Fabric group												
Calcareous group	-	-	1	1	11	3	3	-	-	-	-	19
Quartz sand group: Q2, Q5, Q6, Q8	1	1	-	-	11	9	19	6	2	1	2	52
Q4	-	-	-	-	-	-	3	1	1	-	1	6
Fossil shell: S4	-	-	-	-	1	-	2	-	-	-	-	3
Total	1	1	1	1	23	12	27	7	3	1	3	80
Form type												
A1	-	-	-	-	20	-	12	1	-	-	-	33
A2	-	-	-	-	1	1	-	-	-	-	-	2
R8	-	-	-	-	-	-	1	-	-	-	-	1
R9	-	-	-	1	1	2	-	-	-	-	-	4
R10	-	-	1	-	-	5	-	-	-	-	-	6
R11	-	-	-	-	-	-	1	-	-	-	-	1
R12	1	-	-	-	-	2	-	-	-	-	-	3
R14	-	-	-	-	1	2	-	-	-	-	-	3
Dec. body	-	1	-	-	-	-	13	6	3	1	3	27
Total	1	1	1	1	23	12	27	7	3	1	3	80

See illustrations for form types

* this refers to the number of records in the database, not the total sherd count. Each record may contain more than one sherd, IF they are from the same context; they are the same decoration type; and are likely to come from the same vessel.

within the region, primarily for use on bowls (171 out of 474 records).

Vessel sizes and evidence of use

Despite the identification of 57 vessel rims within the assemblage, only 25 are large enough (with at least 5% of the circumference present) to determine vessel diameter (Figure 5). There appears to be an overall trend, with the ten bowl diameters smaller than the 15 jar diameters measured. However, as Every and Mephram suggest in their assessment of the assemblage from Battlesbury Bowl (2008, 55), larger assemblages are required to provide statistically reliable data. Normally, in larger, less fragmented assemblages of Early Iron Age date, we would expect to see at least one large vessel, usually a jar, greater than 280mm.

Evidence for the use of these vessels was observed, although infrequently (14% of records), and unfortunately the majority of these occurrences were

noted on plain body sherds. The types of evidence observed include abrasion, limescale or similar light-coloured residue and carbonised residue on the interior surface, pitting out of calcareous fabric inclusions on the interior only as a result of contact with acidic foods, and pitting associated with either carbonised residue or soot.

Date of the assemblage

The dominance of quartz sand-rich pottery in this assemblage, the presence of such a significant amount of various oolitic limestone fabrics and the infrequency of flint-bearing sherds indicate that this assemblage, from the fabric assessment alone, must be Early Iron Age in date. Potterne provides the necessary quantified evidence to demonstrate this gradual change in the increased production and use of quartz sand fabrics in the area. Pre-midden deposits at Potterne contained grog-tempered, flint-gritted and fossil shell-bearing fabrics with the local

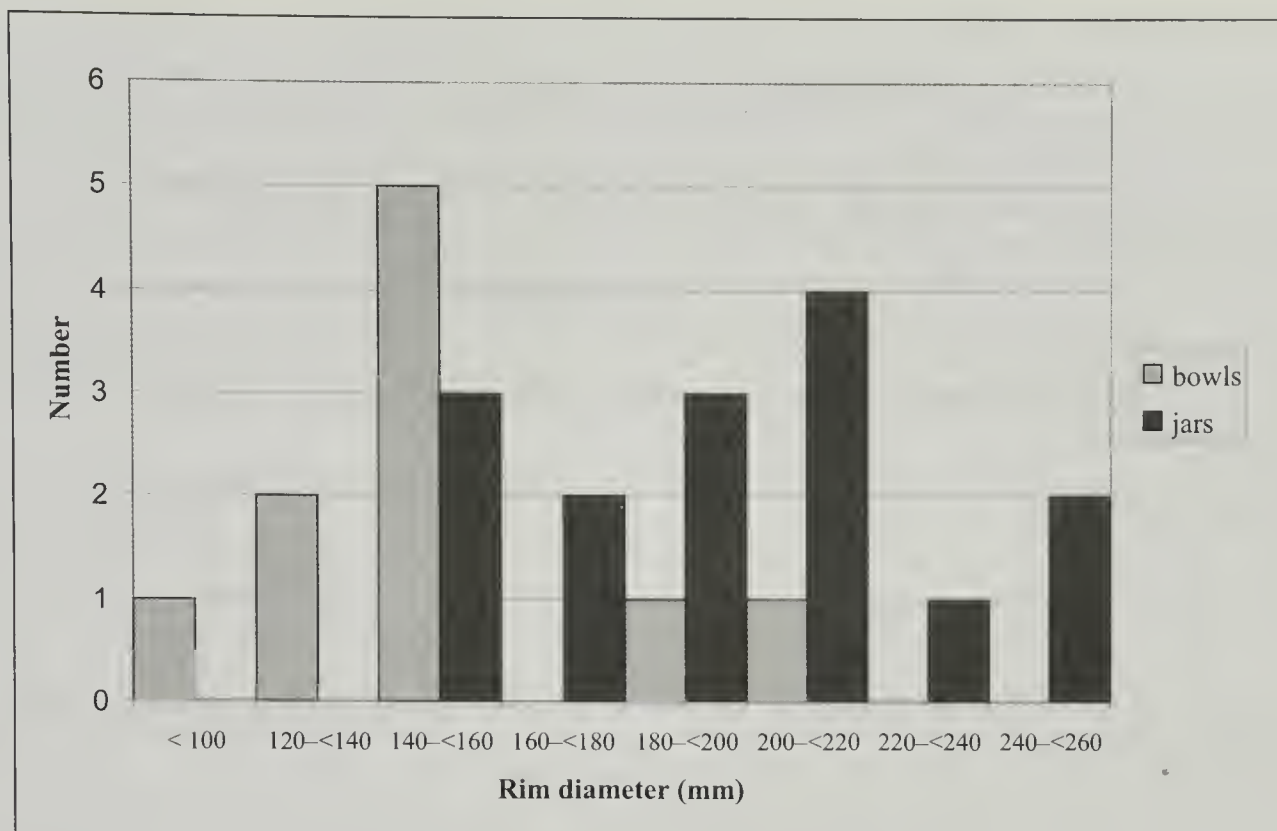


Fig. 5 Pottery rim diameters by general vessel form

glaucous sand fabrics representing only 1–7% of the assemblage but, by the end of the creation of the midden, sand fabrics dominated the deposit, representing up to 70% (Morris 2000b, tables 20–1). This distinctive change in pottery assemblages is supported from a series of excavations on post-Deverel Rimbury plain ware and later Late Bronze Age sites on Salisbury Plain (Raymond 1994), as well as more recent fieldwork focused on Early Iron Age sites (Raymond 2006).

In terms of vessel form, the long-necked carinated bowl type is extremely common on decorated phase Late Bronze Age and Early Iron Age sites in Wiltshire, whereas it is particularly noticeable that round-shouldered jars characterised Early Iron Age occupation at Danebury (Table 4). Therefore, the bowl types were probably used and deposited at Strawberry Hill from around the 6th–5th centuries BC. The presence of a single, red-finished sherd displaying a raised cordon and scratched decoration (Figure 4, 31) supports this dating. The greater frequency of the carinated bowls and also the shoulder sherds derived from carinated bowls (type A1 with burnished interiors) rather than round-bodied bowls (type A2 with burnished interiors) suggests that the 6th century BC date is the more likely date.

Further insight may be gained into the character and date of the Strawberry Hill assemblage from an examination of the different classes of vessel present,

following a five-fold division based on that proposed by Barrett (1980) for later Bronze Age pottery from southern England; this now includes the beginning of the Iron Age due to the smooth transition from post-Deverel-Rimbury Late Bronze Age plain ware assemblages to more decorated assemblages of jars and bowls of Early Iron Age date. Barrett's original terms – of coarseware jar (Class I), fineware jar (Class II), coarseware bowl (Class III) and fineware bowl (Class IV) – were based on fabric or ware, and so cannot be directly applied to Strawberry Hill where 60–70% of the assemblage is made from sandy fabrics (normally classified as 'fineware') that were used to make most of the variety of distinctive vessel shapes. However, due to the amount of decorated Late Bronze Age and Early Iron Age pottery recovered and published since 1980, Barrett's classes may be redefined in relation to major vessel types with specific surface treatments and decorations.

Comparative analysis on these revised terms emphasises the Early Iron Age nature of the Strawberry Hill assemblage when compared to other assemblages where this scheme has been applied (see Table 6). This reveals that, during the 500 year transition from the Late Bronze Age plain ware assemblages to more decorated Early Iron Age assemblages, there was a gradual but eventually very significant decrease in the proportion of coarseware jars and an equivalent increase in the proportion of fineware bowls, resulting, by the end of the period,

Table 6: Vessel classes

Vessel class	I	II	III	IV	V	Comment
Strawberry Hill (<i>no. of vessels</i>) (%)	50 43%	15 13%	4 3%	46 40%	1 <1%	A single class V vessel: a very thin (3mm) walled cup/bowl, 80mm in diameter, bright red and well burnished on both surfaces (<i>not illustrated</i>)
Reading Business Park (Hall 1992, table 10; Bradley and Hall 1992)	82%	6%	2%	6%	5%	Late Bronze Age, post-Deverel-Rimbury or plain ware tradition: dated beginning 1st millennium to 8th century BC on stylistic grounds. Classification criteria not stated.
Aldermaston Wharf, Berkshire (Bradley and Hawkes 1980, 235)	57%	21%	6%	14%	2%	Late Bronze Age, plain ware tradition, visually similar to Reading. Classification on the basis of specific form and fabric correlations.
Runnymede Bridge, Surrey (Longley 1991)	52%	4%	9%	34%	1%	
Knights Farm 1, Berkshire (Bradley 1980, 270, figs 34-6)	70%	5%	5%	20%	1 ex-ample	Pottery from two rich pits
Budbury (Wainwright 1970, 125-38, tables iii-iv)	69%	3%	17%	12%	<1%	1729 vessels, classified on basis of information in publication

Key:

Class I: undecorated jars without exterior burnishing; jars with fingertip impressions on shoulder, rim or both; jars with applied, plastic decoration

Class II: undecorated jars with exterior burnishing only; jars decorated with incised, impressed or linear tooled designs

Class III: undecorated bowls without burnishing on either surface

Class IV: bowls burnished on interior or both surfaces; bowls with incised, impressed, scratched or liner tooled designs

Class V: 'cups': small vessels, rim diameter <100mm, usually open forms

in assemblages with nearly the same quantities of jars and bowls. It was during the later activities at Potterne, for example, that there was a dramatic change from a jar-dominated assemblage (Zones 8-9) to one where jars and bowls occur with similar frequency (Zone 5), followed in turn by bowls becoming the most popular form (64% in Zone 4) (Gingell and Morris 2000, table 22). The Strawberry Hill assemblage contains 56% jars and 44% bowls and cups, with 2-3 times more Class IV fineware bowls than any of the Late Bronze Age plain ware assemblages, suggesting that it is typical for an Early Iron Age assemblage from southern England.

Catalogue of illustrated pottery (Figures 3-4)*Pit 2*

1. Carinated bowl, A1; Q2; geometric design of incised line motifs, burnished on both surfaces; PRN 1059.

Pit 11

2. Jar, R11; Q2; burnished on exterior; Class II; PRN 1090.
3. Decorated jar, D1; Q2; furrowed and impressed dots on exterior, burnished on exterior; Class II; PRN 1097.
4. Decorated bowl, D1; Q4; incised lines and impressed dot on exterior, burnished on both surfaces; Class IV; PRN 1105.
5. Lipped base, B2; F8; briquetage; PRN 1118.
6. Long-necked, carinated bowl, R8; Q2; furrowed above carination, burnished on both surfaces; Class IV; PRN

1091.

7. Shouldered jar, A1; Q2; burnished on exterior, wiped on interior; Class II; PRN 1093,

Pit 21

8. Shouldered jar, R9; Q2; finger-tip impressions along exterior of rim and shoulder angle; Class I; PRN 1484.
9. Jar, R10; Q6; finger-tip impressions along exterior of rim; Class I; PRN 1498.
10. Bowl, R8; Q2; red-finished on exterior, burnished on both surfaces; Class IV; PRN 1466.
11. Carinated bowl, A1; Q7; furrowed above shoulder, red-finished and burnished on both surfaces; Class IV; PRN 1470.
12. Decorated bowl sherd, D1; Q4; complex, geometric design of incised line motifs above shoulder, burnished on both surfaces; Class IV; PRN 1495.
13. Jar, R9; Q2; finger-tip impressions along exterior of rim; Class I; PRN 1464.
14. Decorated jar sherd, D1; Q2; burnished on exterior; tooled motif on vessel wall; Class II; PRN 1478.
15. Carinated bowl, A1; Q2; furrowed above shoulder, red-finished and burnished on both surfaces; Class IV; PRN 1468.
16. Lug handle, L4; C5; Class I; PRN 1414.
17. Jar, R12; Q2; finger-tip impressions along exterior of rim, vertical applied strip with finger-tip impressions from beneath rim down neck; Class I; PRN 1465.
18. Decorated bowl sherd, D1; Q2; burnished on both surfaces; tooled motif above likely carination; Class IV; PRN 1479.

19. Round-shouldered jar, A2; C4; red-finished and burnished on exterior; Class II; PRN 1385.
20. Carinated bowl, A1; C5; burnished both surfaces; Class IV; PRN 1406.

Pit 23

21. Shouldered jar, A1; C3; finger-tip impressions on shoulder; pitted on interior from use; Class I; PRN 1120.
22. Jar, R12; C4; Class I; PRN 1123.

Pit 34

23. Bowl, A1; Q4; slipped and burnished on both surfaces; Class IV; PRN 1167.

Pit 41

24. Ovoid jar, R19; C4; Class I; PRN 1516.

Pit 49

25. Jar, R13; C3; Class I; PRN 1181.

Pit 52

26. Softly-shouldered jar with upright rim, R14; C4; finger-tip impressions along exterior of rim and shoulder zone; Class I; PRN 1248.
27. Bowl, R15; Q2; burnished on both surfaces; Class IV; PRN 1260.
28. Jar, R16; Q7; Class I; PRN 1264.
29. Decorated jar sherd, D1; Q2; geometric design of incised line motif on exterior, burnished on exterior; Class II; PRN 1265.

Other features

30. Round-shoulder jar, R13; C7; burnished on exterior; Class II; pit 53; PRN 1286.
31. Round-bodied bowl, A2; Q8; raised cordon with scratched lines above, burnished on both surfaces; ditch 62; PRN 1319.
32. Decorated jar sherd, D1; Q4; tooled lines on exterior, burnished on exterior; Class II; pit 84; PRN 1345.
33. Decorated jar, A1; Q2; finger-tip with nail impressions on shoulder; Class I; unstratified; PRN 1335.

Discussion

On the basis of its pottery assemblage, the Strawberry Hill settlement appears to have been occupied during the 6th–5th centuries BC. It forms, therefore, just one component of the evolving Early Iron Age landscape that contained a range of different types of site, including middens (in their final phases), open downland settlements and enclosures. The settlement lies less than 7km south of the Late Bronze Age–Early Iron Age midden site at Potterne, and the close relationship which their proximity

implies is evident in similarities between their pottery assemblages. However, these two sites were very different in character and likely function, with the midden site (as also at East Chisenbury and All Cannings Cross) appearing to have played specialised economic and social roles for communities involved in animal husbandry over long periods and across relatively wide areas.

The open character of the Strawberry Hill settlement contrasts also with the growing number of enclosed sites, many of which, as research in the eastern part of Salisbury Plain (Fulford *et al.* 2006) has demonstrated, were established from the Early Iron Age (as at Coombe Down North and South, Everleigh Down, Warren Hill, Widdington Farm, etc). Candidates for potentially similar enclosures near Strawberry Hill include cropmarks of two subcircular examples on Fore Hill (Wiltshire SMR nos 1969 and 1970), 1.5–2km to the west along the same ridge, as well as a number of others at a greater distance from the site.

A closer parallel for Strawberry Hill is to be found at Battlesbury Bowl, outside the Battlesbury Camp hillfort to the south-west (Ellis and Powell 2008). There, the pre-hillfort settlement, dating from the end of the Late Bronze Age to the Middle Iron Age, occupied a similar topographic position to Strawberry Hill. Both lay on chalk ridges on the edge of Salisbury Plain, giving access equally to the economic resources of the high downland, the slopes of the dry valleys which intersect it and the adjacent low lying areas, and both overlooked important routes of communication through or around the Plain.

The main focus of activity within such downland settlements, whether open or enclosed, would have been crop and animal husbandry, although the wider range of craft and industrial activities needed to sustain such farming communities would also have been undertaken. Although only narrow corridors were stripped through both these settlements, each displayed clear clustering of features, principally pits and postholes, with intervening empty areas, suggesting separate foci of activity within the wider settlements. Because it was not possible to determine the full extents of either settlement, the nature of these clusters is unclear, although at Battlesbury Bowl they appeared to have retained their identity over the duration of the site's occupation. The apparent distinction at Strawberry Hill between the northern cluster, which contained postholes, and the southern cluster, which did not, may indicate two distinct activity areas or it could simply reflect the

narrowness of the excavation corridor. While at least one roundhouse, and a number of possible 4-post 'granaries' were recorded at Battlesbury Bowl, many of the postholes, as at Strawberry Hill, could not be assigned to recognisable structures.

The pits at Strawberry Hill were similar in form and size to those at Battlesbury Bowl (which averaged 1.3m in diameter and 0.5m deep) and they contained a similar range of finds. Similar variability in the quantities of the finds was also evident, with some deposits at Battlesbury Bowl, characterised by the presence of either large numbers of finds, or articulated animal bone groups and/or skulls, or human remains (including both disarticulated bones and a number of complete inhumation burials), being judged to display 'structured deposition', suggesting some symbolic or ritual dimension to the deposition process.

Although the finds from the relatively small number of Iron Age pits at Strawberry Hill cannot be assessed statistically, the deposition of pottery, in particular fineware bowls, into pits 21 and 23 is completely different in scale from that in the other pits. In the absence of detailed descriptions of the pit fills and contents, it is possible only to say that this material, which included also animal (and human) bone, appears to have derived from the large-scale consumption of food and drink, perhaps involving an episode of feasting. This appears to have been accompanied by more complex and formalised processes of use, selection and deposition, as suggested by the presence in pit 21 of more bowls (Class III, 3; Class IV, 25; Class V, 1) than jars (Class I, 19; Class II, 3) (Figure 3, 8–16, Figure 4, 17–20), in contrast to the adjacent pit 23, which had significantly more jars (7) than bowls (2).

The significant decrease in the proportion of coarseware jars and increase in the proportion of Class IV fineware bowls noted in other Early Iron Age assemblages (as discussed above, Table 6) suggests that the presentation and consumption of food and drink in, and the deposition of, such fineware bowls had become a major focus of the active use of material culture in the region during this period. A similar phenomenon has been recognised elsewhere in the south; nearly equivalent numbers of bowls and jars were identified, for example, in the assemblage at White Horse Stone in Kent, which has been dated to the 6th–4th centuries cal BC (Morris 2006).

It should be noted, however, that the high fragmentation of the pottery (and of the human and animal bone) noted in pits 21 and 23, with less than 5% of any vessel represented, suggests that these

were not simple deposits of feasting waste. Instead, they may have been 'token' in character, with the material having been selected from more extensive accumulations of 'waste', that could have been the visible, and hence symbolically potent, product of communal activity. Participation in periodic feasting events, of the type that was ritually commemorated, or at least formally marked, by the deposits placed in pits 21 and 23, is likely to have been one means by which wider economic and social relationships, evident also at midden sites, were maintained within a social community occupying the Salisbury Plain/Vale of Pewsey landscape.

The different fabrics of the pottery identified at Strawberry Hill show that some of these links extended well beyond the immediate areas, with fabrics deriving from both local and more distant clay deposits. The vessels in glauconitic sandy fabrics, for example, probably came from Gault clay that occurs below the Greensand at the base of the chalk scarp, possibly within 5km of the site, and could have been traded to the site from the occupants at Potterne; alternatively, they may have come to the site with their users when the settlement was established, or with women who moved there through marriage. In contrast, the closest source of oolitic limestone is over 25km to the north-west, while the fragment of briquetage originated on the south coast.

Variation in pottery fabrics, however, may not only reflect change in domicile, trade and exchange; the change in pottery temper from flint to quartz sand that took place between the Late Bronze Age and Early Iron Age periods was likely to have had practical and cultural reasons. Both tempers are made from silica and so, in theory, have very similar engineering properties (Morris 1991), but while flint usually needs to be calcined, crushed and added to the clay, quartz sand occurs naturally in the clay, thus requiring less effort in production. The adoption of naturally-occurring sandy clays, therefore, may have facilitated the considerable increase in pottery production that is suggested by the amounts of pottery deposited at the many Late Bronze Age–Early Iron Age midden sites in the Vale of Pewsey and Salisbury Plain area (McOmish 1996, fig. 1), compared to the plain ware phase of the later Bronze Age.

The open settlement at Strawberry Hill, which may have been established as the midden at Potterne started to go out of use, appears have been more short-lived than that at Battlesbury Bowl which continued to be occupied into the Middle Iron

Age, its abandonment apparently coinciding with the construction of the hillfort to its immediate south. However, the abandonment of the Strawberry Hill settlement may also be related to the growth of enclosed sites, as possibly on Fore Hill, and ultimately with the construction of the hillfort at Bratton Camp, 10km to the west of the site. Like Battlesbury Camp, Bratton Camp occupied a strategic bridge-top position on the edge of the Plain.

A field system was subsequently established on Strawberry Hill in the Romano-British period, and although the presence of Romano-British pottery and other probable domestic waste indicates a settlement in the vicinity, the small number of non-ditch features on the site do not appear to be particularly characteristic of settlement activity.

The Strawberry Hill site is a significant addition to our understanding of a series of important Late Bronze Age to Middle Iron Age sites on the fringes of Salisbury Plain and in the Vale of Pewsey. It was occupied during a period of major change, its open nature continuing a pattern of settlement inherited from the later Bronze Age, and possibly overlapping with both the later phases of the midden sites and early construction of downland enclosures, culminating with hillforts such as Bratton Camp and Battlesbury Camp. The finds from the site, and in particular the pottery assemblage, point to essential social dimensions, such as exchange, trade and possibly feasting, within the life of an otherwise primarily agricultural community.

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The prehistoric and medieval defences of Malmesbury: archaeological investigations at Holloway, 2005-2006

by Mark Collard and Tim Havard

with contributions by J. Hart, E. R. McSloy, J. Meadows, S. Warman and T. P. Young

Archaeological work associated with the restoration of a section of the town walls of Malmesbury provided further evidence that the medieval wall followed the line of a rampart of an Iron Age hillfort. Radiocarbon dates suggest that the rampart was built in the earlier Iron Age, and it appears that the hillfort defences were subsequently remodelled by the addition of further external ramparts. It is likely that this was associated with the elaboration of the defences around an entrance close to the site adopted for the medieval East Gate. Some extant medieval masonry of the town wall was also revealed.

Introduction

Between October 2005 and January 2006 Cotswold Archaeology (CA) carried out a programme of archaeological recording during the repair, restoration and reconstruction of a section of the town wall of Malmesbury (centred at ST 9356 8733; Figure 1). The work was prompted by the collapse in recent years of a c.15m length of walling in the area between Holloway to the north and a 19th-century railway cutting to the south. The work was conducted under the aegis of North Wiltshire District Council and was grant-aided by English Heritage. Following the completion of the restoration works in May 2006, an excavation trench was dug to characterise the nature of archaeological deposits immediately outside the town wall.

The site lies to the south of East Gate (also known as the Holloway Gate) along a section of the town

wall, which at this point is a Scheduled Monument (Wilts. 881). This section of the town wall traverses the crest of the western valley of the River Avon, which surrounds the Malmesbury promontory on three sides. The underlying geology comprises Jurassic Cornbrash with alluvial deposits present towards the Avon (BGS 1970).

The archaeological, historical and topographical context of Malmesbury's defences has recently been described in detail in a report on the archaeological investigations of 1998-2000 on the line of the town wall at Nun's Walk, to the south of the present site (Longman 2006; locations shown on Figure 1). In summary, this work concluded that the defences originated as part of an Early Iron Age hillfort. Successive remodelling and enhancement of the defences occurred during the second half of the 1st millennium BC, and a complex sequence of ramparts was recorded during the investigations, along with evidence for external ditches. Documentary evidence

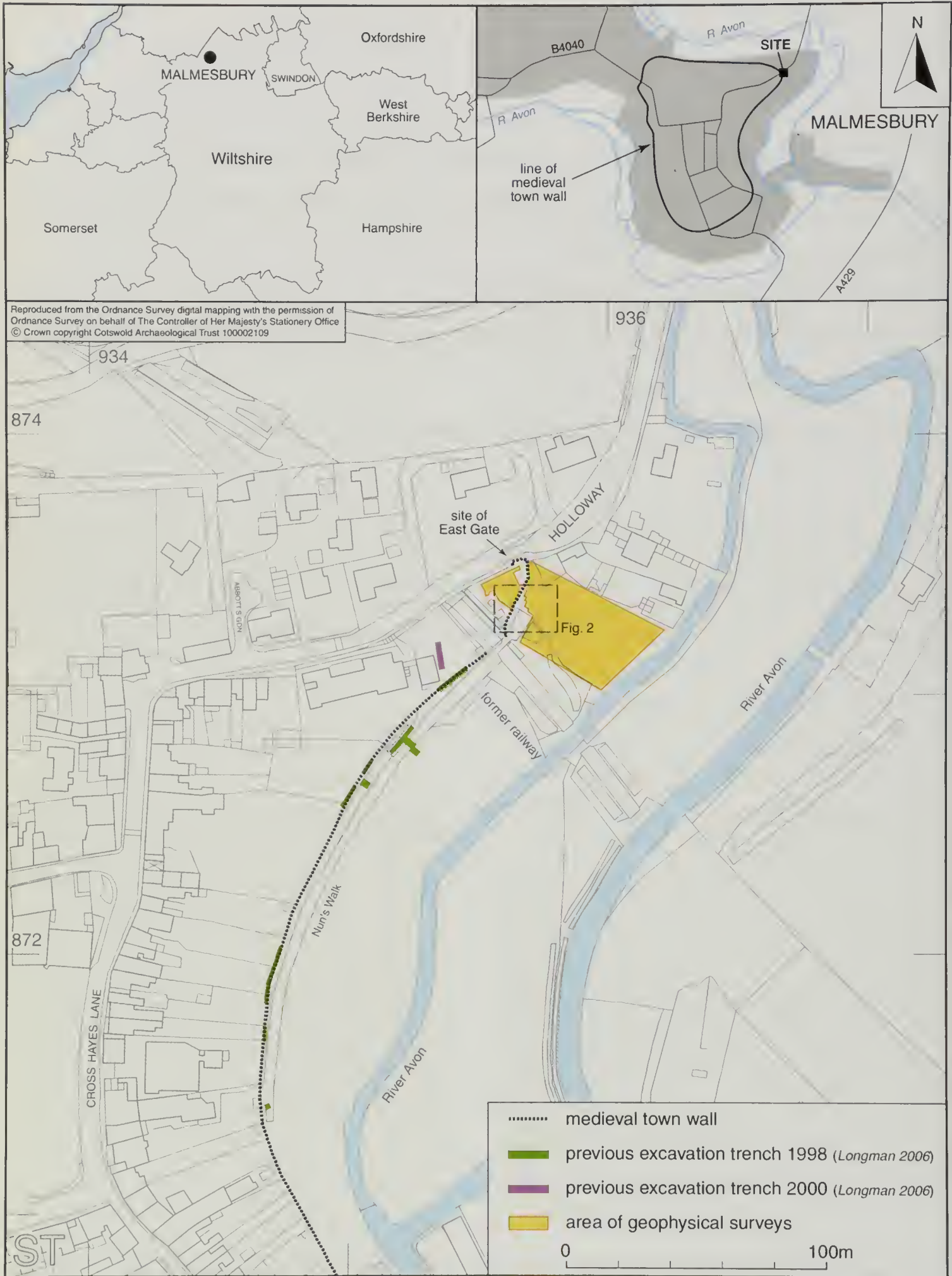


Fig. 1 Site location (1:2500)

suggests that a monastery was founded at Malmesbury in the 7th century AD and it appears that the town had been fortified as an Anglo-Saxon *burh* by the late 9th century when it is recorded in the *Burghal Hidage*. The investigations at Nun's Walk indicated that the *burh* defences were remodelled in the 10th or 11th century by the addition of a substantial bank and ditch. Further enhancement of the defences occurred during the early 12th century with the construction of a stone wall, attributed to Bishop Roger of Sarum. Following a period of neglect at the end of the medieval period the defences were reconstructed during the Civil War before being slighted by Parliamentary forces in 1646. In the later post-medieval period, the walls were rebuilt and altered on a piecemeal basis by individual property owners.

Methodology

Prior to the start of the repair works, resistivity and ground-penetrating radar surveys were conducted over two areas, one inside and one outside the wall (Figure 1; Archaeological Surveys 2005; Arrow Geophysics 2005). No additional evidence for the development of the defences was revealed by either survey.

Before site clearance, a rectified photographic and survey record was made of the surviving wall fabric between the railway cutting and Holloway. The wall was then cleared of undergrowth and loose rubble under archaeological supervision. Wall fabric was removed by the contractor only where unstable; this included a section of upstanding wall by the railway cutting, but not the length where the wall stood to full height nearest to the East Gate. The approach adopted to the repair programme was to remove sufficient fabric to ensure that the exposed footings were suitable to carry the load of the reconstructed wall; in practice this equated to the level at which solid, *in situ* wall fabric was encountered. Following clearance of all loose material to that level, the area was cleaned and recorded archaeologically. The major exposures were a large section of rampart behind the wall and the upper surviving courses of the wall itself. Together, these are designated as Area 1 (Figure 2).

Area 2 was excavated at right angles to the outer face of the wall, primarily for engineering purposes. Following the completion of the restoration works, Area 3 was excavated to determine the presence or otherwise of prehistoric or medieval ditches

outside the wall. Area 3 measured 12m by 5m at the modern ground surface but was stepped in to allow investigations to proceed to a maximum depth of 3m. Archaeological deposits continued below this level and hand-augering through the base of the central part of the trench identified the level of the underlying bedrock. Following completion of excavation in Area 3, further geophysical surveys were conducted outside the wall but no archaeological anomalies were identified (Archaeological Surveys 2006; Arrow Geophysics 2006). Following completion of the fieldwork an assessment was made of the significance of the findings, and a programme of analysis proposed which has led to the production of this report (CA 2007).

Results

Period 1: Defences of the Iron Age hillfort

Dating evidence for this period was based on Iron Age pottery recovered from several rampart deposits in Area 1 and on radiocarbon dates for deposits in Areas 1 and 2. Other contexts were assigned to this period on the basis of their similarity to dated ones or stratigraphic and spatial association. The principal elements revealed of the Iron Age defences were a series of earthen ramparts (here termed A1P1-A3) and a drystone wall 1073 which formed a facing for at least one of them.

Area 1

The removal of undergrowth and unstable stonework exposed rampart deposits to the rear of the town wall. Within the south-western part of Area 1 the rampart deposits lay directly against the rear face of the wall but to the north-west a gap between the wall and the rampart deposits had been backfilled during the medieval or post-medieval periods with rubble 1074. Section AA (Figure 3) illustrates a section through the rampart deposits following the partial removal of the rubble 1074 lay up against the face of the Iron Age rampart. No cross section was available through the Iron Age wall 1073 and the ramparts; consequently the wall does not appear on Section AA.

Four phases of rampart construction were identified, surviving to a total height of more than 1.5m. Rampart A1P1 was the earliest exposed rampart, although the base of the archaeological

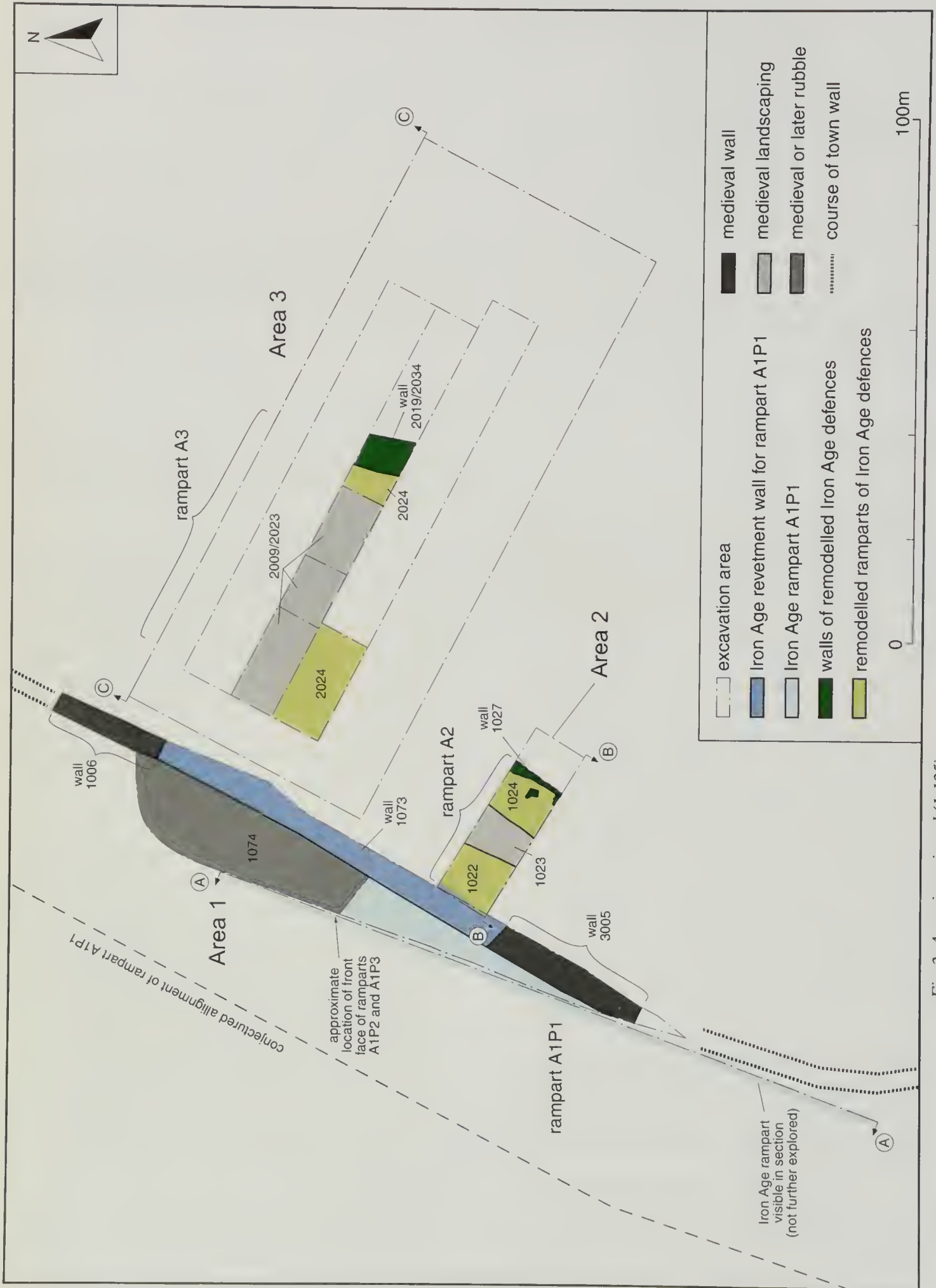


Fig. 2 Areas investigated (1:125)

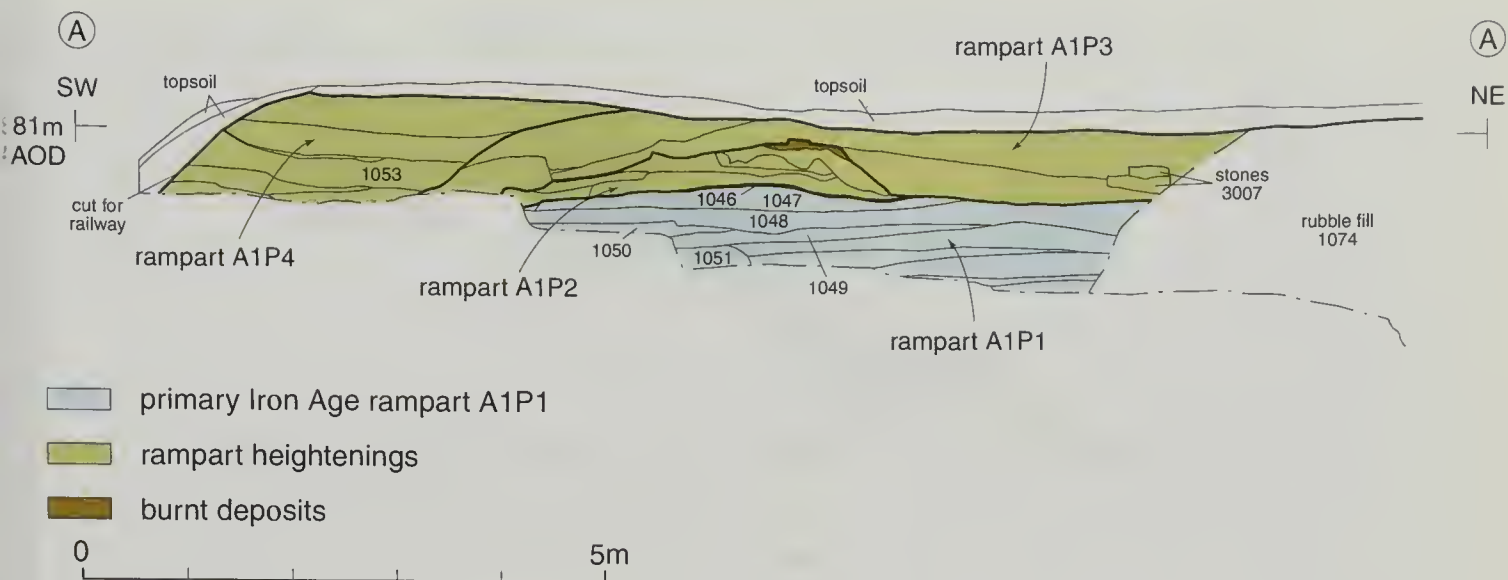


Fig. 3 Area 1, Section A-A showing Iron Age ramparts exposed by the removal of the collapsed section of the town wall (1:100)

sequence was not reached and earlier phases may have been present. It was constructed using layers of firm brown, grey and orange-brown clay. Although the profile of these deposits suggests that a longitudinal section through a south-west/north-east aligned rampart is represented, this must remain a tentative conclusion since no faces to the rampart were exposed. A small quantity of late Bronze Age/Early Iron Age pottery was recovered from rampart layers 1051, 1049, 1050, 1048 and 1047 and a radiocarbon date of 730–390 cal BC (OxA-18757; Table 1) was obtained from a residue present on one of the sherds from 1051. The upper surface of Rampart A1P1 survived as a distinctive pale clay layer (1046), perhaps a product of the weathering of the upper surface of the rampart. The lowest exposed layers of Rampart A1P1 were abutted along much of their eastern side by the rear face of a dry-built limestone wall 1073 (not visible in section AA). It was not possible to determine whether this wall was contemporary with Rampart A1P1 or was a later addition.

Rampart A1P2 was constructed directly over Rampart A1P1 and consisted of several thin layers of grey and orange-brown clay. The profile of these deposits displayed a steep outer face with a gentler slope to the rear and is suggestive of a cross section through a north-west/south-east aligned rampart. The uppermost layer of Rampart A1P2 was a distinctive, scorched-red clay deposit, which had been cut by a single stakehole.

Rampart A1P3 was built on to Rampart A1P2 and consisted of several similar bulk dumps of sandy clay. Although no outer face of the rampart was exposed, the slope of its rear face was again

suggestive of a cross section through a north-west/south-east aligned rampart. Three large stones (3007) set firmly into the outer side of the rampart may be the remains of a drystone wall, which appeared to continue beyond the area of investigation.

Rampart A1P4 had been built on to the rear face of Rampart A1P3, although its full extent did not survive as its inner face had been truncated by the 19th-century railway cutting. A single sherd of late Bronze Age/Early Iron Age pottery was recovered from dump 1053.

Area 2

Wall 1073, also observed in Area 1, was again exposed and here was faced with roughly coursed and dressed stones with rubble to the rear (Figures 4 and 5). It was excavated to a depth of 1m, exposing fifteen courses, without its base being reached. A second drystone wall 1027, identified at the south-eastern end of Area 2 was also built from limestone rubble.

A series of rampart deposits abutted the outer face of the wall 1073 and the inner face of wall 1027. These consisted of scorched red clay layers (e.g. 1022, 1024 and 1034) containing charcoal lenses and in one case (1038, not illustrated) 4.3kg of fuel ash slag. Walls 1073 and 1027 showed no sign of burning, suggesting that the clays were scorched elsewhere prior to deposition in the rampart. Fragments of charcoal sapwood from charcoal lenses 1036 and 1037 produced identical radiocarbon dates of 760–400 cal BC (SUERC-18565, 18566 and 18567; Table 1).

Area 3

The earliest deposits recorded were clay layers 2038

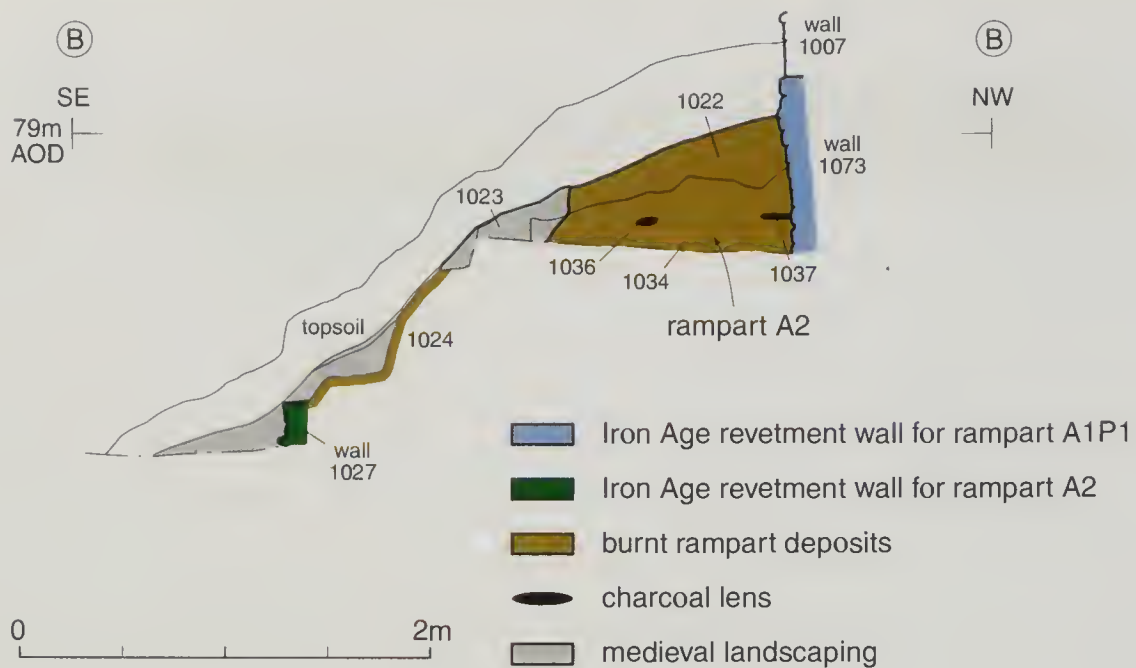


Fig. 4 Area 2, Section B-B (1:50)



Fig. 5 Area 2, looking north-west, showing Iron Age revetment walls 1027 and 1073. Wall 1073 is overlain by post-medieval 1007. Scales: 1m

and 2027 exposed in a small sondage in the base of the trench (Figure 6, Section CC). Given their limited exposure, it was impossible to determine whether these deposits represented either *in situ* or slumped rampart deposits or the fills of an outer ditch. A coursed limestone rubble wall (2034) ran approximately north-east/south-west across the deepest part of Area 3. It survived two to three courses high above foundation courses 2035 (Figures 6 and 7). Wall 2019 was built on to wall 2034 and was composed of much less regular limestone blocks surviving to a maximum height of eleven courses, c.1m.

Wall 2019 was abutted on its inner (north-western) side by Rampart A3 composed of a substantial dump of yellow clayey sand (2024), which was distinctively different from the other rampart layers observed on site. It survived to a height of c.1.3m and augering showed that it continued for a further depth of 0.5m. The outer (south-eastern) face of wall 2109 and its foundation were abutted by two thin clay deposits (2037 and 2033) and, as with the underlying clay deposits (2038 and 2027), their interpretation is uncertain.

Period 2: Medieval town defences

Area 1

Wall 3005 was recorded at the south-western end of Area 1 (Figure 2). It consisted of two to three courses of large squared stone blocks with triangular tails laid in horizontal courses and was of distinctly

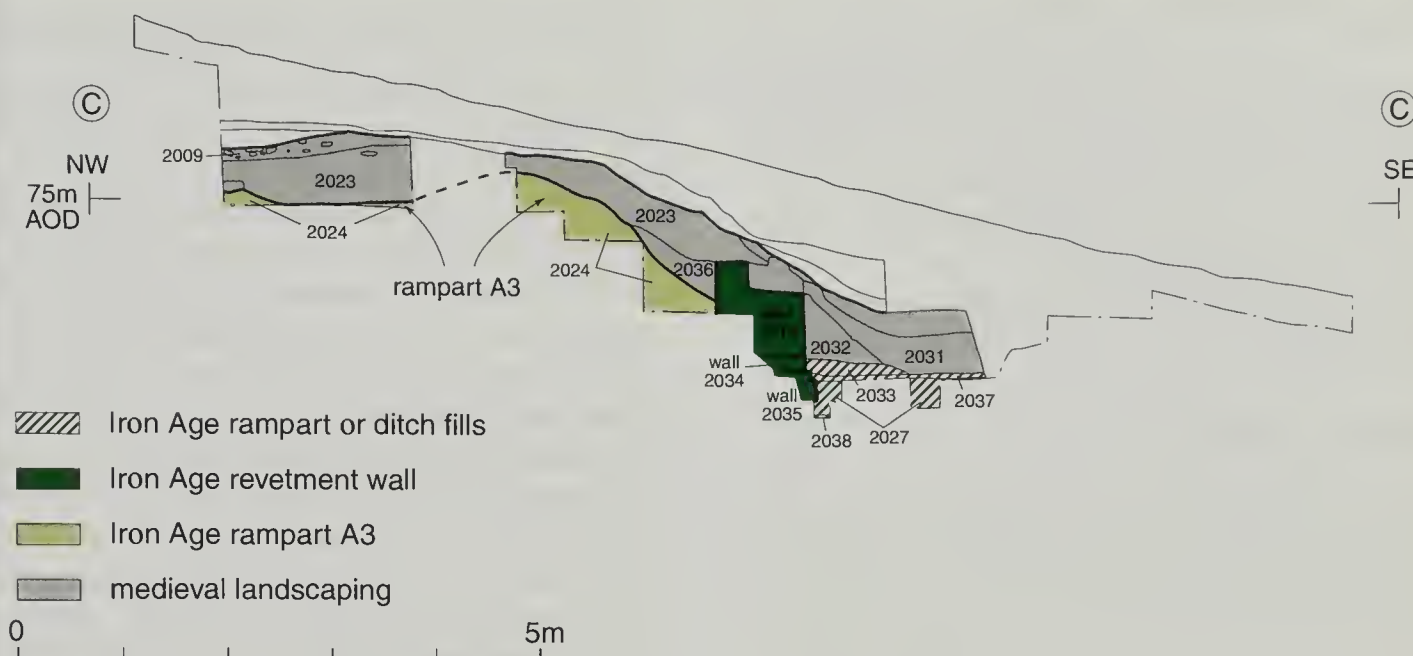


Fig. 6 Area 3, Section C-C (1:100)

different character to the underlying Iron Age wall. This is likely to be medieval work, but whether the remains represent the primary early 12th-century wall or a subsequent rebuild is difficult to determine (cf. similar masonry revealed at Nun's Walk trench 2; Longman 2006, 113). The upper and outer surfaces of wall 3005 displayed a white patina resulting from an extended period of exposure following the collapse (or removal) of overlying fabric.

Wall 1006 was recorded at the north-eastern end of Area 1 and continued at full height to the East Gate. Detailed examination of the fabric of this wall suggested that it had been extensively repaired and rebuilt with little *in situ* medieval fabric being readily identifiable, although some areas of large squared masonry were present. The inner face of this wall was abutted by a substantial dump of stone rubble, 1074, which had been used to fill the gap between the wall and the face of the Iron Age ramparts during the medieval or post-medieval periods.

Area 3

Iron Age wall 2019 was abutted on its outer face by a series of rubble dumps (e.g. 2032 and 2031) probably derived from deliberate demolition of the upper surviving courses of the Iron Age wall. A small quantity of late 13th or 14th-century pottery was recovered from these dumps (layers 2020, 2021 and 2026, not illustrated). The wall was abutted to its rear by a dump of yellow sandy material, 2036, which appeared to derive from the Iron Age ramparts, suggesting that the uppermost part of the



Fig. 7 Area 3, Iron Age revetment walls 2034 and 2019.
Scales: 1m

rampart was being slighted and the resulting spoil deposited downslope. This was overlain by further clay dumps 2023, which contained four sherds of 12th to 13th-century pottery, and 2009.

Period 3: Post-medieval

Much of the post-medieval town wall had collapsed prior to the commencement of works in 2005 and evidence of repair and re-construction was recorded. A length of post-medieval walling 1007 was recorded at the north-western end of Area 2 where it had been constructed directly on top of Iron Age wall 1073 (Figures 4-5).

Period 4: Modern

A series of stone rubble deposits was either dumped or accumulated in the gap between the collapsing post-medieval wall 1006/1007 and the rampart behind and were sealed by the existing topsoil 1002. The rampart deposits and town wall were severely truncated at the south-western end of Area 1 by the 19th-century railway cutting. Medieval and post-medieval deposits in Area 3, particularly at the south-eastern end, had been severely disturbed by the insertion of a water main in the late 20th century and associated terracing for a site compound (Roy Canham pers. comm.).

Radiocarbon dating, by John Meadows

Five samples from four deposits were submitted for radiocarbon (AMS) dating (Table 1). Two comprised burnt organic residues on sherds of pottery and three samples were taken from large pieces of oak sapwood charcoal up to 50mm in diameter which may have derived from fragmented posts or stakes (identifications by Rowena Gale; report in archive). The samples were dated by Accelerator Mass Spectrometry (AMS) radiocarbon

dating at the Scottish Universities Environmental Research Centre in East Kilbride (SUERC; technical procedures are described by Vandeputte *et al.* 1996; Slota *et al.* 1987, and Xu *et al.* 2004), or at the Oxford Radiocarbon Accelerator Unit at Oxford University (OxA; laboratory methods are given by Bronk Ramsey *et al.* 2002; 2004). Internal quality assurance procedures at both laboratories and international inter-comparisons (Scott 2003) indicate no laboratory offsets, and validate the measurement precision quoted.

The results reported in Table 1 are conventional radiocarbon ages (Stuiver and Polach 1977), quoted according to the format defined by the Trondheim convention (Stuiver and Kra 1986). The calibrated date ranges have been calculated by the maximum intercept method (Stuiver and Reimer 1986), using the program OxCal v4.05 (Bronk Ramsey 1995; 1998; 2001; 2009) and the IntCal04 data set (Reimer *et al.* 2004), and are quoted in the form recommended by Mook (1986). The probability distributions have been calculated using the probability method (Stuiver and Reimer 1993), and the same data.

Four samples were successfully dated; the fifth had insufficient carbon. The four positive results are statistically consistent with a single radiocarbon age ($T' = 2.1$, $T'(5\%) = 7.8$, $v = 3$; Ward and Wilson 1978), and could therefore be of the same calendar date. As these results fall on the long plateau in the radiocarbon calibration curve during the 1st millennium cal BC however, it is also possible that they represent a longer timespan, sometime between the late 9th and the end of the 5th centuries cal BC. The results of all four samples are consistent with the interpretation of this section of the defences as an Iron Age rampart, and with the typological attribution of the pottery contained in these deposits.

Table 1: Radiocarbon dates

Laboratory number	Sample number	Context	Context description	Material dated	$\delta^{13}\text{C}$ (‰)	Radiocarbonage (BP)	Calendar date (95% confidence)
(P21999)	MTW05104903	1049	Rampart A1P1	carbonised residue on pottery	-	failed	insufficient carbon
OxA-18757	MTW05105104	1051	Rampart A1P1	carbonised residue on pottery	-27.5	2388 ± 33	730–390 cal BC
SUERC-18565	MTW05103601 sample A	1036	Charcoal lens in Rampart A2	charcoal, <i>Quercus</i> sp. sapwood	-23.9	2440 ± 35	760–400 cal BC
SUERC-18566	MTW05103601 sample B	1036	Charcoal lens in Rampart A2	charcoal, <i>Quercus</i> sp. sapwood	-24.2	2440 ± 35	760–400 cal BC
SUERC-18567	MTW05103702	1037	Charcoal lens in Rampart A2	charcoal, <i>Quercus</i> sp. sapwood	-23.8	2450 ± 35	760–400 cal BC

Finds, by E.R. McSloy

Pottery

A small assemblage of pottery amounting to 44 sherds (877g) was recovered. The larger part of the assemblage dates to the late prehistoric period and derived from rampart deposits exposed in Area 1. Additional quantities of medieval, post-medieval and modern pottery came primarily from Area 3. The assemblage has been fully recorded and a fuller version of this report is contained in the archive.

Late Prehistoric

A total of 17 sherds (454g) of late prehistoric pottery was recovered from nine deposits (Table 2). With the exception of two residual sherds, all the pottery came from the rampart dumps exposed behind the dismantled town wall. Five Iron Age pottery fabrics were defined on the basis of inclusion type and size. With the exception of one sherd in a fine sandy fabric (type Q), residual in Area 3, the fabrics comprise calcareous (fine limestone type LSf and coarser LSm) and fossil shell-tempered types (type SHc and finer type SHm) comparable with larger assemblages known from Malmesbury and part of a wider tradition covering the Cotswold region (Brown 2006).

All material is hand-made, with sherd thickness in the range 8–9mm. One sherd in fabric SHc from dump 1049 in Rampart A1P1 was notably thicker (13mm) and probably comes from a large storage vessel. Internal carbonised residues indicative of cooking were recorded on four vessels from Rampart A1P1. Identifiable vessel forms are restricted to Figure 8 no. 1, a globular-bodied jar with a high upright rim, which is carefully formed with an internal bevel. It is decorated with a row of fingertip impressions to its shoulder region. This vessel, although unstratified, is represented as several large joining fragments and is very likely to have derived from one of the rampart deposits. Of the two other

rim sherds, Figure 8 no. 2 probably represents a bowl, possibly of bi-partite (carinated) profile. In common with no. 1, its rim is well formed and flattened/bevelled. Figure 8 no. 3 is a small sherd, possibly from a bi-partite bowl or jar and with simple rim.

One further vessel features decoration in the form of vertical scoring (Figure 8 no. 4). Such decoration is uncommon in the late prehistoric period in western Britain, although a vessel from Budbury (Wainwright 1970, fig. 13 no. 48) with regular vertical grooves or scoring suggests that similar treatments were used on occasion. The light and irregular scoring to no. 4 is, however, more in the tradition of Middle to Late Iron Age 'scored wares' common in central and eastern England (Elsdon 1992).

A programme of radiocarbon dating utilising material from Period 1 deposits, and incorporating one determination from a carbonised residue on a potsherd from Rampart A1P1 (dump 1051), returned consistent dates in the range 760 to 390 cal BC (Table 1). Overall the radiocarbon dating is consistent with the dating indicated on typological grounds by the pottery, which suggests that elements (at least) of the assemblage relate to the period spanning the late Bronze Age/early Iron Age transition. The use of fingertip decoration of the type seen with vessel no. 1 is common with assemblages of the period, including Potterne (Lawson 2000) and the hillforts at Battlesbury (Every and Mephram 2008, figs. 4.5–4.6) and Budbury (Wainwright 1970). The high neck and bi-partite profile of vessel no. 2 are also characteristics of this transitional period and continue into the early/middle Iron Age.

Evidence for activity of middle/late Iron Age date, present in the 1998–2000 excavations, could not be demonstrated from material associated with the rampart deposits in Area 1 (Brown 2006, 134). The residual sherd reminiscent of East Midlands 'scored-wares' may represent activity of this date in the area.

Table 2: Late prehistoric pottery: summary by context (quantification by count/weight in grammes)

Fabric	Us.	Deposit									Total
		1032	1045	1047	1048	1049	1050	1051	1053	2006	
LSf				1/14			1/10				2/24
LSm	1/161		1/4					4/50	1/50		7/265
SHc		1/2			1/40	1/72					3/114
SHm						4/32					4/32
Q										1/19	1/19
Total	1/161	1/2	1/4	1/14	1/40	5/104	1/10	4/50	1/50	1/19	17/454

Illustrated sherds (Figure 8)

1. Area 1, unstratified. Fabric LSm. Globular jar with upright/internally-bevelled rim.
2. Area 1, Period 1. Deposit 1048 of Rampart A1P1. Bowl or jar, flattened/internally-bevelled rim.
3. Area 1, Period 1. Deposit 1051 of Rampart A1P1. ?Bipartite jar or bowl, plain rim.
4. Area 3, post-medieval layer 2006. Sherd with scored decoration.

Medieval and later

The small quantities of medieval and later pottery were recovered primarily from dumped deposits in Area 3. The medieval component amounts to 15 sherds (265g) and the post-medieval and modern material a further 12 sherds (159g). Unglazed oolitic limestone-tempered 'cooking pot' fabric OOL LI corresponds to a type known across the Cotswold region and typically dates between the 11th and 13th/early 14th centuries (Ireland 1998). A single vessel form, a jar with simple everted rim, is represented (Period 2 layer 2023).

Sherds in a more even-fired oolitic limestone-tempered fabric, with a sparse lead glaze, are identifiable as Minety-type ware (Musty 1973). Dating for the majority of the unfeatured Minety ware sherds is broad, the result of the longevity of this material, with production extending between

the 12th and 15th centuries. A large jar sherd from Period 2 layer 2021 and bodysherds from 2023 (Period 2) and 2005 (Period 3) are wheel-thrown and exhibit sparse use of glaze. As such they date to the later phases of production, probably in the 14th or 15th century. Three bodysherds occur in a sandy buff-firing glazed fabric and are probably products of the Lacock/Nash Hill industry, 12km to the south of Malmesbury (McCarthy 1976). A sherd from 2003 features contrasting (brown) strip decoration suggesting an early to mid 14th-century date.

Worked flint

Three worked flints weighing 25g were retrieved: a chip or broken flake, a further flake and a small multi-platform core. The core is probably middle/late Neolithic or Bronze Age.

Ceramic building material and fired clay

Seven fragments of ceramic ridge tile of medieval type were recovered from Area 3. Two fragments from Period 2 deposits feature applied (luted-on) and knife-stabbed crests and occur in a coarse sandy

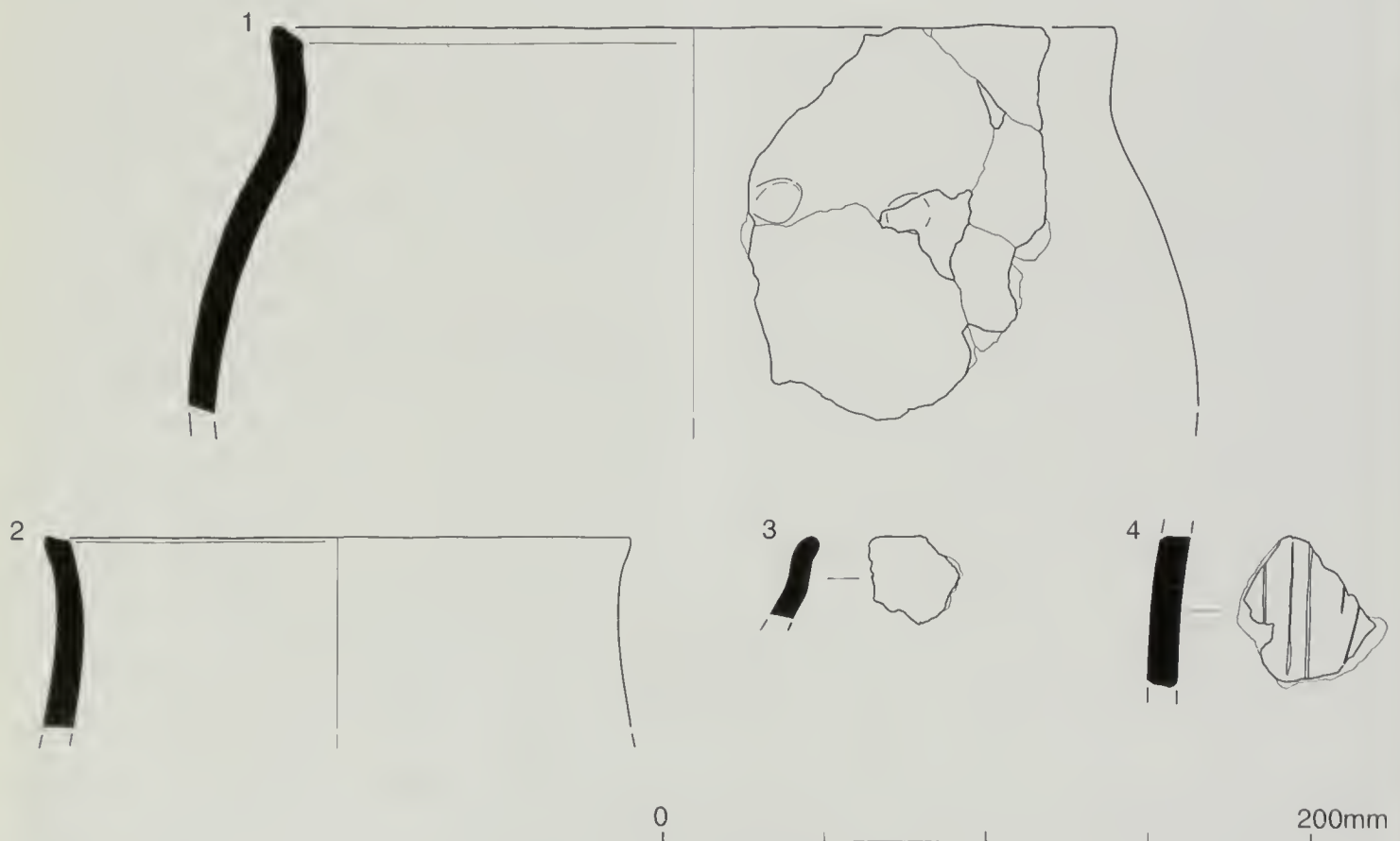


Fig. 8 Late prehistoric pottery (1:3)

fabric with dark olive glaze. These are very likely products of the Nash Hill (Lacock) tiliary (Eames 1976, 131-2) and probably date to the later 13th or 14th centuries. Similar dating is likely for the other fragments in Minety ware (Musty 1973).

Small quantities of fired or burnt clay (130g) were recovered from Area 3. One fragment from a Period 2 deposit exhibits clear organic (?straw) impressions and might represent burnt daub. The remainder consists of largely amorphous fragments in a buff-orange, slightly sandy fabric.

Iron

Three iron nails or nail shaft fragments and a single fragment of iron sheet were recovered from Period 2 deposits. None are closely dateable.

Worked and utilised stone

One stone tile and one stone object were recovered from Period 2/3 deposits. The stone tile is of localoolitic limestone and probably dates to the post-medieval period. The object consists of part of a partially burnt stone slab of grey-brown slightly micaceous Pennant sandstone (L. 122mm, W. max. 45 mm, D. max. 18 mm, 188g) and has been kindly examined by Fiona Roe. Its two main surfaces are smoothly worn and slightly glossy from use as a polisher or whetstone. Although from a post-medieval context, in light of its association with prehistoric and medieval remains, an earlier date should be considered. Pennant sandstone could have been obtained without difficulty from the Bristol area, at a minimum distance of about 24km. This Carboniferous sandstone was much used for whetstones and indeed for other artefacts and there are precedents for its use during the Iron Age, since whetstones made from it were taken to sites as far distant as Danebury, Hampshire (Laws *et al.* 1991, 385) and Yarnton, Oxfordshire (Roe in prep.). However the slightly glossy flat surfaces on this artefact suggest that it may in fact have been a polisher, possibly for leather working or else as a smoother for pottery. Such tools with worn, glossy surfaces are also common on Iron Age sites, where whetstone materials were typically utilised, as for instance at the Glastonbury Lake Village (Roe 1995, 162). Attribution to the medieval period is possible and Pennant whetstones of this date are known, for instance, from St Bartholomew's Hospital, Bristol (Good 1998, 164; fig. 67). The irregularity of this item and utilisation of only its flatter faces

argue against a medieval date and on balance, a late prehistoric date and use as polisher or smoother is preferred.

Animal bone, by *Sylvia Warman*

A total of 57 fragments from 44 bones weighing 460g was recovered from 12 deposits ascribed to Periods 1-3. The animal bone is in good condition with little modern breakage and no signs of weathering, indicating rapid burial at the time of deposition. Four Period 1 deposits (1032, 1047, 1049 and 1050) contained animal bone; the latter three comprising dumps of Rampart A1P1. The Iron Age assemblage comprised a sheep/goat distal tibia, a female pig skull, cow-sized vertebra, sheep-sized rib and long bone. Evidence of butchery was noted. This small assemblage shows similarities with that, of a comparable date, from Nun's Walk where sheep/goat, cattle, pig, horse and cat were identified (Sykes 2006).

Most of the animal bone came from medieval (Period 2) rubble deposits in Area 3 and included a wider range of species than that represented in Period 1; cattle, sheep/goat, pig, rabbit and fish (probably salmon family), cow-sized, sheep-sized and chicken-sized. The presence of rabbit, bird and fish remains within the Period 2 assemblage is consistent with the broader range of species consumed at this time. The medieval assemblage from Nun's Walk includes a similar (but wider) range of species to that seen here.

Possible archaeometal-lurgical residues, by *T.P. Young*

All materials were examined visually, using a low-powered binocular microscope where necessary. All significant materials were summarily described and recorded to a database. The materials were not subjected to any high-magnification optical inspection, nor to any other form of instrumental analysis. A fuller report is contained in the archive.

Fuel ash slag

The 'fuel ash slags' from Period 1 Rampart A2 layer 1038 comprise 31 pieces (4.3kg) of an extremely

low density, vesicular, slag-like residue of frothy appearance. They were associated with several pieces of apparently baked stone. The overall form of the original slag mass is not known. Several pieces show a curved lower ?contact, suggesting an origin within a bowl-shaped feature (although the curvature might conceivably have resulted from deformation of the slag if removed from its originating feature when hot and soft). Some pieces show a crude internal stratification with aligned vesicles (and moulds of charcoal?). Approximately one third of the material shows a smooth surface, bearing moulds of large charcoal or wood pieces. The thickest blocks indicate an original maximum thickness of at least 150mm.

Materials such as this are commonly (although probably frequently erroneously) described as fuel ash slag. A fuel ash slag is one in which the slag is dominated by material derived from the inorganic component of the fuel. The intensely vesicular nature of the material examined is suggestive of significant gas release from the precursor material, rather than just the inclusion of burning fuel particles. The volatiles most likely to be involved are water (from a wet precursor or more likely from structural water within the minerals) and carbon dioxide (from breakdown of carbonate minerals such as calcite). Included with the specimens is an adhering matrix of strongly calcareous clay soil and limestone weathering debris; this is exactly the sort of material the heating of which might have generated these residues.

There are two strong possibilities to explain how this material was formed. One is that the material originated through combustion of a wattle-and-daub structure. The second, which is attractive given the morphology of the fragments, is that the slags originated within a hearth. There are circumstances in which the moderate temperatures in a large hearth can cause slagging of the hearth margins, particularly where the margins are highly calcareous, and therefore capable of generating a melt at a low temperature. The bowl shape apparently indicated by some of the slag might also support an origin in a hearth cut into the calcareous soil/subsoil.

The so-called fuel ash slags have been rather neglected in the past and there are extremely few published analytical investigations of them. Fuel ash slags in thick sheets, as in this instance, are particularly commonly found in Middle to Late Iron Age contexts, where they have been informally dubbed 'Iron Age grey slag' (Cowgill 2000; 2008; Cowgill *et al.* 2001; Swiss and McDonnell 2001). The Malmesbury material may have originated

in a large domestic hearth, or possibly in a kiln, and a metallurgical origin for the material seems unlikely. Although similar material elsewhere has been interpreted as fired daub, the sense of 'way-up' (rough lower? face, smooth upper? face with wood impressions) strongly suggests an origin within a hearth for this assemblage.

Ironworking slags

Small quantities (92g) of iron smelting slags were recovered from Period 2 and 3 deposits in Area 3. All consisted of dense lobes of slag that have been tapped from a bloomery iron smelting furnace. The use of slag-tapping furnaces may have started in this region in the middle Iron Age and they continued in use until the Middle Ages; the current pieces are not indicative of age. There are no iron resources close to Malmesbury, so any smelting would have been of ores imported from outside the area, possibly from southern Wiltshire, but more likely from the Forest of Dean or possibly the Bristol area.

Fired clay

Two pieces of fired and vitrified red ceramic from Period 1 rampart dump 2027 and seven pieces of vitrified and reddened clay from Period 2 dump 2023 were examined. These pieces are intensely oxidised and show evidence of vitrification and the development of vesicles. They might be fragments derived from metallurgical hearths, but are not specifically identifiable.

Discussion, by *Jonathan Hart*

The small worked flint assemblage reported on here is further indication that the Malmesbury promontory was occupied in the Middle/Late Neolithic or Bronze Age, and complements the assemblage recovered from Nun's Walk (Longman 2006, 135-6). The investigations of the Iron Age defences took place along the north-eastern length of the town wall, just to the north of the excavations at Nun's Walk (Figure 1). The results of that work are necessarily ambiguous, coming as they do from a number of dispersed trenches. The 1998 investigations focused on the line of the town wall and revealed that the earliest defences comprised an earth rampart, possibly with a timber revetment, and

an outer ditch, the latter containing the collapsed remains of a possibly contemporary stone revetment wall. Together, these were referred to as the outer defences. A single sherd of Early Iron Age pottery, dateable to c.800–600 BC, was recovered from the secondary fill of the ditch, and charcoal from the same fill provided radiocarbon dates of 800–250 and 7700–400 cal BC. Work in 2000 took place on the inner (western) side of these defences and identified an earthen rampart, possibly with a timber revetment, and an outer ditch. Pottery associated with the possible revetment dated to c.400 BC. Together, these were referred to as the inner defences. Subsequent phases saw the inner rampart heightened, with indications that a possible timber palisade had been added. The latest development of the inner defences occurred during the Middle Iron Age when a substantial limestone wall was constructed on top of the existing rampart.

The current investigations have provided further evidence for the Iron Age defences. An interpretation of their development is presented below but is based on limited exposures and is hampered by a lack of stratigraphic relationships between the three areas investigated. This interpretation should not therefore be regarded as definitive. The earliest defences exposed consisted of Rampart A1P1, which appeared to run parallel to the rear of the existing town wall. Wall 1073 also followed this alignment and is probably best seen as a front revetment for the rampart. Together, these early defences probably extended south-west towards Longman's outer defences and north-east along the line of the existing town wall. No further ramparts or ditches were identified during the geophysical surveys inside or outside of the medieval wall line, although the results from trench 3 show that this should not be regarded as conclusive proof of their absence.

A major remodelling of the defences is seen with the construction of Rampart A1P2, which apparently turned inwards at the point indicated approximately on Figure 2. As was the case with Longman's inner defences, Rampart A1P2 was successively raised in height by the dumping of further earthen layers. The earlier revetment wall remained at least partially standing and was butted on the outside by Rampart A2, which was itself revetted by wall 1027. Although no direct relationship was present between Ramparts A1P2 and A2, both included notable deposits of scorched-red clay not seen in any of the other rampart deposits and this might suggest that they were contemporary.

Rampart A2 and its revetment, however, did not

appear to turn inwards to follow Rampart A1P2 and instead seemed to run parallel to Rampart A1P1. If Ramparts A1P2 and A2 were contemporary, this suggests that the remodelling was designed to provide multiple lines of defence, at least along this part of the circuit. Although no stratigraphic relationships were present, it is possible that the rampart deposits and wall in Area 3 represent further outer works associated with these remodelled defences, with wall 2019/2034 revetting the face of Rampart A3. At Uley Bury, Gloucestershire, a smaller outer rampart appeared to be a later addition to the eastern entrance, although the extent to which concentric defences were constructed around the entire length of the hillfort remains unclear (Saville 1983). A similar situation might pertain at Malmesbury, with a possible entrance close to Holloway delineated by multiple lines of defence. If this was so, then the inner defences identified in 2000 are likely to represent the primary defensive line associated with this putative entrance.

Malmesbury's situation on the naturally defensive and visually prominent limestone promontory is comparable to that of a number of other Cotswold hillforts, such as Uley Bury, Crickley Hill and Leckhampton Hill. At Uley Bury a terrace was cut into the steep natural slope and the resulting spoil was cast forwards against a stone revetment to create an earthen bank capped with limestone rubble (Saville 1983). This created an extended terrace rather than a true rampart, but had the effect that the front face of the 'rampart' increased the steepness of the natural slope. The construction methods at Crickley Hill and Leckhampton Hill, both located on the crest of the Cotswold scarp, appear to have been somewhat different, with ramparts strengthened by timber lacing and revetted with drystone walls (Dixon 1994; Champion 1976). Since the base of the ramparts was not reached at Malmesbury, it is difficult to be conclusive, but it would seem that the best interpretation of walls 1073, 1027 and 2019/2034 is that they were revetment walls comparable to those at Uley Bury rather than high standing curtain walls similar to the Middle Iron Age inner defence at Nun's Walk (Longman 2006). The stakehole cut into the top of Rampart A1P2 might represent part of a palisade, but in the absence of further substantial postholes this remains unclear.

The scorched-red clay layers of ramparts A1P2 and A2 are worthy of some discussion. The absence of scorching on walls 1073 and 1027 indicates that these deposits were not burnt *in situ* and it is possible that they were deliberately laid to contrast with the

pale limestone revetments. If this were the case, then it seems unlikely that a sufficient quantity of red clay could be provided as an incidental by-product of domestic hearths, raising the possibility that these deposits, including the slags within dump 1038, were the result of a deliberate process designed to manufacture large quantities of red-scorched clay. Although no comparable deposits were observed during the 1998–2000 excavations, red-scorched clay and vitrified slag-like material were recorded as inclusions within both *in situ* and slumped Iron Age rampart deposits (Longman 2006, 115). ‘Burnt red earth and limestone’ formed the upper surface of part of the eastern rampart at Leckhampton but this was not the case elsewhere along those defences (Champion 1976, 183).

Radiocarbon determinations obtained from Ramparts A1P1 and A2 at Malmesbury (730–390 cal BC and 760–400 cal BC respectively) provide only very broad date ranges for the hillfort’s origins. The small assemblage of pottery dating to the later part of the Late Bronze Age to Early Iron Age transition recovered from the ramparts provides a *terminus post quem* for their construction, although the absence of Middle and Late Iron Age material supports Longman’s suggestion that the defences originated during the Early Iron Age. Crickley Hill and Leckhampton Hill also date to the Early Iron Age, while Uley Bury may be somewhat later (Dixon 1994, 217–20; Champion 1976, 187–8; Saville 1983, 23).

No evidence, either stratigraphic or artefactual, was found for the late 9th-century *burh* defences in the present work, which matches the results from Nun’s Walk where the only possible trace was a bank outside the Iron Age rampart which produced a few sherds of 10th or early 11th-century pottery (Longman 2006, 115, 160). This absence of obvious evidence for the burghal phase is an emerging feature of Wessex *burhs* (A. Reynolds pers. comm.). The medieval defences survived as wall 3005 and masonry fragments within wall 1006, which continued to form part of the eastern bastion of East Gate. Wall 3005 might be original fabric of the early 12th-century defences, or else a medieval rebuild.

Outside the medieval town wall, the outer defences had apparently been landscaped by grading off the Iron Age ramparts and partially demolishing Iron Age wall 2019, with the resulting spoil and rubble dumped to create a smooth profile. The small quantity of pottery recovered from this landscaping in Area 3, particularly the 14th or 15th-century wheel-thrown Minety-type wares from layers 2021

(not illustrated) and 2023, and the 14th-century strip-decorated Lacock/Nash Hill sherd from layer 2003 suggest that the landscaping occurred during or after the 14th century. The smooth profile would have removed dead ground and provided clear lines of fire from the wall top. Given the date of these improvements, it is tempting to link them to the increasing adoption of gunpowder weapons at this time, although it has been suggested that gunpowder artillery stimulated few changes upon castle architecture in England (Thompson 1987, 35). How far this assumption can be extended to the town defences is unclear but it is possible that the landscaping here had an aesthetic purpose as well as, or instead of, a purely military one. No evidence of an outer ditch was identified. The mid 17th-century ‘Bird’s Eye View’ of Malmesbury shows the town and its defences as they appeared in the earlier post-medieval period as seen from the west (reproduced in Longman 2006, fig. 4). The illustration seems to depict an outer ditch, but this does not appear to be continuous around the full visible circuit. How far this can be taken as reflecting the medieval defences is unclear however, and in any case, the outer defences at the site itself are not visible.

Overall the new work provides further evidence for the Iron Age hillfort and suggests that although it may have originated as a single univallate enclosure, more complex defences were added around a possible entrance located close to the site adopted for the medieval East Gate. It has also provided further indication that these defences originated during the earlier 1st millennium BC. Some evidence for the 12th-century walls was also identified, along with new evidence of landscaping outside the town wall as part of later medieval defensive improvements.

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The site archive will be deposited at the Wiltshire Heritage Museum, Devizes.

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Prehistoric pits and Roman enclosures on the A419 Blunsdon Bypass, Blunsdon St Andrew: excavations 2006-7

by Mark Brett and E. R. McSloy

with contributions by Mary Alexander, Dana Challinor and Sylvia Warman

Three areas were excavated in advance of the construction of the A419 Blunsdon Bypass: Sites A and B, and Area B. Site A contained a number of pits and possible postholes of Middle Bronze Age to earlier Iron Age date, and Area B revealed further evidence of prehistoric activity. Site B contained a concentration of features indicative of short-lived, rural occupation probably associated with a nearby farmstead dating from the mid 1st to 2nd centuries AD.

Introduction

Between September 2006 and February 2007 Cotswold Archaeology (CA) carried out a programme of archaeological investigation along the route of the A419 Blunsdon Bypass, Blunsdon St Andrew, Wiltshire (between NGR SU 136 912 and SU 152 894; Figure 1). The work was undertaken on behalf of Alfred McAlpine plc working for the Highways Agency.

The bypass route comprises a corridor of land, approximately 3.3km in length, to the north of Swindon, on the south-western side of the former A419. The south-eastern end of the scheme lies at approximately 140m AOD, whilst the northern part extends down the slope of Blunsdon Hill. The underlying geology of the higher, southern part of the bypass route is mapped as Corallian Rag and clay, whilst the northern part of the corridor below the ridge of Blunsdon Hill lies on Oxford Clay (BGS 1974). At the time of the fieldwork, land use along the bypass route varied from arable and pasture fields to areas of woodland, as well as several small plots occupied by extant buildings.

Archaeological background

Following an initial desk study, areas of the proposed bypass were examined by geophysical survey (Stratascan 2002; 2003), evaluation trenching (CA 2003), and fieldwalking (CA 2004).

The geophysical survey identified potential archaeological features, which were subsequently examined by evaluation trenches. The evaluation identified three features containing worked flint of Late Neolithic or Bronze Age date towards the northern end of the scheme near Upper Widhill Farm at Site A (Figure 2). Subsequent fieldwalking in the vicinity of these features recovered further worked flint, which dated from the Mesolithic to Late Neolithic or Early Bronze Age. Additional evidence for prehistoric activity in the area comes from residual worked flint found at Abbeymeads (McSloy *et al.* 2009) to the west of the bypass corridor and residual Bronze Age pottery from excavations at Groundwell Farm (Gingell 1982), just to the south of the A419 at the south-east end of the bypass route.

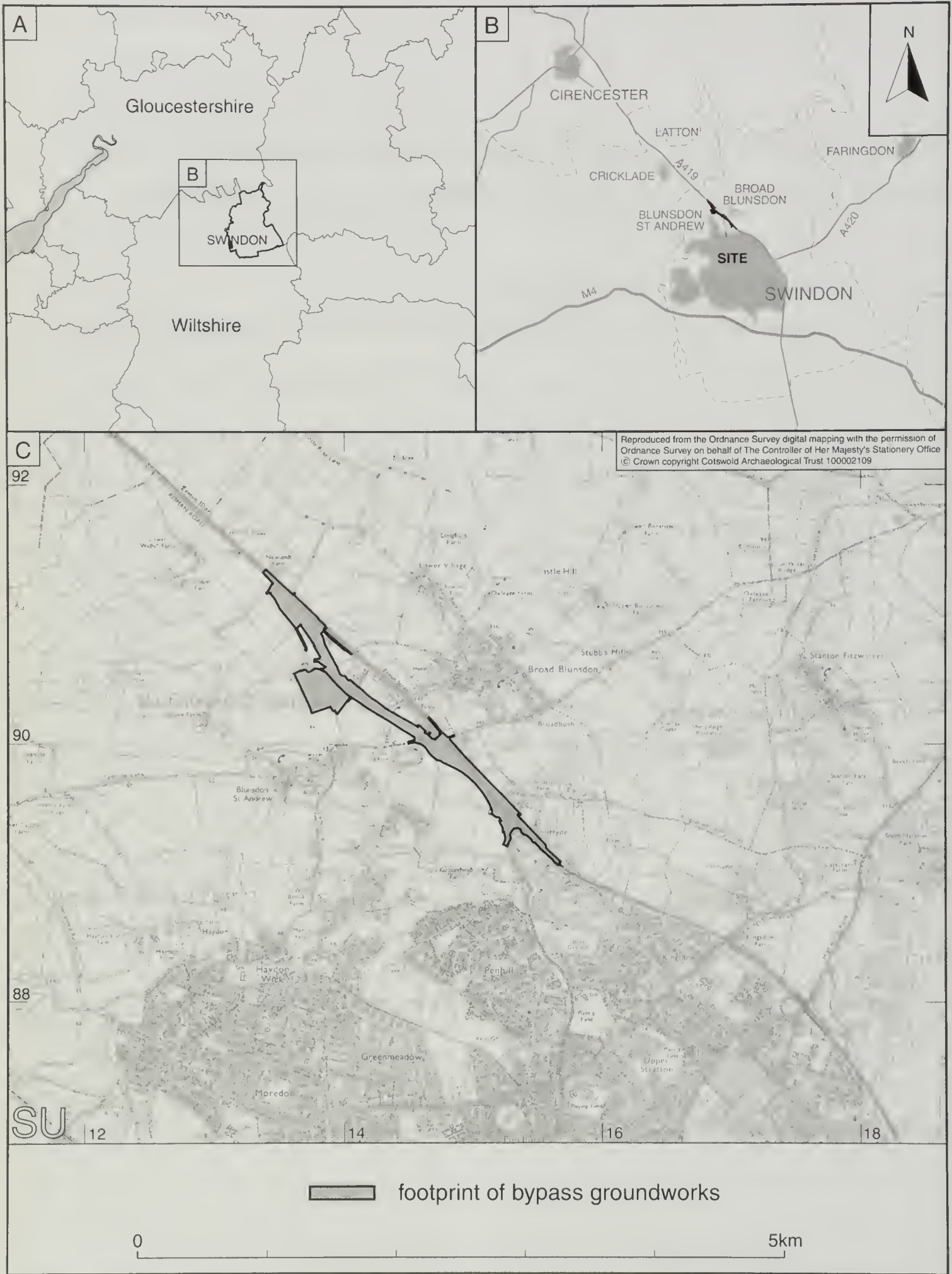


Fig. 1 Location plan. Scale 1:50,000

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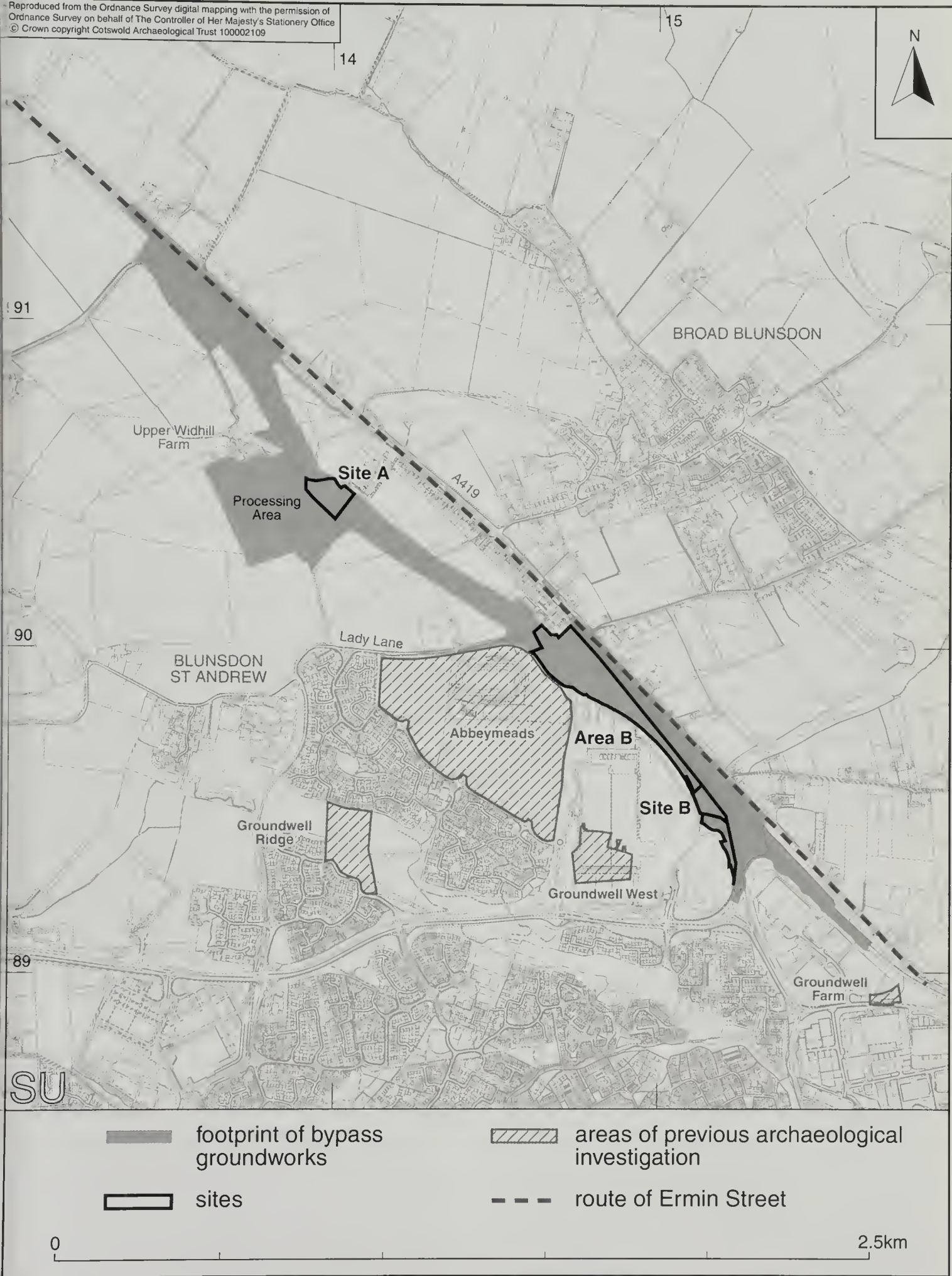


Fig. 2 Location of bypass route and Sites A and B. Scale 1:20,000

The archaeological evaluation also identified a single feature of possible Iron Age date in Area B to the east of Abbeymeads. This feature was initially thought to be an outlying field boundary associated with an Iron Age enclosure recorded at Groundwell West (Walker *et al.* 2001) (Figure 2). Pits, probably associated with the Groundwell West settlement, were also found in the Abbeymeads excavations (McSloy *et al.* 2009), and another Iron Age enclosure was investigated at Groundwell Farm (Gingell 1982).

The line of the Roman road known as Ermin Street is followed partly by the former route of the A419 and, to the south-east of the road scheme, by a minor road. A medieval hollow-way excavated during improvement works to the A419 at the Commonhead Junction, 5km to the south-east of Blunsdon, appears to have preserved the alignment of the Roman road (Hart and Alexander 2009). Within the environs of the Blunsdon Bypass route, Roman finds have come from an area adjacent to the line of the Roman road at the south-eastern end of the scheme (Jeffrey 1987; WANHM 1982). Abraded Roman pottery was also recovered from the upper levels of ditches of the Iron Age site at Groundwell West, and a gully of Roman date was excavated at Groundwell Farm (Gingell 1982). At Groundwell Ridge, approximately 1km to the west of the Blunsdon Bypass, the remains of a substantial Romano-British villa have been excavated (Brickstock *et al.* 2006). Two isolated Anglo-Saxon burials were examined at Abbeymeads, but no evidence for contemporary activity was found (McSloy *et al.* 2009).

Fieldwork methodology

On the basis of the evaluation results, two areas of the proposed bypass corridor were selected for investigation in advance of construction. Site A was located where prehistoric features had been identified to the south-east of Upper Widhill Farm, and Area B encompassed the area of the road corridor closest to the excavated sites at Abbeymeads and Groundwell West. These areas were stripped of topsoil and subsoil by a mechanical excavator equipped with a toothless grading bucket, at all times under archaeological supervision. Site A covered an area of approximately 1.8ha. The area of dense Roman features found in Area B, referred to as Site B, covered an area of approximately

0.4ha. The remainder of the bypass route was mechanically stripped of topsoil and monitored by an archaeological watching brief as part of the construction programme.

All archaeological deposits were hand excavated. An average of 50% of all discrete features such as postholes and pits was excavated and an average of 10% of all linear features (ditches, gullies) was sampled in a series of sondages. All features were then fully recorded.

An assessment of the results of the archaeological investigations (CA 2008) was followed by further analysis reported in this paper. The results of the analysis of an environmental sample taken from Site A are discussed within the text. The samples taken from Site B were poor, and apart from a small quantity of charcoal did not supply any environmental information.

Excavation results

Archaeological features were revealed within Site A, Area B and Site B during the archaeologically-controlled strip, and a post-medieval ditch was identified during the watching brief within a 'processing area' to the south of Upper Widhill Farm.

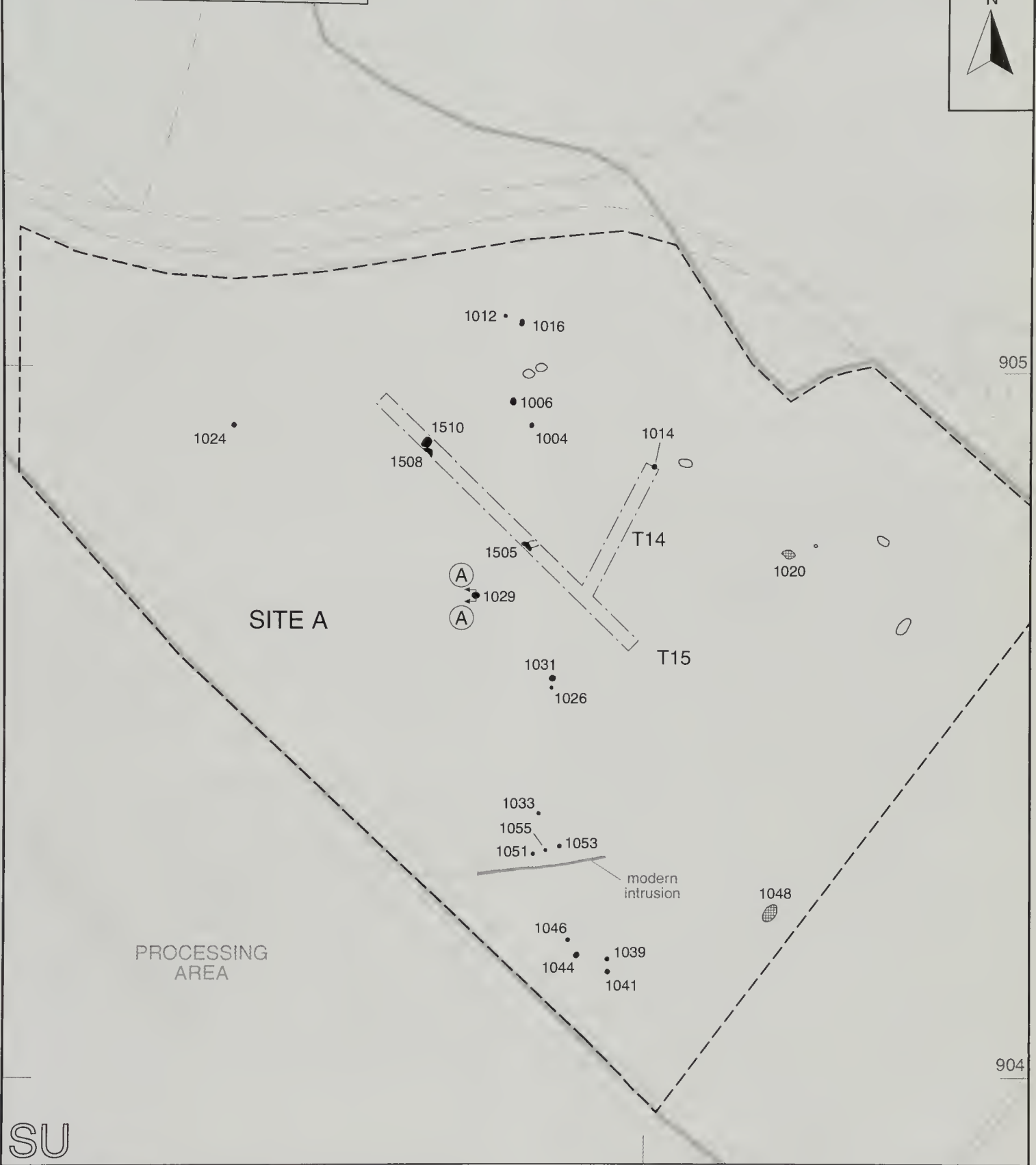
The archaeological features are discussed within three broad chronological periods: prehistoric (subdivided into Period 1a: *Mesolithic to Middle Bronze Age*; and Period 1b: *Earlier/Middle to Late Iron Age*), Roman (Period 2: *mid 1st to 2nd century AD*) and medieval (Period 3: *12th/13th century AD*). These periods include a number of features that contained no dating evidence but could be associated spatially or by their form with dated features. A number of undated features are also discussed. Post-medieval features, including furrows, were investigated but are not reported here.



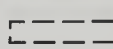

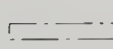


Period 1a: Mesolithic to Middle Bronze Age

Site A contained a number of small pits and possible postholes; some clusters of features were perceived, but with no obvious structural arrangements (Figure 3). Many of these features were undated, but five pits and a posthole just to the north of the centre of Site A contained Middle Bronze Age dating evidence. The most notable of these features was an oval pit 1029, 0.75m in diameter and 0.35m deep (Figure 6), which contained a concentration of charcoal and evidence of *in situ* scorching, as well as some carbonised

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- | | |
|---|---|
|  footprint of bypass route |  medieval |
|  site |  modern |
|  evaluation trench |  undated tree throw pits |
|  prehistoric (Periods 1a and 1b) | |

0 50m

Fig. 3 Site A. Scale 1:1,000



Fig. 4 Area B. Scale 1:1,250

hazelnut fragments, pottery of probable Middle Bronze Age date and 15 pieces of worked flint. The majority of the flint is contemporary with the date of the pottery but the assemblage included a flake of probable Mesolithic date, which would be residual within the group. A sample from fill 1043 yielded a reasonable assemblage of charcoal, including *Quercus* (oak) and *Alnus/Corylus* (alder/hazel). This sample also produced a moderate amount of *Corylus avellana* (hazel) nutshell. A crescent-shaped pit 1505 identified to the north-east of pit 1029 filled with bands of scorched clay may be associated with the same activity as pit 1029. Its fill yielded six flint flakes and a core fragment of probable Bronze Age date. Pits 1508 and 1510 contained flint flakes of probable Bronze Age date, and further to the north, pit 1004 contained pottery dated to the Middle Bronze Age as well as two worked flint fragments. The fill of adjacent pit 1006 yielded six flint flakes. The fill of this feature was also notable for containing 40 fragments of red deer antler and a red deer tooth.

Pits 1012 and 1016 lying even further to the north, and pit 1031 lying to the south-east of pit 1029 are of similar dimensions and may also belong to this period, as well as the undated posthole 1026 adjacent to 1031, and posthole 1014. Pit 1031 also contained a thin band of *in situ* scorching and a deposit of charcoal.

Period 1b: Earlier/Middle to Late Iron Age

Two postholes (1039 and 1041) at the southern side of Site A (Figure 3) contained several sherds of Earlier/Middle Iron Age pottery within their backfills; 1041 also contained a fragment of horse bone. A further six postholes may be associated with these features, but were undated. The postholes form no obvious structures, although postholes 1051, 1053 and 1055 are equally spaced in a line, which could denote the location of a fence. An isolated pit 1024 on the west side of Site A contained two sherds of Iron Age pottery and two horse teeth above a thin deposit of charcoal.

There are hints of prehistoric activity in Area B (Figure 4). Here, a single residual sherd of Bronze Age pottery was found within post-medieval pit 2006 and another from pit 2012, one of three intercutting quarry pits, initially interpreted as an Iron Age ditch in the evaluation. Two Roman pottery sherds were recovered from the upper fill of pit 2010, and it is possible that the Iron Age sherd from the evaluation trench was also residual. An isolated oval pit (2026) measuring 2.1m in length and 0.95m wide contained

14 fragments of red deer within its fill. Red deer was commonly hunted throughout the prehistoric period, and its presence here may be indicative of a prehistoric date for this feature.

A low level of prehistoric activity is implied on Site B (Figure 5), where three flint flakes were found in an otherwise undated pit 5122, and a small quantity of residual flint was found in features with later dating evidence. Given the location of pit 5122, amongst a cluster of later pits, these flints may also be residual inclusions. Some 33 sherds of Late Iron Age pottery occurred residually in Roman features on Site B, although no features pre-dating the Roman period were identified, with the possible exception of undated pit 5194, truncated by Early Roman ditch B.

Period 2: Roman (Mid 1st to 2nd century AD)

Romano-British features were located exclusively at Site B where several ditches, pits, postholes and gullies were found (Figure 5). Activity was bounded to the south by two large east/west-aligned parallel ditches and to the north by three parallel ditches on the same east/west alignment. All features ascribed to this period (apart from ditch T) were between these ditches. Roman pottery retrieved from the features dates to the mid 1st to early 2nd century AD, suggesting the majority of the excavated features were broadly contemporary. Iron Age pottery was found in some ditch and pit fills, although some of this assemblage may represent the continuation of an Iron Age tradition of manufacture.

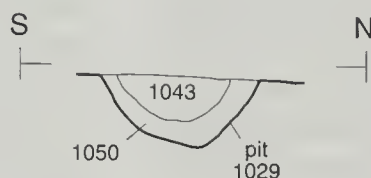
Ditches A and B may represent different phases of establishment of a land boundary, or possibly the alignment of a trackway between 3–5m wide. Ditch A had a maximum width of 2.4m and survived up to 0.45m deep; ditch B was up to 3.6m wide and 0.7m deep. Both ditches had gently sloping sides and an almost flat base (Figure 6). The main fills of each ditch suggested gradual silting up, with a final episode of deliberate back-fill. Both contained small quantities of flint and animal bone, and there was a single piece of slag from ditch B.

Ditches E and F described one corner of a probable enclosure or paddock, with ditch H possibly representing the northern side of this feature. In this case the enclosure was approximately 25m north/south and in excess of 36m east/west. The return at the eastern end of ditch H may indicate an entrance into the enclosure. No finds were recovered from ditch F; however ditch E contained a small amount of animal bone and flint, as well as



Fig. 5 Site B. Scale 1:1,000

Section AA; Pit 1029, Site A



Section BB; Ditch A, Site B



Fig. 6 Sections. Scale 1:50

a significant quantity of mid to later 1st-century AD pottery, with a few sherds of residual Iron Age pottery. Ditch H contained 42 sherds of mid 1st to early 2nd-century AD pottery, as well as residual Iron Age sherds.

Ditches C, D, J, K and S may represent supplemental drainage or modification to the enclosure. Ditch 5026 may be part of this activity also. All the ditches were of a similar width and 0.2m–0.4m deep. In general the ditch profiles were rounded or concave. Ditch C was notable for a deep eastern terminus, extending to a depth of 0.5m where a number of large limestone blocks had been deposited, possibly intended to facilitate drainage. The eastern terminus of ditch D had been modified, although for an unknown purpose. Ditches D and J each contained a single piece of burnt stone each and an iron hobnail was recovered from the eastern terminus of ditch C.

Although truncated by modern service trenches, the alignment of ditches L, M and U would suggest that these are broadly contemporary with the ditches within the main area of activity, and suggest another small enclosure towards the east. They also both contained pottery dated to the mid 1st to early 2nd centuries AD, as well as a small quantity of animal bone. The alignments of ditch T and the short linear feature R did not correspond with the other Roman linear features and it may be that the small amount

of Roman pottery found in each of these features was residual.

The sinuous ditch (gully G) which survived to a maximum depth of 0.3m, cut across ditch F at its southern end and would appear to be a modification of the enclosure. In contrast to the majority of the ditches, which were filled by light-coloured clay derived from the natural substrate, it was filled by very dark grey clay. Gully G contained significant quantities of cultural material, including 73 animal bone fragments and 128 sherds of Roman pottery. The faunal remains predominately comprise sheep/goat, but also include examples of pig, cattle and horse. A number of pits in the vicinity of gully G may have been contemporary with it, as pit 5150 also cut into the top of ditch E. The upper fill of this pit and of pit 5135 were also dark grey and contained sherds of Roman pottery and bone. To the west of gully G, the fill of pit 5148 contained burnt limestone fragments, but no other finds. The presence of these pits in this location, including the large pit 5172 on the edge of the excavated area, would suggest these pits were not contemporary with the use of this corner of the enclosure as an entrance.

A group of pits lay within the south-east corner of the enclosure, and may post-date its use, as pit 5099 cut ditch E. All were roughly circular or oval in shape, except 5106 which was of elongated oval form. Maximum dimensions varied from 0.6m to 2.5m,

with the largest and deepest pit, 5124, surviving to a depth of 0.35m. In contrast to the group of pits in the north-east corner of the enclosure, this group as a whole produced only occasional sherds of Roman pottery.

Three pits to the south of ditch D contained fills rich in animal bone and Roman pottery, pit 5063 producing over 13,000 fragments of sheep/goat bones, including several partially complete individuals. This may indicate the disposal of part of a flock due to disease. Adjacent pit 5065 also contained only sheep/goat bone fragments and may have been used for the same purpose.

A trend towards slightly later dated pottery (but dating no later than the early 3rd century) was noted in the group of pits that lay beyond the eastern end of ditch C. The deepest pit 5041, cut into the top of ditch B, survived up to 0.45m in depth and contained a large assemblage of cattle, horse, sheep/goat and pig bones and 126 sherds of Roman pottery. The adjacent pit 5023 was also rich in pottery of this date.

Period 3: Medieval (12th/13th century AD)

Medieval activity at Site A was represented by a single oval pit 1048 (Figure 3) 2.72m long, 1.6m wide and 0.45m deep. It contained a single fill from which two sherds of Minety ware pottery were recovered dating to the 12th/13th century. A single sherd of medieval pottery was also retrieved from tree-throw pit 1020.

Undated

Three postholes 5037, 5028 and 5035 on Site B are parallel to the line of the A419 and may form part of a modern fenceline. None of these features contained any dating evidence, although 5028 cut into the top of ditch B. At Site A (Figure 3) a series of tree-throw pits may be associated with ground clearance relating to the prehistoric or medieval activity recorded on the site, but this cannot be proven.

Finds by E.R. McSloy

Worked flint

A small group of 43 pieces of worked or burnt flint (252g) was recovered from excavation and evaluation. An additional 19 pieces were found during fieldwalking undertaken in 2004. The assemblage consists largely of unutilised removals (flakes and chips) and core fragments. The chief

significance of the group is that 30 pieces from features in Site A is stratified material, and is representative of earlier prehistoric activity in the area. Some material, including 15 pieces from the fills of pit 1029, was retrieved in association with pottery of probable Middle Bronze Age date.

Excepting the surface collected group and unstratified material, the condition of the worked flint is typically good. The material from Site A exhibits characteristics of uniform pale grey patination consistent with burial within calcareous soils. Worked flint found at Site B was largely unpatinated, probably reflecting the different geology noted in this area. Where the underlying colour of the raw material is exposed by edge damage or breakage, this is dark grey. The cortex, where surviving, tends to be chalky and unworn, and suggests good quality raw material from a primary (chalk) source.

Included among the Site A pit groups were small removals (chips) and cortical flakes apparently from the same core or nodule. The material present and its typically sharp condition suggests that a proportion at least is stratified. The small quantity of worked flint from Site B largely occurred residually in Roman deposits, and included a broken blade, possibly a Mesolithic or Early Neolithic piece, and five flakes of unknown date.

Pieces with secondary working (re-touch) are restricted to a broken end/side scraper from Site A (pit 1029) and a small, discoidal 'button' scraper recovered from fieldwalking. Only the button scraper is suggestive of dating, this comparing to tool forms commonly seen among Beaker and Early Bronze Age assemblages. Two other pieces from pit 1029 (a blade fragment and a large flake) exhibit damage to edges consistent with utilisation as cutting implements.

Some limited evidence for Mesolithic or possibly Early Neolithic activity is suggested by blades and a fragment from a bladelet core from the topsoil at Site A. A flake from Site A pit 1029 appears to be a 'core tablet' (a tranchét-struck rejuvenation flake from a single or opposed platform core of Mesolithic type). It features blade/bladelet scars, with evidence for platform preparation (abrasion).

The (potentially) stratified pit groups from Site A (including material from evaluation features 1505 and 1508) exhibit some observable technological characteristics, which support dating suggested by the associated (Bronze Age) ceramics. The flake removals typically exhibit squat proportions and show characteristics of hard-hammer-percussion without evidence for platform preparation. Five

flakes from pit 1029 and 1006 feature hinge fractures which may reflect the often 'uncontrolled' character of some metal-age flintworking.

Pottery

Pottery amounting to 876 sherds (9274g) was recovered from 70 deposits. Small quantities of Bronze Age and Iron Age pottery were recovered primarily from Site A. The larger part of the assemblage derives from Site B and dates to the earlier Roman period.

The majority of pottery was hand-recovered during the course of evaluation and excavation with small quantities of Roman material (61 sherds; 219g) retrieved from the processing of soil samples. The pottery was recorded according to nationally accepted standards (PCRG 1997; SGRP 1994). Quantification for both period groups was according to sherd count and weight for each fabric by context. Vessel form was recorded for all featured sherds (typically rims and bases) and a measure of rim percentage to provide estimated vessel equivalent (Rim EVEs).

The condition of the assemblage was variable. The prehistoric component typically occurred as small bodysherds and is reflected in a low mean sherd weight of 3g. Mean sherd weight is also moderately low for the Roman assemblage (11.3g). Surface survival and preservation of calcareous inclusions varied across the two sites; however it appeared that the clay soils prevalent in Site B resulted in markedly poorer preservation.

Prehistoric Pottery

Middle Bronze Age

Pottery of earlier prehistoric type amounted to 20 sherds (60g). All of it was recovered from pit-like features in Site A, other than two residual sherds from Area B (Table 1). All the material consisted of small, sometimes abraded bodysherds and dating is largely on the basis of characteristics of fabric and firing (below).

Sherds in grog-tempered fabrics from pit 1029 (two) and pit 1004 (one) feature narrow applied (vertical) strips. A Middle Bronze Age date is considered probable, with the use of applied strips consistent with southern British Deverel-Rimbury styles. A sherd in a flint-tempered fabric from pit 1029 would be consistent with either a Neolithic or Middle Bronze Age date, although in this case the absence of decoration favours the later period.

Table 1: Prehistoric pottery summary by area. Quantification as sherd count and weight(g)

Date	Fabric	Area B		Site A		Site B		Total	
		Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
Bronze Age	BA FT	1	8	1	10			2	18
	BA GR	1	1	17	41			18	42
	Sub-total	2	9	18	51			20	60
Iron Age	IA LI			5	10	33	93	38	103
	IA SH			1	2	1	8	2	10
	IA Q			8	16	1	14	9	30
	IA RS			2	9			2	9
Sub-total			16	37	35	115	51	152	
Total		2	9	34	88	35	115	71	212

Fabrics

BA GR: *Coarse grogged*. Orange-brown or buff surfaces with dark grey core. Soft, with irregular fracture and soapy feel. Common sub-rounded dark grey grog (2–3mm); may include sparse white limestone (0.5–1mm). Sherd thickness range 8–10mm.

BA FT: *Coarse flint*. Orange-brown throughout. Soft, with irregular fracture and rough feel. Common angular flint (2–4mm) which can protrude through surfaces; common quartz sand. Sherd thickness range 9–10mm.

Late Prehistoric

A total of 51 (152g) sherds of probable Iron Age pottery was recovered. Material of probable earlier Iron Age date was recovered from two postholes (1039 and 1041) within Site A. The fabrics compare to material of Earlier/Middle Iron Age type known from neighbouring sites at Groundwell Farm (Gingell 1982, 54–63) and Groundwell West (Timby 2001, 19–24). One vessel from posthole 1039 is notable in exhibiting an iron-rich red slip. The use of red slips is commonly recorded in the central-southern region among pottery finewares of earlier Iron Age date and is also present at Groundwell Farm (Gingell 1982, 54).

The remaining material, comprising quantities of handmade pottery in (leached) shell or limestone-tempered fabrics, was recovered from Site B (Table 1). The majority of pottery of this type is likely to be residual, although there is good evidence for the continuation in the region of hand-made types including Malvernian limestone-tempered wares into the middle decades of the 1st century AD (Timby and Harrison 2004). Few forms were recorded, although the globular and barrel-shaped jars are consistent with a Middle to Late Iron Age date, plausibly extending into the 1st century AD.

IA SH: *Coarse fossil shell*. Dark grey-brown throughout. Soft with irregular/laminated fracture and smooth

feel. Where not leached, inclusions consist of common coarse shell 2–3 mm and sparse sub-angular limestone (2–3mm). Sherd thickness range 8–9mm.

- IA LI: *Limestone tempered*. Dark grey or grey-brown throughout. Soft with irregular fracture and smooth feel. Inclusions are leached, leaving sub-angular voids, 1–3mm. *Forms*: neck-less, globular jar with bead-rim (1 vessel/0.05EVEs); neck-less barrel-shaped jar (1 vessel/0.04EVEs).
- IA Q: *Fine sandy*. Dark grey throughout or with red-brown surfaces. Hard with sandy feel and fine break. Common quartz sand. Sherd thickness range 5–6mm.
- IA RS: *Fine sandy with red-slip*. Patchy red-slip over buff/brown surfaces with dark grey core. Hard with slightly sandy feel and fine break. Common quartz sand; sparse fossil shell and iron oxide. Sherd thickness range 6–7mm.

Roman Pottery

A total of 805 sherds of pottery weighing 9062g and amounting to 6.29 EVEs was recovered (Table 2). Where possible the fabric codes reflect those used for the National Roman Fabric Reference Collection (Tomber and Dore 1998).

Fabrics

Local/probably local

- GROG1: *Wheel-thrown grog-tempered ware*. Typically dark grey throughout or with red-brown margin. Medium coarse grey or dark grey grog (1–2mm). Soapy feel. *Forms*: necked jar/bowl (2 vessels/0.13 EVEs); neck-less jar with bead rim (1 vessel/0.10 EVEs); platter (1 vessel).
- GROGq: *Wheel-thrown grog, with quartz*. Red-brown surfaces with dark grey core. Medium coarse grey or dark grey

grog (1–2mm) and common quartz sand. Sandy feel. *Forms*: necked jar with out-curved rim and internal groove (1 vessel/0.30 EVEs).

- SAV GT: *Savernake ware*. Typically coarse fabric with abundant grey grog and occasional flint (Tomber and Dore 1998, 191). Typically pale grey with darker surfaces but variable.

Forms: large necked jar with out-curved/everted rim (2 vessels/0.24 EVEs); medium necked jar with out-curved rim (1 vessel/0.08 EVEs); neck-less jar with bead/short-everted rim (2 vessels/0.11 EVEs).

- SAV GTf: *Savernake ware* fine variant. This is a finer variant, characterised by smaller grog inclusions and absence of flint. Typically grey throughout.

Forms: necked jar with out-curved rim (3 vessels/0.31 EVEs).

- LOC GW: *Local (North Wilts) greyware*. Grey throughout or with darker-firing surfaces. Common quartz sand. Sandy feel.

Forms: medium-mouth necked jar with out-curved rim (11 vessels/1.37 EVEs); narrow-mouth jar with out-curved rim (1 vessel/0.04 EVEs); neck-less jar with everted rim (2 vessels/0.28 EVEs); dish/bowl with flat-rim (1 vessel/0.04 EVEs); Carinated bowl (Late La Tène type) (1 vessel/0.25 EVEs).

- LOC GWf: *Local (North Wilts) greyware, finer variant*. Grey throughout. May sometimes have grey slip/wash. Common fine quartz sand. Smooth feel.

Forms: beaker with bead rim (1 vessel/0.11 EVEs); Carinated jar with everted rim (1 vessel/0.11 EVEs).

- LOC BS: *Local (North Wilts) black sandy*. Probably equivalent to Cirencester fabric 5 (Rigby 1989). Dark grey/black throughout or with grey core. Common fine quartz sand. Sandy feel.

Forms: carinated bowl (2 vessels); neck-less jar with bead/short-everted rim (3 vessels/0.25 EVEs); medium-

Table 2: Roman pottery summary by fabric. Quantification shown as sherd count:weight(g):rim EVEs total

Fabric	Ditch C	Ditch E	Gully G	Pit 5023	Pit 5041	Other	Total
GROG1	7/23/-	16/70/0.06	26/294/0.10			22/118/0.07	71/505/0.23
GROGq		3/76/-	1/4/-			3/58/0.30	7/138/0.30
SAV GT	12/417/-	74/1574/0.18	29/412/-	1/4/-	6/96/-	100/1329/0.43	222/3832/0.61
SAV GTf	4/70/0.11		25/366/0.12	1/4/-	4/43/-	24/370/0.19	58/853/0.42
LOC GW	9/60/0.25	3/38/-	26/529/1.12	5/40/0.08	72/701/0.30	87/607/0.39	201/1975/2.14
LOC GWf			7/39/0.22			2/12/-	9/51/0.22
LOC BS	9/72/0.06	4/11/-	15/98/0.12	3/16/0.10	36/43/-	50/278/0.57	117/518/0.85
LOC OX	1/9/-		6/22/0.20	12/98/0.16	4/12/0.05	21/107/0.13	44/248/0.54
LOC OXf			1/2/-			6/25/-	7/27/-
LOCWH			4/27/-			3/5/0.08	7/32/0.08
LOC RS			2/26/0.13			-	2/26/0.13
RB FT		6/182/-	1/6/-		1/16/-	3/16/-	11/220/-
DOR BB1			3/92/0.07	24/319/0.22	2/68/0.28	14/66/0.08	43/545/0.65
SVW OX		1/10/-				-	1/10/-
GAB TR 3			1/10/0.12			-	1/10/0.12
LEZ SA2						2/62/-	2/62/-
LGF SA						2/10/-	2/10/-
Total	42/651/0.42	107/1961/0.24	147/1927/2.20	45/473/0.52	126/1007/0.67	338/3063/2.24	805/9062/6.29

EVE = estimated vessel equivalent

mouth necked jar with out-curved rim (5 vessels/0.32 EVEs); narrow-mouth jar with out-curved rim (1 vessel/0.18 EVEs); lid (1 vessel/0.10 EVEs).

LOC OX: *Local (North Wilts) oxidised type*. Orange throughout. Common fine quartz sand. Smooth feel.

Forms: bowl, hemispherical with flat, reeded rim (1 vessel/0.16 EVEs); medium-mouth necked jar with out-curved rim (2 vessels/0.25 EVEs); tankard (1 vessel/0.13 EVEs).

LOC OXF: *Local (North Wilts) oxidised type* (?flagon fabric). Pale orange or buff throughout. Sparse fine quartz sand and may be micaceous. Smooth feel.

Forms: flagon (handle) (1 vessel).

LOC WH: *Local (North Wilts) whiteware*. White throughout. Common quartz sand. Sandy feel.

Forms: beaker/small jar with everted rim (1 vessel/0.08 EVEs).

RB FT: *Flint-tempered*. Dark grey throughout. Common angular calcined flint (1–3mm); sparse quartz sand. Sandy/harsh feel.

LOC RS: *Local (North Wilts) red-slipped fabric*. Buff surfaces with dark grey core. Abundant quartz sand with sparse fine black grog and red-brown iron oxide. Good red-brown surface slip.

Forms: globular beaker with everted rim (1 vessel/0.13 EVEs).

Regional

DOR BB1: *Dorset Black-Burnished ware*. (Tomber and Dore 1998, 127).

Forms: everted-rim jars (4 vessels/.48 EVEs); flat-rim dish (2 vessels/0.15 EVEs).

SVW OX: *Severn Valley ware with organic (charcoal) inclusions*. (Bryant and Evans 2004, 247–50).

Forms: tankard (1 vessel).

Continental

GAB TR 3: *Terra Rubra* (Tomber and Dore 1998, 24), also described by Rigby (1989, 126).

Forms: Cam 112a ovoid beaker (1 vessel/0.12 EVEs).

LGF SA: *South Gaulish (La Graufesenque) samian*. (Tomber and Dore 1998, 28).

LEZ SA2: *Central Gaulish (Lezoux) samian*. (Tomber and Dore 1998, 32).

Forms: Drag 18/31r dish (1 vessel).

Fabric source

Local or unsourced (probably local) types account for the bulk of the assemblage (94% by sherd count), primarily a mix of grogged wares and sandy reduced types. The grogged material includes fabrics (SAV GT/SAV GTf) associated with the kilns known from the Savernake Forest/Oare region, approximately 20km distant to the south (Swan 1975, 35–61; Tomber and Dore 1998, 191). The typically softer and black-firing fabric GROG1 is reminiscent of ‘Belgic’-style material noted from the area of Cirencester and

Bagendon, 15–20km to the north-west, and Horcott, 7km to the north (Timby and Harrison 2004, 57). It is likely that material in this tradition was made at a number of locations in the wider area. Similarly the exact origin of the reduced and oxidised-firing coarsewares is not known, although fabrics and forms correspond with material deriving from the West Swindon Whitehall Farm-Purton complex of kilns (Anderson 1979). Similarly fineware fabrics including red-slipped type LOC RS probably originate locally, with forms corresponding with vessels from Wanborough (Walters *et al.* 1973, fig. 3, no. 9).

Regional (non-local) wares occur in modest quantities as Severn Valley ware and Dorset Black-Burnished ware (Table 2). The latter type is largely restricted to later contexts including pits 5023 and 5041. Continental wares are similarly rare, these occurring mainly as Gaulish samian present for the most part as unstratified material. The presence of a *Terra Rubra* sherd (Figure 7, no. 1) is notable, and adds to the small number of rural sites in, or peripheral to, the Cotswolds where pre-Flavian imports occur (Holbrook 2008, 314–5). Gallo-Belgic material is known from Wanborough (Seager-Smith 2001, 242) and it is possible that this important Early Roman site, 6km to the south, represents the source for this and other 1st-century finewares.

Chronology

The overall composition of the assemblage (Table 3) is a good indicator of its early character, the sizeable grogged/Savernake-type component probably dating largely to the second half of the 1st century or early decades of the 2nd (Rigby 1982, 153–4). A proportion of the assemblage, including wheel-thrown grog-tempered types (fabrics GROG1; GROGq) may date to the early to mid 1st century AD. A further indicator of activity of pre-Flavian date is the *Terra Rubra* vessel from gully G, which is unlikely to date after *c.* AD 65 (pers comm. V. Rigby). The reduced coarsewares which make up the bulk of the remainder of the assemblage belong to a long-lived tradition, with evidence for example from Wanborough for pre-Flavian or early Flavian origins in some instances (Seager-Smith 2001, 243–4). Some forms (Figure 7, no. 4) show clear affinities with ‘Belgic’ material and suggest a date in the mid/late 1st century AD. Similarly, carinated jar forms (Figure 7, no. 5) find parallels among later 1st to earlier 2nd-century material from Wanborough (*ibid.*, fig. 87, no. 206; fig. 89, nos. 234–5).

Dorset Black-Burnished wares, which occur

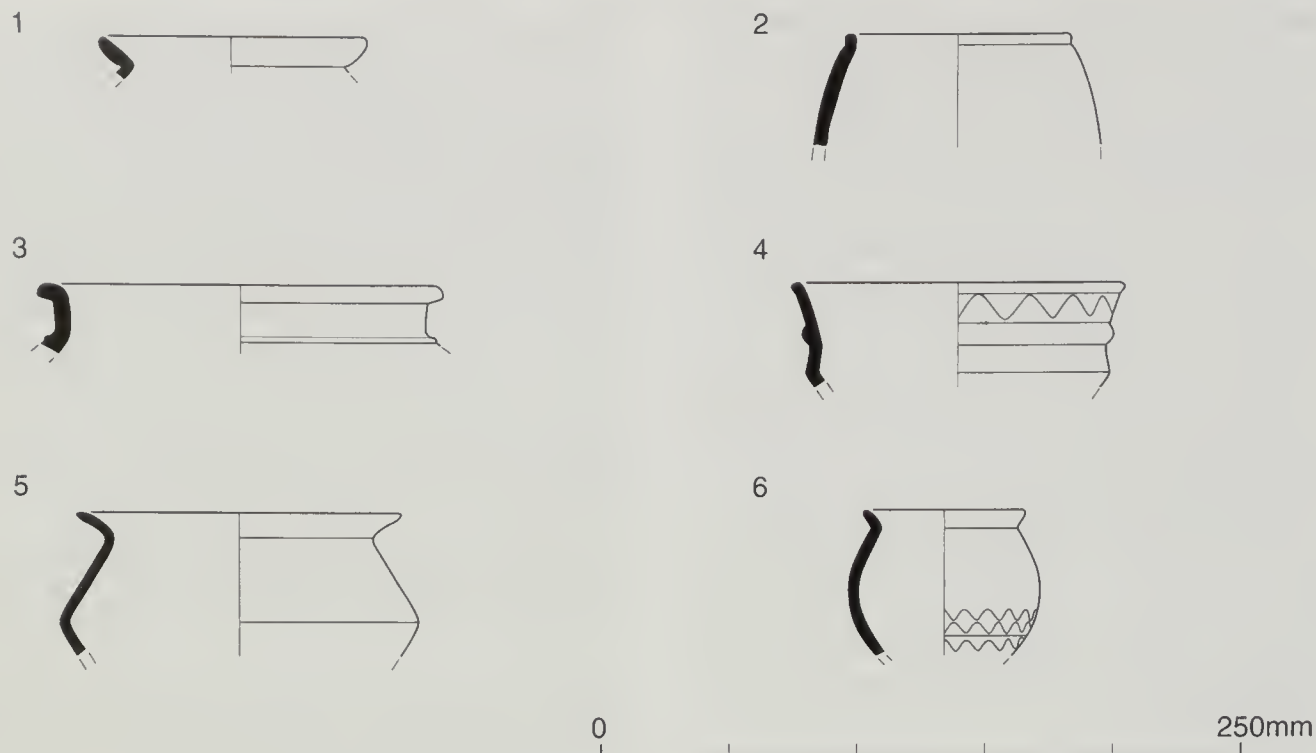


Fig. 7 Roman pottery, Site B. Scale 1:4

in small quantities (5.3% by count), are among the latest material represented. Forms in this ware type comprise primarily jars, each with acute-angled lattice and one instance (pit 5041, fill 5043) with scored wavy decoration to the rim. The forms represented very probably date to the period *c.* AD 120–200/220.

Site sequence

The use of the pottery in refining the internal chronology of the site was hindered by the general absence of large context groups. Broad contemporaneity can be supposed for most context groups, with the majority pre-dating *c.* AD 150. The pottery was unevenly distributed across the site with gully G, ditches C and E and pits 5023 and 5041 producing the bulk of material (Table 2). However, within these larger assemblages some chronological variation can be perceived. The forms from ditch C, mostly necked or neck-less jars and a carinated bowl (Figure 7, no. 4) are typical of the mid to late 1st century AD. The limited presence of fully Romanised sandy reduced wares and a sherd of Severn Valley ware (charcoal-tempered variant) are factors encouraging a similar dating for ditch E. The bulk of the assemblage from gully G is consistent with a mid/late 1st to early 2nd-century AD date, with over half (81 sherds or 55.1%) comprising grogged types. Specific indicators are the *Terra Rubra* vessel, for which a pre-Flavian date is certain, and likely Flavian or early 2nd-century vessel forms

(Figure 7, nos. 5–6).

Pottery groups from pits 5023 and 5041 contain markedly larger quantities of Dorset Black-Burnished compared to material previously described and this probably reflects later dating. The forms in these fabrics consist of everted rim-jars with acute-angled lattice, implying dating before *c.* AD 220/30 (Holbrook and Bidwell 1991, 96). A vessel with burnished wavy line to its rim from pit 5041, probably dates before the late 2nd century (*ibid.*, 95).

Discussion

The Roman assemblage is of interest locally, extending the sequence of habitation after the predominantly Early and Middle Iron Age sites at Groundwell West (Walker *et al.* 2001) and Groundwell Farm (Gingell 1982). The assemblage is compositionally similar to Roman material from the final fills of the Iron Age enclosures at Groundwell Farm (*ibid.*) and it might be suggested that activity shifted from Groundwell Farm to Site B at about the time of the Roman conquest or the preceding decades. The Roman activity at Site B was relatively short-lived and may have been abandoned in favour of the villa at Groundwell Ridge (Brickstock *et al.* 2006).

The small size of the assemblage means that little can be inferred with regard to economic status. The *Terra Rubra* sherd aside, there are no overt indications of higher status and the virtual

absence of amphorae, flacons or decorated samian suggests that pottery was employed overwhelmingly for cooking and storage. The assemblage is heavily dominated by jars (79.2% of EVEs total) with other classes restricted to beakers/tankards (9.7% EVEs total); bowls/dishes (9.5% EVEs total) and lids (1.6% EVEs total).

Catalogue of illustrated items (Figure 7)

- 1 Site B, Period 2, gully G fill 5164: Fabric GAB TR 3. Ovoid beaker (Cam 112a)
- 2 Site B, Period 2, gully G fill 5164: Fabric GROG1. Beaker/jar bead-rim.
- 3 Site B, Period 2, ditch C fill 5089. Fabric GROG1. Necked jar/bowl.
- 4 Site B, Period 2, ditch C fill 5088. Fabric LOC GW. Carinated bowl.
- 5 Site B, Period 2, gully G fill 5167. Fabric LOC GWf. Carinated jar.
- 6 Site B, Period 2, gully G fill 5143. Fabric LOC RS. Globular beaker.

Environmental Evidence

Animal Bone, by Sylvia Warman

Animal bone was recovered from Sites A and B during hand excavation and the processing of environmental samples. The assemblage from Site B is the larger and better-preserved, all identifiable bones being fully recorded by element, species,

size, sex, weight, parts present, fusion, tooth wear, pathology, burning, butchery and weathering. Whole long bones were measured to enable the calculation of withers heights following Kiesewalter (cited in von den Driesch and Boessneck 1974). Both the hand-collected and sieved assemblages are tabulated by species and body-part (Table 3). The assemblage from Site A and from pit 2026 in Area B was assessed, but was too fragmented to facilitate detailed analysis. Further details of the assessment and analysis data are available in the site archive.

Period 1: Prehistoric, and undated

Red deer and horse bones were recovered from pits within Site A, and red deer bone was found in pit 2026 within Area B. The primary fill of pit 1006 (Period 1a) contained 40 fragments of red deer antlers and a single tooth of a red deer. Pit 1024 (Period 1b) contained a fragmented horse molar, exhibiting advanced weathering, posthole 1041 (Period 1b) produced a horse metacarpal (cannon bone), with a lateral length of 208mm, equivalent to the height of a medium-sized modern pony of 13 hands or 1.3m. Undated pit 2026 from Area B produced 14 fragments of red deer antler in very poor condition and which had been subject to weathering.

Period 2: Roman (Mid 1st to 2nd century AD)

Fragments of horse, cattle, sheep/goat and pig bone were present in a variety of features from Site B. The

Table 3: Hand-collected and sieved animal bone species and body parts from Period 2

Body Part	horse		cattle		sheep/goat		pig	
	hand collected	sieved	hand collected	sieved	hand collected	sieved	hand collected	sieved
Head			1	1	6	7	1	
Loose teeth				6	12	53	1	1
Atlas/axis						9		
Forelimb			1		9	21		
carpal						21		
Hindlimb	1				2	29	1	
Tarsal					1	14		
Metapodial	4				2	25		
Foot					1	32		
NISP totals	5		2	7	33	211	3	1
Total weight (g.)	223		52	182	246.8	381.25	42.7	0.5
MNI	3		2	1	9+(2)	(5)	2	1
% by NISP	11.6		4.7	3.2	76.7	96.3	7	0.5
% by weight in grams	39.5		9.2	32.3	43.7	67.6	7.6	0.1

NISP = count of number of identified specimens

MNI = minimum number of individuals

*Figures in brackets denote partially articulated specimens

identified assemblage comprises 53 hand-collected fragments from 43 bones, weighing 565g, and from the processed samples 225 fragments from 219 bones, weighing 564g. Fragmentation is high and no measurements could be taken from the specimens. The MNI (minimum number of individuals) counts are: three horses, three pigs, three cows and sixteen sheep/goat. A wide range of body parts can be fitted together which suggests that seven individuals of sheep/goat were partially articulated skeletons. The horse, cattle and pig remains are all from adult individuals; sheep/goat include a few juvenile specimens but most are from animals which would have been adult or sub-adult (of adult size but not skeletally mature). The only taxon for which a wide range of body parts is present is sheep/goat. The predominance of teeth and fragments of mandible within the assemblage is probably a result of disproportionate survival of these more robust skeletal elements. A greater range of bones is present in the sieved material than the hand-excavated groups suggesting that smaller bones were missed during hand-excavation of the clayey soils. Butchery was noted on five specimens in the form of bones which had been chopped right through. A total of 11% of the identified specimens shows weathering, the small percentage suggesting damage resulting from exposure of bones on the ground surface prior to burial is minimal. Post-depositional damage is more considerable. The tenacity of the clay and wet conditions during excavation may have contributed to modern breakage frequently observed in the long bones. Two specimens display signs of having been gnawed by dogs.

The assemblage is dominated by sheep/goat, due in part to the presence of several partially articulated skeletons. Discounting the partially articulated skeletons the total for sheep/goat is three times as numerous as horse, cattle, or pig (Table 3). Pit 5063 produced the largest group of animal bones from the site: 210 identified bones from a total fragment count in excess of 13,000 recovered both by hand-collection and from a sieved sample. The identified material comprises purely sheep/goat, with a mixture of adult, sub-adult and juvenile individuals. Visible colour changes from burning at a low temperature (Lyman 1994) were noted in twelve specimens. A smaller assemblage derived from pit 5065 is also composed entirely of sheep/goat bones. The bones are mostly from the forelimb (upper and lower), as well as some lower hind limb bones and a maxillary tooth. Two specimens, possibly from the same individual and comprising right and left distal humeri, have

additional bone formation on the lateral surface adjacent to the trochlea (which forms the hinge joint with the ulna). This could be the early stages of a condition which farmers refer to as 'penning elbow' (Dobney *et al.* 2007).

The large assemblages from pit 5041 and gully G comprise a wider range of species, with sheep/goat, cattle, horse and pig all represented. The final infilling of gully G produced exclusively sheep/goat bones comprising a tibia, radius, distal metatarsal and a fragment of mandible. The radius shows signs of gnawing by dogs. A horse metacarpal from ditch L is an example of a splint bone, the residual second metacarpal, attached by means of additional bone growth to the central (third) metacarpal. This type of trauma occurs when the joint is knocked or grazed. Smaller quantities of animal bone were recovered from ditches defining the boundary/trackway, the enclosure, and drainage modifications to the enclosure.

Discussion

The red deer antler assemblage and single tooth from pit 1006 on Site A are consistent with hunting or scavenging, and that from the undated pit 2026 on Area B may be further evidence of the same activity.

The early Roman features on Site B produced a small range of domestic stock dominated by partial sheep/goat skeletons from pits 5063 and 5065. The animal bone from features that had been deliberately back-filled is more numerous, and in a better state of preservation. Deposits 5064 and 5066 represent at least two sheep/goat skeletons. The wide range of body parts suggests that these deposits are the result of the disposal of complete or at least partially articulated skeletons. The reason for the discard of several sheep of prime age is unknown, although infectious disease is a possibility. Alternatively these groups could represent 'closure' deposits; a form of ritual behaviour associated with the abandonment of an area previously occupied or used (Fulford, 2001). No butchery or gnawing is apparent. A small proportion of the material had been burnt to a low to moderate temperature.

The incidence of pathology in the assemblage is low, but where present suggests corralling of both sheep and horse. The low level of weathering and gnawing by dogs hint that animal bone was generally buried rapidly. The gnawing marks indicate that dogs were present on site even though this species is not within the assemblage. In this respect, the animal bone assemblage is similar to that of the mid-late

Roman villa at Groundwell Ridge where low levels of gnawing were also noted (Worley in prep).

It is interesting to note that the domestic assemblage from Site B appears more typical of an Iron Age than a Roman site (Dobney 2001), with a high ratio of sheep/goat to cattle and pigs. The lack of wild species at Site B suggests little input into the diet from hunting.

Charred Plant Remains and Charcoal, by Dana Challinor

Three bulk samples produced charcoal and charred plant remains, comprising flots from fractions 1mm and 0.5mm, and material sorted from the residues. Sample <1>, from Site A, from the fill of pit 1029 (1043) is dated to the Early to Middle Bronze Age (Period 1), and samples <2> and <3> from Site B derive from Roman (Period 2) pits 5041 and 5063. Three bags of hand-collected charcoal from Area A were also recovered. The flots and charcoal from the residues were scanned under a binocular microscope at up to x45 magnification. Charcoal caught on the 2mm sieve was identified and quantified; fragments were randomly extracted, fractured if necessary and examined in transverse section. The flots were also scanned for the presence of any other charred remains and an estimate of abundance made.

Results

All of the flots were dominated by roots and sediment, with concretions in context 1043 (pit 1029) linked to the soil conditions. The charred material in the samples from Site B comprised a single degraded fragment of a probable cereal grain or large grass seed and some small fragments of poorly preserved charcoal. *Quercus* (oak) and *Alnus/Corylus* (alder/hazel) were identified. Context 1043 from Site A produced a moderate amount of *Corylus avellana* (hazel) nutshell and an assemblage of charcoal, including *Quercus* (oak), *Alnus/Corylus* (alder/hazel) and another diffuse porous taxon which was not identified. The fragments were generally small in size. A couple of weed seeds were also noted. The hand-collected charcoal generally was well preserved, with the exception of a fragment of charcoal from pit 1020 which was too friable to identify. The species identified were *Quercus* (oak) and *Alnus/Corylus* (alder/hazel).

Oak and alder/hazel charcoal in the samples suggests the use of locally available species for fuel.

The hazelnut shell fragments are likely to be food processing waste. Large quantities of hazelnut shells are often recovered from prehistoric pits, indicating the gathering of wild food resources.

Discussion

by Mark Brett and Mary Alexander

The construction of the Blunsdon Bypass has provided the opportunity to investigate a corridor of land to the west of the A419 and the route of the Roman road. Evidence for prehistoric occupation examined at Site A supports the evidence from residual finds at previously excavated sites in the area for the utilisation of the high ground in the early prehistoric period. It is apparent from recent investigations of the sites at Groundwell Farm, Groundwell West and Groundwell Ridge that the region of Blunsdon St Andrew was widely settled in the Iron Age and Roman period. The evidence from Site B provides a significant contribution to the emerging pattern of land-use and settlement shift around the time of the construction of the Roman road.

Period 1: Prehistoric (Mesolithic to Iron Age)

The incidence of Mesolithic or possibly Early Neolithic flint found residually at Site A can be seen within the wider picture of worked flint distribution noted from fieldwalking to the south of Site A and within Groundwell West and its environs, where distribution patterns indicate a higher incidence of prehistoric activity on the Corallian Ragstone (Walker 2001, 30).

The earliest archaeological features identified along the route of the Blunsdon Bypass comprised pits and postholes dating to the Middle Bronze Age at Site A. The primary clay fill of pit 1029 had been partially scorched by the deposition of a later charcoal-rich deposit, presumably representing the collected residue from a hearth. The charcoal fragments identified as oak and alder/hazel indicate a locally available source of fuel. The secondary fill contained a significant amount of cultural material, including worked flints, Middle Bronze Age pottery and a quantity of carbonised hazel nutshell; the latter represents a commonly utilised supply of food in the prehistoric period. The bands of scorched clay within the fills of the adjacent feature 1505 associated with Bronze Age flints, and the scorched edge of undated pit 1031 to the south

suggest further evidence of domestic activity. Given that evidence for domestic activity suggested by cultural remains is often found unaccompanied by structural evidence in this period, occupation on Site A in the Middle Bronze Age cannot be ruled out. The assemblage of red deer antler in pit 1006 associated with worked flint broadly characteristic of this period may indicate either seasonal hunting, or the collection of shed antlers for tool-making. Red deer was an important raw material in this period as well as a minor source of food. Evidence for red deer antler-working, as well as limb bones indicating consumption, was found at the Middle Bronze Age site at Latton Lands, 7km to the north of Site A (Hamilton 2004). The evidence from Site A may suggest repeated seasonal occupation, in contrast to the evidence for more permanent settlement emerging in this period on the lower lying lands of the Upper Thames Valley to the north (Lambrick 2007, 92–8).

Although a number of postholes were present within the general scatter of features, these largely appear to represent single posts. Exceptions to this patterning may be represented by two pairs, and a line of three equidistant postholes in the southern part of Site A. The depths to which the recorded postholes survived suggests that it is unlikely that any further features were originally present and have been lost to later truncation. Iron Age pottery was recovered from a pair of postholes, 1039 and 1041, which possibly represent a two-post structure. The isolated pit 1024 on the north-west site of Site A and these postholes suggest small-scale activity on the periphery of settlement in the Iron Age period.

Residual Iron Age pottery was also revealed from Roman features on Site B. The single undated pit 5194 truncated by Ditch B is the sole feature that might pre-date the Roman phase, but no features contained exclusively Iron Age artefacts. However it is of some interest that the animal bone is more typical of an Iron Age than Roman assemblage in the relative proportions of the species represented, and it is possible that some of the ditches disturbed Iron Age features which lay beyond the limits of the excavated area, introducing a greater proportion of sheep bone into the assemblage.

Period 2: Roman (Mid 1st to 2nd century AD)

The pottery evidence from Site B indicates that activity here was relatively short-lived, commencing in the latter part of the 1st century AD and extending only into the early decades of the

2nd century. The stratigraphy largely reflects this, with little evidence for intercutting of features or re-cutting of ditches (although some relationships indicate a degree of reorganisation).

Ditches A and B demarcate the southern boundary of the site, either as a trackway, or as a boundary which was re-established over time. It is possible that these features represent the earliest activity as they are respected by the remaining features. Ditches A and B, and those of the enclosure, silted up naturally in contrast to ditches C and D, gully G and a number of the pits which were deliberately backfilled with culturally rich fills. Stratigraphically, these elements would appear to represent a modification which blocked the entrance to the enclosure. The backfills of these features may be evidence for a symbolic 'closure' of the site, and a link to pre-Roman rituals of structured deposition (Fulford 2001, 200).

The general east-west/north-south co-axial alignment of ditches at Site B does not correspond with the projected north-west/south-east course of Ermin Street (Figure 5). However this is not uncommon and can be seen at other Roman roadside settlement sites on the line of Ermin Street, such as Field's Farm (Mudd *et al.*, 1999) and Duntisbourne Leer north of Cirencester (*ibid.*; 115), and Field Barn, Latton (*ibid.*, 129). Cropmark evidence suggests all three settlement enclosures are on a different alignment to the road and the connecting trackways curve round to meet the road at an approximate right angle. At these sites, and at the settlement site at Hucclecote near Gloucester (Thomas *et al.* 2003, 26), evidence for pre-Conquest origins is linked to their different alignments, and the trackways are added, or adapted, following the construction of the Roman road. The evidence at Blunsdon Bypass Site B is less substantive, although residual Iron Age pottery and a possible Iron Age element to the animal bone assemblage could be taken as an indication of the presence of Iron Age features close to the excavated area.

Taken as a whole, the evidence from Site B would appear to indicate small paddocks or fields, and the quantity of finds indicates nearby occupation. The finds suggest a low-status settlement, more than likely a small farmstead, concerned in part with the keeping of sheep and cattle. Poor soil conditions at Site B have adversely affected the survival of environmental remains, but an absence of quern fragments could indicate a predominantly pastoral economy (Moore 2006, 119). The absence of any ceramic building material within the artefactual

assemblage indicates that any structures at Site B were not roofed in tile.

A site of similar status to that at Site B was discovered at South Marston, approximately 3km to the east, where a relatively poor farmstead was occupied between the 1st century BC and the 3rd or 4th century AD (MoLAS 2005; Evans and Alexander 2008). The absence of any significant Late Iron Age activity at both sites contrasts with the settlements in the Upper Thames Valley and may reflect a more dispersed pattern of settlement on the higher ground (Booth *et al.* 2007, 33). The activity at Site B is broadly contemporary with the earliest excavated phase at the Groundwell Ridge villa complex and it is possible that the abandonment of Site B is linked to the incorporation of land into the villa estate, or part of the shifting pattern of a small-scale farming venture exploiting the lower quality clay soils beyond the limits of the Groundwell Ridge field systems.

The excavations along the route of the Blunsdon Bypass add to the growing corpus of evidence of the general intensification of settlement and agricultural activity during the Late Iron Age and early Roman periods in the Upper Thames Valley and adjacent areas (Holbrook 2006; Lambrick 1992; Moore 2006).

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Investigations at Wanborough Roman small town, along the A419 Covingham noise barrier

by Andrew B. Powell

with contributions from Rachael Seager Smith, Jessica M. Grimm and Ruth Pelling and illustrations by S. E. James

The excavation in 2009 of two small trenches to the immediate southwest of Ermin Street within the Roman small town of Durocornovium (Wanborough) revealed Romano-British structures and other features below a 'dark earth' deposit. The trenches lay towards the northwest of the extensive excavations of the town undertaken between 1967 and 1976. The earliest feature in Trench 2 was a curved gully, possibly indicating the continuation into the early Romano-British period of native roundhouse construction. In Trench 1, the early Romano-British date of a stone wall-foundation contrasts with the generally middle to late Romano-British date previously assigned to stone buildings within the town. It is possible that this building fronted a side street that ran southwest out of the town. A later phase of construction in the same trench was represented by two possible stone joist supports, a late Romano-British construction method recorded more widely in the town.

Introduction

In October 2009, two trenches were excavated within *Durocornovium* (Wanborough), a Roman small town (Scheduled Monument SW888) on Ermin Street, east of Swindon (Figure 1). The trenches, centred on NGR SU 419300 185340 outside the scheduled area, were located just north-west of the area of previous extensive excavations (Anderson *et al.* 2001). The work was undertaken in advance of the construction of noise barriers along a stretch of the A419 trunk road at Covingham.

Romano-British deposits and an overlying 'dark earth' had been observed during the excavation of geotechnical test pits along the northern section of the proposed noise barrier (Wessex Archaeology 2009). As a result, a programme of archaeological mitigation, involving the excavation of two trenches

in areas of high archaeological potential, was agreed with the Highways Agency, Wiltshire Council Archaeology Service and English Heritage. The trenches, each c. 2m by 5m, lay approximately 60m apart on the verge of the northbound carriageway, on either side of the Merlin Way/Wanborough Road overpass. The trench locations and size were in part determined by the availability of access and the need to be at least 5m from the edge of the carriageway for safety reasons.

The natural geology comprised Kimmeridge Clay (BGS Sheet 252). The ground surface for both trenches lay at a height of approximately 95.7m above Ordnance Datum. The trenches lay 300m north-west of the Dorcan Stream which was crossed by Ermin Street towards the south-eastern end of the Roman town. The archaeological deposits in both trenches lay below c. 0.45m of modern made ground.



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Fig. 1 Site and trench locations in relation to conjectured street plan of Durocornovium and previous excavations

Archaeological background

The Roman small town of *Durocornovium*, as identified in the *Antonine Itinerary*, was situated on Ermin Street, one of the main arterial Roman roads of Britain, running between *Corinium* (Cirencester) and *Calleva Atrebatum* (Silchester). Part of the line of Ermin Street is followed by the present A419. A second, minor Roman road ran south from *Durocornovium* to *Venta Belgarum* (Winchester) passing through the settlement at *Cunetio* (Mildenhall) near Marlborough in the Kennet Valley.

The visible remains of the Roman town were first surveyed by Sir Richard Colt Hoare in 1819 (Colt Hoare 1821), revealing the line of Ermin Street and a series of earthworks, including possible side streets. Subsequently, A. D. Passmore, who lived in Wanborough, determined the approximate extent of the town, covering an area approximately 1190m by 460m (Passmore 1921). The site was then subject to intermittent investigation prior to a series of excavations and salvage works undertaken between 1967 and 1976 as part of the Commonhead Road Improvement Scheme and the creation of a flood lagoon. The results of these excavations, which were not all fully published, were synthesised by Anderson *et al.* (2001). An aerial survey of the surrounding undeveloped land, carried out as part of the same investigations, revealed cropmark evidence for various structures and streets within *Durocornovium*, including a *mansio* c. 150m north-east of Ermin Street (Phillips and Walters 1977). Further side streets were noted during the road construction (*ibid.*, 225) (Figure 1).

In summary, the excavations showed that, following the construction of the Roman road, the early occupation at Wanborough, in the Neronian-Vespasianic period (c. AD 55-80), may have been predominantly military in character, as suggested by finds of pieces of military equipment and the wholly Roman character of the pottery assemblage. After a break of 20 or more years, the 2nd and 3rd centuries saw a period of intense construction, with the centre of activity apparently focussed on the *mansio*, possibly built in the early 2nd century. The town continued to expand into the 4th century, perhaps eventually covering c. 25ha. This appeared to involve the laying out of a formal arrangement of rectangular *insulae* defined by side streets (both recorded and conjectured) running perpendicular and parallel to Ermin Street, which itself was

widened and resurfaced. Buildings were increasingly constructed with stone foundations, although in some cases their timber frames were raised instead on stone joist supports. Cremation and inhumation burials at the southwest of the town may indicate part of its western limits. The finds from the settlement reflect its urban character, with a wide range of domestic, craft, industrial, transport and commercial activities represented, but little evidence of agricultural activity.

In 1986, an evaluation c. 300m to the north-west of the two trenches reported on here revealed an extensive and artefact-rich 'dark earth' deposit (Oxford Archaeological Unit 1986). A second evaluation, in 2006, in the same general area but closer to the road, had demonstrated that such deposits might survive within the immediate roadside area (Wessex Archaeology 2006).

Results

Trench 1 lay c. 25-32m south-west of Ermin Street, in Insula I which had been investigated in 1968 by means of a series of narrow trenches (Figure 1). Trench 2 lay c. 13-16m from Ermin Street just beyond the north-western extent of the 1968 trenches. Modern overburden was removed by a mini-excavator using a 1.8m wide toothless trenching bucket. The underlying 'dark earth' deposits were also removed by machine, in 20mm spits, to the top of underlying archaeological deposits which were then excavated by hand. All deposits and spoil were scanned with a metal detector.

Trench 1

A rough stone surface (3110) abutting the southern side of a short length (1.2m) of stone wall footing (3114) was recorded directly above the natural clay (3112) and its soil interface (3115) (Figure 2). The surface comprised a single layer of sub-rounded/angular limestone pieces, mainly 60-80mm in size but with a few up to 150mm, covering the south-western part of the trench – an area at least 1.8m by 2.4m. It displayed a number of largely stone-free striations, possibly wear marks or the result of deep ploughing. It contained 59 sherds (1897g) of largely early Romano-British pottery and animal bone.

The precise alignment of the wall footing could not be determined but it appears to lie almost perpendicular to Ermin Street. It was up to 0.8m wide and comprised medium to large pieces of limestone

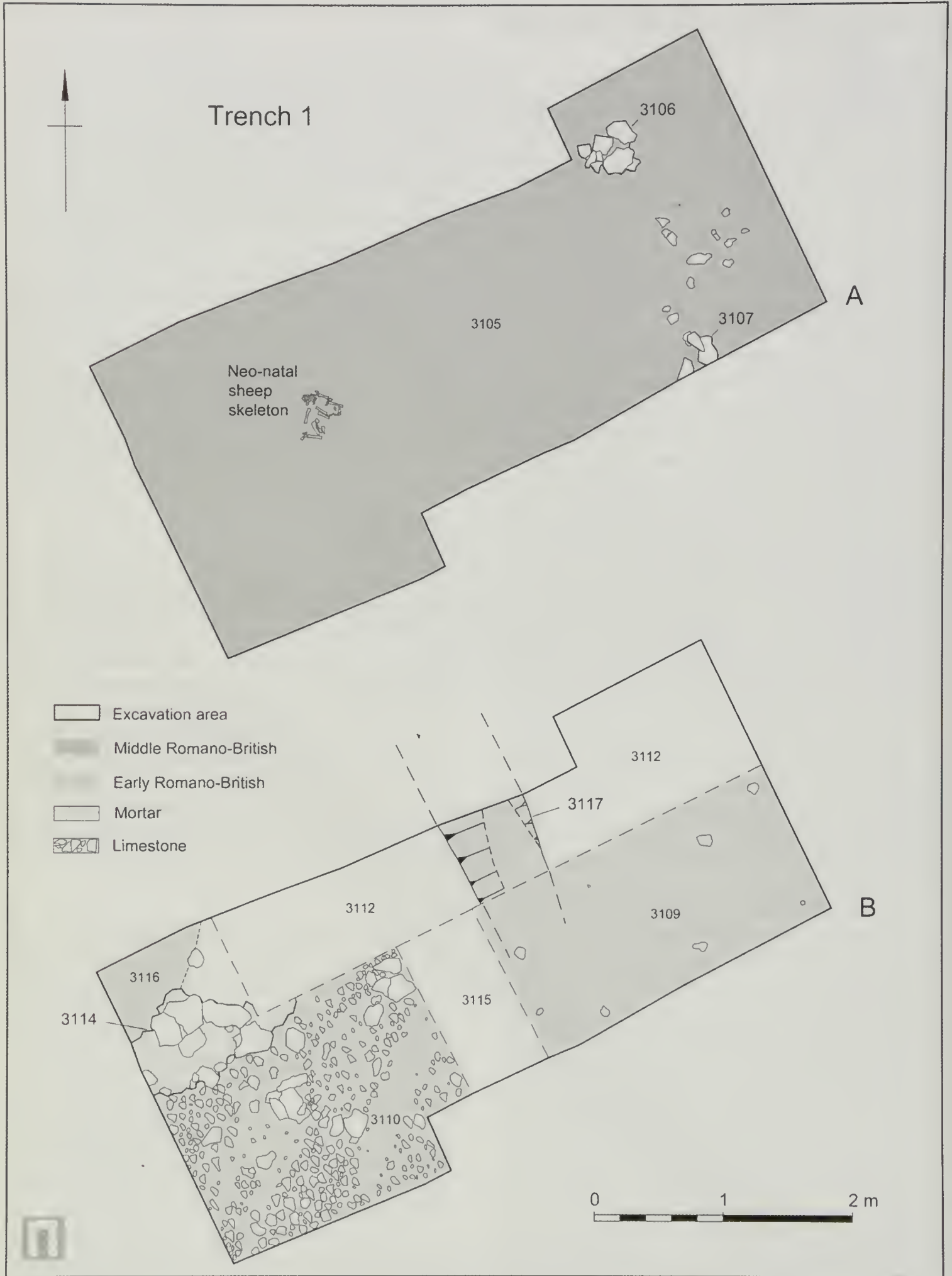


Fig. 2 Trench 1 phase plans

and a single piece of granite, irregularly coursed and bonded with mortar. To its north-west, and partly overlying it, there was a layer of greenish-grey silty clay with flecks of charcoal (3116) containing 33 sherds (102g) of chronologically undiagnostic Romano-British pottery, small fragments of animal bone and fired clay, and an iron tack or hobnail.

To the east of these deposits, a shallow V-shaped ditch (3117), 0.6m wide and up to 0.23m deep, ran across the trench. Although only 0.6m of its length was exposed, it appeared to be aligned approximately north-north-west to south-south-east, and therefore at a slight angle to the general orientation of the Roman town. Its single fill of mottled silty clay (3118) contained further small quantities of pottery and animal bone.

Overlying all these layers was a relatively stone-rich deposit (3109), up to 0.2m thick, the stone within it possibly derived from the disturbance of surface 3110, perhaps by ploughing. It produced 440 sherds (7830g) of pottery, again largely early Romano-British in date, ten pieces (730g) of ceramic building material (CBM) including one piece from a *bipedalis*, the largest of all Roman bricks used predominantly to bridge the gaps between the *pilae* of a hypocaust (Brodribb 1987, 41-3), as well as animal bone, oyster shell and a nail.

On the surface of layer 3109 there was a small localised dump of material (3108) (pottery, fired clay, two triangular nails – possibly horseshoe clenches, and iron smithing slag which, as in other contexts, consisted of fragmentary hearth bottoms), but across the rest of the trench it was directly overlain by a possible occupation layer (3105) containing 298 sherds (5754 g) of largely middle Romano-British pottery. This layer, consisting of a 0.1-0.2m thick deposit of clayey silt, also contained fragments of slag (23 pieces, 88g), part of a small bar-shaped whetstone made from fine grey sandstone, four pieces (729g) of CBM (including a *tegula* fragment), iron nails and part of a lamp hanger (Manning 1985, 100, pl. 45, P6), animal bone and oyster shells.

Two tight clusters of medium to large limestone pieces (3106 and 3107) were recorded *c.* 1.5 m apart on the surface of layer 3105, with a looser spread of stones between them possibly derived from them. These may be stone post pads, or the bases of joist supports of the form recorded in the earlier excavations (e.g. Building 13 – Anderson *et al.* 2001, 31, pl vii). Whichever the case, they appear to represent a second phase of construction at this location. A single human tooth, from an individual *c.* 20-35 years old (J. McKinley, pers. comm.), was

found within cluster 3106. The clusters lay east of the earlier ditch, and although on apparently the same alignment, it is not possible to establish the precise orientation of the building from these two features alone. There were no traces of any associated floor surface or other structural remains at this level, although a neonatal sheep skeleton was recorded towards the southwest of the trench.

These features were sealed by a substantial dark silty clay 'dark earth' deposit (3103), up to 0.34m thick, containing predominantly late Romano-British pottery, CBM and animal bone.

Trench 2

The earliest features were a shallow curving gully (3224) and small pit (3205), both cutting the natural clay (3226) and soil interface (3204) (Figure 3). The gully, which was *c.* 0.4m wide and 0.1m deep, appeared to lie on the north-western arc of a circle with a projected external diameter of *c.* 5.4m. Its single fill contained ten sherds (59g) of Romano-British pottery and two pieces of animal bone. The nature of this feature is unclear but one possibility is that it was part of the ring gully of a small roundhouse.

The sub-oval pit, immediately outside the gully, measured *c.* 0.65m by 1.0m, and was up to 0.3m deep with irregular sides and base. Its main fill, above a sterile primary fill (3206/7), was a dump of dry ashy material (3208) containing 18 sherds (131g) of middle Romano-British pottery, and animal bone. A thin overlying layer (3209) contained a further five sherds (40g) of comparable date.

The gully and the pit were recorded as being sealed by a thin soil layer (3203) through which a pair of much larger features (3217 and 3223) had been cut, although the layer was not discerned during excavation and its finds were combined with those from the more substantial layer (3219, below) which overlay both it and the two large features. Only parts of features 3217 and 3223 lay within the trench and they are therefore of uncertain overall form and function. While they are likely to have intersected outside the trench, a relationship could also not be determined, although their comparable profiles, contents and stratigraphic position within the trench suggests that they are broadly contemporary.

Feature 3217 was exposed in the southern corner of the trench, where it appeared to have an approximately straight northern side aligned east-west. This side had an uneven profile, but its apparent base, at a depth of 0.54 m, was flat. Above a sterile primary fill (3216) there was a sequence of

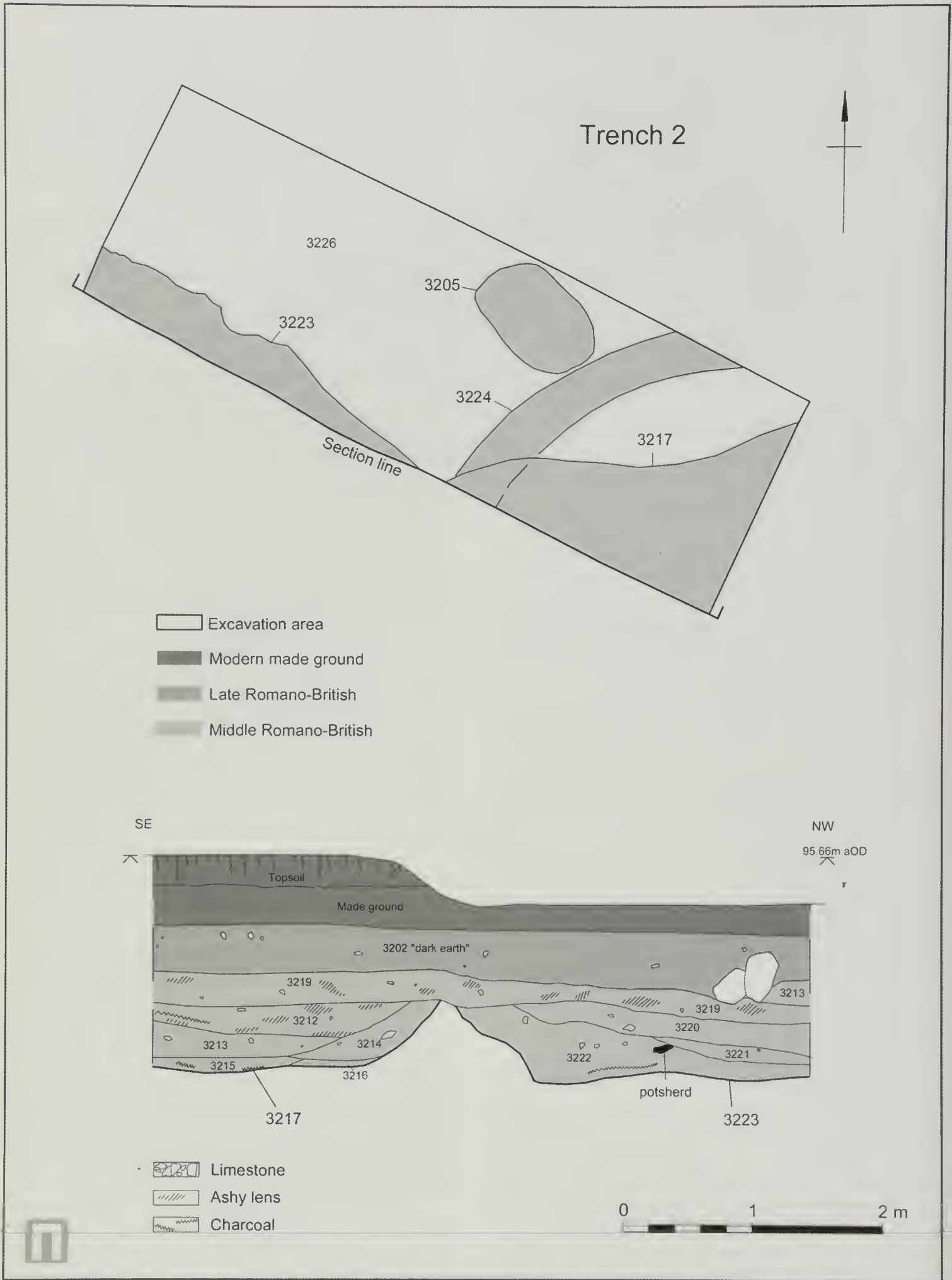


Fig. 3 Trench 2 phased plan and section

four dumped deposits (3215-3212) from which were recovered 260 sherds (2725g) of middle Romano-British pottery, CBM (824g), animal bone (2654g), and small quantities of oyster shell, fired clay, slag, a copper alloy spoon-probe with a decorated shaft, fragments of vessel glass, and a number of nails.

Only the north-eastern edge of feature 3223 was exposed, extending *c.* 0.4m in from the trench's south-west side. It was at least 3m long and 0.5m deep, and aligned approximately north-west to south-east, with a steep side and an apparently flat base. Its main fill (3222), a greenish-grey silty clay, was overlain by a small dump of light ashy deposit (3221) and an upper fill of darker silty clay (3220). All the fills contained finds, similar in range to those in feature 3217, comprising 209 sherds (2411g) of middle Romano-British pottery, CBM (579g) and animal bone (560g), as well as oyster shells and fragments of fired clay, vessel glass and iron nails.

As mentioned above, both features were overlain by a *c.* 0.2m thick layer of pale silty clay (3219), which appeared to be a mix of ash and soil, although containing little charcoal. The combined finds from this layer and layer 3203 (see above) included 41 sherds (1190g) of late Romano-British pottery, and two iron objects – a hook from the end of a steelyard balance (Manning 1985, 106-7, pl. 52, P40 and P41) and a tapering rod, probably part of a chisel, awl or other tool of Romano-British date. It also contained a piece of flat Pennant sandstone 13mm thick, possibly from a roof tile of the type used extensively in this area from the late 3rd or 4th centuries (Anderson *et al.* 2001, 21-36), and fragments of animal bone and oyster shell. Above this layer in the western corner of the trench there was a further discrete dump of ashy soil (3213) abutted by two medium sized, sub-rounded pieces of limestone, which did not appear to be part of any *in situ* structure.

As in Trench 1, the uppermost layer below the modern made ground was a dark silty clay 'dark earth' deposit *c.* 0.4m thick (3202), containing similar finds of late Romano-British pottery, CBM and animal bone.

Pottery, by Rachael Seager Smith

The pottery was entirely of Romano-British date (1st–4th centuries AD), focusing on the middle Romano-British period (*c.* AD 120/140 to the early/mid 3rd century). The good condition of the assemblage was reflected in the relatively high

Table 1: Pottery totals by ware type (number of pieces and weight in grammes)

Ware	No.	Wt (g)
Samian	61	556
Dressel 20 amphora	28	1707
Gallic amphora	2	74
Cadiz amphora	1	306
Massif Central mortaria	1	60
Nene Valley whiteware mortaria	2	64
Oxon whiteware mortaria	1	14
British lead-glazed ware	2	7
Mica-dusted ware	11	103
North Wiltshire colour-coated ware	11	43
Oxon colour-coated ware	1	4
Oxidised ware	124	1446
White-slipped red ware	40	503
Whiteware	24	323
Greyware	689	6430
Savernake-type ware	367	11,321
South-east Dorset BB1	114	1306
Total	1479	24,267

average sherd weight (16.4g) overall.

The assemblage was dominated by local wares, supplemented by a small quantity of imported finewares, amphorae and mortaria as well as regional imports. All the fabrics and forms present have parallels among the pottery from other areas of Wanborough (Pengelly *et al.* 2001; Keay 2001; Hartley 2001; Seager Smith 2001). Consequently, full fabric and form analysis was not undertaken. Sherds from each context were subdivided into broad ware types, and quantified by number and weight of pieces. This information is summarised in Table 1. Where appropriate, the range of vessel forms present in each fabric, quantified by the number of rims, was recorded with additional details, such as the condition of the sherds if exceptional, the presence of graffiti, stamps and residues, pre- or post-firing perforations and other evidence of use or repair being noted.

Imported finewares were limited to samian, which totalled almost 5% of the overall number of sherds. Most were from plain forms (forms 15/17, 18, 18/31, 27, 31, 33 and Curle 11) from southern and central Gaul, although fragments from at least four form 37 decorated bowls were included. The amphorae were predominantly from the ubiquitous Dressel 20 olive oil containers from southern Spain, with a few pieces from Gallic wine and Cadiz (Camulodunum 186) fish-sauce amphorae. The last letter (M) of a stamp was noted on a Dressel 20 amphora handle fragment from layer 3203/3219. Mortaria were rare, represented by a single piece from the Massif

Central region of France, imported c. AD 50–80/85 and later regional imports from the Nene Valley and Oxfordshire industries. Although only represented by body sherds, perhaps derived from a single vessel, Nene Valley mortaria are uncommon in this area and were not found during previous work at Wanborough (Hartley 2001, 223–8).

British finewares of Flavian to Trajanic date comprised two sherds of lead-glazed ware, including a conical beaker rim (layer 3109) belonging to Arthur's (1978, 319–24) Wanborough group, as well as sherds from a campanulate cup, a flagon and four curved wall platters in mica-dusted ware, possibly from the London area. The North Wiltshire colour-coated ware beakers are slightly later, probably made during the lifespan of a single potter working c. AD 125–140/150 (Anderson 1978, 380–3). The scarcity of late Romano-British material in the assemblage as a whole is typified by the single sherd of Oxfordshire colour-coated ware present, found in 'dark earth' 3202.

Together, the oxidised fabrics (oxidised wares, white-slipped red wares and whitewares) represented 13% of the sherds. Flagons, both ring-necked and collared forms, a variety of fine beakers, round-bodied and flanged bowls (cf. Marsh 1978, 166, type 34), some cordoned imitating samian form 44, and necked jars were recognised. This fabric group included both local and regionally imported wares; for example, oxidised fabrics were made at Purton, to the west of Swindon (Anderson 1980, 55), while the whitewares included sherds from flagons, carinated bowls and mortaria-like bowls in the distinctive *Verulamium* region fabric. Although not present in this assemblage, mortaria in white-slipped red ware were certainly made in the north Wiltshire/south Gloucestershire area, possibly around Wanborough itself, during the 2nd century (Tomber and Dore 1998, 192; Hartley 2001, 223) and it is possible that flagons and other forms like those seen here might have been subsidiary products of this industry (e.g. Seager Smith 2001, 238, fabric 15). Part of a grooved strap handle with pre-firing perforations (Figure 4; Object 5, context 3213) remains unparalleled in the area. While probably from the lower handle attachment zone, this piece clearly derived from a large, elaborately decorated jar or flagon, just possibly a Group A handled facepot (Braithwaite 2009, 28, fig. 1).

The greyware fabric group, alone accounting for almost half the total number of sherds, included the entire range of coarse, utilitarian 'kitchen' vessels as well as finer beakers and bowls for use at table. The

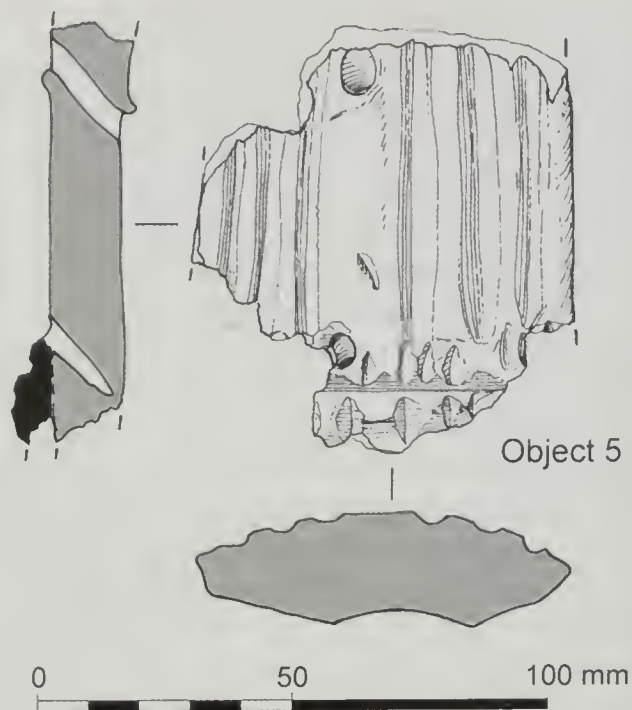


Fig. 4 Pottery: part a grooved strap handle from pit 3217

fabrics present within this group were all tempered with varying quantities of sand. Most were probably local, perhaps made in the Savernake Forest (Hopkins 1999, fabric 5) at Purton, or other kilns to the west of Swindon (Anderson 1979, 14), and on the Greensand ridge to the south (e.g. Rogers and Rodham 1991; Anderson 1979, fig. 2, Broomsgrove kiln). A small number of sherds may also derive from the late (post-AD 150) Alice Holt/Farnham industry, although the site lies on the extreme western edge of the main distribution zone of these wares (Lyne and Jefferies 1979, figs 45–8).

The Savernake-type wares mostly occurred in the hard, more Romanised, lighter coloured versions of this fabric and probably include vessels made at Whitehill and Toothill Farms (Anderson 1979, 13) as well as in the Savernake Forest itself. Storage jars were common, while earlier, 1st century AD forms were restricted to single examples of an imitation Gallo-Belgic platter (Hopkins 1999, fig. 18, 1.23) and a bead rimmed jar. Far greater numbers and a wider range of forms introduced during the Hadrianic to Antonine period, including narrow- and wide-mouthed jars, lids and carinated bowls (*ibid.*, fig. 8, 2–5, 7, 9 and 10), indicate that this material dates predominantly to the 2nd–3rd centuries.

South-east Dorset Black Burnished wares were the only regionally imported ware to be present in any quantity (8% of the sherds). These wares reached *Durocornovium* in small amounts during the later 1st and early 2nd centuries but it was not until after the expansion of this industry around c. AD 120 that

they arrived in any quantity (Seager Smith 2001, 244). Vessel forms included upright-necked and pulled bead rimmed jars and bead rimmed bowls characteristic of the later 1st to early 2nd centuries (Seager Smith and Davies 1993, types WA 1, 8 and 13). Forms introduced during the Hadrianic-Antonine period included slightly everted rim jars, shallow, plain rimmed dishes and flat-flanged bowls/dishes with plain and chamfered bases (*ibid.*, types 2, 20, 22 and 23) and occurred in greater numbers, although the shallow dishes were not commonly or widely exported until the latter part of this period. A handful of sherds with decoration and surface treatments characteristic of the period after *c.* AD 235/245, indicate limited late Romano-British activity. These were found in layers 3203/3219, 'dark earth' 3102 and the made ground.

Overall, the pottery indicates activity from *c.* AD 80 into the later 3rd or 4th centuries, with an emphasis on the period from *c.* AD 120/130 into the early 3rd century. Although this broadly coincides with Period 2, phases 2A (*c.* AD 80-150) and 2B (*c.* AD 150-230) in other areas of the town (Anderson *et al.* 2001, 8), there is some suspicion from the illustrated sherds (Seager Smith 2001, figs 80-98) from the earlier excavations that the 1st and 2nd century activity at least, was dated several decades too early. This, then, may bring the start date of Phase 2A closer to the *c.* AD 120/130 mark identified by the current excavations, while the problems of identifying early 3rd century ceramic groups, and thus the end date of Period 2 at Wanborough, are well-known (e.g. Willis 2004, 13).

Animal bone, by Jessica M. Grimm

A total of 1024 fragments of animal bone were recovered and, although they are in good condition so that modifications like butchery marks and gnawing can be easily recognised, the assemblage is too small to be representative.

The disarticulated, fragmented nature of the assemblage, and the presence of butchery marks and burning, indicate that the material represents food waste. However, some articulated bones and partial skeletons were also encountered, such as the neonate lamb skeleton from occupation layer 3105, the partial skeleton of another neonate sheep/goat from 'dark earth' layer 3103, and the articulated legs of a juvenile sheep/goat from the upper fill (3212) of

Table 2: Animal bone: number of identified specimens (NISP)

NISP	Horse	Cattle	Sheep/goat	Pig	Dog	Chicken
284	1	122	139	16	2	4

feature 3217. The many gnawing marks show that not all the bones were buried immediately.

Only domesticated animals, the dimensions of which are typical for the Romano-British period, are represented (Table 2). Both young and adult examples of all the domesticates were present, and the remains of the neonate sheep/goat and the occurrence of a cattle foetal bone in context 3213, show that such animals were kept locally. A cattle calcaneus fragment from feature 3223 (context 3220) had a patch of eburnation indicating the use of the animal for traction.

It is likely that beef, mutton and pork, as well as poultry, would have been regularly consumed. The butchery evidence is typical of Romano-British practices and indicates size-related techniques.

Palaeoenvironmental evidence, by Ruth Pelling

Fifteen bulk samples were taken during the initial phase of geotechnical test pitting and the subsequent excavations, and processed for the recovery and assessment of charred plant remains and charcoal. In addition, a monolith sample was taken through the 'dark earth', which confirmed its anthropogenic origin; a copy of the sediment description is available in the project archive. The deposits sampled, which include feature fills and layers, are all believed to be Romano-British in date.

Bulk samples were processed by standard flotation methods: the flot retained on a 0.5 mm mesh, and residues fractionated into 5.6 mm, 2 mm and 1 mm fractions and dried; the coarse fractions (>5.6 mm) were sorted, weighed and discarded. Flots were scanned under a x10 – x40 stereobinocular microscope and the presence of charred remains quantified. Charred seeds and chaff noted were identified following standard morphological criteria and an approximation of abundance was made. Nomenclature of wild species follows Stace (1997).

The flots were generally small to moderate, with large quantities of modern roots and rootlets. Modern (or possibly waterlogged) seeds also were

present in some samples raising the possibility of contamination through the reworking of the archaeological deposits. In addition, the presence, noted in a number of samples, of freshwater and terrestrial molluscs suggests periodic flooding of the site, and the survival of periostracum on a number of the shells (the thin organic outer coating) would indicate a recent date for at least some of this material.

Charred material was present in a number of samples and was generally fairly well preserved. Given the small quantity of material and the possibility of disturbance, a detailed scan of the flots was sufficient to characterise the assemblage. The abundance of charcoal in the 4 mm and 2 mm flots was noted.

Trench 1

Four samples were taken from features and deposits in Trench 1. Small quantities of charred plant remains, including grain of barley (*Hordeum vulgare*) and occasional weed seeds, were recovered from layer 3116 overlying the early Romano-British wall footing. The samples from this layer also produced slightly larger quantities of charcoal than most other samples, although it is not possible to establish if it derived from structural timbers. A sample from the base of ditch 3117 contained recent seeds and leaf fragments indicating recent contamination.

Further small quantities of charred remains, including spelt wheat (*Triticum spelta*) chaff and occasional weed seeds, were recovered from the overlying occupation layer (3105), but a small deposit from below the neonatal sheep skeleton on this layer produced only flecks of charcoal.

Trench 2

Eight samples were taken from three features in Trench 2: one from pit 3205, four from feature 3217 and three from feature 3223. Charred cereal remains were present in all samples, with low numbers (<10) in the samples from feature 3223, but slightly greater quantities (from 10 to c. 40 grains) in the samples from pit 3205 and feature 3217. Chaff was noted in pit 3205 and in two samples from feature 3217. The cereals included spelt wheat and barley, both typical of the Romano-British period for much of southern Britain. An oat grain (*Avena* sp.) may represent cultivated or wild oats. Weed seeds were present in varying numbers in the pits, consisting of small grasses and common arable/ruderal species such as goosegrass/cleavers (*Galium* sp.), sheep's

sorrel (*Rumex acetosella* agg.), docks (*Rumex* sp.), buttercups (*Ranunculus* subgen. *Ranunculus*), vetches (*Vicia/Lathyrus* sp.) and scentless mayweed (*Tripleurospermum inodorum*). The presence of sheep's sorrel and scentless mayweed suggest the cultivation of lighter alluvial soils.

'Dark earth'

Three samples were examined from 'dark earth' deposits recorded in the geotechnical test pits (contexts 702, 801 and 1102). Charred spelt wheat chaff and occasional weed seeds, were noted in context 1102, although recent seeds and frequent roots indicate disturbance of this deposit. No charred remains other than flecks of charcoal were present in the other deposits. Context 702 can be demonstrated to be very disturbed containing frequent fragments of modern straw and a cherry stone. The third sample (context 801) produced a large number of waterlogged or recent seeds dominated by stinging nettle (*Urtica dioica*) and including orache (*Atriplex* sp.), fat hen (*Chenopodium album*), sun spurge (*Euphorbia helioscopia*) and the nightshade family (*Solanum* sp.), a range of species indicative of disturbed habitats.

Conclusions

Spelt wheat and barley are both typical cereal species of the Romano-British period. The range of weed seeds would suggest local cultivation of lighter alluvial soils rather than the heavier clay. While the evidence for disturbance and the small size of the assemblage limit its interpretation, the nature of the assemblages is typical of the small-scale processing and use of cereals, resulting in low-density deposits of both grain and associated waste (chaff and weed seeds). The feature deposits produced a greater density of remains than the layers, presumably reflecting the discard of waste into them, and the better preservation of material in their more protective environments.

Discussion

Despite the small areas exposed in the two trenches, the excavation has added potentially significant information about the development of the Roman town, in relation to the possible layout of its side streets, the extent and nature of settlement on the southwest side of Ermin Street which was previously

thought to extend back only a short distance from the road, and the chronology of different building methods.

The two trenches lay near the northwestern limit of the published excavations (Anderson *et al.* 2001) but only Trench 1 can be closely related to any previously excavated features other than Ermin Street itself. It lies on the approximate line of a side street running northeast from the main road, and while no corresponding side street was observed running to the southwest during the earlier excavations, this would only have been visible in a single 2.45 m wide trench (*ibid.*, 6) (Figure 1). However, in their 'generalised plan' of Wanborough (*ibid.*, fig. 123) Anderson *et al.* do show a metalled side street running southwest from this point, at a slightly different angle to the other side streets, forming a crossroads with the opposing side street (Figure 1). This was based on the plan published by Phillips and Walters (1977, fig. 1), which included information not only from the excavations, but also from aerial photographs and from observations made by members of Swindon Archaeological Society during construction works (*ibid.*, 225). It is unclear on what specific evidence the course of this metalled side street is based, but Phillips and Walters note that only one street left the town on its southwest side, leading in the direction of Swindon Hill, and this would appear to be the street they refer to. Romano-British buildings have been identified on Swindon Hill (Burnham and Wachter 1990, 164).

The dating of the town's side streets was not firmly established during the earlier excavation – if associated with the *mansio* their origins may lie in the 2nd century, or they may be associated with the Phase 3 expansion of the town in the late 3rd and 4th centuries (Anderson *et al.* 2001, 347). If there was a side street on the line shown by Phillips and Walters it seems that it would have passed to the immediate northwest of Trench 1. It is possible that ditch 3117, the apparent orientation of which was at odds with the wider layout of the town, ran approximately perpendicular to this slightly angled street. The presence of two phases of building in this trench, the earlier with a stone foundation, is of potential significance, therefore, not only to the chronology of the town's development, but also to the previously suggested changes in construction methods.

Three different possible construction methods were revealed during the excavation. The possibility that curving gully 3224 represents a circular building points to the continuation of roundhouse construction in the native (Iron Age) tradition

within the early Romano-British urban setting. Part of another early Romano-British circular timber building, although of slightly different construction and, at *c.* 8 m in diameter, slightly larger, was excavated in Insula IV (*ibid.*, 14-15, fig. 5). The presence of a mortared limestone wall footing in Trench 1, also dated to the early Romano-British period, however, goes against the general trend noted by Anderson *et al.* (*ibid.*, 349) for buildings with stone foundations to first appear in the later 2nd or early 3rd centuries. Whether this might reflect a particularly high status or specific function for this one building (possibly associated with its position fronting onto a major side street), or part of a more general trend not observed in the earlier excavations, is unclear. However, the late date for the second phase of construction in this same location, as represented by the two possible stone joist supports for a raised timber building, conforms to the 4th century date for this method of construction as recorded elsewhere in the town (*ibid.*, 9).

In both trenches the Romano-British levels were sealed by a 'dark earth' deposit. This anthropogenic soil was shown to contain modern environmental material, demonstrating a high degree of disturbance. 'Dark earth' deposits, rich in organic matter and charcoal, are a common late feature of Romano-British urban sites and are generally considered to have developed through the reworking of urban strata both by agricultural action such as ploughing and by natural processes. However, Macphail *et al.* (2003) have argued that the term should only be used as a temporary description for a range of deposits with widely variant causes, and have warned against assigning to it any specific social or historical interpretation. It is notable that although a similar deposit was recorded more extensively to the northwest (Oxford Archaeological Unit 1986; Wessex Archaeology 2009), no such deposits were described by Anderson *et al.* within the main area of the town, with the possible exception of a build up of soil noted over a late cobbled surface in one building (Period 3, Phase B: *c.* AD 325-400+) (*ibid.*, 29).

Inevitably, small-scale excavations of this kind raise more questions than they answer, and this case is no different. However, the recording of deeply buried stratified Romano-British structures, as well as other features and deposits, at the northwestern extent of the earlier excavations provides new information relevant to a fuller understanding about the extent, layout and development of the Roman town of *Durocornovium*.

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Roman and Medieval Enclosures Excavated at Beversbrook Road, Calne, 2007

by Kelly Saunders and Mary Alexander

with contributions by E.R. McSloy and Sylvia Warman

Excavation to the west of the scheduled remains of Beversbrook medieval village revealed Roman ditches which defined a small sub-enclosure within the north-east corner of a larger enclosure. These ditches and an isolated pit support evidence for a nearby Roman settlement. Further to the west, a series of medieval field ditches and a pit were excavated. Both the Roman and medieval remains share the same alignment as the scheduled earthwork remains.

Introduction

An excavation in 2007 and a series of watching briefs from 2007–2009 were undertaken by Cotswold Archaeology at the request of Michael Edwards and Associates, on the behalf of Calne Town Council, in advance of the development of sports facilities on a 6ha site to the north of Beversbrook Road, Calne (NGR SU 99937289; Figure 1). The excavated areas lie to the west of the earthworks of a Scheduled Monument (National Monument No. 31656) related to the medieval village of 'Beversbroc' recorded in Domesday Book. Beversbrook Road runs parallel to the alignment of a hollow-way that borders the earthworks to the south. The topography of the immediate area slopes down gently to the north, before dropping more precipitously towards Fisher's Brook. The excavated areas within the site and the earthworks of the Scheduled Monument lie between 74m and 78m OD. The underlying soils are Corallian Kimmeridge Clay (BGS 1974). The archaeological strategy was formulated and undertaken with the approval of Melanie Pomeroy-Kellinger, County Archaeologist, Wiltshire County Council.

Excavation Results

The proposed development was first subject to evaluation by trenching and three areas were subsequently stripped by machine to reveal the extent of the archaeological features identified beneath the topsoil (Areas 1–3). Two other areas were monitored by a watching brief during construction works for a community hall, storage facility and cricket nets, but no archaeological features were recorded (Figure 2). Ditches and gullies were investigated in 1m-wide sections and pits were 50% excavated. Two main periods of activity were identified: Period 1: Roman (mid 1st to 2nd centuries AD) and Period 2: Medieval (11th to 14th centuries). Residual post-medieval pottery was also found with modern pottery in a ditch (2005) in Area 2. In addition, undated ditches, a modern pond and a recently removed hedge line were recorded. Samples taken from the ditch fills were processed, but did not yield environmental information.

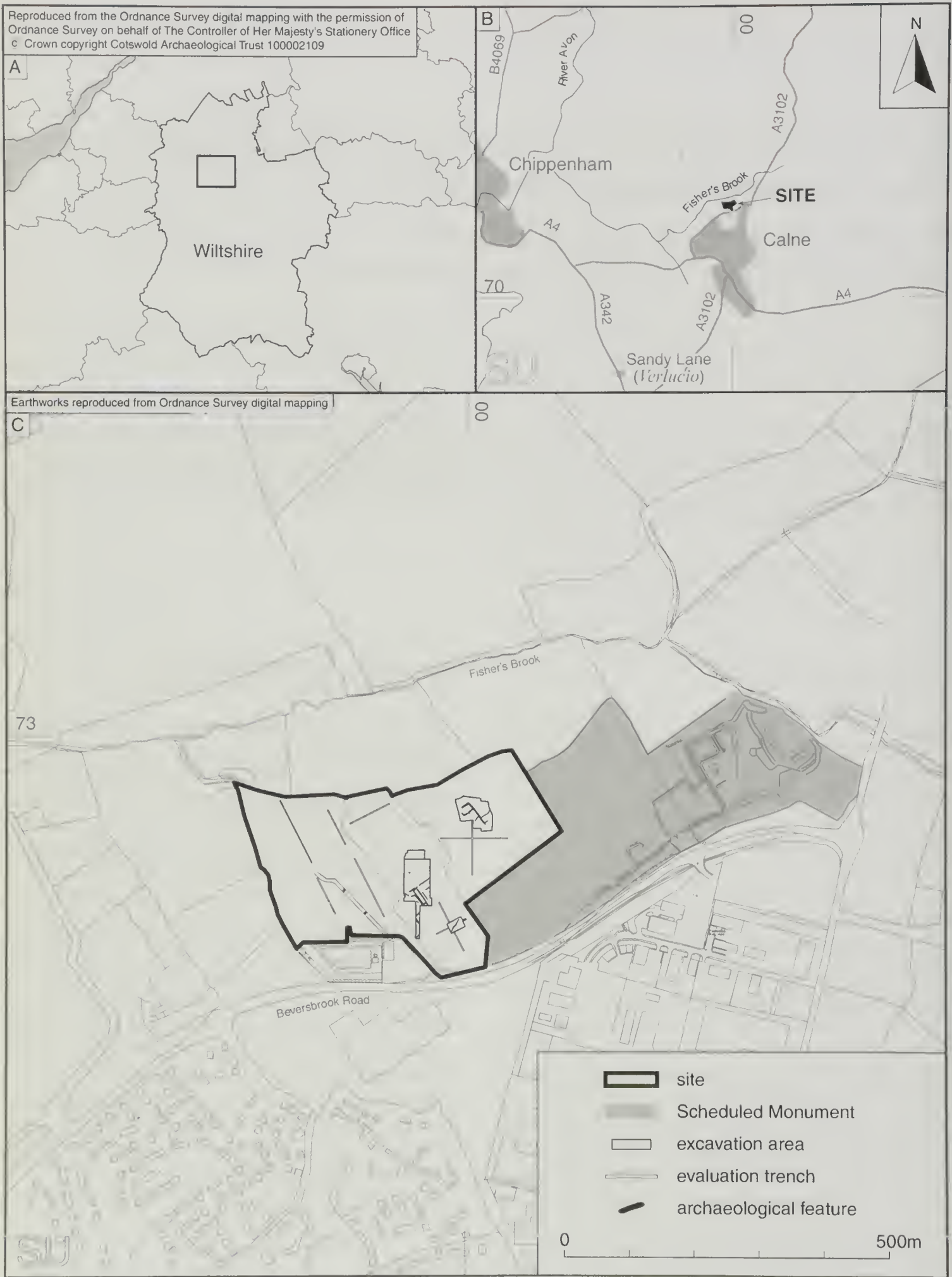


Fig. 1 Site location plan. Scale 1:10,000.

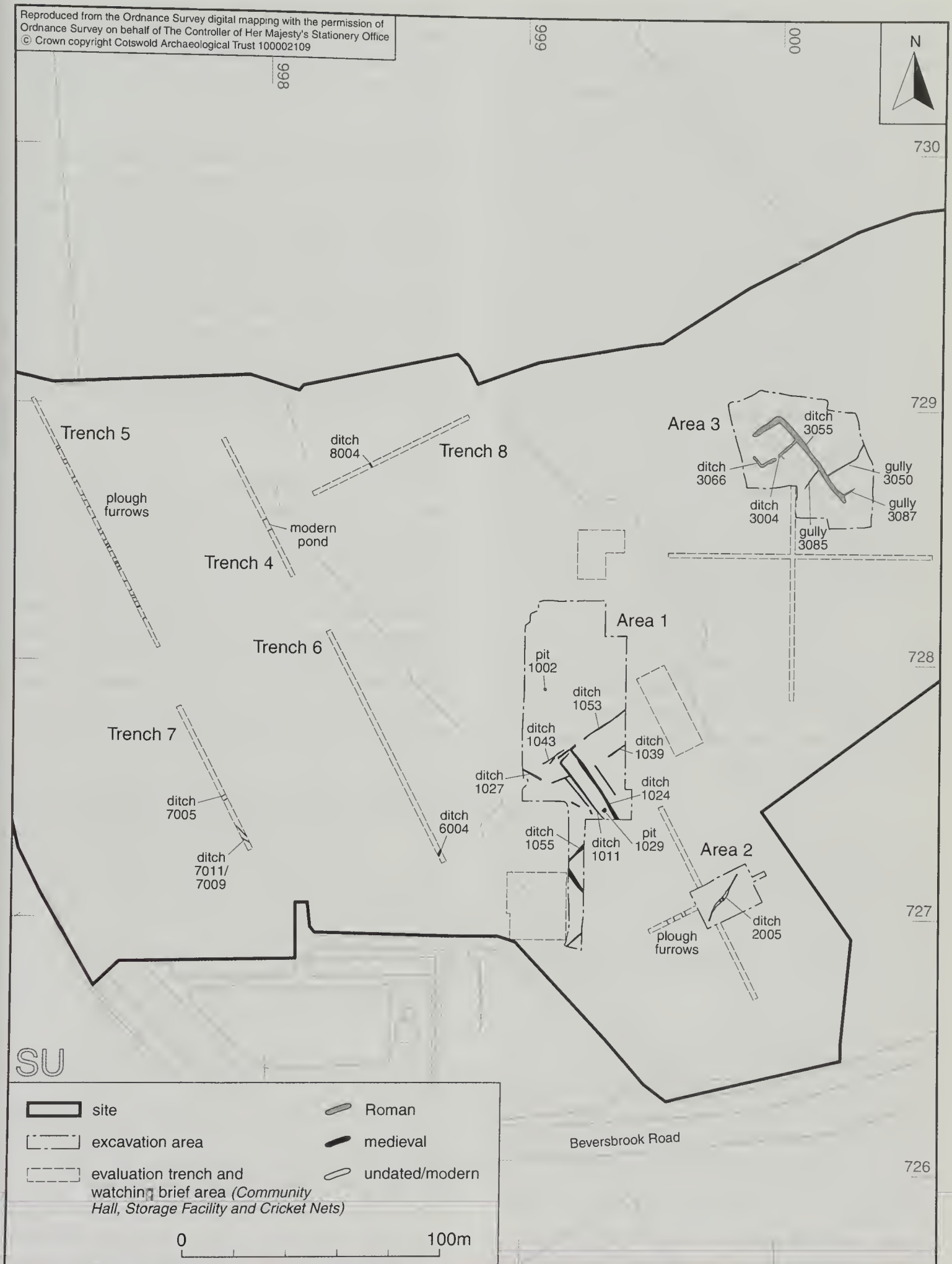


Fig. 2 Evaluation trenches and excavation areas. Scale 1:2500. [NB: FIGURE 2 NOT CITED IN THE TEXT]

Period 1: Roman (mid 1st to 2nd centuries AD)

Within Area 3 a substantial ditch (3055) ran north-west/south-east for a length of approximately 43m, turning to the south-west at its northern end. The ditch was approximately 2m in width, with a blunted 'V'-shaped cross-section and a depth that increased to a maximum of 0.7m towards its northern end. The ditch appeared to delineate the north-east corner of a large enclosure, but no additional ditches were identified beyond the south-east or north-west terminals. Two smaller ditches (3004 and 3066) divided the north-east corner into an area measuring approximately 17.5m x 12.5m with a narrow entrance to the south and a larger gap to the north-west between ditches 3055 and 3066. Although ditch 3055 cut ditch 3004, they are believed to have been broadly contemporary and pottery dated from the 1st to the 2nd century AD was found in both, as well as fragments of cattle, sheep/goat and pig bone. The increased depth of ditch 3055 towards the north, where it was recut, followed the downward slope of the land and suggested a drainage function. Three narrow drainage gullies, 3085, 3050 and 3087, ran into ditch 3055 within the southern half of its length. No dating was recovered from these and the fills could not be distinguished from those of the main ditch. Ditch 3055 was partially visible as an earthwork prior to the excavation and these gullies may have been contemporary or added later to improve drainage when the land surrounding the medieval settlement was under cultivation.

A single isolated pit 1002 (0.85m by 0.6m and 0.12m in depth) was recorded within the northern end of Area 1 containing 1st to the 2nd-century AD pottery. Residual Romano-British pottery was also found in a modern ditch (2005) in Area 2.

Period 2: Medieval (11th to 14th centuries AD)

A series of linear ditches, predominantly on north-east/south-west or north-west/south-east alignments, were excavated within the southern part of Area 1, including a narrow area extended to the south. These ditches appear to define a field system and subsidiary ditches. Pottery of 12th to 14th-century date was found in ditch 1055 and pottery dating from the 11th to the 14th centuries was found in the remaining ditches, apart from ditches 1039 and 1043 which contained no dateable material but followed this alignment. An iron key recovered from the fill of ditch 1053 is defined as Goodall's Type 5, a medieval style prevalent from the 11th to 14th century (Goodall

1980, 143). Fragments of cattle and sheep/goat bone were present in small quantities in the ditches. The ditches ranged between 1.45m to 0.8m wide and from 0.05m to 0.36m deep and appeared to have suffered truncation from subsequent agricultural activity. The fills suggested they silted up naturally. Undated plough furrows in Area 2 followed this alignment to the south, which was also echoed in the adjacent field boundaries. Between ditches 1011 and 1024 was an irregular pit (1029) c.1.8m in diameter and 0.17m deep, from which pottery dating from the 12th to the 14th centuries was recovered. Within evaluation Trench 6 nearby, the north-east/south-west-aligned ditch 6004 contained one sherd of pottery dated to between the 11th to 14th centuries. This was on a slightly different alignment from the ditches in Area 1 and the sherd may have been residual.

Undated

Two undated ditches 7005 and 7011, oriented north-east to south-west and south-east to north-west, were recorded within Trench 7. Ditch 7011 was recut by ditch 7009. These were on a broadly similar alignment to the ditches in Area 1 and may also have been medieval. Ditch 1027 was on a slightly different alignment to the other ditches in Area 1 and cannot be assigned with certainty to the medieval period. Within Trench 5 a series of plough furrows were observed running in a north-east/south-west direction. These were also visible as earthworks to the south-west running along the hedge line of the field (not illustrated). Although unexcavated and undated, their size and width apart suggests that they were post-medieval in date (Taylor 2000, 148). Ditch 8004 recorded in Trench 8 does not relate directly to any dateable features so it is not possible to identify the period to which it belongs.

Finds

The Pottery, by E. R. McSloy

A small assemblage of 355 sherds of pottery weighing 2.47kg was recovered. Roman material derived primarily from Area 3 makes up the bulk of the assemblage, with small quantities also from a pit in Area 1. The smaller medieval component was largely recovered from Area 1. The assemblage was fully recorded, sorted by fabric and quantified according to sherd count, estimated number of vessels (sherd families) and rim Estimated Vessel Equivalents

(EVEs). Fabric codes have been created for the purposes of this report, although where appropriate they correspond with those of the National Roman Fabric Reference Collection (Tomber and Dore 1998).

Roman Pottery (Period 1: mid 1st to 2nd centuries AD)

Roman pottery (Table 1) was recovered primarily from ditch fills in Area 3. Abrasion of pottery surfaces resulting in a powdery feel is common for the Savernake ware component and largely due to environmental factors relating to the clayey soils. The sandy coarsewares (WIL BS/WIL GW) were less affected, although the high rates of fragmentation noted with these types may be due in part to the tenacity of the clay-rich deposits. High fragmentation is reflected in a moderately low mean sherd weight of 9.2g.

A narrow range of pottery types is dominated by local/North Wiltshire type wares. The common presence of Savernake wares and absence of Dorset Black-Burnished ware are good indications of Early Roman dating (before *c.* AD 130/50) and all material is considered to belong to a single phase of activity. Dark grey/black-firing coarsewares are most abundant and compare with earlier Roman types recorded from Showell Farm, Chippenham (McSloy 2006: fabric WIL BS1/2), probably in the same tradition as material common in mid 1st to 2nd-

century AD phases from Cirencester (Rigby 1982, 153: fabric 5). Continental wares are represented as a single South Gaulish samian vessel: a Drag. 35 cup probably of Flavian date. A small sherd from ditch 3055 in a fine, buff-firing fabric and with rouletted decoration probably derives from a beaker. This vessel may be an import of North Gaulish origin, although a closer source in the area of Wanborough is perhaps more likely.

Identifiable vessel forms are dominated by jars of various kinds. Bowls and platters make up the bulk of the remainder, with one lid also present. Probable examples of flagons and beakers occur as bodysherds. The Savernake jars comprise large necked or neckless/bead-rim vessels and are typical forms for this ware type (Swan 1975). Similarly, the necked or neckless jars and stepped platters represented among fabric WIL BS (Figure 3, nos 2–3) can be paralleled among groups from Cirencester (Rigby 1982, 164–70: figs 50–2). The single-handled jar/flagon (Figure 3, no. 1), which occurs in a probable Savernake ware variant fabric, is more unusual. Evidence for pottery use occurring as carbonised residues (exterior sooting) was noted for three vessels (fabrics WIL BS and GROG) from ditches 3004 and 3055.

Medieval Pottery (Period 2: 11th to 14th centuries AD), and Post-medieval pottery

A small assemblage of 86 sherds (576g) was recovered, primarily from Areas 1 and 2 (Table 1).

Table 1: Roman, medieval and post-medieval pottery summary by fabric (quantification as est. vessel, sherd count, rim EVEs and weight in grammes)

Date	Fabric	Description/Reference	Est. Vess.	Ct.	Rim EVE	Wt. (g)
Roman	GROG	?Local, black-firing grog-tempered	1	1	.20	50
	SAV GT	Savernake grog-tempered ware (Tomber and Dore 1998, 191)	28	41	.46	1557
	SAV GTf	Savernake finer version (Tomber and Dore 1998, 191)	1	22	.20	375
	LGF SA	South Gaulish (La Graufesenque) samian (Tomber and Dore 1998, 28)	1	2	.13	6
	WIL BS	North Wiltshire black sandy (Rigby 1982, 153: fabric 5)	101	183	.90	402
	WIL GW	North Wiltshire grey (Rigby 1982, 155: fabric 17)	5	14	.40	70
	WIL OX	North Wiltshire oxidized	3	4	-	12
	WIL WH	Fine buff/white-firing	2	2	-	2
	Total			142	269	2.29
Medieval	M FL	Coarse flint with sparse quartz. Newbury A/B (Vince 1997)	1	1	-	10
	M QF	Flint with quartz sand and leached limestone. Newbury B (Vince 1997)	17	21	.20	168
	M Q1	Coarse quartz-tempered. Newbury C type? (Vince 1997)	40	43	.08	246
	M Q2	Finer quartz-tempered. Newbury C type? (Vince 1997)	7	9	.10	94
	M Q2g	Medium quartz sand. Glazed. Newbury C variant? (Vince 1997)	1	1	-	18
	M Qm	Quartz sand, leached limestone and mica. Bath A (Vince 1979)	1	1	-	11
	M LI	Limestone-tempered (Ireland 1998)	7	7	-	19
	Post-medieval	GRE	Glazed earthenware South Somerset?	1	1	-
TP CHN		Transfer-printed refined whiteware	2	2	-	6
Total			77	86	0.38	576

Key: Est. vessel = Estimated number of vessels. EVE = Estimated Vessel Equivalent.

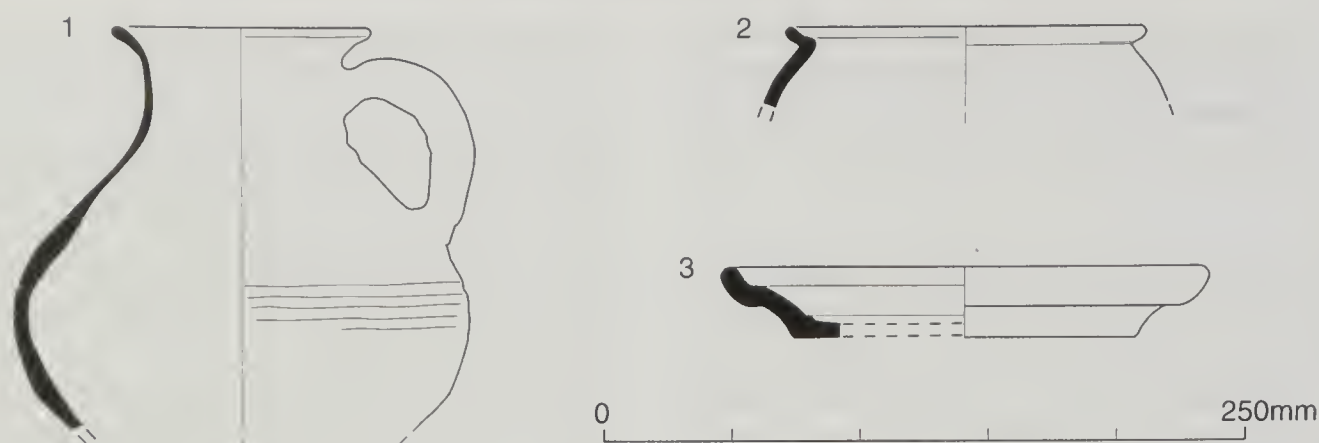


Fig. 3 Pottery. Scale 1:4.

As with the Roman pottery, the medieval wares were subject to surface loss resulting from the local soils. This is seen in the leaching of calcareous inclusions from some fabrics and poor surface survival of most types. The average sherd weight for the medieval and later pottery was low at 6.7g.

With the exception of one (unstratified) glazed jug sherd, the medieval pottery consists of cooking-pot type coarseware fabrics, probably originating from a number of different sources. Quartz-tempered fabrics of varying coarsenesses and occurring with or without glazing might originate locally, although the finer fabrics compare with 'Newbury C', originating from Berkshire or south Oxfordshire (Vince 1997). Fabrics M QF and M FL more certainly derive from the area to the east, closely resembling 'Newbury B' associated with the Kennet Valley and frequently found in the East Wiltshire/Berkshire region. The micaceous type M Qm is similar to Bath A type wares and might derive from the area of north-west Wiltshire. Vesicular fabric M LI almost certainly represents a leached limestone-tempered type and probably originates from the Cotswolds region to the north. Identifiable vessel forms are restricted to seven examples of jars/cooking pots with everted rims. Rim morphology differs in detail, examples occurring with up-turned or expanded outer portions, but it is unclear from such a small group whether these differences are chronologically significant. The absence of simple rim forms is perhaps suggestive that the greater part of the group relates to the later end of the *c.* 11th to 13th/earlier 14th-century range expected for the cooking-pot types.

Post-medieval material is limited to a single bodysherd of internally glazed earthenware, which probably dates *c.* 1550–1750 AD and two bodysherds of transfer-print decorated whiteware, which must post-date *c.* 1780 AD. All three sherds derive from

the fills of ditch 2005 in Area 2, from which modern pottery was also recovered.

Illustrated sherds (Figure 3)

- 1 Area 3 Ditch 3004 (fill 3014). Period 1. Fabric SAV GTf. Handled jar/flagon.
- 2 Area 3 Ditch 3055 (fill 3058). Period 1. Fabric WIL BS. Neck-less jar with lid-seating.
- 3 Area 3 Ditch 3066 (fill 3052). Period 1. Fabric WIL BS. Stepped platter.

Animal Bone, by Sylvia Warman

A total of 205 fragments (355g) of animal bone was recovered. Cattle and sheep/goat were identified from both Roman and medieval deposits and pig bone was also identified from the Roman assemblage. Much of the material was too fragmented for full identification and is classified as cow-sized, with a smaller quantity of sheep-sized material. The material from the Roman deposits is better preserved than the medieval assemblage and includes more identifiable items. The fill of ditch 3055 included bone, which had been chopped. Some of the medieval animal bone showed some signs of weathering suggesting exposure prior to initial deposition or later disturbance.

Discussion

The Roman ditches in Area 3 formed a small sub-enclosure within the north-east corner of a larger enclosure, although the extent of the larger enclosure was not traced during excavation. Previous to these investigations, evaluation work to the south of the scheduled area of the medieval village identified

a Roman ditch (*WANHM* 89, 146) and also a considerable amount of Roman pottery within the hollow-way associated with the scheduled remains. A Roman settlement is suggested within this area (*WANHM* 94, 246) and the exclusively Roman date of the pottery from the lowest fill of the hollow-way hints at a Roman origin for this feature, which runs parallel to the present route of Beversbrook Road. Given this evidence, and the presence of the Roman ditches in Area 3, some of the earthworks aligned to the hollow-way within the scheduled area may also be Roman, although it would be natural for the alignment of ditches of both periods to follow the slope of the land. A single pit (1002) was the only evidence for Roman activity in Area 1 and the absence of residual pottery within the medieval ditches suggests it is an isolated feature on the periphery of Roman activity. Other evidence for Roman activity within the immediate environs of the site is sparse, although another Roman settlement location is indicated to the south-west of the site where evidence for a Roman farmstead and a scatter of pottery were recovered prior to housing development (SMR no. ST97SE316).

Beversbrook lies in an area extensively exploited during the Roman period (Pollard and Reynolds 2002, 156). The nucleated settlement of *Verlucio* (Sandy Lane), c. 5km to the south of the present town of Calne, was an important regional centre throughout the Roman period, located on a major Roman route between Bath and *Cunetio* (Mildenhall) (Corney 2001, 29–30). *Verlucio* may have acted as a market centre for the numerous villa estates in its hinterland. Although excavated examples, such as the villa at Cherhill to the east of Calne, display their wealth (Henig 2001, 120), a large number of smaller villas or farmsteads of varying status existed as dependent or independent settlements (Pollard and Reynolds 2002, 165). The evidence for farming activity and nearby occupation at Beversbrook may belong to a settlement at this lower end of the scale. The animal bone assemblage suggests cattle, sheep/goat and pig were part of the farming economy. Poor soil conditions did not allow the survival of other environmental remains.

The medieval ditches in Area 1 and Trench 7 represent field or plot boundaries aligned to the scheduled earthworks of the settlement to the east. The fragmented condition of both the pottery and the animal bone assemblage suggests the ditches are not adjacent to occupation. The animal bone assemblage is poorly preserved, but cattle and sheep/goat may have been farmed. Medieval ridge

and furrow was not recorded within the excavated areas, but is present as earthworks in the fields surrounding the medieval settlement, and the village may have operated a mixed economy of livestock and arable, despite the difficulty of cultivating the heavy clay soils. This is typical of farming practices in the northern clay vale of Wiltshire in this period, when a pattern of dense settlement prevailed (Lewis 1994, 177). It has been suggested that the economic decline of the 14th century hit this area later, but was perhaps more severe (*ibid.*, 183). The medieval settlement at Calne c. 2km to the south of Beversbrook has origins in the early Anglo-Saxon period. The place name is British (Pollard and Reynolds 2002, 189), the settlement grew up around an Anglo-Saxon minster and royal manor and by the late Anglo-Saxon period it was a major town and an important regional market centre (*ibid.*, 228). Like other major settlements established by the 11th century in the region, it survived 14th-century decline (*ibid.*, 255). Economic difficulties may have prompted the population of Beversbrook to migrate south to Calne in the 14th century.

Although the field boundaries of the Roman and medieval periods at Beversbrook share the same alignment, the pottery evidence from Beversbrook suggests a gap of almost a millennium between the two phases of settlement. This evidence is consistent with the regional picture, which shows the relocation of settlement in the centuries following the Roman period. The regional centre at *Verlucio* and the numerous villas in its hinterland were abandoned in the second half of the 4th century (Reynolds 2005, 165); a post-Roman 'squatter' hearth at Cherhill villa suggests a different kind of use (Pollard and Reynolds 2002, 160). However, the populations within fragmented estates of the later Roman period may have continued to farm within the same territorial boundaries, although on a regional and local level the settlement centres relocated, as the political, demographic and economic situation dictated. Thus Calne emerged in the early medieval period as the principal market and distribution centre serving a similar region to the Roman settlement at *Verlucio*, although the physical location had shifted (Reynolds 2005, 169). The evidence at Beversbrook reflects a shifting pattern of settlement at the lowest end of the economic scale. Roman pottery from the lowest fill of the hollow-way and the alignment of the Roman ditches in Area 3 hint at maintenance of the land, which may have been farmed as an entity throughout the intervening period.

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A field archaeology in West Woods, Fyfield and West Overton, Wiltshire

by Peter J. Fowler

The discovery of ancient ('Celtic') fields in West Woods, Fyfield and West Overton, indicates that at least part of this historically-afforested area was once under arable, probably in late prehistoric and/or Roman times. The field boundaries, principally of lynchets, are part of a visible archaeology in the Woods, including polissoirs and cup-marked sarsen stones, very similar to that on the open grasslands of Fyfield and Overton Downs. West Woods are not prehistoric in origin and might have been relatively young when first documented in 10th century land charters. The unfinished length of East Wansdyke now in West Woods was conceivably being built across an open landscape.

Introduction

The publication of a fairly detailed landscape study of the two parishes of my title (Fowler 2000) might have inhibited further research in them. Fortunately, however, exactly the opposite has happened during the ensuing decade. A suite of projects has sprung into action across the landscape of downland, valley and woodland, both correcting mistakes in the basic publication and building on data and ideas presented therein e.g. Baker 2005; some work reported in Brown *et al.* 2005; English and Brown 2009; Fowler 2004.¹ This note concerns a small piece of new work

¹ Perhaps most encouragingly the local villagers have formed both a Landscape Group and a Heritage Group. The former has followed up some leads on the ground with fieldwork and explored aspects of local documentary research not pursued in Fowler (2000); they are about to publish their findings with the help of the North Wessex Downs AONB. Both Groups are taking an active role in encouraging community awareness and participation, organizing hugely successful Local History exhibitions in 2004, 2005 and 2009 in the Kennet Valley Hall, and publishing information on the Parish Magazine website (www.upperkennetnews.co.uk).

in the woodland in the south of the two parishes, an area which was inadequately treated in Fowler 2000 (*cf.* McOmish 2001).

This deficiency arose because, apart from being dark and somewhat claustrophobic compared to downland days of scudding clouds and distant views, much of the woodland was difficult of access, visually and physically. Conventional air photography was blanked out by the woodland foliage; and the understorey was for the most part difficult to get through and thick enough to impair views of earthwork shapes and relationships. Furthermore, much of the woodland had been replanted by the Forestry Commission in the post-war years, so it was easy enough to assume that, even though some human activity in the area was indicated by a few records of largely non-contextualized material (Fowler 2000, fig. 12.1), any archaeological earthworks there might well have been badly damaged. Woodland management in West Woods changed dramatically from the 1990s onwards. In a continuing programme, standing timber is being thinned and, critically, understorey including brambles and bushes has been cleared out (Plate 1). West Woods became available to walk through physically, and legally too as it is



Pl. 1 Enclosure bank and ditch inside Pumphrey Wood, West Woods 2010

now officially 'access land'.

We first took advantage of this easier access to re-examine the eastern stretch of East Wansdyke in West Woods (Fowler 2001), though the Dyke itself was still largely under trees and scrub at the time *cf.* Fowler 2000, pl. LXI. In so doing we noted lynchets and well-preserved 'ancient' field boundaries in Henley Wood north of Wansdyke (in the area of NGR SU155665), significantly extending the area of such evidence into the 'blank' across the southern reaches of the tythings of Lockeridge and Fyfield (Fowler 2000, fig. 12.3). At a stroke this undermined the thought (articulated in Fowler 2000, 189, and Blackwell and Fowler 1998, 97-98) that West Woods was, at least in part, genuinely 'old' woodland. The inference that the present wooded area could well have been continuously forested within a more or less fixed boundary since prehistoric times was clearly unsustainable, whatever the date of the former arable fields bounded by these lynchets (but *see below*).

Fortunately the Archaeological Field Group of this Society recognised the incomplete nature of my published work in West Woods. Under the umbrella of the Marlborough Downs AONB Woodland Archaeology Project, it added a field survey project there to its programme (Gunter 2009). From 2007, it pursued research at a much more thorough level in the field and documentarily than I had done ten and more years earlier. It was also able to use LiDAR imagery, a great help in some respects not least in its ability to 'see through' the woodland canopy (as in Savernake Forest, Lennon and Crow 2009; for a full exposé of the technique, see now Crutchley and Crow 2009). Its use in this particular case is not, however, essential to the survey, which basically involves crawling over the woodland floor square metre by square metre irrespective of other sources of information (and misinformation; for a discussion of methods and techniques, *cf.* Rotheram *et al.* 2008). The Group has recently published the first results of its work (Amadio 2010). Meanwhile, in the early

months of 2010 I examined in detail a sample area in Pumphrey Wood, just sufficient to produce this interim selective note and Figure 1 as representative of a greater extent of field archaeology in West Woods as yet to be recorded.

The field archaeology in Pumphrey Wood

(Figure 1)

There is a field archaeology of Pumphrey Wood, relating to its woodland management within enclosures; and there is the main subject of this note, the field archaeology in Pumphrey Wood, that is the remains of human activity pre-dating the development of this area as woodland.

The name itself is relatively recent. Mr Edward Pumphrey of West Overton was the principal *nouveau arrivé* in the area to benefit from Enclosure in the late 18th and early 19th centuries (Blackwell and Fowler 1998, 10). His eponymous self-aggrandisement c. 1800 displaced names for the same area of woodland in the 18th century – Allen's Wood, Clark's Leigh, Hide Coppice and Upper Chichangles (Fowler 2000, fig. 12.4). Of these, the name 'Chichangles' was almost a thousand years old (*scyt hangran* of the East Overton charter of AD 939, Fowler 2000, fig. 13.2; Blackwell and Fowler 1998, 106). The area itself, together with some of its visible but un-noted field archaeology, is illustrated *top centre and left* in Fowler 2000, pl. LX, a 1952 air photograph given full-page publication which I should have looked at more carefully in 1992.

The area surveyed in detail for the purposes of this note is of only 80ha, c. 800m W-E by c. 1000m N-S (Figure 1). Its centre is at NGR SU 144660, near the western edge of West Woods. The area is of flat ground on its north, sloping with increasing declivity to the south east, falling from some 210m above OD to 190m above OD in the narrow dry valley which leads north eastwards into Hursley Bottom. The geology is Clay-with-flints overlying Upper Chalk, with sarsen stones occurring both loose and semi-buried especially on the northern plateau area (for its geological and topographic

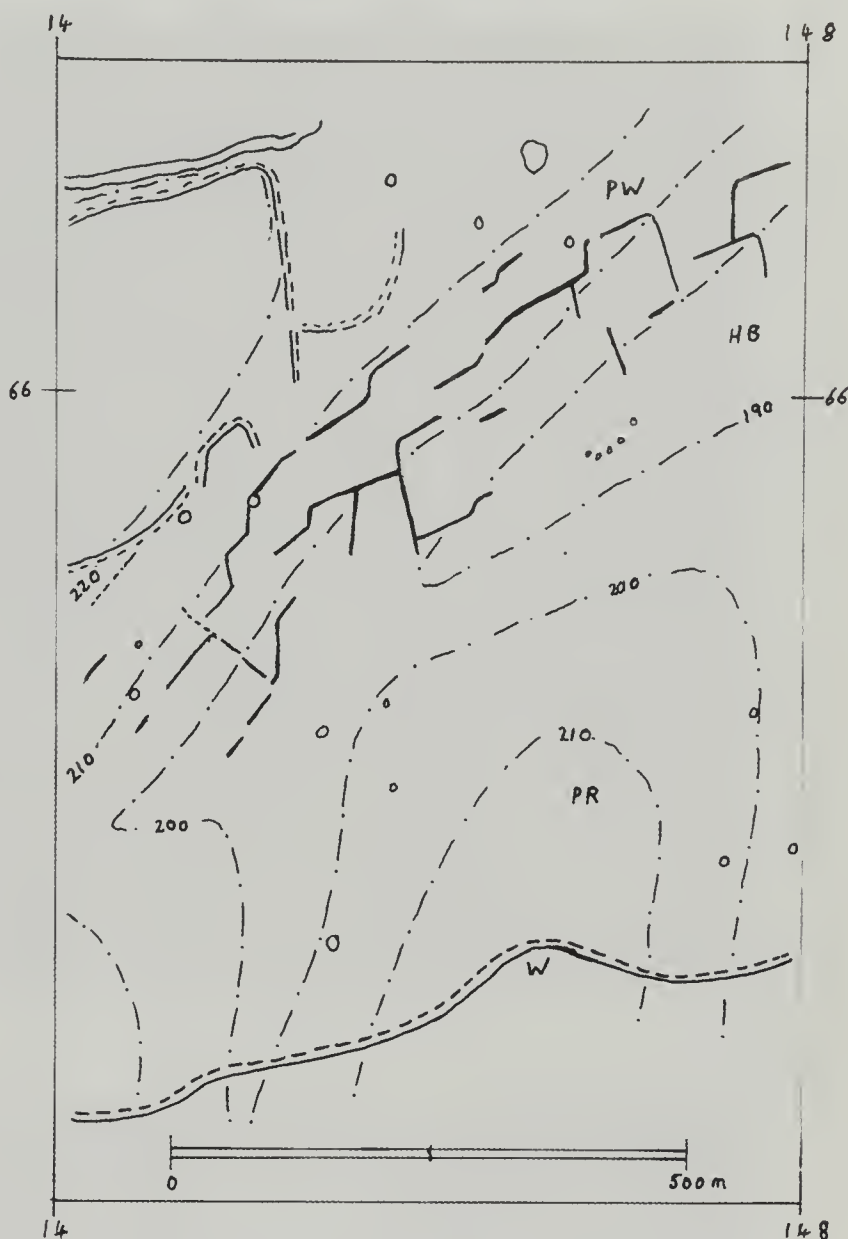


Fig. 1 Pumphrey Wood as a sample of the field archaeology of West Woods, showing pre-woodland 'Celtic' fields and other selected earthworks as surveyed March 2010. Key: HB: Hursley Bottom; PR: Pickrudge; PW: Pumphrey Wood; W: East Wansdyke. Continuous lines: banks/lynchets; broken lines: ditches; circles: hollows. Dot/dash lines: contours at 10 m intervals. Numbers around the edge: National Grid lines in SU.

situation, see Fowler 2000, fig. 1.3).

Overall, the field archaeology of West Woods consists principally of ten types of feature (*cf.* the threefold categorisation in Savernake Forest, Lennon and Crow 2009, 250-51):

- Boundaries, most obviously lynchets, of ancient ('Celtic') fields
- Linear banks and ditches
- Banks and ditches of enclosures
- Mounds
- Hollows, pits and quarries
- Platforms
- Trackways
- Ridge-and-furrow

- i. Stone structures
- j. Worked stones

Six are represented on Figure 1; (d), (f) and (i) do not exist in the sample area. The visible archaeology, minus (h), is shown schematically and selectively on Figure 1 (Types a, b, c, e, g-1 example, and j).

Type a: field boundaries are the features of prime archaeological interest here, both in their own right as a type of evidence indicating former enclosed arable fields in what is now woodland, and in establishing the former existence of pre-medieval landscape(s) (Figure 1).

The evidence occurs mainly in the form of lynchets between 1-3m high lying along the contours. They are consistently oriented SW-NE on a south-facing slope and the field system continues east of the right-hand edge of Figure 1. In seven cases, field boundaries in the form of low banks or lynched banks lie up and down the slope, forming the west and east sides of fields *c.* 50m in width and up to 120m long. But, though no visible ridge-and-furrow overlies them, the fragmented nature of these remains conveys the impression that the area has been over-ploughed along the slope, flattening boundaries up and down the slope and accentuating the field sides along the slopes into the prominent lynchets visible today. This is exactly comparable with the remains of pre-medieval fields on Overton and Fyfield Downs (*cf.* Fowler 2000, pls. VII, VIII; figs. 2.1, 7.1). That these are basically of 'Celtic' fields, however, is demonstrated by their plan and in particular by the typical 'staggered angles' at the end of several lynchets, with the next field being set up- or downhill by a few metres. There is no absolute dating evidence for these fields in Pumphrey Wood, and relative dating is provided only by one lynchet being cut by an undated quarry pit and the possibility that a field boundary is overlaid by an enclosure bank and ditch (Figure 1; NGR SU141658).

Types (b) and (c) are also represented on Figure 1: the main linear earthwork, East Wansdyke, is shown across the bottom of Figure 1 primarily to relate the rest of the material here to a known earthwork. The linear banks and ditches *top left* are part of a complex containing two hollowed trackways and the banks and ditches of large enclosures. The trackways head off north downhill and westwards (Type g, the only example shown on Figure 1 because it is an earthwork and in some sense 'old'). Two probably woodland enclosure banks (medieval?) circle round

to the west. The larger (not shown on Figure 1) sweeps round to run along the north side of the dry valley below the 'Celtic' fields; the other returns near the 220m contour line (Figure 1), being a large, sub-rectangular enclosure with a low bank and external ditch essentially enclosing the highest ground of the flattish plateau. Oriented SW-NE, its long axis is *c.* 620m, its short *c.* 540m. The bank is nowhere more than 1m high, and is mostly less; the ditch is mainly less than 0.5m deep below present ground surface and is characteristically 3-4m wide (Plate 1). At its NE corner, the bank and ditch cut a linear bank and ditch and, probably, the earthwork of a trackway (this detail is too complex to show at the scale of Figure 1); on its south a small sub-rectangular enclosure either blocks or overlies the enclosure bank and ditch approaching it from the west.

The bank of the small sub-rectangular enclosure is 1-2m high, the ditch *c.* 4-5m wide and *c.* 0.5m deep. The area enclosed is *c.* 85m SW-NE by *c.* 100m, though precision with any of these measurements, and indeed about the relationships with enclosure bank and 'Celtic' fields to the south, is impossible at present because of fir trees and thick undergrowth over the surviving earthwork. No visible bank and ditch enclose the southern half of the enclosure outside the fir copse; it appears to have been flattened by cultivation, though it is unclear whether such cultivation was associated with adjacent 'Celtic' fields or later ploughing. The nearest analogue for the enclosure, morphologically and geographically, is a similar small enclosure, though only *c.* 40m in diameter, on the eastern edge of the earthworks largely representing the deserted medieval village of Shaw, *c.* 1 km to the south (Fowler 2000, fig. 13.1, site marked IAS).

(e) Hollows are visually quite prominent in the treescape. Though most are probably of post-medieval date, some might be pre-medieval so all are shown on Figure 1. One, like that massively cut through the lynchet south of the sub-rectangular enclosure, looks like a quarry, as does a similar one to the west (Plate 2); the three *bottom right* in Figure 1 are marling pits and the little cluster of small pits in Hursley Bottom beside the track appears to have been dug to obtain material for it. One or two might be ponds. So, just as on the downs, a range of functions is suggested by the scatter of various 'hollows'.

Individual worked stones (Type t) are excluded. They are nevertheless present in the study area, notably as



Pl. 2 Quarry hollow in Pumphrey Wood



Pl. 3 Polished area of a sarsen stone in Pumphrey Wood



Pl. 4 Five cup-marks on sarsen stone, Pumphrey Wood

numerous stones with surfaces marked by polished areas (Plate 3) – *polissoirs*, as on the downs – and, in one example on a ground-fast sarsen, by cup-marks (Plate 4). The extension of the local distribution of such phenomena in the two parishes from the downland north of the R. Kennet to the southern woodlands is sufficiently significant to warrant separate study and publication.

Conclusions

In addition to the medieval and post-medieval archaeology and history lightly exemplified in Fowler 2000, a hitherto unknown prehistoric and Roman field archaeology of earthworks exists under the trees of West Woods. Essentially it represents a pre-medieval landscape or landscapes; today's, and indeed the late Saxon, woodland landscape is later than it. Further, it is comparable in nature, date and quality of interest and preservation to

that on the downs. Doubtless, as on the downs, further investigation will show the evidence to be of different dates and overlapping landscapes. The key recognition here is of a system, or systems, of 'ancient', pre-medieval ('Celtic') fields, analogous to those on the downs. Such a category of evidence is apparently absent from Savernake Forest (Lennon and Crow 2009).

At the moment comparison with the field systems on the downs merely indicates that the West Woods 'ancient' fields could be of any date between mid-2nd millennium BC to mid-1st millennium AD. They belong to the general spread of field systems locally in the 2nd millennium BC (Fowler 2000, fig. 15.1; Fowler 2004, fig. 1, which, based on pre-LiDAR air photography, shows no ancient fields in West Woods). If there was no further arable phase after their abandonment, then woodland could have colonised the area in the 1st millennium BC and been present ever since, thus allowing West Woods to be essentially prehistoric.

If, however, the field remains are as late as

the Roman period, they indicate the existence of an arable landscape in enclosed fields in the early centuries AD. The particular type of field system indicated by the remains is unlikely to be later than the 6th century AD at very latest (*cf.* Fowler 2000, 234-37), and is much more likely to be of the 1st-2nd centuries AD, probably overlying prehistoric field systems. A forested landscape can only have developed after such fields had been abandoned; here, such growth was most probably in the 6th-9th centuries. At one end of that possible bracket is the beguiling thought that my 'Wansdyke in the Woods' (Fowler 2001), if indeed semi-constructed *c.* AD 500, was actually being built across open downland when abandoned (but *cf.* Reynolds and Langlands 2006). At the other end, the forested landscape of the two, 10th century Anglo-Saxon land charters covering the woodland area of the two Overtons seems a well-established one (Fowler 2000, fig. 14.2).

The study of the earlier history of this land, as distinct from of these woods, has, until recently, been almost completely ignored, not least by this author. The beginnings of that study are already glimpsing a distinct character clearly linking the landscape in Pumphrey Wood and its neighbours to the open downs to north and west. Further, in terms of land-use history, such study hints that West Woods may well be distinct from their parental Savernake Forest to the east.

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Salisbury Cathedral and education 1091-1547

by *Nicholas Orme*

Salisbury Cathedral interacted with children and young people in several ways during the middle ages, including worship, employment, and teaching. It maintained groups of choristers and adolescent altarists, and provided instruction for the former in a song school. It was also associated with two educational institutions outside the cathedral close: the city grammar school and the foundation of De Vaux, the latter of which assisted adolescent or young adult scholars to learn grammar and theology. Some historians have claimed that university studies developed in Salisbury during the thirteenth century, but this article rejects the claim. It argues that the available evidence shows Salisbury to have been a typical diocesan centre of education, chiefly engaged in the schooling of boys and youths, with a relatively small number of older pupils studying basic theology as a preparation for, or consequence of, ordination as clergy.

Salisbury Cathedral and children

Church history is traditionally the history of adults: popes and bishops, liturgy and scholarship, architects and builders, meetings and administration. And yet, to make it so is incomplete. Children and young people were integral to the life of nearly all medieval churches. Medieval people envisaged life as a series of stages, 'the ages of man', and all of these may be found at Salisbury Cathedral.¹ Infancy was the first age, lasting from birth till seven. Twice a year, on Easter Eve and Pentecost Eve, fonts in cathedrals were used for baptising one or more babies, and by the middle of the 13th century there was a ban on parish christenings during the previous week so that little ones would be available. If a bishop was present, the babies would be confirmed as well.² And because many infants died, some may have had their funerals in the cathedral and have been buried in its pavement or its cemetery. This especially applied to the offspring of noble or wealthy people, and is paralleled at other cathedrals and abbeys.³

Childhood - the next stage of life - ranged from

seven to fourteen. Boys and girls of this age might have been involved with the cathedral in one of at least three ways. They might have come on their own or have been brought by adults to partake of the bustle of the nave, overhear services, or be presented for healing or thanksgiving in front of an image or shrine. The miracles attributed to St Osmund in the 15th century involved John Westmoor, a two-year old boy who fell in a stream; Christine Cerlee, aged nine, struck on the head by a quoit; and Agnes Bromley, aged fourteen, wounded by a spit. Each of these made a pilgrimage to Osmund's shrine with their family after their recovery, and Christine's quoit was offered at the shrine.⁴ Ordinations might involve children, although such events took place all over the diocese, not only in the cathedral. The lowest grade of ordination, the first tonsure, was administered to boys from the age of seven, and the next, acolyte, from fourteen.⁵ Most obviously and constantly, there were the choristers. With their own buildings, endowments, supervisors, and tasks in the church's liturgy, they represented a substantial commitment by the cathedral to the bringing up and educating of young people – some 300 boys every century.

Childhood was followed by adolescence, or youth as it was more often called, which lasted from puberty until the mid-twenties when most lay people married. Young men of this age would also have been present in the cathedral and its close. The altarists, a group of adolescent clerks numbering between seven and ten, assisted at the daily masses that were said in the church: preparing the altars, serving the priests at the altar, and saying the responses.⁶ At Exeter, where the names of such clerks are known, it is possible to show that they were often former choristers and frequently went on to be clergy: sometimes vicars-choral and chantry priests of the cathedral itself.⁷ This may have happened at Salisbury, but the altarists' names are not recorded.⁸ Other youths would have lived in the canons' houses. These might have been canons' relatives or paying pupils, learning to become clergy or gentlemen in a household that encompassed both kinds of life.⁹ Alternatively, they would have been boy servants, common in medieval households because they were cheap to employ and, if suitable, retained in service as adults. John Constabil, a senior retainer of the precentor in 1414, left small sums of money to two kitchen boys and to 'other boys', presumably in his master's employment.¹⁰ Finally, there were the lads who helped the craftsmen employed on the cathedral fabric and furnishings: bell-founders, masons, plumbers, and roofers.¹¹ Altogether, there must have been two or three-dozen adolescents at any one time, living inside the close or coming each day from outside.

The choristers

All the nine 'secular cathedrals', those staffed by canons not monks, maintained a group of choristers, of whom there were fourteen at Salisbury.¹² Choristers are nowadays thought of primarily as singers, but in medieval times they also existed for other reasons. They were useful, like boy servants, in doing tasks in the church; they were potential recruits to be adult clergy; and it is likely that they were often related to the canons or vicars-choral, brought to share in the perquisites of cathedral life. In the early days of their history, choristers everywhere had a rather precarious existence. At Salisbury they had no endowments before 1300 and were fed in the houses of the resident canons; it is uncertain where they lived. Between 1314 and 1321, however, Bishops Simon of Ghent and Roger Martival improved their

lot by granting them endowments and a dwelling house (at first where the Hungerford Chantry now is, later at No 5 in Bishop's Walk), where they slept and had meals. They were chosen by the precentor, or the succentor in his absence, and their affairs were managed by a warden who was one of the canons in residence. The warden deputed the supervision of the boys to a sub-master, usually a vicar-choral, who shared their accommodation. The choristers learnt song – the plainsong of the choral services – in a school adjoining their house in Bishop's Walk. Martival required the sub-master to be learned in grammar, and it may be that at first he taught them Latin or practised it with them, but by 1448 they were going to the city grammar school.

The choristers' role in the cathedral choir originally mimicked that of the adults, but on certain occasions when childhood or femininity needed to be represented, they played a more distinctive part in the liturgy. On All Saints Day, a boy in a surplice read the eighth lesson at matins, the parable of the wise and foolish virgins, while five other boys in surplices, representing the wise girls, wore amices (linen hoods) over their heads and carried candles.¹³ At matins on Christmas Day, virginity was again represented by five boys in similar dress, singing the respond *Hodie nobis* ('Today the king of heaven has condescended to be born for us of a Virgin').¹⁴ Most notably after Christmas, beginning at vespers on 27 December and continuing until vespers on the 28th, Holy Innocents Day, a boy bishop chosen by the choristers occupied the bishop's throne, blessed the congregation, and led the boys in secular festivities.¹⁵

In the middle of the 15th century, as Dr Roger Bowers has demonstrated, the role of choristers changed all over England.¹⁶ They were now used not merely for minor purposes or special occasions but daily in the singing of polyphony with adult clergy, especially in the 'Lady mass' in honour of the Virgin Mary, celebrated in the principal chapel of the church. This made them what they are today, distinctive contributors to the harmony. The quality of their voices became more important, and may have affected the choice of boys to be choristers. Learning polyphony required a more expert teacher than a vicar-choral, and a new 'instructor of the choristers in music' made his appearance at Salisbury by 1460, appointed by the cathedral chapter (the canons) not the precentor. Significantly, the instructor appointed in 1463, John Kegewyn, was also employed to organise the Lady mass. By 1538, when Thomas Knyght was instructor, he received a substantial

emolument of £6 11s. 8d. per annum ‘after the old laudable custom’ as well as food and drink twice a day – worth over £8 altogether. Knyght was a man of ability, whose compositions included a five-part Latin mass and settings of Latin antiphons, and possibly a vernacular *Magnificat* and *Nunc Dimittis*.¹⁷ Little is known about the careers of the choristers after their voices broke at about the age of fourteen. Some may have stayed at the cathedral as altarists until they could be ordained as priests at the age of twenty-four. Others probably took up lay careers. In either case, they went out into the world having had an upbringing and education at the cathedral’s expense.

The grammar school

The cathedral did not restrict its provision of education to its own staff. It also promoted public schooling, although it did not apply large resources for that purpose. By about 1107 the cathedral chapter included an officer, Guy of Etampes, entitled the *magister scholarum* or ‘schoolmaster’, a term that normally meant a person in charge of a school teaching the reading and understanding of Latin.¹⁸ The origin of this school used to be assigned to 1091, the alleged date of the *Institutio* attributed to St Osmund, but Professor Greenway has shown that the *Institutio* is a compilation of the middle of the twelfth century (c.1146-1160), which reflected a school already in existence.¹⁹ The schoolmaster may have originated to teach the younger members of the cathedral foundation, but during the 12th century his work would have extended to boys and youths from outside who wished to gain the skills to become parish clergy or literate laymen.²⁰ By about 1150 a probable combination of increased teaching work and other tasks in the chapter caused him to share his duties and, predictably, to concentrate on the more prestigious ones. By the time that the *Institutio* was compiled, he had taken the new title of ‘chancellor’, indicating his primary responsibility to be that of the literary officer of the cathedral chapter,²¹ and had passed his duties in the school to a deputy teacher who took over his former title of schoolmaster.

The grammar school was a cathedral school to the extent that the cathedral chapter owned the school building and the chancellor appointed the schoolmaster. The master was a part-time member of the cathedral staff, but of relatively low status and not a member of the chapter. He had to attend

the choir for the services of matins and prime, and to supervise the reading of the lessons at prime, in return for which he received a very small salary.²² In other respects, however, his school was a general school for the town and the diocese. It was commonly called not ‘the cathedral school’ but ‘the grammar school of the city’, and was situated by the 14th century not in the cathedral close but in the old High Street, now Exeter Street, outside and opposite St Anne’s Gate. It may have taught elementary learning, how to read, or that may have been done by private teachers in Salisbury. It certainly taught Latin. Some of its pupils were junior members of the cathedral. Choristers, altarists, and the younger vicars-choral are all mentioned going there in the 15th century, but most of the pupils came from the city or from further away in the diocese, boarding in private houses if they lived too far away to travel each day. In 1394 the bishop instructed the parish clerk of Winterslow to attend a school on weekdays, and this was probably Salisbury to which the clerk could have walked.²³ During the middle ages the school was a fee-paying one, and the master’s income came chiefly from the school fees rather than from his cathedral honorarium. Fees in 15th-century schools were commonly 8d. each term or 2s. each year for each scholar.²⁴ For a long period the cathedral took some of this income by exacting an annual payment of 13s. 4d. to fund the obit mass of Ralph the Chancellor, but the charge was discontinued in 1448. At the Reformation, in 1547, all fee-paying cathedral schools were made free by a royal order, and cathedral chapters were ordered to pay salaries to two masters to teach them.²⁵

The names of about eleven schoolmasters are recorded between 1254 and 1474. The masters’ cathedral duties did not require them to be priests, and only one of the eleven is known to have had that status. Most were probably clerks in minor orders, and some may even have been married. Eight of the eleven were titled *magister*, which did not always signify a university degree but implied substantial learning or seniority. One (Richard Piere) had studied grammar at university and held the teaching degree of Master of Grammar, another (John Russell) had probably taught grammar at Oxford, and a third (John Hawkbroke) had been usher (assistant master) of Winchester College. Several schools in other towns have left records of their teaching in the form of manuscript collections of grammatical texts and notes, but nothing of this sort has yet been discovered for Salisbury. Indeed, no reference to the school is known between 1474 and 1547, a lack

which former historians would have interpreted as a sign of decline or extinction, but which is simply a failure of evidence, always a problem in the early history of education. The Latin taught in the school would have followed the standard medieval Latin curriculum, and would have changed to that of the Renaissance round about 1500. The teaching was not always satisfactory. The master was dismissed for inefficiency in 1352 and probably in 1468. On three occasions during the 15th century (1418, 1440 and 1454) there was no master for an extended period. But such ups-and-downs were common in medieval schools, and there is no reason to think that Salisbury's was any worse than the others, or contrariwise any better. Its masters and its standards would have been similar in quality and character to other cathedral schools.

Higher studies

During the 13th century most of the English secular cathedrals instituted lectures in theology or canon law. Why they did so is not clear. The Lateran Councils of the Catholic Church in 1179 and 1215 required every cathedral to provide a grammar school and metropolitan cathedrals like Canterbury and York also to maintain a theologian lecturing on the Bible to priests and others, but in England the latter practice spread to all the secular cathedrals, although not to the monastic ones.²⁶ In 1220 a canon of Salisbury, Master Henry, is described as 'teaching school' probably in canon law, and in 1225 the precentor, Master Roger of Salisbury, occurs as 'reader' in theology. In 1240 the duty was made statutory by Bishop Bingham and assigned to the chancellor. He and his successors were given the prebend of Brixworth, and made responsible for giving solemn lectures in theology, either in person or through a deputy.²⁷

We know little about the history of these lectures at any cathedral, and complaints were sometimes made that chancellors were not doing their duties. At Salisbury in 1300 the bishop heard that the theology school had been closed for most of the previous year and ordered the chancellor to provide a lecturer within a month. In 1349 the chancellor appointed a non-graduate friar to lecture, and the chapter insisted that the archdeacon of Salisbury, a doctor of divinity, should lecture alternately with him. Eventually the archdeacon took over the duty completely. By 1357 the lectures had lapsed again,

the chancellor explaining that the man he had appointed had fallen ill, and in the following year he arranged for a doctor of divinity from Suffolk to lecture for two years. In 1454 the chapter authorised the building of a new theology school above the west walk of the cloister, and having learnt once again that lectures were not being regularly given, ordered that they should be read every fortnight. The insistence on 'solemn lectures' and high-quality lecturers implies that the lectures were in Latin and of an academic kind, but who attended them is unknown. They were presumably meant for the local clergy, but how many of these were capable of following an academic lecture in Latin and willing to come to Salisbury for the purpose, is anyone's guess. Still, the significant fact here and elsewhere is that the duty of lecturing continued to be accepted, and was at least intermittently enforced until the Reformation and beyond. No one would have built a theology school without taking the institution seriously.

A university?

Salisbury Cathedral's role in teaching choristers, running a grammar school, and organising theology lectures resembled that of most similar cathedrals. There was nothing unusual about these functions. Since the 19th century, however, Salisbury has been seen as distinctive in almost or actually developing a university. This view is based on four pieces of evidence. The first involves an outbreak of violence at Oxford in 1238, which allegedly caused students to leave the city and go to Northampton and Salisbury. The second relates to the house of De Vaux, initiated by Bishop Giles of Bridport in 1262 to support twenty scholars studying theology and the liberal arts. The third concerns the study of theology at the college of St Edmund, founded by Bishop Walter de la Wyle in 1269, and the fourth is a chapter act of 1279 defining the rights of the cathedral chancellor against those of the subdean. During the last hundred years or so, scholars have been tempted to join these four dots into a shape – that of a university.²⁸ Can they be linked in that way?

Students left Oxford on several occasions during the 13th century because of local problems and disturbances. The statement that some went to Salisbury in 1238 is found only in two chroniclers of the 14th and early 15th centuries, but it is reasonable to deduce that the writers copied an earlier source.²⁹ The migration to Salisbury, however, need not signify

much. Oxford lay only just over the boundary of Salisbury diocese, and must have attracted students from within it. Forced to suspend their studies at Oxford, Salisbury would have been an obvious alternative. It is not known how long they stayed away, and nothing secure can be built on this event alone. The chapter act of 1279 seems, at first sight, more significant. It gave the chancellor jurisdiction over all civil and personal lawsuits between scholars, of whatever faculty, and between scholars and laymen. It defined a scholar as someone who lived in the city and who could be vouched for as a scholar by the teacher of the school that he was attending. The subdean was made responsible for clerks in the city who were not at school and for scholars who committed moral crimes such as fornication.³⁰ To paraphrase the chapter act, it envisaged that there might be more teachers in Salisbury than the master of the cathedral school. It talked about scholars of different kinds of study (faculty), and its focus on legal disputes between scholars and between scholars and laymen, and on moral crimes such as fornication, suggests that some of these scholars were over the age of moral responsibility (which was fourteen) and were dealing commercially with local people: perhaps renting rooms and running up bills.

Historians have built much on this document. One former leading writer on medieval universities, Hastings Rashdall, having drawn attention to 'the number of [the scholars'] masters, the circumstance that they belong to more faculties than one, and the fact that the causes and contracts spoken of are evidently not the disputes of mere schoolboys', concluded that 'we can have little doubt that such an agreement reveals the continued existence of the Oxford colony of 1238'.³¹ Kathleen Edwards, an authority on medieval cathedrals in general and Salisbury in particular, agreed. 'The award shows that all the essentials of a *studium generale* or university then existed at Salisbury.'³² Yet two objections can be made to these views. First of all, the document is not a description of what somebody found after an investigation but a piece of lawmaking. Legal documents aim to be comprehensive, and this one could be said to be carefully drafted so as to be absolutely watertight. It seeks to include every kind of clerk and scholar, every teacher, and every legal context. It anticipates every possibility, but it cannot be assumed that these possibilities actually existed. The deeds of a modern house, for example, may deny the owner mining rights even though the property is not in a mining area. Secondly, it is inadequate to assume, as Rashdall and Edwards do, that the only

choice in defining the scholars of this document is between 'mere schoolboys' and a community approaching that of a university. Youths could stay at grammar school until they were eighteen, or even later. They often boarded away from home, and could therefore get into debt. They could be violent, and cause a public nuisance.³³ The term 'scholar' might also include older men who were hearing the chancellor's lectures, or trainee Church lawyers like the five university graduates mentioned in relation to the bishop's consistory court at Exeter in 1323 as 'studying and awaiting a place'.³⁴ Any secular cathedral city could have produced a sufficient range of 'scholars' to justify a legal draughtsman's phrase 'of whatever faculty', without providing a basis for assuming the existence of some sort of university.

The evidence that De Vaux and St Edmund's were institutions of a university kind is also elusive. Historians have been somewhat free in their terminology, calling them both 'colleges'. The foundation charter of De Vaux terms it a 'house' while that of St Edmund gives it no designation, although the word 'collegiate' occurs at one point. Only later did De Vaux come to be known as a college.³⁵ But even if 'college' had been used from the beginning, it carried no academic implications before the Reformation, being a similar word to 'collection', denoting a body of clergy. St Edmund's was planned to consist of a provost and thirteen priests, and its statutes of 1269 laid out a daily routine for them to follow. They said matins at dawn, and then heard what was known as a 'morrow mass', said at or soon after dawn. When this mass was over they went to the theology school to give diligent service to those who read to them, after which they returned to say the office of the Virgin Mary followed by the principal mass of the day.³⁶ The theology school, then, was a daily activity that can be narrowed down to somewhere between about 6am and 8am, two hours at most, perhaps less. This was not university study. It resembled what friars, and eventually monks, did: 'continuing education' of a more basic kind. It had a parallel at Worcester in 1265, where Bishop Cantilupe set up a small college or chantry of four priests, the Carnary or Charnel Chapel, whose members also had to 'frequent school'. In their case, school happened after mid-morning mass and its nature is not specified, but it too looks like continuing education in either grammar or basic theology.³⁷ In 1976 I suggested that the students of St Edmund's went to the chancellor's lectures in theology,³⁸ but it seems unlikely to me now that the latter took place each day. The studies at St

Edmund's could well have happened internally, if they happened at all, for there is no proof that the statutes were followed in practice; indeed, the number of priests never reached more than seven.

The final topic for discussion is the college of De Vaux, an institution which took its name from being the 'property of the scholars who are named the Scholars of the Valley', as they are called in the foundation charter of 1262.³⁹ This foundation has traditionally been regarded as the strongest evidence of a university community in Salisbury, and was the subject of a careful and exhaustive account by Kathleen Edwards in 1956.⁴⁰ She tried to deal fairly with the question of its nature, recording the views of Christopher Wordsworth and A. F. Leach that it was a university college while noting that it also partook of the nature of a chantry or a collegiate church. Advocates of De Vaux's university status attached weight to the existence of a college called by a similar name in the University of Paris: the so-called 'college of the Order of the Valley of Scholars'. Edwards observed that the founder of De Vaux, Giles of Bridport, might have studied at Paris (in fact his university affiliation is unknown) and that his brother Simon did study there, but she correctly pointed out that the Order of the Valley of Scholars was a group of French monasteries staffed by Augustinian canons, and that any college supported by them would have been an unlikely model for the one in Salisbury. It is now known that her doubts on this point were right. The most recent work on the Order of the Scholars of the Valley has found no evidence that they maintained a study centre in Paris until 1274, twelve years later than De Vaux, rather than earlier as used to be thought. In 1319 this study centre accommodated twelve Augustinian canons, chosen from the monasteries of their Order, and studying only theology – features dissimilar to those of De Vaux.⁴¹ The names are not even quite the same: 'Scholars of the Valley' in Salisbury, 'Valley of Scholars' in France. Edwards's alternative explanation of the Salisbury name – that it relates to the location of the scholars in the valley by the river as opposed to the higher ground by the town – is far more likely.

It is noteworthy that despite her reservations, Edwards could not free herself from the tradition of regarding De Vaux as a university institution. In her book on medieval cathedrals she called it, as Leach did, 'the first university college in England', and in her *Victoria County History* article she referred to it as having 'undergraduates' at or soon after its foundation.⁴² Are these terms appropriate? The

answer must be 'no'. Salisbury had no university in any formal sense at or after De Vaux's foundation date of 1262, and there is no evidence that Bridport tried to establish one, so De Vaux cannot have been a university institution in fact or intention. The Parisian parallel can be dismissed absolutely. Undergraduates study for a degree, and nothing indicates that the early scholars of De Vaux did any such thing, or that the college was intended (like Winchester and Eton, very much later) to be a feeder for Oxford or Cambridge. Nor did Bridport found a college of the kind that began to appear in the universities shortly afterwards, beginning with Walter of Merton's Merton College (Oxford) in 1264. De Vaux was intended to support a warden, two chaplains, and twenty 'poor, destitute, honest, and teachable scholars'.⁴³ The warden was to be a member of the cathedral chapter chosen by the chapter, and he did not even live alongside the scholars but in his own house in the close. The chaplains and scholars were not associated with him in governing the institution, as were the scholars of most of the later university colleges. But there was much variety in the constitutional arrangements of the early English academic colleges, which make such arrangements an imperfect test of status. Rather, the test lies in what the scholars studied. In the case of De Vaux their purpose was defined as 'studying and making progress in the sacred page and in the liberal arts'. The 'sacred page' is the Bible, and the Bible with Peter Lombard's commentary upon it indeed formed the basis of the university degree course in theology. It is more likely, however, as has been argued in the case of St Edmund's, that the Bible study at De Vaux was basic and practical, such as went on in a religious house or in the chancellor's theology school. 'The liberal arts' sound like 'the arts course' at a university, but the words could be applied to schools that were, for the most part, teaching grammar. Durham School was referred to as 'the school of liberal arts' in 1229, and so was Wells Cathedral School in 1274.⁴⁴

An assortment of foundations was made to benefit students in schools during the 13th century. From about 1216 Durham had an endowment for three scholars to board in the cathedral almonry.⁴⁵ In 1249 Bishop Walter Suffield arranged for seven poor scholars to be supported in the hospital of St Giles, Norwich.⁴⁶ In 1259 a plan for the hospital of St Mark, Bristol, envisaged twelve poor scholars living in the house and singing in the choir.⁴⁷ Other foundations were made at Oxford, Cambridge, and elsewhere later in the century.⁴⁸ De Vaux, with twenty scholars,

was the largest scheme of its kind at its foundation date in 1262, although Merton equalled it two years afterwards, but it is not known whether its number of twenty scholars was ever achieved. In later times the total appears to have been in the region of nine to twelve.⁴⁹ The best way to judge the scholarly nature of all these foundations is to consider the towns in which they were set. If a hall or house of scholars was founded in Oxford or Cambridge, it is reasonable to assume that the scholars were engaged in university studies, although both towns were also centres of grammatical teaching and several early university institutions (like Merton) had schoolboy members as well as older students. In a provincial town, however, the educational context was that of schools of grammar with some logic and, in a secular cathedral city, theological lectures for the local clergy. Given conditions in Salisbury, Bridport is more likely to have envisaged his scholars proceeding from grammar through basic theology to local ordination and careers as priests in churches and parishes, than to have intended them to follow studies proper to a university.

In the end, therefore, it is unsafe to call De Vaux, as planned and its early years, a university institution, or to credit Salisbury with having anything close to a university. What existed there in the 13th century, as in other cathedral cities of that period, was a collection of scholars ranging from schoolboys learning grammar to young adult clerks and priests learning theology. Bridport's plan appears to have aimed at providing support for such people. As time went on and Oxford and Cambridge tended to monopolise teaching above the level of grammar, it became more useful for one's career to go to them than to remain in a provincial centre. Gradually, during the 14th century, the scholars of De Vaux gravitated to the universities, especially Oxford.⁵⁰ They were allowed to hold their scholarships for long periods to enable this, although it is not known whether Bridport envisaged such practices, and eventually, in 1526, the chapter of Salisbury ruled that most of them should spend their time at university. But that was a subsequent development, and it should not colour how Bridport's scheme and the functioning of De Vaux are viewed in respect of the early days of the institution.

Conclusion

In the educational league-table of medieval England,

Salisbury and its cathedral were in the first division – but not in the premier league. Salisbury was not like Oxford, Cambridge, or London, a city with huge numbers of students or, in the case of Oxbridge, very advanced kinds of study. Rather, it was one of a dozen or so important provincial centres of education, such as Bristol, Canterbury, Exeter, Lincoln, Norwich, Wells, and York – mostly cathedral cities. De Vaux raises its profile, not as a university but as the largest benefaction for scholars in such a city until William Wykeham's Winchester College in 1382, and the only one to give support to students of theology. In these respects it was unique, but being unique it had no impact elsewhere. For most of the time, the cathedral's involvement with children and education was routine and unobtrusive, which is usually true of education. The cathedral's effects on young people cannot be traced in documents and there is scarcely a famous person who can be said to have gone to its schools,⁵¹ but that does not mean that the cathedral did not do valuable work in this field. It trained choristers and altarists, ran a grammar school, and provided lectures for clergy. Through these institutions it sent out several thousand pupils between the Conquest and the Reformation with greater or lesser skills and helped to shape their lives. The likelihood is that there were many people, clergy and laity, who were grateful for that assistance.

References

- 1 This article develops my earlier account in N. Orme, *Education in the West of England, 1066-1548* (Exeter 1976), pp. 65-75, with a wider consideration of childhood and a re-examination of the supposed university in Salisbury and of De Vaux College.
- 2 *Councils and Synods, II: A.D. 1205-1313*, ed. F. M. Powicke and C. R. Cheney (2 vols, Oxford 1964), i, 368; *The Sarum Missal*, ed. J. Wickham Legge (Oxford 1916), pp. 123-31.
- 3 D. Lepine and N. Orme, *Death and Memory in Medieval Exeter*, Devon and Cornwall Record Society, new series 46 (2003), pp. 40-3.
- 4 A. R. Malden, *The Canonization of St Osmund*, Wiltshire Record Society (1901), pp. 58-62, 65, 70-1.
- 5 Unfortunately for the historian of childhood, the registers of the bishops of Salisbury, unlike those of other dioceses, did not usually record the names of those who received the first tonsure; an exception is that of Lorenzo Campeggio (1525-34).
- 6 On altarists in cathedrals, see K. Edwards, *The English Secular Cathedrals in the Middle Ages* (2nd ed., Manchester 1967), pp. 303-7, and on those of Salisbury,

- Orme, *Education*, pp. 69-70.
- 7 N. Orme, 'The Medieval Clergy of Exeter Cathedral: II. The Secondaries and Choristers', *Transactions of the Devonshire Association*, 115 (1983), pp. 79-100 at 79-85.
 - 8 But note William Caundell, a 15th-century cathedral chantry priest, who testified to having frequented the cathedral church since the age of discretion, i.e. fourteen: Malden, *Canonization of St Osmund*, p. 59. Other named youths include Thomas Bowyer, clerk of the Hungerford chantry, 1468; and Richard Austen, tonsured as a boy of the hall of the vicars choral, 1525 (Orme, *Education*, p. 69, n. 5).
 - 9 See examples from York: *Testamenta Eboracensia*, ed. J. Raine, vol iii, Surtees Society, 45 (1865), p. 92, and Exeter: *Tudor Exeter*, ed. M. M. Rowe, Devon and Cornwall Record Society, new series 22 (1977), pp. 31-2.
 - 10 *The Register of John Chandler, Dean of Salisbury*, ed. T. C. B. Timmins, Wiltshire Record Society 39 (1984), p. 10. For examples at other cathedrals, see D. Lepine, *A Brotherhood of Canons Serving God* (Woodbridge 1995), p. 126.
 - 11 *The Accounts of the Fabric of Exeter Cathedral*, ed. A. M. Erskine, 2 parts, Devon and Cornwall Record Society, new series 24, 26 (1981-3), i, 7, 12, 30-1.
 - 12 The earliest modern writer on the choristers was Dora H. Robertson, *Sarum Close* (London 1938); 'Notes on Some Buildings in the City and Close of Salisbury Connected with... the Choristers', *WANHM* 48 (1937-9), pp. 1-30; and, with C. Wordsworth, 'Salisbury Choristers: their Endowments, Boy-Bishops, Music Teachers and Headmasters', *ibid.*, pp. 201-31; her work, however, contains some errors. For more recent studies, see Edwards, *Secular Cathedrals*, pp. 307-17, and Orme, *Education*, pp. 65-72.
 - 13 *Breviarium ad Usum Insignis Ecclesiae Sarum*, ed. F. Procter and C. Wordsworth, 3 vols (Cambridge 1879-86), iii, cols. 974-5.
 - 14 *Ibid.*, i, col. clxxiv.
 - 15 *Ibid.*, i, cols. ccxxx-ccxlv; Robertson, *Sarum Close*, pp. 81-8.
 - 16 Roger Bowers, 'To Chorus from Quartet: the Performing Resource for English Church Polyphony c.1390-1559', *English Choral Practice 1400-1650*, ed. J. Morehen (Cambridge 1996), pp. 20-31; *idem*, 'The Almonry Schools of the English Monasteries, c.1265-1540', *Monasteries and Society in Medieval Britain*, ed. Benjamin Thompson (Stamford 1999), esp. p. 211.
 - 17 *The New Grove Dictionary of Music and Musicians*, ed. S. Sadie (2nd edn, 29 vols, London 2001), xiii, 704, art. by Roger Bowers.
 - 18 J. Le Neve, *Fasti Ecclesiae Anglicanae 1066-1300*, vol iv: *Salisbury*, ed. D. E. Greenway (London 1991), p. 17.
 - 19 D. E. Greenway, 'The False *Institutio* of St Osmund', in *Tradition and Change: essays in honour of Marjorie Chibnall*, ed. D. E. Greenway, C. Holdsworth, and J. Sayers (Cambridge 1985), pp. 77-101 at pp. 86-7.
 - 20 On what follows, see N. Orme, *Medieval Schools* (London and New Haven 2006), pp. 163-5.
 - 21 For the text of the *Institutio*, see Greenway, 'The False *Institutio*', pp. 94-7, and for the change of title, Le Neve, *Fasti 1066-1300*, iv, 16-19.
 - 22 On the history of the grammar school, see Orme, *Education*, pp. 65-75.
 - 23 *The Register of John Waltham, Bishop of Salisbury*, ed. T. C. B. Timmins, Canterbury and York Society 80 (1994), p. 158.
 - 24 Orme, *Medieval Schools*, p. 132.
 - 25 *Visitation Articles and Injunctions of the Period of the Reformation*, ed. W. H. Frere and W. M. Kennedy (3 vols, Alcuin Club Collections, 14-16, 1910), ii, 139.
 - 26 Orme, *Medieval Schools*, pp. 201-2.
 - 27 On this and what follows, see Orme, *Education*, pp. 67, 73-4.
 - 28 For a discussion of this tradition, see K. Edwards, 'The College of De Vaux, Salisbury', in *Victoria County History of Wiltshire*, vol. iii, ed. R. B. Pugh and E. Crittall (London 1956), p. 371; see also A. F. Leach, *The Schools of Medieval England*, 2nd ed. (London 1916), p. 165.
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 - 31 H. Rashdall, *The Universities of Europe in the Middle Ages*, ed. F. M. Powicke and A. B. Emden (3 vols, London, 1936), iii, 88-9.
 - 32 Edwards, *Secular Cathedrals*, p. 191.
 - 33 For boarding, see Orme, *Medieval Schools*, p. 133, and for unruliness, *ibid.*, p. 158.
 - 34 *The Register of Walter de Stapeldon, Bishop of Exeter*, ed. F. C. Hingeston-Randolph (London and Exeter 1892), p. 117.
 - 35 *Victoria County History of Wiltshire*, iii, 371.
 - 36 Printed in *Cartulary of St Nicholas' Hospital*, ed. Wordsworth, pp. 40-4 at p. 43.
 - 37 A. F. Leach, *Early Education in Worcester*, Worcestershire Historical Society (1913), pp. 20-1.
 - 38 Orme, *Education*, pp. 67-8.
 - 39 Originally the foundation's name was a Latin singular (*Vallis*, 'valley'); Vaux is the plural of the equivalent French word *Val*. Professor David Trotter (private communication) suggests that *Vallis* became pronounced *Vaus* and was then confused with *Vaux*: he compares Clairvaux (France), originally *Clara Vallis*.
 - 40 *Victoria County History of Wiltshire*, iii, 369-85.
 - 41 Catherine Guyon, *Les Ecoliers du Christ: l'ordre canonial du Val des Ecoliers 1201-1539* (Saint-Etienne 1998), pp. 170, 181, 193-5, 295-9; the Salisbury link is discussed and found unproven on pp. 133-5.
 - 42 Edwards, *Secular Cathedrals*, p. 191; *Victoria County History of Wiltshire*, iii, 372.
 - 43 *Cartulary of St Nicholas' Hospital*, ed. Wordsworth, pp.

- 38-40.
- 44 *English Episcopal Acta*, 25: *Durham 1197-1237*, ed. M. G. Snape (Oxford 2002), p. 251; Orme, *Education*, p. 86.
- 45 Orme, *Medieval Schools*, pp. 209-10.
- 46 *Ibid.*, p. 209.
- 47 *Ibid.*
- 48 On later foundations outside the universities, see *ibid.*, pp. 209-10.
- 49 *Victoria County History of Wiltshire*, iii, 373.
- 50 On the later history of the college, see Edwards's article in *Victoria County History of Wiltshire*, ii, 369-85; there can be no objection to her account of how De Vaux eventually became linked with university studies.
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Medieval enclosures at Cue's Lane, Bishopstone, Wiltshire

by Sarah Coles

with contributions by Sian Anthony, Paul Blinkhorn, Lucy Cramp and Steve Ford

Excavation in advance of a housing development south of Cue's Lane, Bishopstone (SU 2450 8390) revealed a series of medieval boundary ditches which created and redefined three enclosures dating to between the 11th and 13th centuries. A well was back-filled in the late 13th or early 14th century, while a wall foundation (probably another boundary rather than a structure) was robbed at the same time. The fieldwork sheds light on the sequence of development of the medieval village, perhaps pre-dating building of the parish church.

Stray and residual finds of Mesolithic and later flintwork, and Bronze Age, Roman and Anglo-Saxon pottery indicate sporadic use of the site and its environs in these periods.

Introduction

A programme of archaeological investigation was carried out in advance of a housing development on a c. 0.1ha plot of land to the south of Cue's Lane, Bishopstone, Wiltshire by Thames Valley Archaeological Services Ltd (TVAS). The site comprises an irregular plot of land bounded to north and west by Cue's Lane and to the south by the Wyncies estate, and is located south of Cue's Farm (SU 2450 8390)(Figure 1). Bishopstone itself is 10km east of Swindon on the margins of the Vale of the White Horse on the north scarp of the Downs. The site is gently undulating from east to west and steeply sloping from 123m above Ordnance Datum in the south to 118m in the north. Geological maps (BGS 1971) indicate Head deposits as the underlying geology, while that observed during the excavation was Gault clay.

The development site lay on the fringes of the medieval village 200m north-east of the parish

church and contained several earthworks thought to represent house platforms. Land occupied by these platforms was excluded from the area of development, but adjacent ground contained features and deposits thought to represent paddocks or fields and one medieval stone-built structure. The fieldwork was carried out to comply with a condition on the planning consent in accordance with PPG16 following a specification approved by Mr Roy Canham, then County Archaeologist for Wiltshire County Council. The work was funded by Bower Mapson and managed by Steve Ford. Two phases of evaluation were carried out in September 2001 and April 2002. The main excavation took place during January and February 2004 supervised by Sarah Coles. A watching brief was maintained during the groundworks associated with the construction of the access road for the development from April to June 2004. The archive will be deposited with Swindon Museum (accession number B2001/6) in due course. The site code is CLB01/11.

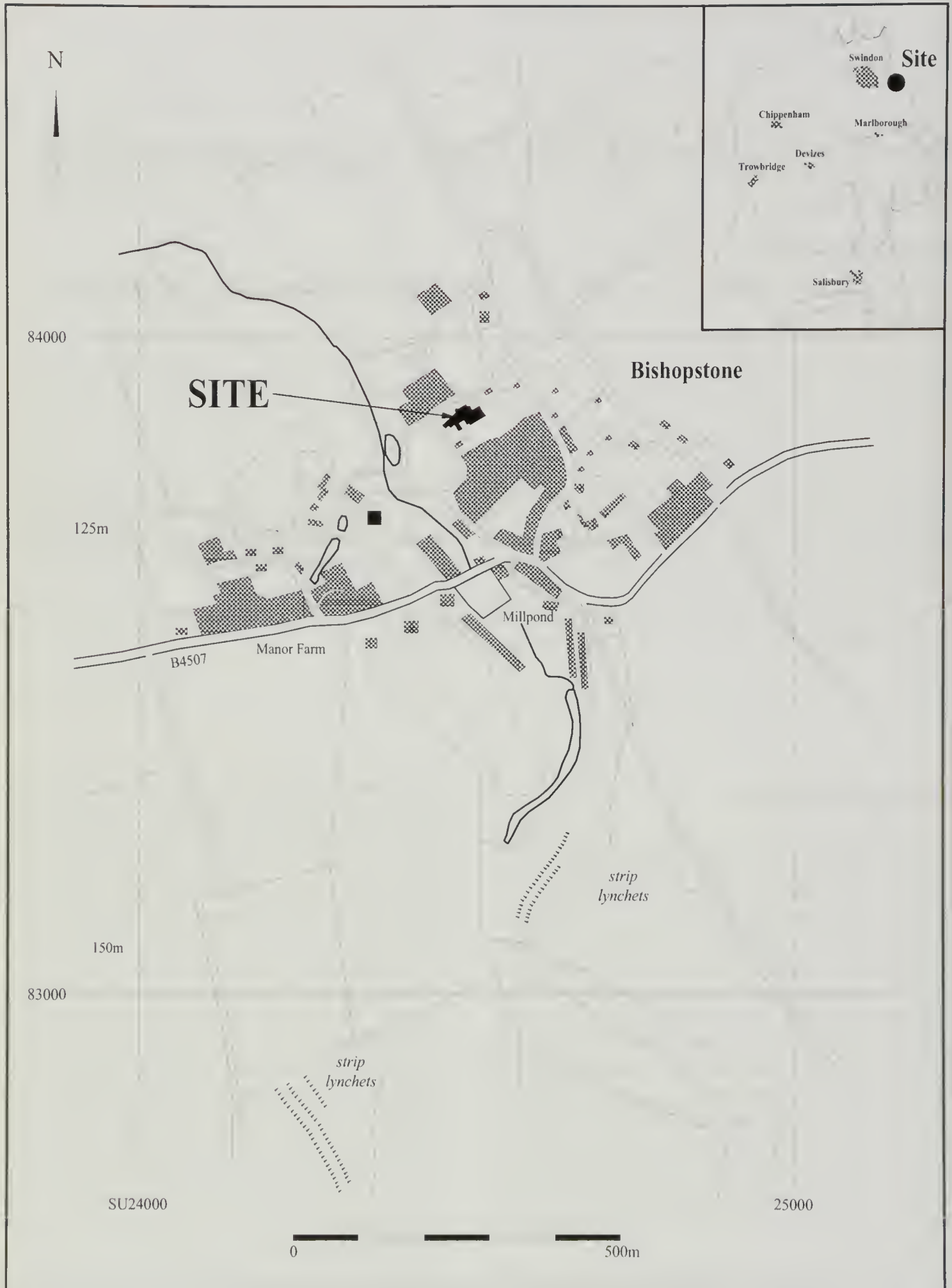


Fig. 1 Location of site in Wiltshire and Bishopstone

Archaeological background

The village of Bishopstone is surrounded by well-known archaeology. The Ridgeway runs south of the village and links Wayland's Smithy chambered long barrow and Uffington White Horse and hillfort among other sites. A series of well-preserved strip lynchets to the south of the village were excavated in the 1950s (VCH 1983, 4). Part of a Roman tessellated pavement is known east of Lammy Down, also south of the village (VCH 1973, 159). A large amount of Roman pottery recovered on the northern edge of Bishopstone (2.5km north-east of Ermin Street) during fieldwork associated with modern pipeline works (Torrance 1993; Hall 1998) suggests further Roman occupation.

Anglo-Saxon burials have been found to the west of the village, although Bishopstone itself is not mentioned in Domesday Book. The place-name Bishopstone (meaning 'bishop's farm') is first recorded in 1208, when it was part of the lands of the Bishop of Salisbury and assessed under the manor

of Ramsbury: earlier references are ambiguous as to which of the two Wiltshire Bishopstones is meant (VCH 1983). The parish church includes 13th-century fabric and a possibly earlier doorway that appears to have been re-sited (Pevsner 1963, 103-4).

Earthworks in the south-west part of the site (Figure 2) formed a rectilinear pattern interpreted as the remains of house platforms and part of the medieval or early post-medieval village. Other earthworks on the site are thought to represent more recent activity.

The excavation aimed to answer questions about the development of the village, which has a slightly sprawling plan along two main roads, but looks as if it may originally have focussed on a central pond and/or green. It was hoped that the site's location would allow observations to be made about the development and layout of the medieval village, with settlement margins potentially more sensitive to expansion and contraction than core areas.

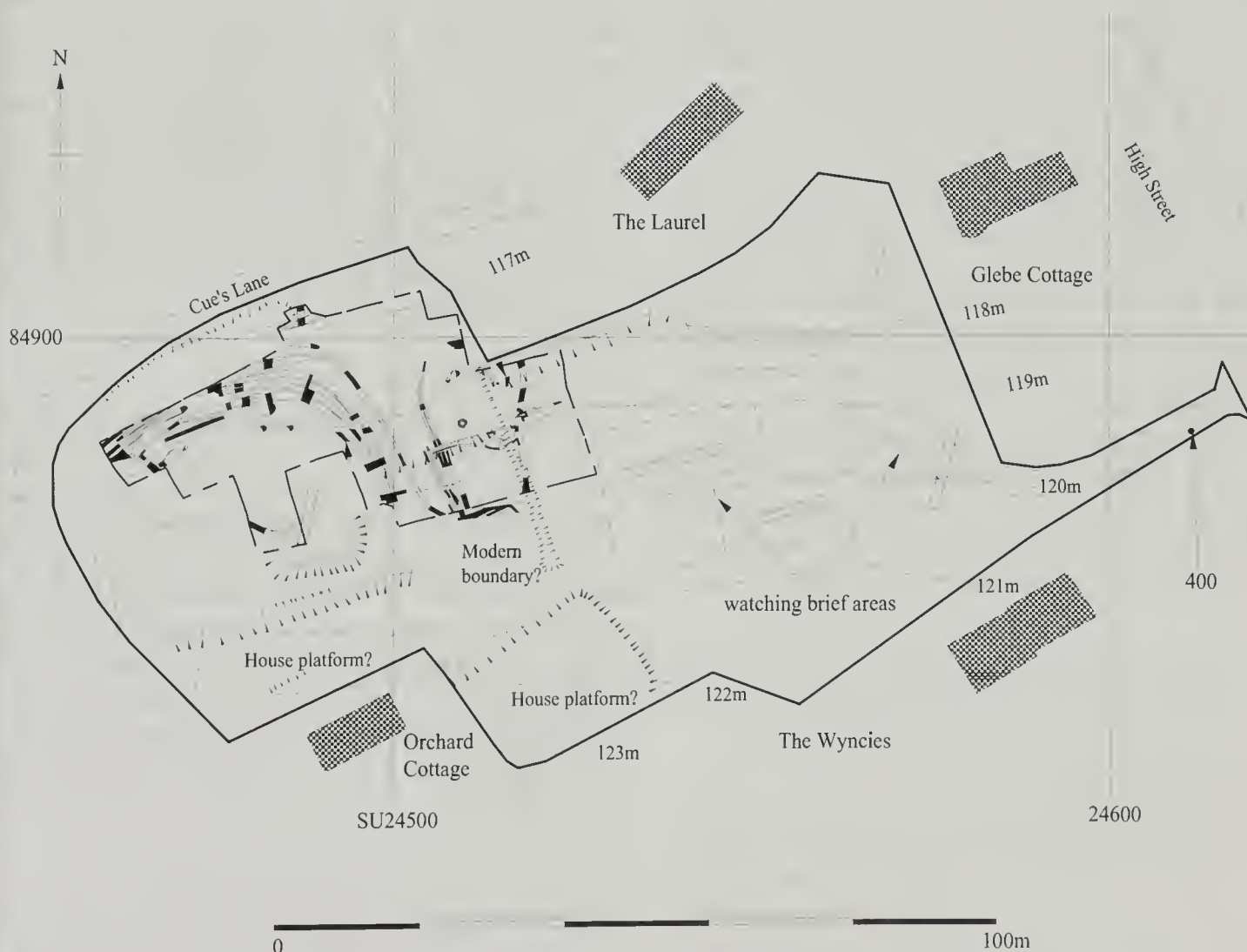


Fig. 2 Plan of excavation and evaluation trenches, and watching brief areas

The evaluation

Two phases of evaluation were carried out by TVAS in September 2001 and April 2002 (Anthony and Challis 2001; Challis 2002) comprising eleven trenches. Trenches 1, 3, 4, 6 and 11 contained what seemed to be a series of intercutting ditches and gullies forming paddocks or field boundaries. A feature thought to be a wall in Trench 11 was shown during full excavation to be capping of a well (234).

Excavation methodology

The excavation covered an irregular area of *c.* 1250 sq m, which targeted the area of new housing and garage plots (Figure 2). Topsoil and subsoil were removed mechanically to expose the uppermost surface of archaeological deposits, followed by hand cleaning of the stripped surface. The stratigraphy consisted of topsoil on to subsoil above archaeological features, some of which cut a colluvial deposit filling a natural hollow, while others cut the clay geology. Archaeological deposits identified consisted of numerous ditches, gullies, pits, a robbed-out wall/foundation and a well. Sufficient deposits were investigated to provide a relative date and understand their nature. The well was not bottomed for safety reasons, but several auger samples were taken to establish a maximum depth. Two slots dug through the colluvial deposit established that archaeological deposits did not continue beneath it. Bulk soil samples were taken from sealed contexts.

A watching brief at the easternmost end of the site, where trial trenching had revealed few archaeological deposits, recorded a single pit (400; Figure 2) below the subsoil which produced a single sherd of medieval Newbury ware.

Excavation results (Figs 3 and 4)

Phase Summary

The phasing is based on the stratigraphic sequence. Pottery from the principal medieval features does not provide particularly nuanced dating within the broad span covered and with much recutting evident, a high degree of residuality is apparent. Nonetheless, there are no contradictions between the ceramic chronology and the stratigraphic

phasing, with only a few small sherds considered intrusive in (mainly) the latest features. Five phases of activity ranging from prehistoric to the 13th century AD were identified.

Phase 1: Prehistoric

A collection of 71 prehistoric struck flints was recovered from pits, ditches and gullies across the site. A significant proportion of these were narrow flakes or blades, possibly Mesolithic or earlier Neolithic in date; however the majority of smaller flakes suggest a later Neolithic or Bronze Age origin.

Of the 60 pieces of Bronze Age pottery retrieved at least 53 were residual in later features. Ditch 1015 (123) contained two spalls, a retouched flake and seven pieces of Bronze Age pottery and is the only feature tentatively dated to this period, although plant remains from this ditch are identical to those from the medieval features (see below), and it may be that the prehistoric material is residual too. If this ditch were medieval, it is difficult to see what role it played in the layout of the site, except as an eccentric subdivision of Enclosure A. It does not appear to be the same feature as 1003, whose profile and fills were very different. Its relationship to colluvium 1050 was unclear, but the ditch may just have cut the edge of the colluvium. If the colluvium is Roman or later (see below), then ditch 1015 cannot be Bronze Age: doubt surrounds both this relationship and the date of the colluvium. Remaining prehistoric material was residual in medieval features.

Phase 2: Roman

A small collection of Roman pottery sherds is also residual, (possibly) bar one sherd. A single sherd was retrieved from slot (228) dug through the colluvial deposit (1050) (a mid yellowish grey clayey silt, 0.62m deep and *c.* 25m wide) that covers the central part of the site. It is not clear if this should be taken as dating the deposit, but this is not ruled out by the stratigraphy as context 1050 was cut by numerous medieval features. A second slot appeared to confirm that 1050 was the infill of a natural hollow with no evidence of archaeology below it.

Phase 3: 11th–12th Century AD

Stratigraphically, the earliest medieval features formed an enclosure defined by two ditches. One of these ditches (1033) entered from the south edge of the site and ran NNW curving to the west. This

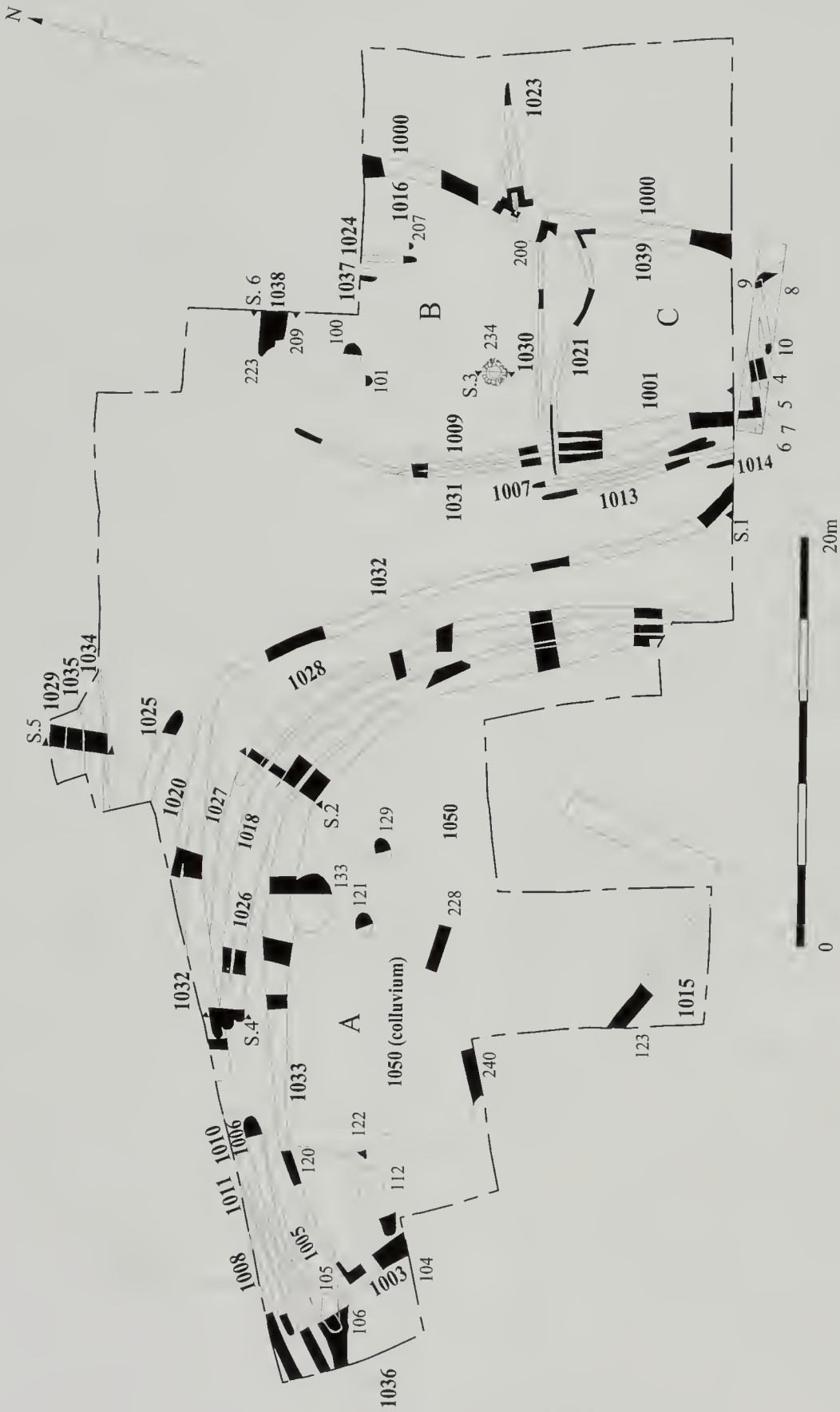


Fig. 3 Plan of all features excavated

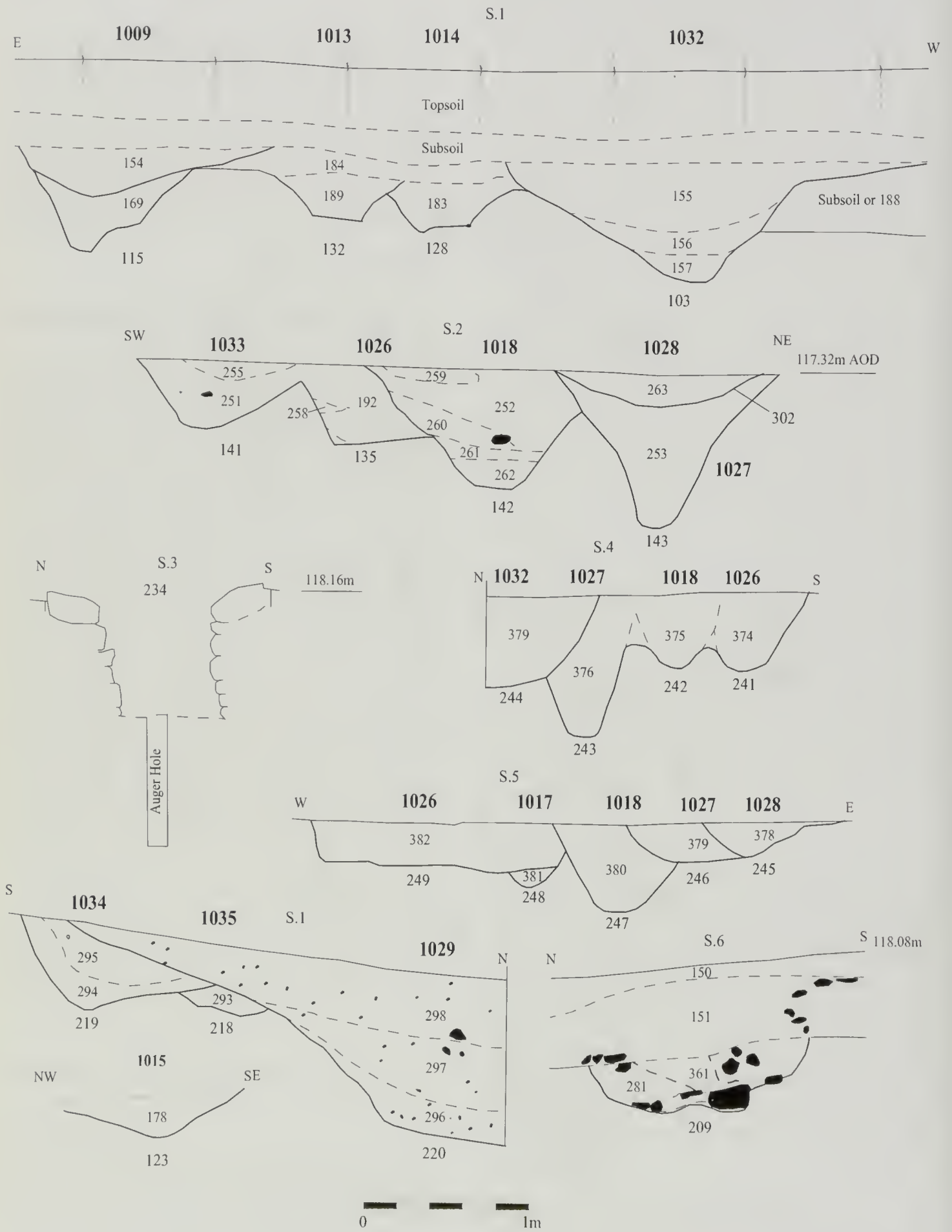


Fig. 4 Sections

feature was *c.* 40m long, 0.35–1.25m wide and 0.25–0.63m deep and, along with ditch 1003, created Enclosure A in the west of the site. Ditch 1003 was 3.5m long, 1m wide and 0.4m deep. Each of these ditches contained a small assemblage of pottery dating their filling to the late 11th–12th century.

Two pits, 121 within Enclosure A and 101 outside it, contained pottery dating to this period along with animal bone, including the remains of a cat (from pit 121).

Phase 4.1: 12th century AD

The next phase of activity was the redefinition of the boundary of Enclosure A with the addition of an entrance to the north. In the eastern part of the site construction and subsequent redefinition of Enclosures B and C occurred. Numerous pits were excavated within these enclosures containing pottery dated to the 12th or 13th centuries, although a lack of specifically 13th-century wares suggests a 12th-century date.

Redefinition of the eastern part of Enclosure A occurred four times (1027, 1018, 1026 and 1028) within this phase, while the western part of the enclosure was redefined six times (1005, 1006, 1008, 1010, 1011 and 1036). The eastern and western ditches consistently terminated to leave an entrance gap *c.* 4m wide facing north. Ditch 1026 was 32m long, 1m wide and 0.6m deep. Ditch/gully 1005 was 9.4m long, 0.55m wide and 0.25m deep. The final recut, ditch 1028, contained the latest pottery in this sequence and thus final disuse of these ditches can be placed in the late 12th or 13th century, although their origin must have been considerably earlier. An entire piglet skeleton from ditch 1027 lacked butchery marks and was less than 1 year old, suggesting it was a diseased animal.

Ditch 1025 was parallel to the north-eastern corner of Enclosure A and could mark the other side of a trackway aligned on this boundary. It was *c.* 4.40m long, 0.70m wide and 0.33m deep and was dated by pottery to the 12th century (or later).

The new northern access into Enclosure A could indicate that Cue's Lane was in use by this time as the boundary and entrance respect its current location. A further ditch system that produced a pottery assemblage of 12th century date was aligned east–west along the current boundary with Cue's Lane and was re-cut twice. The original ditch (1035) had been truncated by subsequent recuts (1029, 1034) to a point that only 0.18m of its fill survived. The pottery from 1029 in particular contains a mixture of material and may suggest that

this boundary, perhaps a roadside ditch, continued in use throughout the life of the site, but it appears to have originated in this phase.

Enclosures B and C to the east were created and redefined numerous times. Gully 1009 was aligned north–south and recut six times (1001, 1031, 1013, 1014, 1007, 1012). Gully 1009 was 26m long, 0.7m wide and 0.25m deep. Gully 1000 ran parallel to 1009 and was recut by 1016. It was 18.2m long, 0.7–1m wide and 0.35–0.6m deep. Gully 1030 was aligned east–west, respecting both 1000 and 1009, marking its subdivision into two enclosures (B and C). Enclosure C to the south was *c.* 10m square, while B to the north measured approximately 14m by 12m. As the north–south lines were redefined, gully 1030 was replaced by 1021, which cut gullies 1009 and 1000. All of these features either produced pottery or are stratigraphically positioned so as to date them to the medieval period. The latest of these developments (1007, 1013, 1021) might be considered to belong to phase 4.2, but in essence this is simply another redefinition and not a new layout.

Gullies 1022–4 and 1037 belong in this phase, but they are not part of enclosures B or C. Their purpose is perhaps for drainage, or they may define smaller pens or subdivisions within the enclosures.

Enclosures A and B produced four pits (100, 105, 129, 133) and a posthole (207) of this date which, like the earlier pits, also contained animal bone. The bone assemblage from this period indicates a move towards using animals for their secondary products and not primarily for meat. The ovicaprid bones were from mature animals suggesting they were kept for wool production.

Phase 4.2: 13th–?14th century AD

Brill/Boarstall wares in the latest site features indicate activity more definitely in the 13th century. Along the northern edge of the site, ditch recut 1029 was *c.* 7m long, 2.65m wide and 1.33m deep with three fills: the latest pottery indicates infilling in this phase.

Stratigraphically ditch 1032 was the most recent event in the western part of the site and was 44m long, 0.6m wide and 0.6m deep. While this feature produced none of the latest types of pottery, stratigraphy places it firmly in this period. It was aligned on a similar axis to 1027, 1018 and 1026, but sufficiently distant from the line of the earlier cuts to suggest that it was not merely another redefinition of the same line. The entrance

to Enclosure A remained the same but the area enclosed was increased considerably. The course of ditch 1032 is unclear beyond the southern edge of the site, although as shown in the evaluation trench it is possible that it swung eastwards to mark the southern boundary of enclosure C at this point.

A single stretch of wall (223, 1038) was partially robbed in the 13th century, although it is unclear how much earlier it was constructed; perhaps it belongs to Phase 4.1 and relates to the north end of Enclosure B. Remnants of the limestone foundation were c. 2.2m long, 1.4m wide and 0.4m deep and bonded with clay.

A well (234) had been capped with two courses of roughly hewn blocks of chalk and limestone measuring 0.35m by 0.24m and 0.4m high and bonded with clay. The well was stone lined, six courses deep, 1.4m in diameter and 0.85m deep. It was not bottomed out of safety concerns but contained a dense rubble fill. A small pottery assemblage from its uppermost fill indicates disuse by the 13th or 14th century. Augering showed that the feature extended at least 1.7m deeper than the level excavated.

Only very small amounts of pottery that need post-date the early/mid 13th century were found on the site, all unstratified. It is difficult to pinpoint the end of this phase, although the low incidence of Brill/Boarstall wares and virtual absence of other late medieval fabrics, is consistent with an end of occupation perhaps early in the 13th century. Thereafter, the excavated area seems to have been largely abandoned until the present.

Finds

Pottery, by Paul Blinkhorn

The investigations produced 349 pieces of pottery weighing 3210g. The range of fabrics indicates activity in the Bronze Age, Roman and early/middle Anglo-Saxon periods and then from around the time of the Norman conquest until the 13th

century (Table 1). The estimated vessel equivalent (EVE) was too small to be worth notice.

?Bronze Age

60 sherds, 189g, EVE = 0. Generally sherds with moderate to dense calcined flint up to 2mm. Most were abraded and redeposited in later contexts.

Roman

24 sherds, 117g.

Early/Middle Saxon Wares

F1: Chaff. Moderate to dense chaff voids up to 5mm, 'wet hand' finished outer surfaces. 5 sherds, 20g.

F2: Sandy Moderate to dense sub-rounded quartz up to 0.5mm. Sparse silver mica. 7 sherds, 28g.

Saxo-Norman and Medieval

F100: *St Neots Ware*, c.AD900-1100 (Mellor 1994).

Fabric moderate to dense finely crushed fossil shell, with varying quantities of quartz and/or ironstone. Usually purplish-black, black or grey, with fairly fine, dense inclusions. Main forms small jars with sagging bases, although a few lamps are known. 3 sherds, 19g.

F301: ?*Local fine sandy ware*, ?11th – ?12th century.

Wares such as these are found along a considerable length of the middle Thames Valley and its hinterland, and the problem of differentiating between the numerous different wares has been noted in the past (Mellor 1994, 84). For example, Mellor has identified at least four different quartz-tempered fabrics in southern Oxfordshire and its environs, with centres such as Henley-on-Thames and Maidenhead producing very similar quartz tempered wares. These wares are similar to those from Reading (Blinkhorn in prep.), and appear to have a similar chronology. 7 sherds, 175g.

F200: *Cotswolds-type ware*: c. late 9th - early 13th century (Mellor 1994). Slow-wheel made. Fairly hard, dark blue-grey fabric with moderate sub-rounded white pink and grey quartzite up to 1mm. Sparse to moderate calcareous material,

Table 1: Ceramic Phase Chronology and Pottery occurrence by number and weight (g) per ceramic phase

Ceramic Phase	Date	Defining wares	No. Sherds	Weight (g)
CP1	?11th century	?Local sandy wares, Cotswolds type	25	224
CP2	Mid 11th – Mid 12th Century	Newbury wares	212	1735
CP3	Mid 12th – 13th Century	Minety ware, Ashampstead ware	1	15
CP4	13th – 14th Century	Brill/Boarstall Wares	81	896
Total			319	2869

Table 2: Pottery occurrence per ceramic phase by fabric, % of that phase's total by weight in g

Phase	BA	RB	E/MS	F100	F200	F301	F202	F355	F352	Total
CP1	2.7%	0.4%	4.9%		36.6%	55.4%				224
CP2	9.6%	5.3%	2.1%	0.6%	27.7%	2.9%	51.8%			1735
CP3							100.0%			15
CP4	0.1%			1.0%	20.8%		59.4%	16.3%	2.3%	896
Total	173	93	48	19	748	175	1446	146	21	2869

including ooliths, up to 2mm. Rare haematite up to 1mm. Mainly 'barrel' jars with triangular rims or more shouldered examples with high everted rims, bases usually sagging. Probably manufactured at a number of sources in the Cotswolds region. 96 sherds, 829g.

F202: *Newbury-type wares*. late 11th – early 15th century (Mephram 1997, 51–2). Flint, sand and shell tempered wares, probably manufactured in the Savernake Forest (Mephram 1997, 65). It has a wide distribution throughout Berkshire, northern Hampshire and Oxfordshire (Mephram 1997, fig. 29). 117 sherds, 1236g.

F355: *Minety-type Ware*: Limestone gritted glazed ware. Mid 12th - 15th century (Mellor 1994). Manufactured in north-east Wiltshire, but had a wide distribution across the South Midlands. Wide range of domestic vessel types, including aquamaniles. 9 sherds, 146g.

F361: *Ashampstead ware*, 12th – 14th centuries (Mephram and Heaton 1995). Sandy ware, the main products of the kiln being jars and highly decorated glazed jugs, the latter often having painted geometric slip designs. Sandy glazed wares such as this are very common throughout central southern England from the early medieval period onwards, and other sources, yet to be discovered, were making such pottery. 1 sherds, 1g.

F352: *Brill/Boarstall Ware*. c. AD1200-?1600 (Mellor 1994). Wheel-thrown. Hard buff, orange, pale pink, or yellow-grey fabric, sometimes with fine 'pimply' surface. Rare to common sub-angular to sub-rounded orange, clear and grey quartzite up to 0.5mm, rare subrounded to sub-angular red ironstone up to 1mm. Mottled pale to dark glossy green exterior glaze, often with copper filings. Applied rouletted strips common, sometimes in red-firing clay, rosettes, spirals also occur. Usually 'three-decker' or baluster jugs, although puzzle jugs also known. Jars, bowls, etc occur at end of medieval period. Later vessels plainer, and include the full range of medieval and early post-medieval vessel types. 9 sherds, 39g.

'*Tudor Green*' Ware. Green-glazed whitewares

produced at several centres in the south of England, such as Farnborough Hill, Hants (McCarthy and Brooks 1988, 450). c. AD1380–1500. 1 sherd, 2g (unstratified)

Red Earthenwares: Fine sandy earthenware, usually with a brown or green glaze, occurring in a range of utilitarian forms. Such 'country pottery' was first made in the 16th century, and in some areas continued in use until the 19th century. 3 sherds, 25g.

Each context-specific pottery assemblage was given a Ceramic Phase (CP) date based on the range of wares present. These dates were then checked against the stratigraphic matrix and adjusted where necessary. The dating scheme is shown in Table 1, along with the pottery occurrence by number of sherds and weight per ceramic phase. The occurrence of the commonest ware types per ceramic phase is shown in Table 2. Further details are available in archive. The medieval fabric types are all well known in the region.

Small amounts of early/middle Saxon pottery are worthy of comment in view of their rarity in the region and the sherds concerned are a useful addition to our sparse knowledge of the early/middle Saxon period in the area.

Data in Table 1 show peak pottery consumption during the early post-Conquest period and that it was in decline by the 13th century. Data in Table 2 reveal a fairly high degree of residuality. For example, in CP1, Bronze Age, Roman and early/middle Saxon hand-built pottery comprise 8% of the phase assemblage (by weight), and in CP2, such wares, along with St Neots ware, make up 17.6% of the total. Such pottery was almost all redeposited, as noted in the phase summary above.

These data also show a changing pattern in pottery supply through the medieval period. In CP1, the bulk of the contemporary pottery was sandy wares of unknown, but probably local, origin, with the rest of the assemblage coming from the Cotswolds. By CP2, Newbury wares were predominant, with Cotswolds wares making up a smaller proportion and sandy wares virtually out

of use (i.e. so few that they might all be residual). The data for CP3 are negligible (just two sherds) and the existence of this phase is questionable. Interestingly, by CP4 unglazed Cotswolds wares represent a yet smaller part of the assemblage, but glazed Minety-type wares from the Cotswolds region, make up one-sixth of the pottery in use, presumably because at that time glazed wares were not available from more local sources. Mephram (1997, 54) has asserted that Newbury 'C' wares were not common before the late 12th century, while Ashampstead ware, of which just one sherd was noted from this site (Mephram and Heaton 1995) has a similar chronology and the Laverstock kilns are not thought to have started production before the 13th century (Musty *et al.* 1969). The range of wares shows that the main glazed pottery supply to the site was from the Cotswolds and the Oxford region and not from more southerly sources such as Laverstock, etc.

Vessel Use

The small size of the assemblage means that analysis of vessel use is limited. As is usually the case with medieval sites, the majority of the rimsherds represent jars, with bowls forming the rest of the assemblage. Jug rims are absent, although most of the glazed bodysherds appear to be from such vessels (barring a Minety jar rim). A single, unglazed Cotswolds ware jug handle was noted from a CP2 context. No other vessel types were represented.

Animal Bone, by Sian Anthony

An assemblage of 826 animal bones was recovered, almost all from medieval contexts (Table 3). The assemblage was assessed to provide basic information on species, preservation, ageing and pathologies. Species were identified where possible, or if not, fragments were assigned to either a large mammal size (LAR) usually cattle or horse, or small mammal size (SAR) usually representing ovicaprid, pigs or possibly dogs. Counts of the minimum number of individuals (MNI) were made in some contexts, although the assemblage proved too small to provide statistical information by phase. Further details are in the archive.

Phase 3: 11th–12th centuries

Only four features of this phase produced animal bone – 183 pieces, the majority in a good state

of preservation. The expected domesticates are represented, including one pig limb bone and two horse bones. All probably represent domestic food waste despite only a single butchery mark (on a lamb's rib). A near complete piglet skeleton in ditch 1033 is of an animal under one year old (Getty 1975); no butchery marks were present, suggesting that the animal may have died of a disease and thus was not consumed.

Phase 4.1: Early medieval

This phase represents the majority of the features excavated on site and, correspondingly, produced the majority of the bones recovered. Expected domesticated species are present with equal numbers of cattle and ovicaprid (the larger percentages of LAR mammals identified probably only represent the robustness of these elements and thus the higher likelihood of recovery in comparison to smaller mammal elements). Horse is represented, as are occasional birds, including domestic fowl and a single corvid humerus. Several juvenile dog and cat bones were also present confirming the domestic nature of the site and all represent animals of at least one year of age at death.

An unfused horse vertebra suggests a younger animal, although occasional tooth fragments were not assessed for age. Few ovicaprids were juvenile suggesting an emphasis towards keeping animals for wool: a single unfused tibia suggests one animal of between 1 and 2 years old. Marginally more juvenile cattle were represented, mostly under 3 years of age at death, although these bones could all be from the same animal. It is likely that the settlement tended towards keeping animals for secondary uses rather than slaughtering young for meat.

Animal remains from pits show considerable similarity with those from the ditches during this phase (Table 3). A young sheep horncore (pit 133) represents the sole element identified as a sheep rather than ovicaprid. An ovicaprid radius aged under 4 years of age is one of the few younger ovicaprid identified. Only minimal butchery marks are present, two chops, one through an ovicaprid spine, and nine cuts, mostly upon upper limbs and ribs. One potential pathology was observed on a cow tibia from ditch 1018 comprising an area of cortical damage with signs of new bone growth on the inferior of the distal epiphysis. This feature may represent stress on an animal that partially recovered.

Table 3. Animal bone species representation by phase

Phase		Horse	Cow	LAR	S/G	SAR	Pig	Dog	Cat	Mam	Bird	Total
1	Total			2								2
2	Total			2								2
3	Total	2	7	47	16	62	3	2	1	43	0	183
3	%	1%	4%	26%	9%	34%	2%	1%	1%	23%	0%	
4.1 Pits	Total	1	1	35	4	36	1	1	0	2	0	81
4.1 Pits	%	1%	1%	43%	5%	44%	1%	1%	0%	2%	0%	
4.1 Ditches	Total	6	31	166	38	71	10	1	5	32	2	362
4.1 Ditches	%	2%	9%	46%	10%	20%	3%	0%	1%	9%	1%	
4.1 All	%	2	7	47	10	24	3			8		(443)
4.2	Total	1	18	54	16	52	5	2	1	4	2	155
4.2	%	1%	12%	35%	10%	34%	3%		1%	3%	1%	
Unphased			4	13	2	1	1			1	2	24
Grand	total	11	61	327	76	225	21	6	7	82	6	822

Phase 4.2: 13th century

Few features with bone were assigned to this phase and it is likely that earlier residual material is included in these deposits. A total of 155 pieces (Table 3) were recovered from these contexts including one young goat horncore, a possible goose (*Anser anser*) femur and one aged cow mandible. No butchery or burning was observed on these pieces.

A left cow tibia with cross-hatch decoration on the medial surface was recovered from undated pit 112 and may represent a practice piece.

Metalwork, by Sarah Coles

Ten pieces of metalwork were retrieved: eight iron nails, a small thin rectangular splash of lead (2g) from gully 1009 and a small lump of iron (12g), pointed at one end with a socket at the other, possibly a small spearhead, from ditch 1001.

Struck Flint, by Steve Ford

A small collection of 71 struck flints was recovered (Table 4), with the entire assemblage (bar one flake and two spalls) from medieval deposits. Although the collection is small, a significant proportion is narrow flakes or blades. One or two of these may be fortuitous products of the knapping process, but others unambiguously reflect soft hammer blade technology and are thus likely to represent Mesolithic or earlier Neolithic activity. One of the cores appears to have generated small blades and is of the same tradition. Of the remaining flintwork,

there are no chronologically distinctive pieces and these may reflect activity of later Neolithic or Bronze Age date. The flintwork includes fresh and weathered items, all without cortex and only one spall was burnt.

Table 4: Flint assemblage summary

Type	Number
Flakes	34
Blades (narrow flakes)	7
Cores	2
Blade cores	1
Spalls	20
Scrapers	3
Notched blades	1
Notched flakes	1
Retouched flakes	2

Other finds, by Sarah Coles

Five pieces of burnt clay (weighing 111g) in fine, slightly sandy fabric with few visible inclusions including fine flecks of mica were recovered. Chaff marks were evident on the surface of one piece. Sixteen fragments of ceramic building material weighing 1010g included four pieces of floor tile. Three pieces have comb-incised decoration on one surface, which range between 3 and 10 lines; these are probably Roman. Five fragments of tile were not identified to a specific use. This material is all from medieval contexts. Four unstratified pieces of tile found during the evaluation include one peg hole roof tile. Two oyster shells were recovered from gully 1007, and one from ditch 1028.

Charred Plant Remains, by Lucy Cramp

Twenty-five samples of sediment were sieved to recover preserved botanical remains. One sample produced no material, five were undated or from insecure contexts and have been discounted; the remainder all produced abundant preserved plant material (mostly carbonized with some additional

waterlogged material). Initial assessment demonstrated that the samples were relatively homogeneous in content, so it was only considered necessary to analyse in detail nine contexts to allowed the full range of phases and context types to be represented (Table 5). As samples 8 and 12 were particularly rich in preserved plant material, sub-samples of 1/4 and 1/8 of the total flot recovered were analysed and the results scaled up to represent the entire sample.

Table 5: Plant macrofossils, denoting whether the items were preserved by carbonization (C) or waterlogging (W). All items were grains or seeds unless otherwise specified.

Group		1015	1004	-	-	1001	1000		1032	234	
Cut		123	103	100	101	102	113	121	131	366	
Fill		178	155	152	153	154	167	175	187	368	
Type		Ditch	Ditch	Pit	Pit	Ditch	Gully	Pit	Ditch	Well	
Phase		1	3	4.1	4.1	4.1	4.1	4.1	4.2	4.2	
Sample No		15	6	1	2	5	8	12	17	23	
CEREALS											
Freethreshing <i>Triticum</i> sp. (<i>aestivum</i> or <i>turgidum</i>)	Freethreshing wheat (bread or rivet)	C	31	594	73	32	440	608	1904	138	5
<i>Secale cereale</i>	Rye	C	-	1	-	-	1	-	16	1	-
<i>Secale cereale</i> rachis	Rye rachis	C	-	2	-	-	-	-	-	-	-
<i>Hordeum</i> sp. – some hulled	6-row barley	C	1	45	3	1	16	12	16	6	2
<i>Avena</i> sp.	Oats	C	2	40	4	-	34	32	-	-	-
Cereal indet.		C	9	225	43	17	205	356	688	133	3
WEED SEEDS											
<i>Ranunculus</i> sp.	Buttercup, crowfoot etc	C	-	-	-	-	1	-	-	-	-
<i>Agrostemma githago</i> – capsule tooth	Corn cockle	C	-	-	-	-	-	-	8	-	-
<i>Stellaria media</i>	Chickweed	W	-	-	-	-	9	-	-	-	-
<i>Chenopodium album</i>	Fat hen	C	-	1	-	-	1	-	16	-	-
<i>Atriplex</i> sp.	Orache	C	-	-	-	-	2	-	8	1	-
Malvaceae	Mallow	C	-	-	-	-	-	4	-	-	-
Cf. <i>Vicia sativa</i> ssp. <i>Sativa</i>	Fodder vetch	C	-	5	-	-	-	4	8	-	-
Cf. <i>Vicia sativum</i>	Vetch	C	-	-	-	-	-	-	-	1	-
<i>Vicia</i> or <i>Lathyrus</i> sp.	Vetch or tare	C	-	10	1	1	4	12	-	2	2
Cf. <i>Pisum sativum</i>	Pea	C	-	-	1	-	-	-	8	-	-
Cf. <i>Medicago lupulina</i>	Black medick	W	-	-	-	-	1	4	-	-	-
Cf. <i>Trifolium</i>	Clover	C	-	-	-	-	1	-	-	-	-
<i>Potentilla</i> sp.	Cinquefoil	C	-	-	-	-	1	-	-	-	-
<i>Scandix pecten-veneris</i>	Venus' needle	C	-	-	1	-	-	-	-	-	-
<i>Polygonum aviculare</i> agg.	Knotgrass	W	-	1	-	-	8	-	-	-	-
<i>Rumex</i> sp.	Dock	C	-	2	2	1	7	-	8	-	-
<i>Rumex</i> sp.	Dock	W	-	-	-	-	5	-	-	-	-
<i>Lithospermum arvense</i>	Corn gromwell	C	-	-	-	-	2	-	-	-	-
<i>Hyoscyamus niger</i>	Henbane	C	-	-	-	-	1	-	-	-	-
<i>Rhinanthus</i> sp.	Yellow rattle	C	-	-	-	-	-	-	16	-	-
<i>Odontites verna</i>	Red bartsia	C	-	-	-	-	16	4	-	-	-
Labiatae cf. <i>Stachys</i> sp.	Woundwort	W	-	-	-	-	1	-	-	-	-
<i>Plantago lanceolata</i>	Ribwort plantain	C	-	-	-	-	1	-	-	-	-
<i>Sambucus nigra</i>	Elder	C	-	-	-	-	2	-	-	-	-
<i>Sambucus nigra</i>	Elder	W	-	-	-	-	5	-	-	-	-
<i>Valerianella dentata</i>	Field lettuce	C	-	-	-	-	1	-	-	-	-
<i>Anthemis cotula</i>	Stinking mayweed	C	-	-	4	-	16	8	24	-	-
Gramineae indet	Grass	C	-	-	1	-	14	4	16	1	1
<i>Bromus</i> sp.	Brome grass	C	-	-	-	-	-	4	-	-	-
Weedseeds indet.		C	-	2	6	1	3	4	8	-	-

All samples were similar in character, differing only in the concentration of material preserved. Free-threshing *Triticum* sp. (bread or rivet wheat) was the dominant species in all cases, with smaller amounts of *Avena* sp. (oat), *Secale cereale* (rye) and *Hordeum* sp. (barley), some of which could be identified as hulled. Material in sample 15, from ?Bronze Age ditch 1015, was particularly sparse, but again similar in character to the richer assemblages with mainly free-threshing *Triticum* sp., a few specimens of *Avena* sp. and *Hordeum* sp. However, this assemblage is not appropriate to a Bronze Age context, where some hulled wheat should be expected and it is more likely that the material is of medieval date.

Triticum sp. was the main crop cultivated throughout the medieval phases. The relatively few specimens of barley, rye, oats and fodder vetch and/or pea are likely to be contaminants occasionally growing amongst the main crop and not cleaned out of the wheat grain. The lack of wheat chaff ensured that it was not possible to differentiate between bread or rivet wheat, but this absence (along with the scarcity of weed seeds) suggests assemblages derive from cleaned, processed grain. The presence of rich and remarkably similar deposits of cleaned grain from a wide range of contexts covering the medieval occupation of the site raises several possibilities. An episode of fire may have led to the deposition of burned, cleaned grain across the site or, alternatively, it is possible that cleaned grain was dried before hand-milling, an activity appropriate for this date. The weed seeds are completely consistent with a medieval arable environment and may have been growing amongst crops and along the edges of fields.

Conclusions

Of the flint assemblage, a significant proportion can be attributed to the Mesolithic or early Neolithic period, but all were residual. The Bronze Age pottery assemblage is also largely residual. Ditch 1015 is tentatively attributed to the Bronze Age on the basis of seven sherds of pottery, two spalls and a retouched flake from its filling. A single sherd of Roman pottery was recovered from colluvial deposit 1050 across the centre of the site, but it remains unclear if this dates the deposition of the deposit, which was itself cut by numerous medieval features. The remaining Roman pottery was residual, as was the early/middle Saxon pottery.

The location of the site at the foot of a steep slope, where a substantial colluvial deposit was able to accumulate, suggests that caution must be exercised in attributing significance to these residual finds. All might be derived from upslope or, given that they were recovered mainly from field boundary ditches, from even further afield having been distributed across the area by manuring. While it is tempting to suggest prehistoric, Roman and early Saxon activity, the evidence is ambiguous in the absence of securely dated features. Finds of early/middle Saxon pottery, however, must indicate activity of this date in environs of the village.

The emergence of medieval landscapes in large parts of the country is poorly understood with both the timing and nature of the development of nucleated settlements an important area of research. Developments in settlement type are important for comparison with the perceptions of change derived from documentary evidence. Regional diversity in settlement form (i.e., dispersed versus nucleated settlement) has long been discussed, but with relatively little detail at the more local level of analysis (Roberts and Wrathmell 2000). Similarly, the major changes frequently witnessed in the archaeological record around the 14th century have long been attributed *en bloc* to the Black Death, but more detailed chronology is required to test whether episodes of abandonment are the results of catastrophe rather than a product of a dynamic settlement pattern (Zölitz 1984, 33). The fringes of medieval settlements might be a significant location where episodes of expansion and contraction reflecting these changes are better represented archaeologically than in the core of the settlement. Despite the limited size of the excavation reported on here, an opportunity has been made to investigate the early history of the topography of the village. Several small archaeological investigations (Torrance 1993; Hall 1998) have begun to document in detail the origins, development and topography of Bishopstone and its boundaries.

Medieval occupation at the Cue's Lane site comprised at least three phases of activity, whose precise chronology is not clearly differentiated, although the stratigraphic progression is secure. The features include ditches, which created and successively redefined three enclosures, with pits, a wall and a well found in association. Pottery evidence indicates that there was an initial enclosure, probably in the order of 45m wide (E-W) and perhaps half as much again long (N-S),

in the 11th–12th centuries, but that exploitation of the land for agricultural, probably pastoral, use increased in the early medieval period with the addition of two more enclosures. The well located in Enclosure C was back-filled during the 13th (or possibly 14th) century and a wall foundation, perhaps a boundary, was robbed out during the same period. If this chronology is correct, the initial enclosures pre-date the parish church, or more strictly, the earliest fabric of the present village church, the structure of which is mainly 13th-century, possibly with re-sited 12th-century work. Bishopstone's absence from Domesday Book makes a 12th or 13th century origin for the parish church plausible and thus evidence for pre-church settlement assumes greater significance.

Enclosure A, dated to the 11th or 12th century, initially had no access to the north and may have been a field boundary or perhaps the limit of a self-contained farm. Slightly later, however, access had been provided through the northern boundary, suggesting the existence of Cue's Lane at this time. To its east, enclosure B was constructed and subdivided (C). That these three enclosures were in constant use throughout this period is evidenced by the numerous redefinitions of these boundaries and the mixed pottery recovered from their infilling. It is difficult to say for certain what these enclosures were used for, but the environmental evidence shows an absence of chaff, which means the enclosed plots need not have been arable fields. The presence of fodder vetch perhaps indicates a pastoral landscape, as might the faunal evidence, as the cattle and ovicaprid bones show few butchery marks and are of mature animals, indicating that they were kept for secondary products (milk or wool production).

Rubbish pits within the enclosures during the medieval period, although relatively few, indicate human habitation in close proximity. They might suggest a date for the house platforms located immediately south of the enclosures, together forming tofts and crofts.

The layout of Bishopstone today (Figure 1) is essentially that mapped in the late 18th century and can, in broad terms, probably be projected back to the medieval period. The general impression given is that of a cluster of farms rather than a regular pattern, but nevertheless centering on a church (of probable later origin), mill and manor house, in an arc along two roads. In terms of the development of the village, the enclosures, particularly Enclosure A, point to a model which moves away from the idea

of the village green as a focus (Wrathmell 1994, 184 and fig. 2b; cf. Jones and Page 2006). If essentially isolated enclosures agglomerate, there will be spaces left between them, one of which may later become a green. The plan of Bishopstone shows several spaces that could have arisen in this way and the line of High Street in particular potentially winds between several independent enclosures. Enclosure A, extrapolated to include the house platform to the south and assuming that its course beyond the limits of the excavation mirrors the roads (as it does with respect to Cue's Lane), forms an 'island' of settlement around which later roads were forced to bend. This observation suggests that the village was created by a process of aggregation of individual plots in what must have been a more-or-less unbounded landscape ('nucleation' in its active sense), rather than by subdivision of pre-determined, bounded space. Later enclosures B and C suggest that following initial fluidity in the landscape, pressure on land within the village brought about spatial reorganisation. The possibility of enclosures at Cue's Lane pre-dating the church suggests the development of a village from a handful of enclosed farms, later attracting a church, rather than the church (and manor) attracting settlement. The Anglo-Saxon layout seems to have survived for at least a century after the Conquest, with an extended form emerging perhaps during and after 12th-century population growth (cf., Reynolds 2003, 100).

After the 13th century there is no evidence for use of the enclosures, which might reflect a contraction of population and land use and it is possible that this predates the 14th century here making it difficult to attribute the cause to the date of various plagues of that century. It is unfortunate that dating of this episode of transition cannot be more closely resolved. Bearing in mind that the abandonment of the Cue's Lane enclosures is based on an absence of evidence, it appears that settlement shift or contraction occurred which was unrelated to the specific difficulties of the 14th century. Indeed, Bishopstone prospered through the 14th century: in 1377 a comparatively high total of 169 people paid poll tax and the value of the tax assessment was above average in 1334 remaining so into the 16th century (VCH 1983, 5). The lynchets on the steep slope to the south of the site also support the concept of population growth, forcing expansion of arable agriculture on to unsuitable slopes (cf. Hare 1994, 163). Dissimilarity to the better-known Bishopstone near Salisbury (which was almost

entirely abandoned), with its regularly laid out tofts either side of a straight road, could hardly be more striking (Hare 1994; Aston 1989). Dyer's (1989) caution about the complexities of local factors in 'abandonments' should be heeded and, as usual, the need for better data (and dating) at the local level must be emphasized (cf. Lewis 1994).

In conclusion, it is worth asking whether the Bishopstone evidence points to 'abandonment' at all; reorganization at a much lower level could be posited. The arrival of direct lordly power, possibly a new manor, certainly a new church, could provide a context.

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A medieval monastic cemetery within the precinct of Malmesbury Abbey: excavations at the Old Cinema Site, Market Cross

by Jonathan Hart and Neil Holbrook

with contributions by D. Henderson, D. A. Hinton, R. Ives, E. R. McSloy and S. Warman

Excavation revealed the fragmentary traces of a medieval structure a short distance to the south of Malmesbury Abbey. It is most likely to have been a chapel mentioned by John Leland in 1542. The area to the south of the probable chapel was used for the quarrying of limestone in the 12th century, perhaps associated with the construction of the Norman abbey. The quarry pits were overlaid by an extensive cemetery in use between the later 12th and late 13th century. A maximum of 91 burials was recorded including men, women and children, so the cemetery evidently included a proportion of laity. Trauma and infectious disease represented in the individuals likely derived from daily activities such as animal husbandry and craft working. The cemetery was covered with deep deposits, which probably relate to the demolition and robbing of the chapel and levelling up for the construction of 18th-century tenements.

Introduction and methodology

Between July and September 2002 Cotswold Archaeology (CA) carried out an archaeological excavation and watching brief on behalf of Chase Homes (South West) at the Old Cinema Site, Market Cross, Malmesbury (centred on NGR ST 9330 8740; Figure 1). The site was formerly occupied by the Athelstan Cinema, built in the 1930s and demolished in 1993. As the site lay within the precinct of the medieval abbey of Malmesbury, close to the south transept of the abbey church, it was evident that there was archaeological potential. Furthermore, John Leland, who visited the town in 1542, reported ‘...Ther was a little chirch joining to the south side of the *transeptum* of thabby chirch... Wevers hath now

lomes in this little chirch, but it stonidith and is a very old pece of Work...’ (Toulmin Smith 1907-10, 131-2). Various attempts have been made to identify this church with one of the number of Anglo-Saxon chapels named in documentary sources, although in no case is any attribution particularly convincing. It is also possible that the church was actually a Norman rather than Anglo-Saxon building (see further Discussion below). There was therefore a possibility that part at least of Leland’s church lay within the northern part of the area proposed for development. Accordingly proposals for the redevelopment of the cinema site for a community centre led to an evaluation to test for the preservation of archaeological deposits. The first stage of the evaluation was the excavation of two trenches to a depth of 1.2-1.5m below ground level following the demolition of the cinema. These encountered

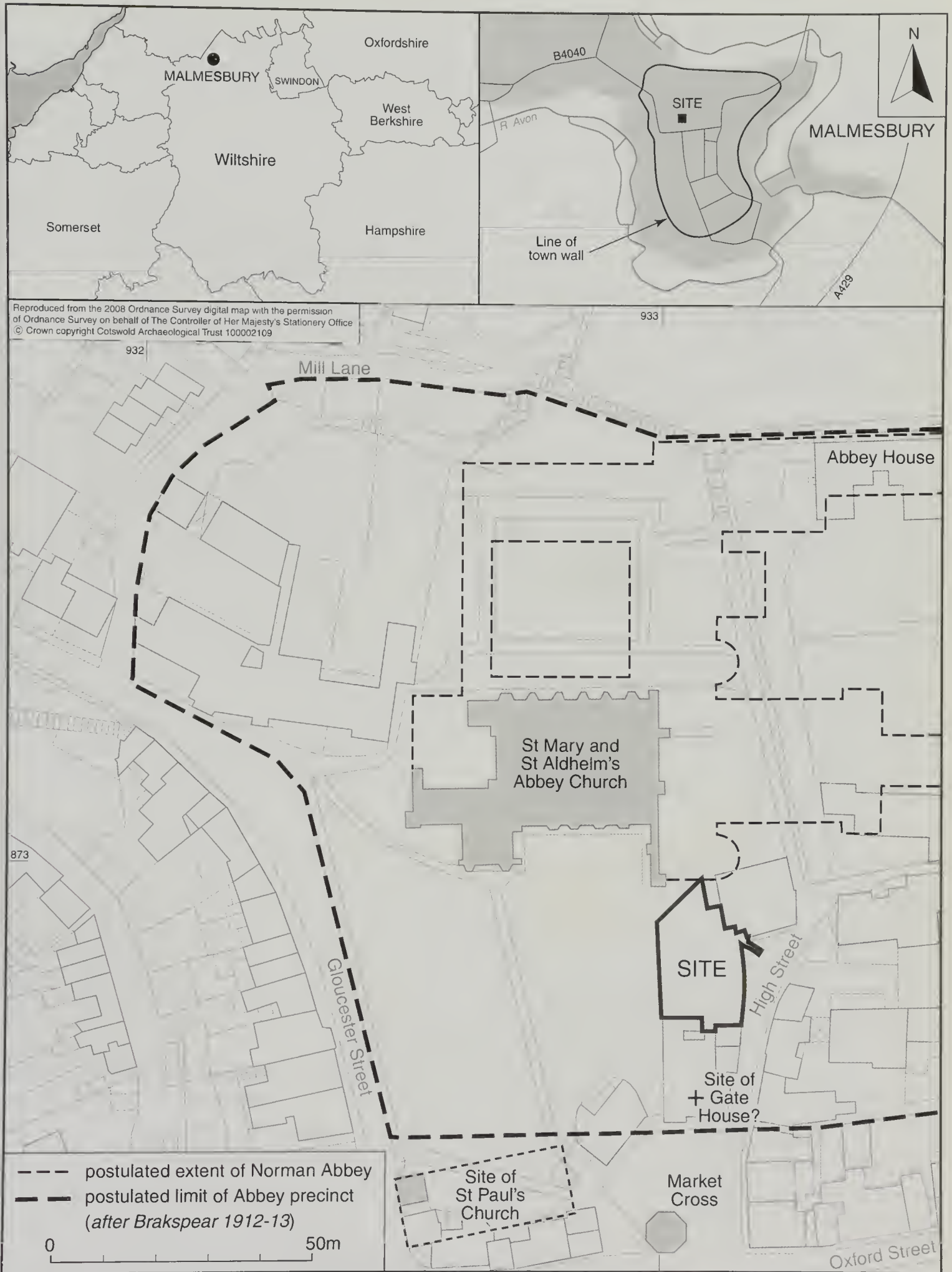


Fig. 1 Site location plan (1:1250)

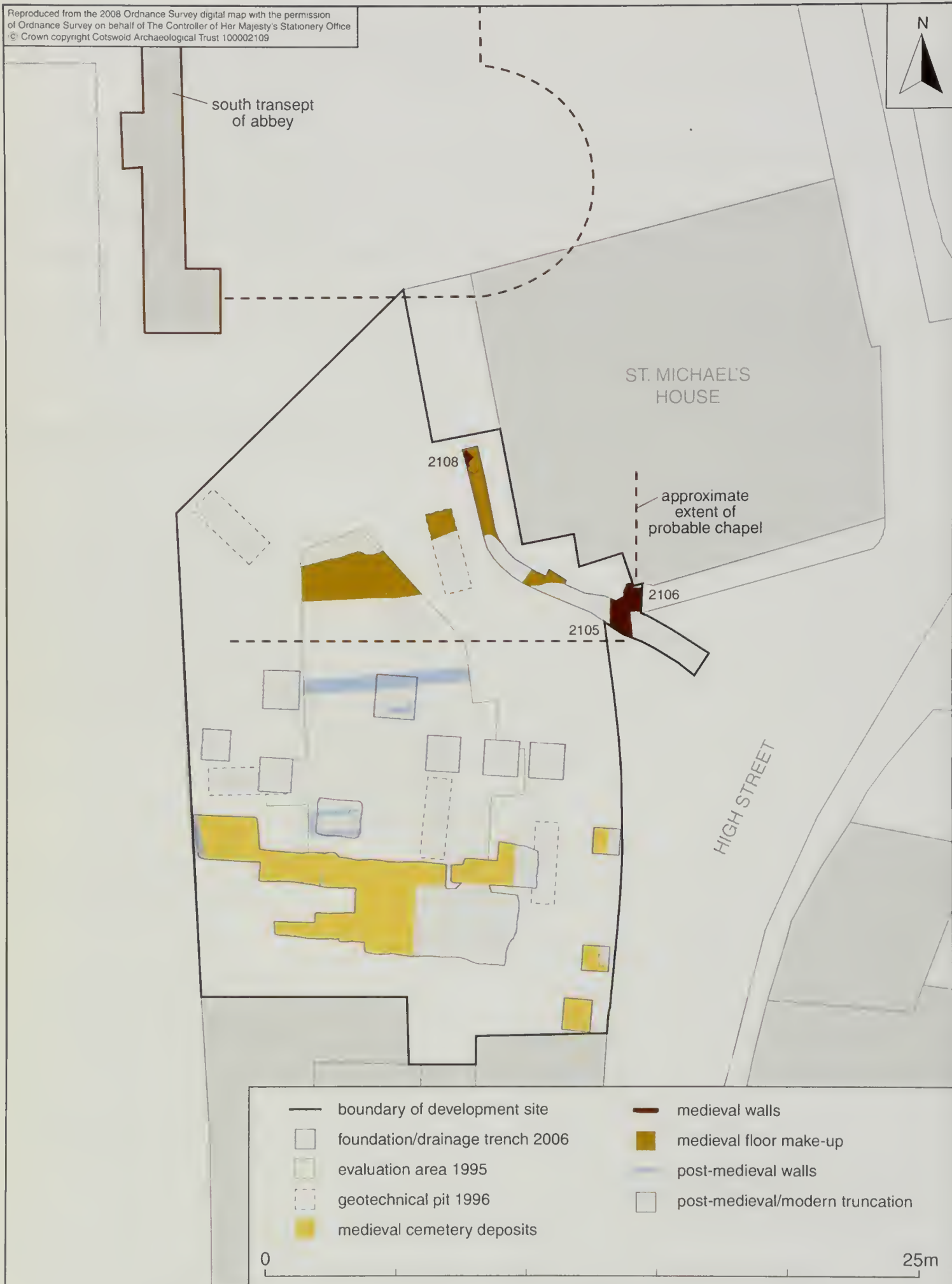


Fig. 2 Excavated areas (1:250)

only 18th-century or later deposits, although it remained possible that medieval features might survive at a greater depth. The second stage of the evaluation consisted of archaeological monitoring of mechanical reduction of the ground level to a depth of 2m within an irregular area in the centre of the site (Figure 2). This work encountered a spread of mortar containing limestone fragments and 13th to 14th-century pottery at a relatively shallow depth interpreted as the bedding layer for a floor which no longer survived. Across the rest of the area post-medieval deposits penetrated to the limit of excavation (AC Archaeology 1995). It is considered below that the floor was most probably part of a building and that it is reasonable to associate this with the church that Leland saw and thus the structure is referred to below as the 'probable chapel'. Similar floor make-up was identified the following year during archaeological monitoring of geotechnical pits when disarticulated human bone was recovered from the southern part of the site along with one, potentially *in situ*, skull. (AC Archaeology 1996). Although these human remains were undated, their location within the former abbey precinct suggested that they were likely to be Anglo-Saxon or medieval. The building which contained the floor make-up had evidently been heavily disturbed in the post-medieval period, and it is likely that the 18th-century deposits were infilling a hollow left by an extensive and thorough episode of stone robbing. Later walls, which broadly correlated with the plan of cottages depicted on 19th-century maps, were also identified.

Planning consent for three residential properties granted in 2001 required archaeological work in advance of and during groundwork. The contractor's mechanical excavation of foundation trenches, typically 2m square and 3m deep, were monitored by an archaeologist. Following the identification of *in situ* human burials it was realised that foundation trenches south of the post-medieval truncation were likely to encounter further inhumations. Accordingly, and in consultation with the Wiltshire County Archaeologist, these trenches were excavated by hand. Wherever possible the human remains were left *in situ*, but where disturbance was unavoidable the skeletons were lifted. A watching brief was maintained during mechanical excavation of the remaining trenches and service runs within the area of post-medieval truncation. Following the completion of fieldwork, an assessment of the findings (CA 2005) and subsequent analysis resulted in the present publication.

Results (Figures 2-3)

Natural limestone cornbrash was exposed at the base of trenches across the eastern and central parts of the site at depths of 1-3.5m below the contractor's reduced ground level. Post-medieval truncation across much of the central and northern part of the site identified during evaluation was confirmed, along with evidence of disturbance within the south-eastern area. The archaeological deposits examined have been ascribed to three broad periods: Period 1, an Iron Age or Roman buried soil; Period 2, medieval remains divided into two sub-phases (a series of quarry pits (Phase 1) and the probable chapel and cemetery (Phase 2)); and Phase 3, post-medieval robbing and later structures.

Period 1: Iron Age/Roman soil horizon

A sandy clay, 0.3m thick, overlaid the natural cornbrash within the south-eastern part of the site, had been truncated by medieval quarrying and was presumably originally more extensive. The deposit produced four sherds of Iron Age and one sherd of Romano-British pottery. The possibility that these few sherds are residual cannot be excluded and the lack of post-Roman artefacts suggests that the deposit dates to at least the later of these two periods. Small quantities of residual Iron Age and Romano-British pottery also occurred in clearly medieval contexts and a fragmentary Iron Age clay weight from a medieval grave is probably a chance inclusion within the grave fill.

Period 2.1: ?12th-century pits

Extensive layers of silty clay containing abundant limestone fragments covered the southern half of the site and were sealed by the graveyard soil. Where exposed to their full depth, these layers filled pits cut through the Period 1 buried soil into the limestone brash. It seems likely that most or all of the remaining layers also filled pits whose edges lay beyond the limit of the excavation area. The wide distribution of the pits suggests that they were dug to quarry the underlying limestone. Pottery dating to the 12th to 13th centuries was recovered from the pit fills along with residual Roman sherds. The presence of Minety ware pottery indicates that the pits were still accumulating material into the second half of the 12th century.

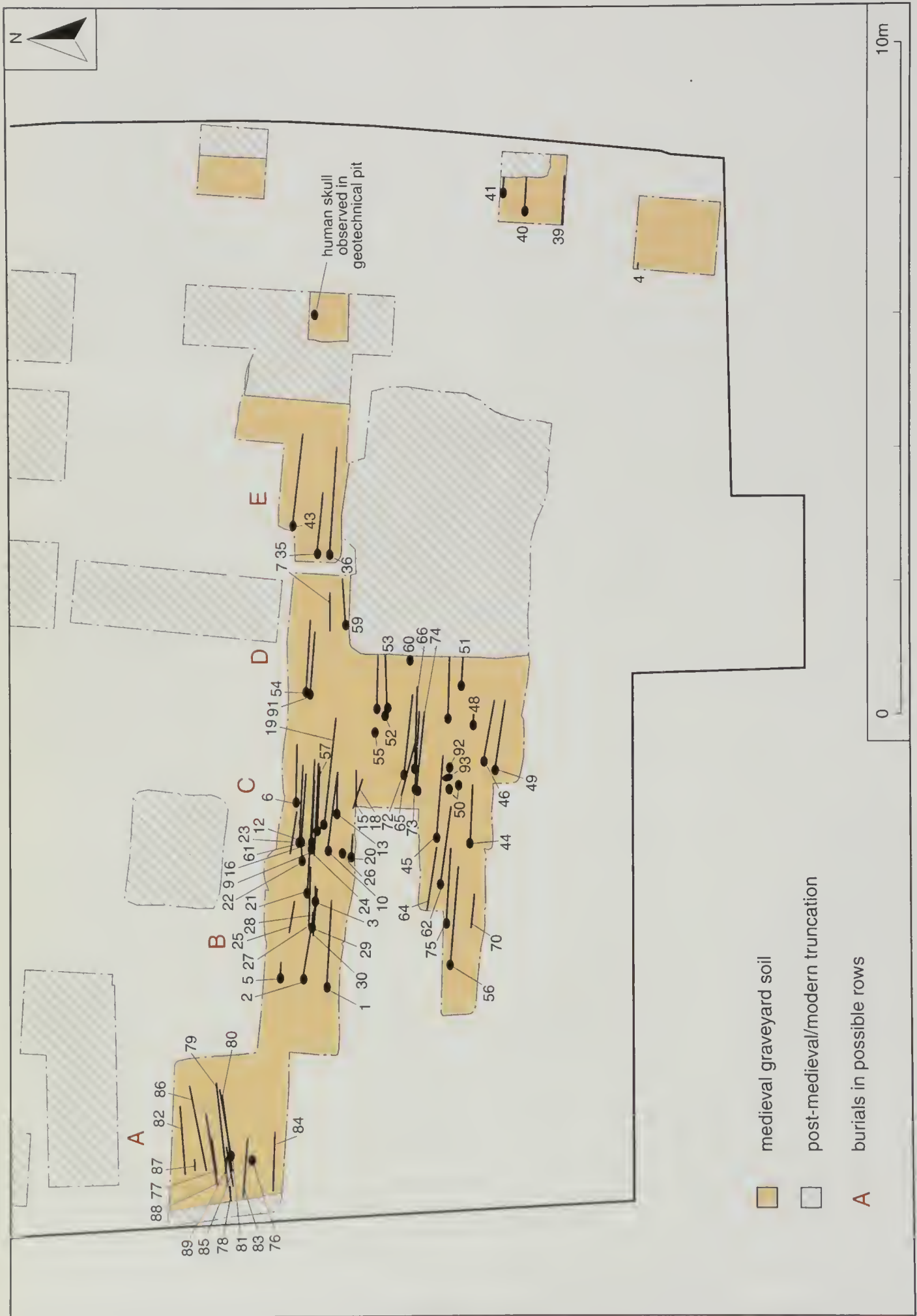


Fig. 3 Plan of the medieval cemetery (1:100)

**Period 2.2: The probable chapel and cemetery
(later 12th to late 13th century)**

Only limited evidence of the probable chapel was found. Two short sections of limestone walling 2105 and 2106 were revealed within a service trench at the north-eastern corner of the site. Neither wall was exposed to its full depth, but both were built from roughly-faced coursed limestone fragments with a rubble core. Wall 2105 was 0.85m wide and aligned north/south upon an unmortared foundation. It was butted by wall 2106, which was 0.95m wide and bonded by a yellowish mortar. Limited exposure makes interpretation difficult, but 2106 was probably either a rebuild or a buttress to 2105. A limestone flag surface 2108 at the northern end of the service trench had been laid onto a sandy bedding layer, which overlay rubble make-up layers. This is surely the same floor make-up as that exposed to the west in evaluation and watching brief work in 1995 and 1996 where it contained a small quantity of pottery and glazed undecorated floor tiles. Pottery included decorated jug sherds and rod handles with underglazed slip and applied decoration suggesting a late 13th or early 14th-century date. No further material was recovered during the excavation. The make-up was up to 0.6m thick and composed of compacted mortar and occasional limestone

rubble directly upon natural. Make-up exposed in the evaluation area was cut to the south by post-medieval robbing. Had investigation continued deeper in this area, evidence for a robbed south wall of the probable chapel might have been found. Although the post-medieval robbing had removed the stratigraphic relationship between the surface and the walls, it is highly likely that they were part of the same building.

To the south of the probable chapel the Iron Age/Roman buried soil and Phase 2.1 quarry pits were sealed by a 0.3 to 0.8m-thick grave soil across the southern third of the site; elsewhere it had been entirely removed by post-medieval truncation. This homogenous grave soil had been reworked throughout the lifetime of the cemetery and contained quantities of fragmented human bone, presumably disturbed from earlier burials during grave digging, smaller amounts of animal bone, oyster shell and a few residual sherds of Iron Age and Romano-British pottery.

Articulated burials were found within the graveyard soil, but as a result of its reworking stratigraphic relationships between graves could only be detected where later burials truncated the skeletal remains of earlier interments. The burials lay a height of 87.0-87.2m AOD, 0.7-0.9m below

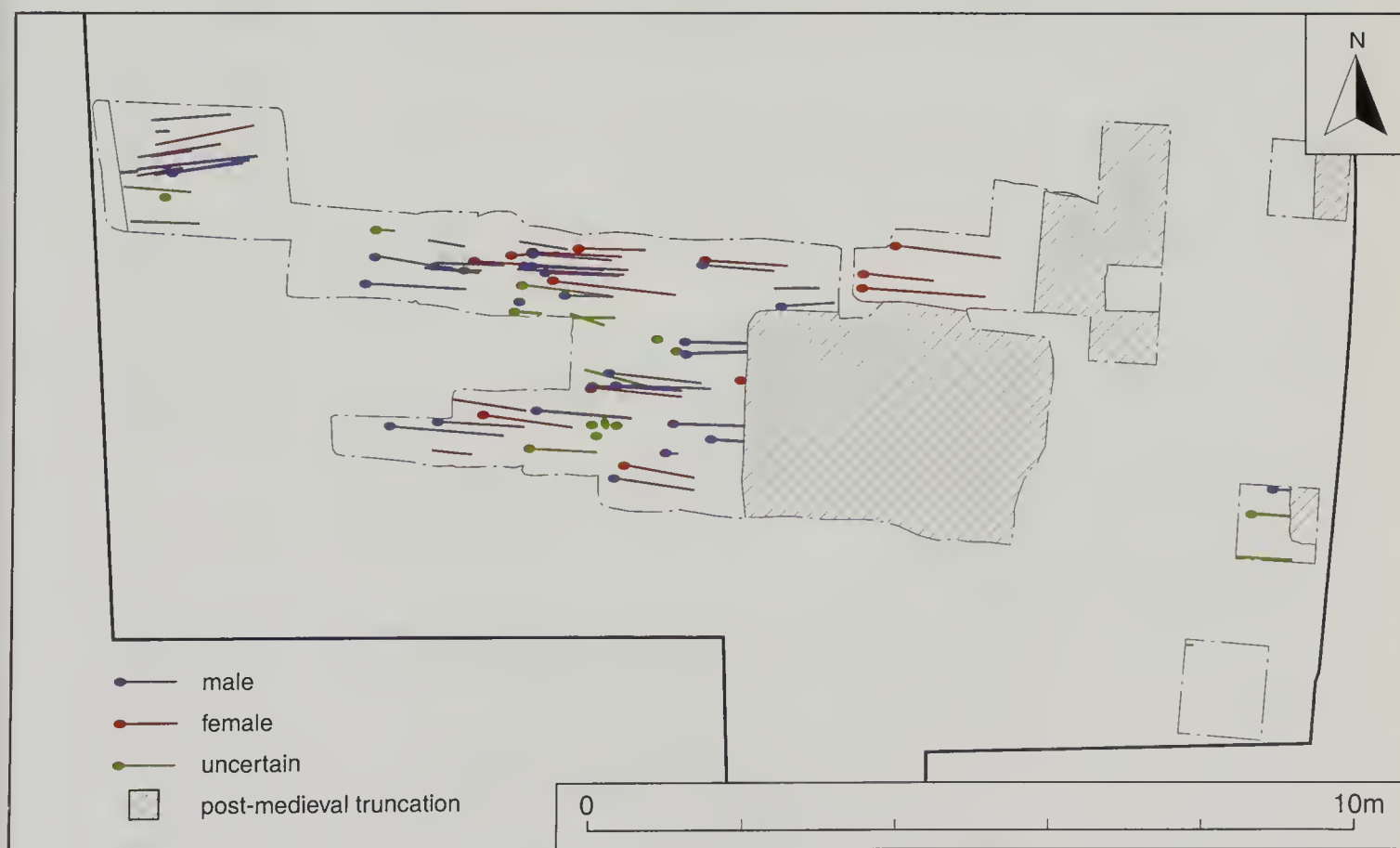


Fig. 4 Burial distribution by sex (1:125)

Table 1: Grave catalogue

Notes: where burials were only partially exposed within trenches, this is noted as e.g. 'legs only exposed' or 'feet not exposed' and the remaining burial was retained *in situ*; where burials survived only partially, this is noted as e.g. 'legs only present' or 'skull and left arm absent'

DISH = diffuse idiopathic skeletal hyperostosis (Roberts and Manchester 2005, 159). For age and sex abbreviations see Table 2

Burial	Age	Sex	Height (m)	Major pathology/anomalies	Features	Row	Relationships
B1	OA	M	1.704	DISH; crushed thumb; dislocated shoulder; only 11 thoracic vertebrae	Possibly in shroud; hands met on pelvis; left foot absent	B	Truncated B2; truncated by B3
B2	YA	M	1.775	Scurvy, pneumonia	Possibly in shroud; arms alongside body	B	Truncated by B1
B3	OJ	–		Left hand fracture	Hands crossed over pelvis	B	Truncated B1
B4	–	–			Parts of lower legs only present		Retained <i>in situ</i>
B5	–	–			Part of skull only exposed (possibly part of B25)	B	Retained <i>in situ</i>
B6	OA	F	1.534	Fractures of right scapula, ulna and possibly skull	Right lower arm across body; left arm, left shoulder, left side of pelvis and feet absent	C	Overlaid B9
B7	MAB	M	1.678	?DISH; tip of right 4th finger amputated	Right arm/hand only present	C	Truncated B22; truncated by B9
B8	–	–				–	Retained <i>in situ</i>
B9	OA	M	1.718	DISH; fracture of left fibula; ?cleidocranial dysostosis	Possibly in coffin (1 nail); hands met on pelvis	C	Truncated B7; overlaid by B6
B10	OJ	–			Possibly shrouded and within coffin (2 nails); hands met on pelvis;	C	Truncated B15 and B18; truncated by B12
B11	–	–				–	Retained <i>in situ</i>
B12	MAA	M	1.709	Fractured left hand; unfused atlas spine	Possibly in shroud; hands met on pelvis	C	Truncated B10 and B13
B13	AD (?OA)	M		DISH (neck fused in hyperextension); fractured rib; ?trauma to head	Right hand on pelvis; left arm and shoulder, right lower arm/hand, right upper and lower leg and left lower leg only present	C	Truncated B20, overlaid B66; truncated by B12
B14	–	–				–	Truncated B24; retained <i>in situ</i>
B15/ 20	YJ	–		Mastoiditis	Legs (B15) and skull (B20) only present	C	Overlaid B19; truncated by B10 and B13
B16	CH	–			Hands resting on either side of pelvis	C	Overlaid B24 and truncated B18; truncated by B19
B17	–	–				–	Retained <i>in situ</i>
B18	IN	–			Thorax only present	C	Truncated by B10 and B16
B19	OA	F	1.524	Osteoporosis; left Colles' fracture; psoriatic arthritis	Hands resting on either side of pelvis	C	Truncated B16; overlaid by B15/20
B21	YA	?F	1.63	Bifid 3rd right rib	Hands resting on either side of pelvis; feet not exposed	–	
B22	OA	F	1.655	Gingivitis; large external auditory meatus	Feet and upper arms not exposed	C	Truncated by B7
B23	OA	M	1.735	DISH; "airman's" fracture right ankle; fractured left fibula	In shroud; hands resting on either side of pelvis; legs, lower body and lower arms only present	–	Overlaid B25; truncated by B27
B24	MAB	F	1.494	? Osteochondroma right femur	In shroud; right lower arm across body; right leg, right lower arm/hand and parts of torso only present; C14 date 1226–1387 cal AD	C	Overlaid by B16 and B28, truncated by B14 and B25
B25	AD	?M	1.764	?DISH	Lower legs/feet only present (possibly part of B5).	–	Truncated B24; overlaid by B23
B26	OA	F			Skull only present	C	

Table 1 continued

B27	OA	M	1.649	Severe osteoarthritis (?occupational)	?Hands met over pelvis; skull and feet absent, left lower arm/hand not exposed	–	Truncated B23; truncated by B90
B28	CH	–			Thorax only present	–	Overlaid B24
B29	MAB	M	1.746	Left ribs fractured; neoplasm internal surface of frontal skull	Hands met on pelvis, legs slightly flexed and inclined to right; appears to have been forced into a grave cut too small for the body	–	
B30	–	–				–	Retained <i>in situ</i>
B31	YJ	–				–	Retained <i>in situ</i>
B32	–	–				–	Retained <i>in situ</i>
B33	–	–				–	Retained <i>in situ</i>
B34	–	–				–	Truncated B35; retained <i>in situ</i>
B35	MAA	F	1.657	Pneumonia/pleurisy right side	Left hand on pelvis (right hand absent); Iron Age clay weight fragment	D	Truncated B43; truncated by B34, overlaid by B36
B36	MAB	F	1.681	Psoriatic arthritis	Hands met on pelvis; feet absent	D	Overlaid B35
B37	–	–				–	Retained <i>in situ</i>
B38	–	–			Skull and right ribs only present	–	Retained <i>in situ</i>
B39	–	–			Legs only exposed	–	Retained <i>in situ</i>
B40	YJ	–			Partial skull and upper arms only present; possibly in shroud	–	
B41	MAA	M	1.644	Left clavicle fracture	Partial skull only present	–	
B42	–	–				–	Retained <i>in situ</i>
B43	MAB	F	1.549	?Pneumonia; 12th thoracic vertebra lumbarised	Possibly in shroud; left hand on pelvis; right lower arm/hand and feet absent	D	Truncated by B35
B44	YJ	–			Hands separately on pelvis	C	
B45	OA	M	1.644		Hands separately on pelvis; fragmentary survival	C	Truncated B62; truncated by B56
B46	OA	F	1.594	Kyphosis of spine (?tuberculosis or osteoporosis)	Hands met on pelvis	–	Truncated by B49
B47	YA	M	1.628		Within coffin; arms alongside body; lower legs/feet absent	D	Overlaid by B48, B50 and B51
B48	OA	M			Skull only present	D	Overlaid B47
B49	OA	M	1.653	DISH; trauma to right thigh	Possibly in shroud; hands met on pelvis; lower legs/feet absent	–	Truncated B46
B50	–	–			Charnel pit containing four skulls. The pit edges/dimensions were unclear	D	Overlaid B47
B51	MAB	M	1.706	Fractures of right ulna and ribs 9 to 12; dislocated humerus and clavicle	?Hands met on pelvis; legs absent	D	Overlaid B47
B52	CH	–			Very fragmentary and incomplete	D	
B53	OA	M	1.703	Fractures of right ulna, left scapula and ribs; DISH	Arms alongside body; lower legs/feet absent	D	Truncated by B60
B54	OA	F	1.568	Fracture of left humerus and skull; hyperostosis frontalis interna; scoliosis.	Hands met on pelvis; lower legs not exposed	–	Overlaid B57; overlaid by B91
B55	–	–				–	Retained <i>in situ</i>
B56	OA	M	1.713	'Clay-shoveller's' fracture; early DISH; Osgood-Schlatter disease.	Possibly in coffin (1 nail); arms crossed above pelvis, hands on either side of pelvis	C	Truncated B45
B57	MAB	M	1.717	DISH; button osteomas	Possibly in coffin (1 nail); right hand on pelvis; left arm absent	C	Overlaid by B54
B58	MAB	M	1.578	?Trauma to right hand	Arms alongside body	D	
B59	MAA	M	1.721	Left scapula fracture; spondylolisthesis	Right arm over body towards pelvis; right hand and left arm/hand absent	D	Truncated by B68
B60	OA	F		Button osteomas	Skull, neck and left shoulder only present	D	Truncated B53

Table 1 continued

B61	OA	F	1.607	Rheumatoid arthritis	Possibly in shroud; arms alongside body	C	
B62	OA	F	1.593	Right ulna fracture; left ilium/sacrum fused	Possibly in coffin (1 nail); hands met on pelvis	C	Overlaid B64; truncated by B45
B63	-	-			Lower legs/feet only present	-	Overlaid by B69; retained <i>in situ</i>
B64	OA	F	1.648	Osteoarthritis at knee, elbow and hand	Left arm alongside body; right arm and skull absent	C	Overlaid B67; overlaid by B62
B65	YJ	-			Lower body and legs/feet only present	-	Overlaid B66
B66	MAB	M	1.718	Left tibia and right rib 9 fractured; Massive abscess in right palate	Hands met over pelvis	-	Overlaid by B13 and B65
B67	-	-				C	Truncated B70 and overlaid B75; overlaid by B64; retained <i>in situ</i>
B68	-	-			Partially exposed; right arm and feet absent	D	Truncated B59; retained <i>in situ</i>
B69	-	-			Skull and neck only present	-	Overlaid B63; retained <i>in situ</i>
B70	AD	F	1.613		Possibly in coffin (2 nails); lower legs/feet only present	C	Truncated by B67
B71	-	-			Left arm and leg only exposed	-	Retained <i>in situ</i>
B72	OA	M	1.703	Scoliosis; gout	Left lower arm across body (right arm disturbed)	-	
B73	MAB	M	1.774		Left arm alongside body, right lower arm across body	-	Overlaid by B74
B74	OA	F	1.606		Lower legs only present	-	Overlaid B73
B75	YA	M	1.697		Possibly in shroud; hands met over pelvis; C14 date 1051-1275 cal AD	C	Overlaid by B67
B76	IMM	-			Skull only present	-	
B77	AD	??F	1.564	Osteoarthritis in knees and ankles; left tib/fib fracture	Possibly in coffin (1 nail) and on ash bed; legs only exposed	-	
B78	MAA	M			Possibly in coffin (1 nail); hands met on pelvis; lower body only exposed; absent below pelvis	A	Overlaid B80; truncated by B81
B79	MAB	M	1.740	Left foot injury	In coffin (3 nails); right hand on pelvis; right body, arm and leg only present	A	Truncated by B80
B80	OA	M	1.68	DISH; left fibula fracture	Possibly in coffin (1 nail); hands met on pelvis; skull not exposed	A	Truncated B79; overlain by B78 and B81
B81	MAB	M	1.713	Right clavicle fracture; strange voided right parietal diploe	Possibly in coffin (9 nails) and shroud; hands crossed over pelvis	A	Overlaid B80; truncated B78
B82	AD	??M	1.669		Left leg only exposed; right leg absent unless buried prone	-	
B83	CH	-			Partial leg bones and pelvis only exposed; feet absent	A	
B84	AD	?M	1.789		Possibly in shroud; legs only exposed; feet absent; C14 date 1047-1264 cal AD	A	
B85	OA	F	1.586	Left hand fracture	Right hand on pelvis; lower body/legs only exposed; left side of body, left lower arm and right lower leg absent	A	Truncated by B86
B86	MAA	??F	1.604	Ameloblastoma (left maxilla)	Within coffin (7 nails); arms alongside body; skull, arms and legs only present	A	Truncated B85, B87 and B88
B87	YJ	-			Lower legs only exposed; right leg and both feet absent	A	Truncated by B86
B88	MAB	M	1.621		Legs only exposed; C14 date 1034-1253 cal AD	A	Truncated by B86
B89	AD	U	1.749	Infected soft tissue injury or leprosy; right 5th metatarsal tubercle avulsed	Lower legs only exposed	A	

Table 1 continued

B90	-	-			Left foot only exposed	-	Truncated B27; retained <i>in situ</i>
B91	MAB	M	1.638	?DISH. Hand, hip and knee osteoarthritis	Hands met on pelvis; lower legs/ feet not exposed	-	Overlaid B54
B92	YA	F		Fracture at left lambdoid suture		-	
B93	OA	?M				-	

the level of the flagged floor of the probable chapel. Homogeneity of the grave soil precluded correlation of stratigraphic burial sequences between trenches and thus it has proved difficult to establish firmly the chronology of the cemetery. Four burials were radiocarbon dated. Pottery recovered from graves potentially provides a *terminus post quem* for them, although there is a high risk of contamination due to the density of intercutting graves. Accordingly, pottery has not been used to date individual graves and the burial sequence is based upon spatial relationships and the few established stratigraphic sequences.

A maximum of 91 burials was interred within individual graves, with a further four skulls found within a pit (Table 1; Figure 3). Certain burials found in different trenches and assigned separate numbers may in fact have been part of the same individual as is the case for Burials 15 and 20 and possibly for Burials 5 and 25. Twenty-two burials were recorded in plan and left *in situ*, while the other 69 burials were lifted and subjected to osteological examination. Burial distributions are discussed below, although analysis is hindered as the full extent of the cemetery was not exposed. All of the burials were aligned broadly east/west with the head to the west. Where body position could be determined, burials extended and supine, the majority with the hands placed together over the pelvis, and a small number with the arms alongside the body. Sex could be identified in 50 cases, of which 31 (62%) were male and 19 (38%) female (Table 2). There was no obvious spatial variation between male and female burials (Figure 4). Age at death could be ascribed to 69 individuals, of which 57 were 13 years or older and 11 had died younger than this. No patterning based on age at death is evident in the burial distribution (Figure 5).

The most striking aspect of the cemetery's organisation is that certain burials were laid out in rows. Despite the difficulties in reconstructing the burial sequence it is possible to identify five evenly spaced rows on an alignment slightly to the north of east (Rows A-E) (Figure 3). In most cases, burials in each row were evenly spaced, but at least two possible clusters are suggested in Row D (Burials

52, 53 and 58 and Burials 54 and 91). These graves were closely intercutting, but of the three earlier burials (54, 52 and 58) only the body of Burial 52 had been truncated. Perhaps the later burials had been deliberately interred above, but with respect to, the earlier ones. Burials 54 and 91 were female and male respectively, and it is possible that the clusters represent family plots. The burials within Rows A, B and D were the earliest in their stratigraphic sequences and only a single burial pre-dated those within Row E. Only within Row C did a sequence of up to three burials pre-date those buried in the row. As Row C lay within the densest area of burial it is possible that it represents a reorganisation of the graveyard, although it may be better to regard it as a re-establishment of an earlier row given that it is evenly spaced between Rows B and D. An area seemingly devoid of burial between Rows A and B perhaps reflects a contemporary feature such as a path or cross.

There was a high density of intercutting burials within the western and central parts of the excavation area. The westernmost cluster comprised at least two phases and the earliest of these were those forming Row A laid out on east/west alignments, which had been truncated by Burials 77-82, 85, 86 and 88 on a more east-north-east/west-south-west orientation, an alignment unique within the cemetery. There is no obvious explanation for the greater density of burials within the western and central areas of the

Table 2: Numbers of individuals in each age group

Age at Death	Total		
	Males	Females	Number
0-1 year (Infant, IN)	1	-	-
1-5 (Child, CH)	4	-	-
6-12 (Young juvenile, YJ)	6	-	-
13-17 (Older juvenile, OJ)	2	-	-
18-25 (Young Adult, YA)	5	3	2
26 - 35 (Middle Adult (A), MAA)	6	4	2
36 - 45 (Middle Adult (B), MAB)	14	11	3
>46 (Older adult, OA)	25	13	12
Immature (IMM)	1	-	-
Adult (AD)	5	-	-
TOTALS	69	31	19



Fig. 5 Burial distribution by age at death (1:125)

cemetery. Possibilities include the re-use of family burial plots; that these locations were particularly desirable for some reason; that they were more easily accessed, or less frequently cleared. A 'charnel' pit (termed 'Burial' 50) within the central part of the site had been cut through the graveyard soil; its edges were indistinct and it contained four skulls as well as other human bone fragments.

Wooden coffins are inferred for 13 burials by iron nails, some with mineralised wood attached, adjacent to bodies. Six coffined burials were amongst the later burials that cut Row A at the western end of the site (Burials 77-81 and 86)(Figure 6). Three further coffined burials were late in their respective stratigraphic sequences (Burials 56, 57 and 62), while Burials 9, 10 and 47 were part of rows and thus potentially early. Coffined Burial 70 was also stratigraphically early. Uniquely within the cemetery, female coffined Burial 77 was laid on a bed of ash, 10mm thick, although it was impossible to determine whether the ash had been laid within the coffin or on the floor of the grave. Ashy deposits in other medieval cemeteries were laid within coffins before the body was placed inside (Gilchrist and Sloane 2005, 121). This practice has been variously interpreted as a means of soaking up bodily fluids; deriving from Christian belief in the association of

ashes with penance, or, based on the frequency of domestic refuse within the ash, that such deposits were hearth rakings placed by family members as a signifier of domestic life (Daniell 1999, 31-3; Gilchrist and Sloane 2005, 121-3). At least twelve of the burials (including coffined Burial 10) might have been wrapped in shrouds to judge by the position of the limbs, with arms tight to the body and legs close together. These probable shroud burials were present throughout the cemetery, with a cluster in the central area of densest burial. In five instances burials were early within a stratigraphic sequence and in two cases late, but this difference is too small to be meaningful. Sex can be ascribed to twelve of the coffined burials and in ten of the shroud burials. Eight of the coffin burials and seven with shrouds were male. Overall 24% of all burials sexed as male were buried in coffins, and 20% of females, while for shroud burials the figures are 21% and 15% respectively. Little obvious correlation of these traits with sex is therefore apparent.

Pottery from the Period 2.1 quarry pits indicates that the cemetery is no earlier than the mid 12th century, while material from the grave soil and the graves dates predominately between the late 11th and late 13th centuries. While Naish Hill pottery, which was present in small amounts in cemetery



Fig. 6 Distribution of possible coffin burials and those buried in shrouds (1:125)

deposits, continued in production into the 14th century, the absence of Minety ware types typical of that century suggests that burial had largely ceased by the end of the 13th century. Further material recovered from the graveyard soil includes a copper-alloy buckle, possibly from a disturbed burial, of a type common during the 13th and 14th centuries, and floor tile fragments. Indeed, tile fragments were found throughout the graveyard soil, although over half of the assemblage was recovered from the area around Row A. Most are from the Naish Hill tileries, which were in production from c. 1284 until no later than the first quarter of the 14th century (see McSloy, below). The worn and fragmented condition of the tiles suggests that they may have been dumped as part of repair work, and so they could have been in use for some time. A small assemblage of 16th and 17th-century pottery recovered from the grave soil and two grave fills is surely intrusive from the overlying post-medieval infill and cannot be taken as evidence that burial continued up to this date.

The chronology suggested by the pottery accords with radiocarbon determinations obtained from four burials (Table 8). Burials 24, 75 and 84 were the earliest in their respective stratigraphic sequences, while Burial 88 was selected because it represented a late burial within Row A. Burials 75, 84 and 88

date between the mid 11th and later 13th centuries, and Burial 24 between the early 13th and late 14th centuries. Burial 24 was the earliest of up to six successive burials within a stratigraphic sequence. However, this sequencing may not be entirely reliable since it is based on the relationship between grave cuts, which in most cases only slightly clipped the edges of earlier graves. In only one case (Burials 16 and 24) did a later grave physically overlie an earlier one, and for the remainder the stratigraphic sequence need not imply that the earlier graves had necessarily become invisible or uncared for with the passage of time, and more reasonably reflect the great density of burial at this location.

Period 3: Post-medieval robbing and later structures

The grave soils were sealed by deep deposits of silty clay with occasional limestone rubble, in places over 3.2m thick, with a shallower depth present above the remains of the probable chapel. Although these deposits contained comparatively little rubble and only a small amount of dressed stone, it is possible that they were the upper fills of robber trenches dug to rob stonework from the chapel. The depth and extent of this potential robbing perhaps suggests extraction from a subterranean feature such as a

crypt or undercroft which lay in the area between the surviving burials and the floor make-up. There may also have been an element of leveling up to create a platform upon which to found a series of tenements fronting onto Market Cross. The alternative interpretation that this was a quarry dug to extract the natural limestone seems less likely given its location close to one of the principal street frontages of Malmesbury. Pottery recovered in the evaluation included 18th-century material, along with small quantities of residual medieval pottery and floor tile. The latest pottery recovered from these layers dates to the 16th century, and material of similar date from the underlying grave soils is presumably intrusive from these deposits.

Limestone walls of post-medieval buildings overlay, or cut into, the top of the infill. Although none precisely matched the locations of structures depicted on the Ordnance Survey map of 1886, the earliest detailed mapping of the site, their general alignment conforms to buildings depicted on this and later maps. The wall forming the western site boundary overlaid the head and shoulders of the westernmost exposed burials, indicating that the cemetery originally continued further to the west.

Human remains

Osteological examination of the human remains was undertaken by David Henderson who produced the skeletal catalogue and report on pathology, although he was unable to complete a full report on the assemblage. Discussion of the skeletal assemblage is by Rachel Ives who did not undertake any direct examination of the human remains.

Skeletal Assemblage, *by David Henderson*

The assemblage of human remains comprises 69 individuals lifted from graves, parts of at least four individuals recovered from a charnel pit and a quantity of disarticulated material recovered from the graveyard soil (Table 1). One individual (Young Juvenile Burial 15/20) was given two burial numbers as the head and feet were found in adjacent trenches. Twenty-three skeletons were substantially complete. Cemeteries were often intensively used in the medieval period with disturbed bones commonly distributed throughout graveyard soils. This report

deals solely with the burial population recovered from the graves, although a full record of the disarticulated material is available in the archive.

Where possible, individuals have been assigned to the broad age categories detailed in Table 2. Ages at death of the adult population (18 years or older) are approximate, especially where age was assessed by tooth wear data. Children and juveniles are not sexed as there is no reliable and accepted visual or metrical method for achieving this (Ubelaker 1999, 52).

The assemblage was notable for its high proportion of individuals with pathological lesions. Some of these are degenerative in nature whilst others represent injuries, infections and possible auto-immune diseases. It seems probable that 15 individuals were affected by some debility and a further 12 possibly so. These figures represent individuals suffering from conditions leaving manifestations on the skeleton.

Signs of severe arthritis (outside the spinal joints) were evident amongst 13 of the adults. In ten instances, this was severe osteoarthritis, with eburnation of the bone, whilst for 15 individuals the damage was less severe and usually characterised by bony 'lipping' around a joint. All but one individual in the Older Adult category had at least one joint with signs of the condition. All the severe cases except one (Burial 91, Middle Adult (B) male) were in the older age group. The most commonly affected joints were the right shoulder at the acromioclavicular joint (8 of 21 observations) and the right hip (9 of 33 observations). The small joints of the fingers and wrist were also commonly affected. One case (Burial 27, Older Adult male) may have been the result of occupation as both wrists and elbows had severe osteoarthritis, which had caused the bones of the joints to be polished to flat surfaces in places. This may have occurred when making repetitive movements with the elbows bent and the hands bent outwards with the palms facing down perhaps when engaged in actions such as grinding or polishing.

Osteological Discussion, *by Rachel Ives*

Demography

The skeletal assemblage contains small numbers when considered by age-at-death and sex (Table 2). This is particularly evident when the number of Young Adults (18-25 years; n=5) and Middle Adults (A) (26-35 years; n=6) are compared to the

Table 3. Mean stature and range for adult males and females from Malmesbury and comparative sites

Site	Male Mean (cm)	Male Range	Female Mean (cm)	Female Range	Source
Malmesbury Abbey	169	157–177	159	149–168	This report
Later Medieval Survey	171	167–174	159	154–165	Roberts & Cox 2003
St Helen-on-the-Walls, York	169	154–184	157	145–173	Dawes 1980
St Peters Church, Barton-upon-Humber, Lincolnshire	170	157–176	158	153–162	Waldron 2007
Wharram Percy, Yorkshire	168	n/a	157	n/a	Mays 2007

number of Older Adults present (46+ years; n=25). This difference may be due to incomplete excavation of the cemetery as well as the difficulties that exist in determining age-at-death from skeletal remains (Cox 2000). There are more adults (18+ years) in the assemblage compared to juveniles (55 adults, 14 juveniles). High numbers of infants are often identified in cemetery assemblages due to the greater susceptibility to illness in developing immune systems and dependence on others for adequate nutrition (Waldron 2001, 41). The reverse trend in this sample may be because only a small part of a larger cemetery was excavated, and that a specific area of the burial ground may have been reserved for infant burials. Alternatively, infant health and care may have been such that mortality was not high in the sample. There were only two adolescents aged 13 to 17 years in the sample compared to 11 juveniles aged (0 to 12 years). It is possible that adolescents may have migrated to nearby areas for employment and apprenticeships (Goldberg 2004). Overall numbers between the sexes are uneven: 31 males and 19 females. A preponderance of males is typical for medieval monastic cemeteries (see Discussion). Some females may have migrated to large urban centres such as Bristol or Gloucester for employment in service or in craft production, and males may have been attracted by the prospects of employment in the service of the monastery (Goldberg 2004; Mays 2007, 91-2).

Stature

Individual adult height is determined by genetic makeup. The potential to fulfil such predetermined size can, however, be mediated by environmental factors, such as poor childhood nutrition and chronic ill health during growth. This can result in a small adult height (Eveleth and Tanner 1976). Such variation in height can be identified through the size of adult long bones, although some variation can exist in the estimations of stature if different long bones are used for the required calculations (Waldron 2007, 41).

The average male height for the 27 individuals in

the assemblage where this information was available is 1.697m (just under 5'7"), with a range from 1.578m (5'2") to 1.775m (5'10"). The average height for the 17 females was 1.59m (5'2½") with a range of 1.494 to 1.681m (4'10½" to 5'6"). Females in the assemblage matched the mean stature derived from a large survey of skeletons from the later medieval period, as well as recently studied populations from Barton-upon-Humber, Lincolnshire, and Wharram Percy, North Yorkshire (Table 3). Male stature varied slightly to the survey of medieval sites with the minimum height in the stature range differing by as much as 10cm. This may indicate that several males from Malmesbury may have suffered from chronic illnesses or inadequate diets during growth, which resulted in a slightly smaller stature than the other males. Male height was, however, similar to that recorded at Barton-upon-Humber and Wharram Percy, indicating no lasting skeletal effects of illness or dietary inadequacy stunting growth across the adult assemblage.

Infectious Conditions

A variety of infectious diseases affect the human skeleton, which were evident in the pre-modern period owing to a lack of effective cures (Roberts and Cox 2003). No definite evidence for treponemal infection, such as venereal syphilis, or for leprosy was present in the assemblage. Several cases of non-specific infection were observed, however, likely due to localised inflammation or minor infection.

One case of vertebral body collapse and destruction was present in Burial 46, an Older Adult female, resulting in severe forward bending (kyphosis), which would have been noticeable during life. Whilst bone fragility and collapse can be caused by age-related or post-menopausal osteoporosis, this condition tends to result in compression of only one vertebral body without bone destruction (Brickley and Ives 2008). It is likely that tuberculosis was responsible for the spinal changes in this case (Duggeli and Trendelenberg 1961; Luk 1999; Roberts and Buikstra 2003). This infectious disease is spread via inhalation of infected droplets

from coughing or sneezing, or from the consumption of infected animal produce such as milk or meat (Roberts and Buikstra 2003, 116). Individuals engaged in animal husbandry are likely to be at risk of the condition as are those who worked with infected products, including butchers and tanners. The frequent use of animal dung for fertiliser and fuel, and bone and horn for spindle whorls, loom weights, and combs could have increased the risk of transmission from animals to humans (Roberts and Buikstra 2003, 119; Roberts and Manchester 2005). Increased population density due to people living in close contact within walled or defined spaces in towns can also facilitate the spread of infectious diseases. This may have been exacerbated by increased migration of adolescents and young adults from medieval rural villages into towns in search of employment during the later medieval period (Dyer 2000; Goldberg 2004, 46). Further evidence of tuberculosis in the region is present in burials from the religious houses of St Oswald's and Blackfriars in Gloucester (Roberts and Cox 2003, 231-2).

Trauma

The assemblage presents a diverse range of skeletal injuries. Everyday activities ranging from agriculture to industrial craft activities such as tanning, blacksmithing, cloth-making and pottery/tile-making all require manual dexterity and use of tools and equipment, which could have contributed to accidental injuries to hands and arms (Schofield 1999; Goldberg 2004; Roberts and Cox 2003, 237). Animal husbandry was also likely to have resulted in both soft tissue and skeletal injuries during the medieval period. In general, fractures to the ribs and lower arms were found to be common in the later medieval period (Roberts and Cox 2003, 237).

Crushing injuries were observed on hands and scapulae as well as injuries indicative of falls, such as fractures of the wrist (Colles' fracture), ulna shaft, ankle and foot (Lovell 1997). A fractured vertebral spinous process tip was identified ('clay-shovellers' fracture) which is frequently associated with shovelling or lifting heavy loads and, in this case, may have been occupation-related. Part of the tip of the fourth right finger of Burial 7, a Middle Adult (B) male, had been amputated. A range of accidental injuries to the fingers can result in traumatic amputation, such as the setting of animal traps (Frank *et al.* 2008). Crushing can also damage the blood supply and infected ulcers due to burns can contribute to bone necrosis (Kelly *et al.* 1963).

Fracture frequency differed between males and

females (Table 4). Eighteen males showed evidence of fracture or injury, including one male (Burial 49) with evidence for traumatic bleeding into the muscles in the thigh (myositis ossificans traumatica; DiMaio and Francis 2001; Shehab *et al.* 2002). This can be related to habitual or occupational activities: several cases from medieval London are attributed to shoe-making (Mann 1993). In comparison, only six females showed evidence of fracture or injury, potentially due to different daily activities being undertaken between the sexes (Goldberg 2004, 95). Males showed more evidence of injury to the legs, ribs and arms, whereas females were predominantly injured on the arms, supporting trends identified by Roberts and Cox (2003). Sex-related differences in fracture types have also been found by Judd and Roberts (1999), postulated as due to males undertaking a more varied range of activities that cause trauma to the lower legs such as the fibula, and females affected more by falls and other accidents during harvesting or in dairying.

The individuals from Malmesbury were little affected by complications from injuries sustained; there was no evidence for bacterial infection and bone destruction (osteomyelitis) so often observed as secondary to trauma. A case of severe non-specific infection (periostitis) occurred in Burial 89 (Adult

Table 4. The occurrence of trauma by individuals, between the sexes and by age. Abbreviations: YA: Young Adult, MA: Middle Adult (A+B), OA: Older Adult, AD adult.

Males		Females	
Age	Injury	Age	Injury
YA	Fracture hand	OA	Fracture scapula, ulna, skull
YA	Fracture clavicle		
YA	Fracture scapula	OA	Fracture hand
MA	Amputated finger	OA	Fracture radius (Colles')
MA	Fracture rib	OA	Fracture humerus, skull
MA	Fracture ulna, ribs	OA	Fracture ulna
	Dislocated humerus, clavicle	AD	Fracture ulna
MA	Fracture hand		
MA	Fracture tibia, rib		
MA	Injury left foot		
MA	Fracture clavicle		
OA	Crushed thumb		
	Dislocated shoulder		
OA	Fracture fibula		
OA	Fracture ankle, fibula		
OA	Fracture ulna, scapula, ribs		
OA	Fracture vertebra (Clay-shovellers)		
OA	Trauma right thigh		
OA	Fracture fibula		
AD	Fracture rib, skull		

Table 5. Stable isotope analysis of dietary carbon and nitrogen from Malmesbury and other medieval sites

English Comparative Sites	Sample Number	Mean Carbon	Mean Nitrogen	Source
Malmesbury Abbey (Layfolk)	4	-19.6	10.3	Radiocarbon report
York, Fishergate (Monastic)	9	-18.29	n/a	Mays 1997
York, Fishergate (Layfolk)	10	-19.47	n/a	Mays 1997
Wharram Percy (Layfolk)	10	-19.62	9.17	Richards <i>et al.</i> 2002
Hartlepool Greyfriars (Layfolk)	10	-18.17	n/a	Mays 1997
Newcastle Blackfriars (Layfolk)	9	-18.55	n/a	Mays 1997
Scarborough, Castle Hill (Layfolk)	9	-20.17	n/a	Mays 1997
St. Giles, Brompton Bridge, Yorks (Hospital)	17	-19.1	12.5	Müldner and Richards 2005
Augustinian Friary Warrington (Layfolk)	18	-19.8	11.9	Müldner and Richards 2005
Towton (Mass-grave)	11	-19.3	12.6	Müldner and Richards 2005
York, High Medieval Fishergate (11th-12th century)	48	-19.7	11.4	Müldner and Richards 2007
York, Fishergate, Later Medieval Gilbertine Priory (13th to 16th century) (Inmates and layfolk)	155	-19.1	12.8	Müldner and Richards 2007
York, All Saints, Later medieval (Layfolk)	4	-18.8	12.6	Müldner and Richards 2007

unsexed), which may have resulted from an injury to the foot and lower legs (as suggested for flesh wounds to the feet at St Helen-on-the-Walls, York; Dawes 1980, 56; see also McInnes and Reese 1995, 136). Remedies for ailments derived from herbs and plants together with the use of honey were often used on injuries (Roberts and Cox 2003, 215), and Goldberg (2004, 53) highlights that parish churches often generated income from local collections but also from leasing out property including cattle and bees. A 12th or 13th-century perforated pottery dish found in the excavations might conceivably have served as a beehive, potentially indicating locally available supplies of honey. There was no evidence of weapon-related inter-personal violence in the assemblage. Two articulated individuals (Burial 13 Old Adult male; Burial 54 Old Adult female) had healed depressed cranial fractures, as did a disarticulated cranium (Burial 92); often occurring during violence, these injuries can also occur from a fall.

Diet and Deficiency Diseases

A wide range of animal produce was consumed during the medieval period including meats such as beef, pork, venison, boar, lamb and goat, depending on the status and settlement context (see Woolgar *et al.* 2006). Rural sites were notably linked with the consumption of mutton (Sykes 2006, 61). Poultry, game, geese, ducks and pigeons amongst a variety of other birds were also consumed (Stone 2006a). Fruit and vegetables such as onions, leeks and cabbage, as well as legumes such as beans and peas, were also available and markets often supplied a range of freshwater and marine fish (Hammond 2005, 19-21; Serjeantson and Woolgar 2006). The diet probably

varied between settlements; rural diets are likely to have contained more carbohydrates from barley and oats and less protein from meat than urban ones, although dairy foods including cheese, soured milk curds and eggs were utilised (Hammond 2005, 25; Stone 2006b). Dietary composition may also have varied between the sexes and with socio-economic status.

Four burials were sampled for carbon and nitrogen isotope analysis and the results are shown in Table 5 in comparison with other published English medieval sites (Mays 2000). The Malmesbury samples are similar to the comparative medieval diet and broadly fit the model proposed by Müldner and Richards (2005) for a diet with a marine fish contribution, although there is not as much evidence for nitrogen enrichment in the samples compared to some of the sites such as York. This may indicate less of a consumption of fish in the diet than occurred at other medieval sites.

There were several indications of possible dietary deficiencies from Malmesbury. Cibra orbitalia, or pitting in the eye orbits, was present in 17 out of 41 (41.5%) skulls with orbits. This may broadly result from nutritional deficiencies together with gastrointestinal infections, particularly from parasites (Ortner 2003; Walker *et al.* 2009). The prevalence is high in relation to comparative sites (Table 6) and is higher than reported for other sites in the region, including a medieval hospital in Bristol. This variability could be influenced by the small sample of eye orbits recorded from Malmesbury, but potentially could reflect on illness in the sample. It is not clear whether the burials related to the monastic hospital in Malmesbury, but the assemblage might suggest some degree of care for those ill.

Table 6. The prevalence for cribra orbitalia in the Malmesbury skeletons compared to other assemblages from the region and the later medieval survey reported in Roberts and Cox (2003)

Site	Prevalence of Cribra Orbitalia
Malmesbury	41.5%
Survey Later Medieval Sites	10.82%
Hospital sites, Later Medieval	51.3%
Non-hospital sites, Later Medieval	1%
Blackfriars, Gloucester	19.23%
Taunton Priory, Somerset	1.85%
St Bartholomew's Hospital, Bristol	16.67%

There was one case of probable vitamin C deficiency (scurvy) in the assemblage, which is caused by a failure to consume enough fresh fruit or vegetables (Brickley and Ives 2008, 41-4). Long-term storage and cooking of foods will reduce vitamin C content and individuals who are deficient are at greater risk of other illnesses, particularly infections (Jacob and Sotoudeh 2002). Seasonal variations, damage to crop supplies by pests or climatic alterations can increase the risk of limited food supplies and dietary deficiencies or famine. Only two cases of scurvy have been identified in the

later medieval period reported on by Roberts and Cox (2003, 248) and it is likely that this condition is being overlooked.

In conclusion, the Malmesbury burials form an important skeletal assemblage of local and regional significance, especially given the paucity of published comparative regional assemblages (Roberts and Cox 2003). Trauma and infectious disease represented in the individuals likely derived from daily activities such as animal husbandry and craft working.

Pottery, by E.R. McSloy

A total of 358 (4335g) sherds of pottery, representing a minimum of 342 vessels, was recovered from the excavation; material from the evaluation was not re-examined (Table 7). Some 85% of the assemblage, 304 sherds (3122g), dates to the medieval period and derived predominantly from graveyard soils and grave fills. Small quantities of Iron Age, Romano-British and post-medieval pottery were also recovered. The pottery is generally in good condition, although abrasion was noted on some of the Romano-British sherds, most or all of which are residual. Average sherd weight for the medieval

Table 7. Pottery quantification

Description	Cirencester Fabric Code	Reference	Min. vessels	Count	Weight
Iron Age					
L1: Limestone type	-	Brown 2006	1	1	6
S1: Shelly type	-	Brown 2006	11	12	71
Roman					
DOR BB1	74	Tomber and Dore 1998	6	6	14
LOC GW	17/95	-	6	6	90
LOC OX	17/95	-	6	6	40
Medieval					
Oolitic limestone (Cirencester type)	202	Ireland 1998, 103-4	133	141	1355
Oolitic limestone (coarser variant)	202	Ireland 1998, 103-4	35	39	451
Minety type ware	200	Ireland 1998, 104	96	96	1068
Nash Hill ware	219	McCarthy 1976, 107	13	15	89
Bath A type	240	Vince 1979, 27-31	9	9	51
Ham Green glazed	206	Barton 1963	2	2	26
Redcliff glazed	262	Dawson <i>et al.</i> 1972	1	1	9
Misc. sandy	-	-	1	1	73
Post-Medieval					
Tudor Green	220	Holling 1977	2	2	7
Malvern Chase redware	204	Vince 1983, 132	2	3	215
Ashton Keynes	219	Vince 1983, 132	10	10	284
Cistercian ware	208	Vince 1983, 132	1	1	18
Frechen stoneware	216	-	3	3	387
Misc. glazed earthenware	-	-	1	1	62
Porcelain	218	-	1	1	5
Transfer-printed china	214	-	1	1	5
English ?Bristol stoneware	-	-	1	1	9

assemblage is 10.3g, a moderately high figure for material of this date and not suggestive of high levels of disturbance.

The pottery was sorted into fabrics on the basis of macroscopic observation and quantified according to sherd count and weight per context. Vessel form, where identifiable, and attributes such as decoration or evidence for use (visible residues or sooting) were noted. Recording of medieval pottery fabrics replicates existing regional fabric type series, primarily that from Cirencester (Vince 1982; Ireland 1998).

Iron Age

The thirteen sherds (77g) consist entirely of bodysherds in coarse fossil shell and limestone-tempered fabrics. In the absence of identifiable forms dating is necessarily broad, with fabrics comparable to Iron Age material recovered from elsewhere in Malmesbury (Brown 2006).

Romano-British

The majority of the 18 sherds (144g) of Romano-British pottery was clearly re-deposited in the medieval grave soil and grave fills. The pottery largely comprises reduced and oxidised products of the North Wiltshire industry, centred on the Purton/Swindon area, which supplied major local settlements including Cirencester, Wanborough and Easton Grey. Identifiable forms comprise medium and narrow-mouthed necked jars. Non-local material consists of Dorset Black-Burnished ware; a jar decorated with obtuse-angled lattice decoration from the grave soil dates to the period after *c.* AD 220.

Medieval

A coarse oolitic limestone-tempered fabric forms the largest component of the medieval assemblage. It compares in most respects to Cirencester fabric F202 manufactured at, or within a few miles of, the town and occurring commonly across North Wiltshire, particularly in the Cricklade/Swindon/Blunsdon area (Vince 1982, 203). No pre-Conquest claims have been made for this fabric and the earliest stratified material from Cirencester dates from the late 11th century (Ireland 1998, 103). Sherds in this fabric from the current site occur as globular-bodied jars with crudely-formed everted rims and are likely to be of late 11th to 12th-century date (Figure 7, no. 1). A straight-sided 'clubbed' rimmed jar in this fabric from a Period 2.1 quarry fill may also be an early form (late 11th to 12th century), comparing to examples from the North Cotswolds (Jope and

Threlfall 1959). Other forms, comprising jars with more complex everted rims, occasionally with thumbing to the outer edge, compare to forms known from Cirencester and probably date to the mid 12th and 13th centuries (Vince 1982). Dating within a similar range is suggested here by its common occurrence with Minety-type wares in the grave soil and grave fills.

Minety ware, a calcareous gravel-tempered fabric known to have been produced in that parish, forms the second most common medieval type, representing 34% of the medieval group. The close similarity, particularly as smaller unglazed sherds, to fabric F202 means that its quantity may be understated in Table 7. The Minety sherds from the Period 2.1 quarry pits are handmade and belong to the earlier production phase. Based on the earliest occurrences of the type at Bristol, Gloucester and Cirencester, Vince (1984) considered that production had started by the mid 12th century, with handmade tripod pitchers and jars continuing to be made until the mid 13th century. Amongst the Minety ware from the quarry fills are a 'complex' handle from a 12th-century pitcher (Figure 7, no. 2) and bodysherds with combed wavy line decoration, almost certainly from tripod pitchers. These Minety sherds thus provide a *terminus post quem* of *c.* 1150 for the start of burial. A dish form with pre-firing perforations, probably a so-called 'West Country' dish, was recovered from the grave fill of Burial 9. This is a 12th or earlier 13th-century form with a distinct southwestern distribution (Alan Vince pers. comm.). The function of the vessel is not understood, but suggested uses include bases for beehives or an early form of chafing dish. Conspicuous by their absence from the Minety ware assemblage are the numerous forms which characterise the later medieval (14th and 15th century) phase of production (Musty 1973).

Other medieval types form only a minor component within the assemblage. Most significant in terms of dating are Naish Hill products, made 15km to the south of Malmesbury near Lacock between the late 13th century and the 14th or 15th centuries (McCarthy 1976). With the exception of a single jar sherd, all the recovered material of this type derives from jugs and includes sherds with white slipped decoration over a clear, appearing brown, glaze and mottled green glaze. The latter includes a jug with applied roundels which compares to vessels from the kiln site (*ibid.*, no. 251).

Post-medieval and modern

The small amount of imported material includes

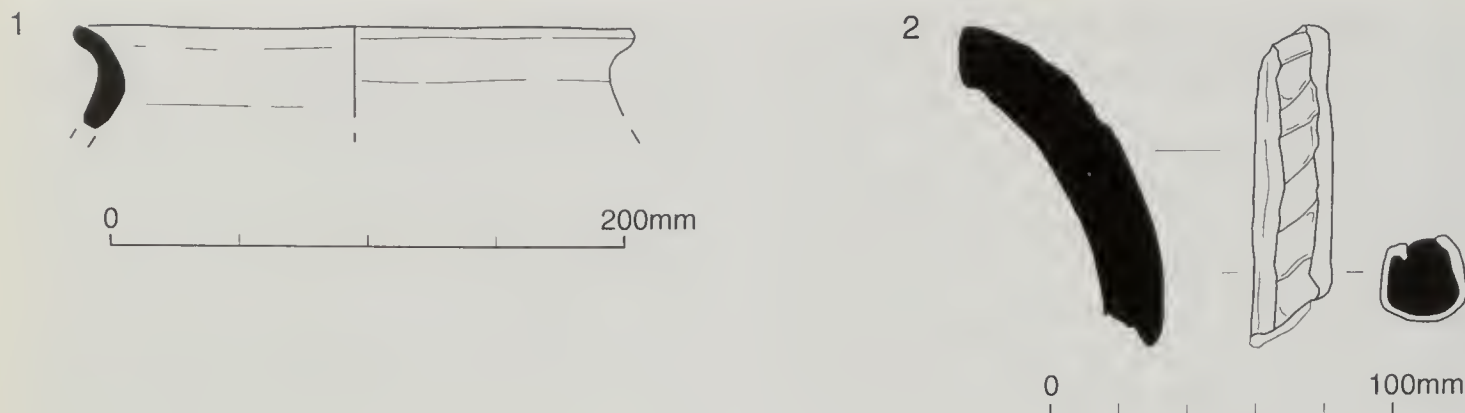


Fig. 7 Medieval pottery (No. 1 1:4, No. 2 1:3)

German stonewares, such as 16th-century Frechen products. Utilitarian wares include Malvernian redwares, dateable to between the 15th and early 17th centuries and local Ashton Keynes products current from the mid 16th and 18th centuries. A small number of sherds of Ashton Keynes ware were recovered from stratified contexts, primarily from grave soil horizons. Like two sherds of white china of late 18th to 19th-century date, they can probably be regarded as intrusions. Large quantities of glazed and unglazed earthenware sherds, also most likely made at Ashton Keynes, occur as unstratified finds (not quantified in Table 7). Also present are small quantities of English stonewares and white china.

Illustrated vessels (Figure 7)

1. Period 2.2 grave soil 903. Oolitic limestone-tempered fabric. Globular jar with simple everted rim.
2. Period 2.1 quarry pit fill 937 (fill of 936). Minety ware. Complex handle from probable tripod pitcher.

Floor tile, by E.R. McSloy

A total of 185 fragments of glazed ceramic floor tile, weighing 7.68kg, was recovered. No complete examples are present and most are highly fragmentary. Much of the tile is heavily worn through use, sometimes with the glaze only surviving at the sides. Decorated tile fragments form the majority of the assemblage, with a smaller number of plain tiles with a dark green or (appearing) yellow glaze.

The large majority of floor tile can be ascribed to the Naish Hill tileries, near Lacock. Tiles from this source are identified on the basis of fabric (Eames 1976, 134; Vince 1998, 143-4) and from matches with the designs known from the kiln sites (Eames 1976; Griffiths and Robinson 1991). Knife-cut

keying, varying in depth but typically deep, can be identified on a large number of fragments. The extent of fragmentation is such that in no instance can dimensions be determined, although it is clear from the presence of certain designs that larger and smaller quarries are represented.

Due to fragmentation, only eight tiles can be matched with known designs from the kiln site, although several of these show slight differences from the published examples, suggesting the use of different dies. Eames' 'large heraldic' group (Group I) is represented by two examples with the Arms of England device. One of these differs slightly in respect of the treatment of the lions' forelimbs, suggesting a different die. The two further examples of designs using large quarries (200-210mm square if in line with the kiln evidence) are both 'castle' designs (nos 12 and 12 or 13) which are part of Eames' 'four-tile patterns' Group II. A third example of a Group II tile, a smaller quarry (approximately 140mm) of design 7, 8 or 9, is also present. The remaining designs consist of single examples of no. 21 (Group IV) and no. 28 (Group V), each a variation on the widely used bird-in-tree motif and floral border no. 19 (Group III). A small number (11 fragments, 1112g) of plain mosaic tiles are present among the Naish Hill material. Nine are examples of rectangular 'scored and broken' type tiles with dark-coloured glaze varying between 40mm and 65mm in width. A single example is similar but carries a clear glaze with white underslip. A single small triangular fragment with white glaze was also recovered.

The kilns at Naish Hill were probably a lay commercial operation established by c. 1284 and are known to have produced tiles for several religious houses in the area, including the abbeys at Lacock, Stanley and Cirencester, and churches such as Huish, Wiltshire (Thompson 1967). How long tile production continued at Naish Hill is unclear.

Eames (1976, 144) concluded that designs from the production site, repeated at each of the recognised consumption sites, were made by tilers 'trained in the early tradition of early makers of inlaid tiles'. The absence of degenerate versions of designs suggested to her that production may have been relatively short-lived and may not have extended beyond the first quarter of the 14th century. Naish Hill products accounted for the majority of tiles recorded from Cirencester Abbey, where they were believed to represent a single consignment dateable to the later 13th (after 1271) or early 14th century (Vince 1998, 147).

Two tiles occur in fabrics clearly not of Naish Hill type. An unstratified fragment features decoration that is indistinct but probably represents a large open-looped quatrefoil. The fabric in this instance is dissimilar to the typical Naish Hill type, being uniformly pale orange and containing quantities of red iron ore and clay pellet. A South Wiltshire source and dating *c.* 1250-1300 appears likely. The second fragment, from the grave soil, also differs from Naish Hill, occurring in a fine, inclusion free, fabric, which is pale orange with a grey core. The inlaid design, far shallower in execution compared to the Naish Hill group, identifies it as one of a four-tile pattern featuring fleur-de-lys, trefoil and oak leaf elements. The design compares to material found in excavations at Malmesbury Abbey and is similar to tiles currently exhibited there (CA 2003). These tiles appear to be of the unknown source supplying the abbey in the later medieval period postulated by Vince (1998, 146). Similarities in the design to Malvern Chase tiles known from Cirencester probably indicate a late medieval, possibly 15th-century, date in this instance (*ibid.*, 147).

The bulk of the floor tile fragments is derived from the grave soil, particularly in the westernmost area of burials from where over half of the fragments were recovered. The degree of wear, fragmentation and the low occurrence of other building material from the graveyard soil suggest that the floor tiles might have been dumped following repair works rather than after demolition.

Roof tile, by *E.R. McSloy*

A total of 64 fragments (2.06kg) of ceramic ridge tile was recovered. Three fabrics can be distinguished, of which two can be ascribed to known manufacturers. Most abundant are Naish Hill tiles (42 fragments),

the majority exhibiting an even or partial dark green glaze. Two fragments feature knife-cut crests, one of which is knife-stabbed. The Naish Hill roof tile fabric is notably coarser than that used for the floor tiles, with a greater frequency of large (3-6mm) fragments of ferruginous sandstone and some fossil shell. Ninety tile fragments amount to 17 fragments, of which two feature knife-cut crests. The crested pieces feature knife-stabbed and pinched 'decoration', the latter comparable to tiles from Cirencester (Wilkinson and McWhirr 1998, fig. 98, nos 1-2). This tile also features a circular perforation of the kind also known from Cirencester and believed to be the means of fixing for a ceramic finial. A third, unidentified, source of roof tiles is characterised by a coarse, pale orange fabric with red-orange surfaces and grey core. This fabric is distinguished by its harshness and by the presence of red iron and common calcareous inclusions, mainly apparent as rounded voids, but it remains possible that it represents a variation of either of the known fabric types.

Anglo-Saxon bone mount, by *D. A. Hinton*

Object 1. Period 2.2, grave soil 903. Rectangular bone mount from cattle or horse rib (bone identification by D. Henderson). Some damage to one of the longer edges. Complex relief carving to one face and a line of small perforations along one shorter edge. Length 22mm; width 19.5mm; thickness 2mm.

The mount is made from a small rectangular piece of cattle or horse rib, carved in relief on one side. It is perforated in several places, suggesting that it was originally nailed on to a wooden or leather backing. Although made in a cheap material, it is a high-quality carving, and was probably a mount on a casket, book-cover, altar-cross, reliquary or something of similar importance. It is distinctive for its four different panels of acanthus-leaf ornament. Acanthus was derived from classical art and was reintroduced to England in the 8th and 9th centuries as decoration in illuminated books and on sculptures. The closest parallels for the details of the Malmesbury mount are with southern English late 9th- to mid 10th-century work, and in particular the stole and maniple made for Frithestan, bishop of Winchester from 909 to 931, which are embroidered with a variety of plants, including some with leaves

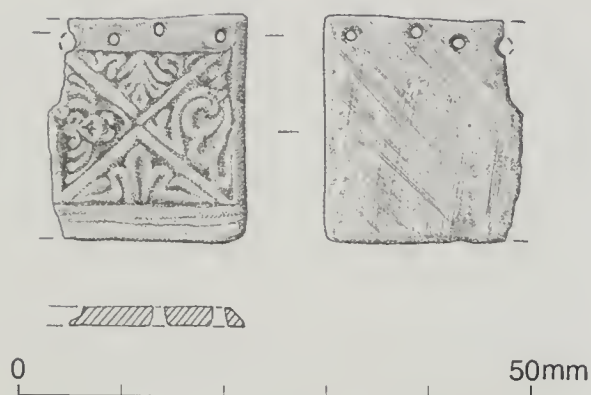


Fig. 8 Anglo-Saxon bone mount (1:2)

like those in the mount's panels (studied in detail by Cramp 1975; Wilson 1975; Deshman 1974). Other examples are in a book best known for its illustration of a royal patron, usually taken to represent King Athelstan (925-39; Temple 1976, no. 6, pls 18 and 29; Deshman 1974, figs 45-6). The problems of attributing any of these late 9th-/mid 10th-century works to a particular production centre has been much debated in recent years (summary in Hinton 1996, 215; Hinton 2005, 132-5). Some carvers are likely to have worked within church precincts, but their products did not necessarily stay where they were made, both because of gift exchange and since purchase in urban markets was becoming increasingly feasible. Consequently this mount need not be a product of a Malmesbury workshop, but it can at least be placed within a canon of southern English work that testifies to the revival of the Church from the later 9th century under King Alfred the Great (871-99) and his successors.

Nothing of the treasures such as altar-cloths, gold cross and reliquaries donated to the abbey by King Athelstan, described in the 12th century by William of Malmesbury, is known to have survived, but a king who expected to be buried in a church was very probably liberal to it in life, so there is no reason to doubt the general truth of what William said (Kelly 2005, 21-2; Prest 2002, 270-3). The newly excavated bone mount seems to date from the period that includes Athelstan's reign, and may therefore perhaps lay some claim to being not only the first item to have been found that is at least quite likely to have been made at Malmesbury in the Anglo-Saxon period, but also possibly to be the first object to attest King Athelstan's munificence to its abbey.



Bone gaming counter, by E.R. McSloy

Ra. 9 (not illustrated). Period 2.2, grave soil 803. Bone 'tableman' gaming counter. From cattle mandible. Shallow central hole surrounded by four concentric incised rings. Outermost rings with repeated ring and dot pattern within. Extensive damage to outer edge. Approximate diameter 41mm; thickness 6-8mm.

Large discoid gaming counters such as this are relatively well known and are commonly made, as in this instance, from cattle mandibles. Examples come exclusively from post-Norman Conquest contexts and are probably associated with the game of tables introduced at this time (MacGregor 1985, 135). A group from Winchester is derived from contexts ranging from the early 12th to the mid to late 13th centuries. A second group, including an example with identical decoration to Ra. 9 (MacGregor 2000, fig. 6.45, no. 17), is derived from horizons dated to 1154-90 at Ludgershall Castle.

Metalwork, by E.R. McSloy

Ra. 1 (not illustrated). Period 2.2, grave soil adjacent to Burial 25, although the object cannot be regarded as a grave good with certainty. Copper-alloy finger ring. Simple hoop with tapering, butted terminals. From strip, triangular in section with double row of punched dots to outer edges. Hoop slightly distorted. Width 22mm; thickness 3mm.

Ra. 12 (not illustrated). Period 2.2, grave soil. Copper-alloy buckle and plate. Plain rectangular frame (X-ray shows this to be from a folded sheet) and simple plate with single rivet. Dimensions of frame 24mm x 12mm; plate 26mm x 17mm.

No close parallel can be found for the finger ring, although elements such as its simple tapering strip construction and punched-dot decoration occur in finger rings, mainly of brass, from London and dating primarily from the 14th century (Egan and Pritchard 1991, 331-2). The buckle belongs to a series with simple rectangular frames and plates common during the 13th and 14th centuries (Whitehead 1996, 16). It appears to have been a dress-fitting related to a burial subsequently disturbed as there are fragments of mineral-preserved leather *in situ* in the buckle frame and fabric impressions to the rear of the belt plate.

Fired clay, by E.R. McSloy

A single fragmentary clay weight of typically Iron Age form was recovered as a residual find from the fill of Burial 35.

(not illustrated). Period 2.2, grave fill of Burial 35. Fragment of clay weight of triangular or pyramidal form. Occasional limestone fragments, otherwise inclusion free, with buff surfaces and buff/pale grey core. Surviving length 70mm.

Radiocarbon Dating, by Sylvia Warman

Four skeletons were selected for dating based upon their stratigraphic position and preservation (Table 8). The bone was well preserved enabling the use of the radiometric rather than AMS method. The samples were processed during 2006 at the University of Waikato Radiocarbon Dating Laboratory, Hamilton, New Zealand (University of Waikato 2006). The results are conventional radiocarbon ages (Stuiver and Polach 1977), and the calibrated dates have been calculated using

the calibration curve of Reimer *et al* (2009) and the computer program OXCal 4.1 (Bronk Ramsey 2009). Date ranges cited in the text are those at 95% confidence level. All four samples were successfully dated. The carbon and nitrogen isotopes values are within the levels expected for a terrestrial diet, and the isotope ratios are within acceptable parameters (between 3.15 and 3.39).

Discussion

The recovery of Iron Age and Roman pottery from the former ground surface and residually in later deposits affords little surprise. Excavations along the eastern stretch of the medieval town wall uncovered the ramparts and ditches of an Iron Age multivallate hillfort which occupied the promontory formed by the loop of the River Avon (Longman 2006; Collard and Havard 2011). The present site is likely to have lain within the bounds of the hillfort. Little is known about the character and extent of Romano-British occupation on the promontory. A hypocaust is said to have been found to the east of the Abbey, off Oxford Street, in 1887 and occasional sherds of Roman pottery have been found residually in medieval deposits during previous investigations (Anon 1887; Currie *et al.* 1993, 66; Longman 2006, 160).

Knowledge of the Anglo-Saxon occupation of Malmesbury is heavily reliant upon documentary evidence (for a summary see Elrington 1991, 127-68; Robinson and Lea 2002, 10-18). This records that a school and monastery were established here in the 7th century, the latter receiving royal patronage *c.* 675 when Aldhelm, a kinsman of King Ine of Wessex, was appointed abbot of the monastery. By the later 9th century Malmesbury was one of the four fortified *burhs* of Wiltshire listed in the *Burghal Hidage*, and the street plan was probably laid out around this time (Elrington 1991, 131). Royal patronage continued

Table 8: Radiocarbon dates

Laboratory Number	Type	Skeleton	Burial	Material used	Radiocarbon Age (BP)	Calibrated date range (95.4% confidence)
Wk18234	radiometric	745	B 24	Human tibia	711±38	1226–1310 cal AD (79.6%) 1360–1387 cal AD (15.8%)
Wk18237	radiometric	636	B 75	Human femur	831±40	1051–1081 cal AD (4.8%) 1127–1135 cal AD (0.9%) 1152–1275 cal AD (89.7%)
Wk18236	radiometric	133	B 84	Human femur	851±36	1047–1088 cal AD (10.0%) 1122–1139 cal AD (3.1%) 1150–1264 cal AD (82.3%)
Wk18235	radiometric	145	B 88	Human femur	880±54	1034–1253 cal AD (95.4%)

after Aldhelm's time and king Athelstan, a rich benefactor of the monastery, was buried here in 939. A reformed Benedictine community was established in Malmesbury *c.* 960-74, and this persisted into the post-Conquest period. The great monastic church, of which the nave still survives, was built in the 12th century, although its precise date of construction is not recorded and the matter has been much debated (summarised in Robinson and Lea 2002, 23-5). To some scholars (for instance Brakspear 1912-13, 401) the apparent silence of William of Malmesbury, who died *c.* 1143 without making any unequivocal record of building at the monastery, indicates that construction began after his death. Given that most English cathedrals, abbeys and priories had been, or were being, rebuilt in the 1120s, however, others prefer to consider the abbey to be the work of Bishop Roger of Sarum who also built a castle close to the monastery. Roger fell from power in 1139 (Ferne 2000, 178). The most recent study of the writings of William of Malmesbury provides further support for a start on the construction of the abbey church before the mid 1130s (Thomson 2007, 330-3). In 1539, following the dissolution of the monasteries, William Stumpe acquired the former abbey and housed looms in the disused churches; by 1542 he had donated the nave of the former abbey church to the town to serve as its parish church (Brakspear 1912-13, 402-4). This still stands, although there are few other extant traces of the abbey complex.

No features were discovered in the excavation that can be related securely to the Anglo-Saxon period. In particular, no evidence has been found to support an Anglo-Saxon origin for the probable chapel suggested by Jackson (1864, 25 who believed it to be the church of St Saviour and SS Peter and Paul, sometimes referred to as St Peter's only); Brakspear (1912-13, 407 who preferred it to be St Michael's), and Watkin (1956, 228, St Laurence's). In fact the pottery and glazed tiles recovered in the evaluation from the make-up for the flagged floor appear to date no earlier than the late 13th century, later than the main use of the cemetery. If this dating is secure this could be evidence of repair around this time, although as this material was recovered in an evaluation it is not inconceivable that it was in fact intrusive in the floor make-up from overlying demolition deposits. Given the limited exposures of the probable chapel it is possible that there was an underlying Anglo-Saxon structure which has escaped detection, but if so it cannot have been visible in 1542 when Leland visited the town. Another possibility is that the church that Leland

saw lay outside the excavation area, but in that case it is difficult to understand the nature of the structure found in the excavation. As burial did not start within the excavated part of the cemetery before the mid 12th century, it is best to follow Freeman (1864, 85) who considered Leland's church to be a Norman building attached to the south transept of the abbey, like the Lady Church at Ely cathedral. This theory is further bolstered by Thomson's reading of William of Malmesbury, upon which basis he concludes that the chapels of St Michael and St Saviour and SS Peter and Paul were demolished in the earlier 12th century prior to the construction of the great abbey church (Thomson 2007, 330-3).

The only unequivocal Anglo-Saxon artefact recovered in the excavation is the bone mount, which is either an accidental loss or from a disturbed grave. In either case the quality of the mount suggests that it may have been retained long after manufacture. No evidence for Anglo-Saxon burials was recovered, although it is possible burials of this date were destroyed by Period 2.1 quarry pits. Excavations to the west of the Market Cross, to the south of the present site, in 1993 found at least six burials for which a late Saxon date was claimed (AC Archaeology 1993). One produced an uncalibrated radiocarbon date of 930 ± 50 BP (Beta-67371) but when calibrated at 95% probability using the Oxcal 4.1 program this produces a calibrated date of 1021-1212 cal AD. It is by no means assured that these burials are late Saxon therefore, and they might be associated with St Paul's church which lay to the west of the Market Place. St Paul's became the medieval parish church, although it conceivably had late Saxon origins. No further burials were identified during a watching brief at Market Cross in 1998 (Foundations Archaeology 1998).

The Period 2.1 pits were probably dug for the small scale, opportunistic, quarrying of limestone, perhaps associated with the building of the castle and monastery in the first half of the 12th century. Pottery suggests that the pits were still open and accumulating material into the second half of that century, but shortly after the construction of the 12th-century abbey the site was given over for use as a cemetery. The presence of women and children in the cemetery population indicates that it contains at least a proportion of laity, and a location away from the claustral range and close to one of the main gates into the precinct is typical for such cemeteries (Gilchrist and Sloane 2005, 32). Jackson notes that an entrance arch, presumably of the gatehouse into the precinct, was formerly visible off High Street

between Market Cross and the Abbey House (Aubrey and Jackson 1862, n. 22). Brakspear (1912-13, 405) placed this just to the south of the excavation area. At this time it is quite likely that the main town cemetery lay within the abbey precinct and could therefore be expected to attract the majority of burials.

It would be unwise to generalise on the layout of the cemetery given that only a very small part of it has been uncovered in the excavation, although the evidence is in many ways typical of medieval monastic burial practice. East-west alignment is likely to reflect that of the chapel around which the burials were focused, and burials laid out in rows with frequent intercutting is common in this period. Intercutting can often be seen as a response to a desire to be buried close to a cross or religious image, or more prosaically as a function of a crowded cemetery space. A gap in the distribution of burials between Rows A and B, where intercutting was prevalent suggests the former presence of a feature such as a cross, or a path on a north-south alignment running from the gatehouse towards the chapel. It is unknown whether the burials lay within a distinct cemetery directly associated with the chapel, or formed part of a more extensive distribution which occupied a large part of the abbey precinct. As this part of the precinct lay close to the market place it is also conceivable that it was used for the Saturday market first recorded in 1080x87 held partly in the abbey cemetery and partly outside it (Hardy 1833, 537b; Gilchrist and Sloane 2005, 44). The market was moved to a new site in 1223, and it is not out of the question that the majority of excavated burials date to the period immediately after, which would explain the absence of earlier interments.

The use of burial shrouds, wooden coffins and the general absence of grave goods with the burials are all normal features of monastic burial practice (Gilchrist and Sloane 2005, 111-16). Given that the use of coffins is only adduced by the presence of a small number of iron nails near the bodies, and that a proportion of graves were not fully explored and the bodies lifted, it would be unwise to place too much credence on the statistics for coffin use. The only example of a distinctive burial rite in the cemetery was female Burial 77 laid on a bed of ash, a practice well attested elsewhere. A variety of interpretations have been suggested (*ibid.*, 120-3). Analysis of the skeletal assemblage demonstrates a below average representation of women and juveniles, a common enough pattern in monastic cemeteries (*ibid.*, 203-13). The male bias is usually taken to reflect, as at

Malmesbury, the presence of an exclusively male religious community, and in this case it is possible that the cemetery includes both monks and laity, which would explain the relative lack of women and juveniles.

Pottery and radiocarbon determinations combine to indicate that burial had largely ceased by the end of the 13th century. It may be that this part of the precinct was considered to be full and so burial moved elsewhere in the precinct, or indeed beyond (there was a trend in the later medieval period for increasing numbers of laity to be buried within the parish graveyard). Alternatively, if the use of the cemetery was intimately associated with the nearby chapel, it is conceivable that this fell out of use at this time leading to a cessation of burial. Partial dereliction of the chapel might account for Leland's comment that this was an old structure in 1542. That it was still standing then demonstrates that it survived the immediate programme of demolition consequent to the Reformation of 1539, and the recovery of 18th-century pottery from the dumps overlying the cemetery suggests that the chapel was not finally completely demolished until this time, perhaps in preparation for the development of tenements fronting onto High Street.

The value of this excavation lies in the recovery and analysis of the first medieval burial population from Malmesbury, which provides a useful complement to those published from the larger regional centres at Bristol and Gloucester. The work has also provided strong circumstantial evidence that the chapel near the south transept of the abbey was more likely to be of Norman rather than Anglo-Saxon origin.

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The Hall, Bradford-on-Avon

by Andor Gomme, Susan Gomme and Pamela Slocombeⁱ

*The Hall is a fine gentry house on the eastern outskirts of Bradford-on-Avon. It has been dated to about 1600. This article describes recent research into its origins, plan and later history. It is based on work by a group of architectural historians led by Andor and Susan Gomme and by a group from Wiltshire Buildings Record led by Pamela Slocombe. Andor Gomme died in 2008 after completing his analysis of the 17th-century house and his wife Susan has assisted in bringing it to publication. Some information on the medieval house has been discovered from an inventory and re-used timbers in the roof. The possible 17th-century layout is discussed with additional insights from 18th-century material.*¹

Introduction

The house was the seat of the Hall family who became lords of a sub-manor of Shaftesbury Abbey's large manor of Bradford. The family are recorded in the town from 1170 when Walter de Aula was the miller.² He was one of the five principal burghers; a freeholder holding a mill, an estate of 5 virgates and a stall in the market. He had free pannage in the woods for his 12 swine and was allowed to have his own court and levy tolls on his land. His successor, probably his son Reginald, may already have had more than one mill. William Hall who died in 1550 held three grist-mills in Bradford borough and three fulling mills in Great Trowle, the tithing south of the river.³ It was said in 1631 that the estate was a hide held by knight's service. The family maintained their position in the town and control over the town mills until 1711, when a female descendant (probably through an illegitimate line) inherited, and married a man who became the second Duke of Kingston. The house was sold from that family to Thomas Divett in 1805. It was originally known as the Hall, then the Great House, then either Kingston House or The Duke's House. Stephen Moulton purchased the house in 1848 and its name reverted to the Hall when John Moulton became owner in 1894.

The family name 'de Aula' or alternatively 'atte Halle' or 'de la Sal[l]e' refers to their house. The first description of it comes from Leland who visited the town in about 1542 and described it as a 'pratie stone house at the Este Ende of the toune, in dextra ripa Avonae [on the right bank of the Avon]'. He added that Hall was a man of £100 lands by the year. This suggests the house was built in an ornamental Gothic style in the manner of the 15th-century manor house at Great Chalfield a few miles away. By 1515 Hall's manor was also called the manor of Bradford though there was another manor of Bradford, the demesne of the Abbess of Shaftesbury.

Improved cataloguing of Wiltshire wills has brought to light a fragment of an inventory of the John Hall who died in July 1597.⁴ His son married Dorothy, daughter and heiress of Anthony Rogers who held half of another of the freehold estates or sub-manors of the town. The Hall family had previously acquired the other half. This substantially increased the standing of the family. The major rebuilding probably was undertaken by the son. The inventory begins with the home farm. (The spelling is modernised):

Four kine, one ox, two weanling calves, three 2-year aged beasts, two yearlings, one hog colt of a year old, four oxen, two bullocks, two geldings, a

i 11 Belcombe Place, Bradford-on-Avon, Wiltshire, BA15 1NA

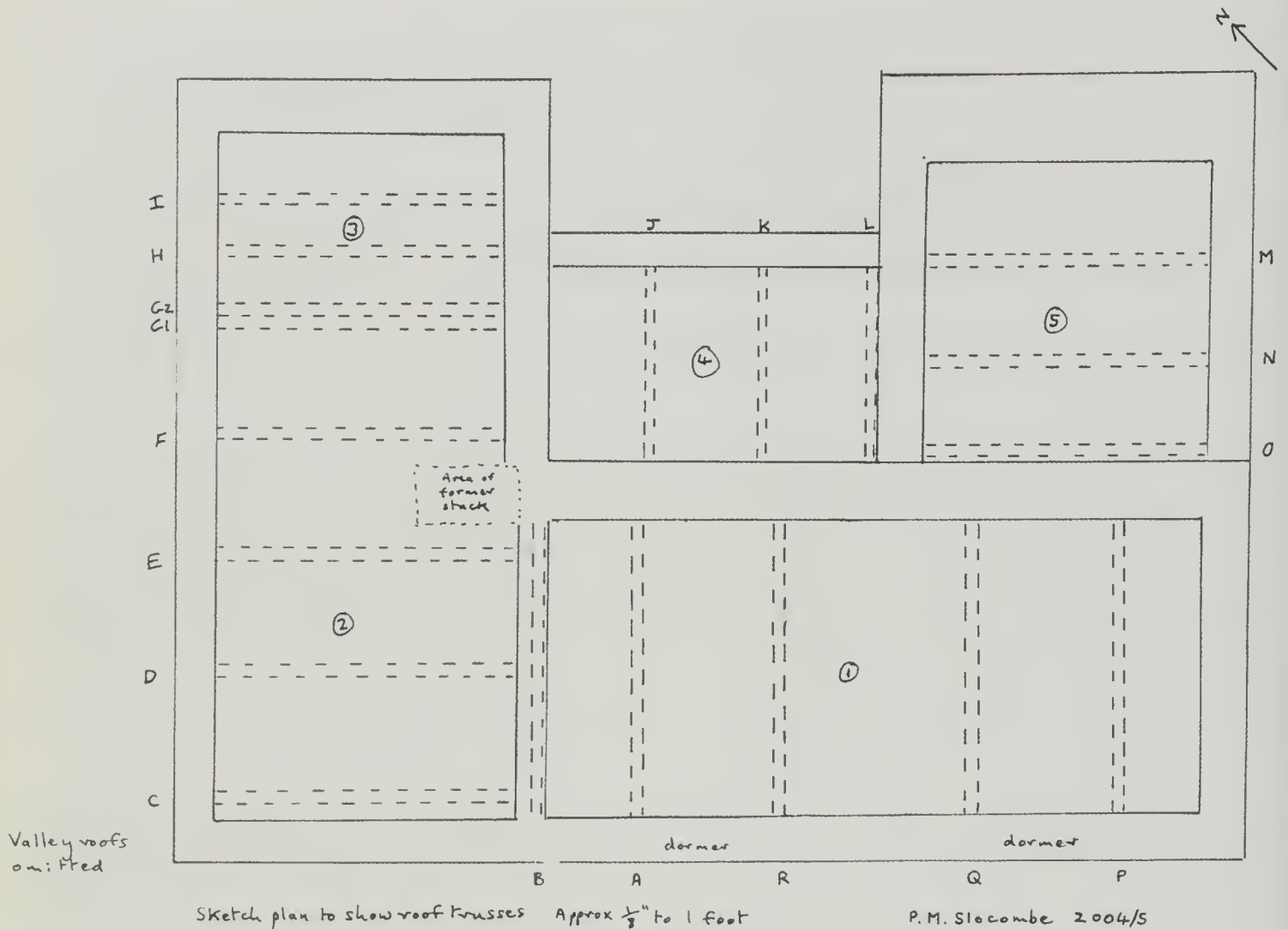


Fig. 1 Sketch plan to show the arrangement of the roofs

mare and six swine.

One wain, three yokes, five ropes, one sallow [plough] with his plow iron, a drag, a pair of eythes [harrow], one dung pot [cart] and a load of shelve [loppings?].

9 acres of wheat, 11 acres of barley, 4 acres of vetches, 4 sheep.

In the hall; 1 coslett [corselet, protective body covering], 4 pikes, 1 curat [cuirass] and back of a coslett with 2 jacks [padded jackets], 7 halberts, 3 bills, 4 calibers furnished, 1 case of pistols, 2 horse-men staves, a long table board with a frame and a form in the hall, a side board, a frame and a form. A lantern in the hall.

In the oriel; 1 square board with a frame and three forms, 1 chair with a stool, 1 cupboard, 2 andirons, a pair of tongs.

In the parlour; 3 boards with three frames and 2 join stools. A pair of virginals with their frame, a desk and a cupboard.

At this point the inventory is broken off at a fold.

The hall contained a good display of armour and weaponry, as required of a family of this status with knightly and militia duties. An oriel is a small private room on the side of the great hall for the use of the family, especially for dining. The fire irons suggest it had a fireplace as was sometimes the case. It is usually an ornamental feature with outside windows and it became especially popular in the late 14th and 15th centuries. This rather confirms Leland's description of the house as pretty. A parlour was another private room for the family, often on the ground floor in a crosswing with a solar chamber above.

Evidence for the medieval house in the present building

The present house has a rectangular appearance from the south-west formed by a front range with wings running back at each side and a small courtyard

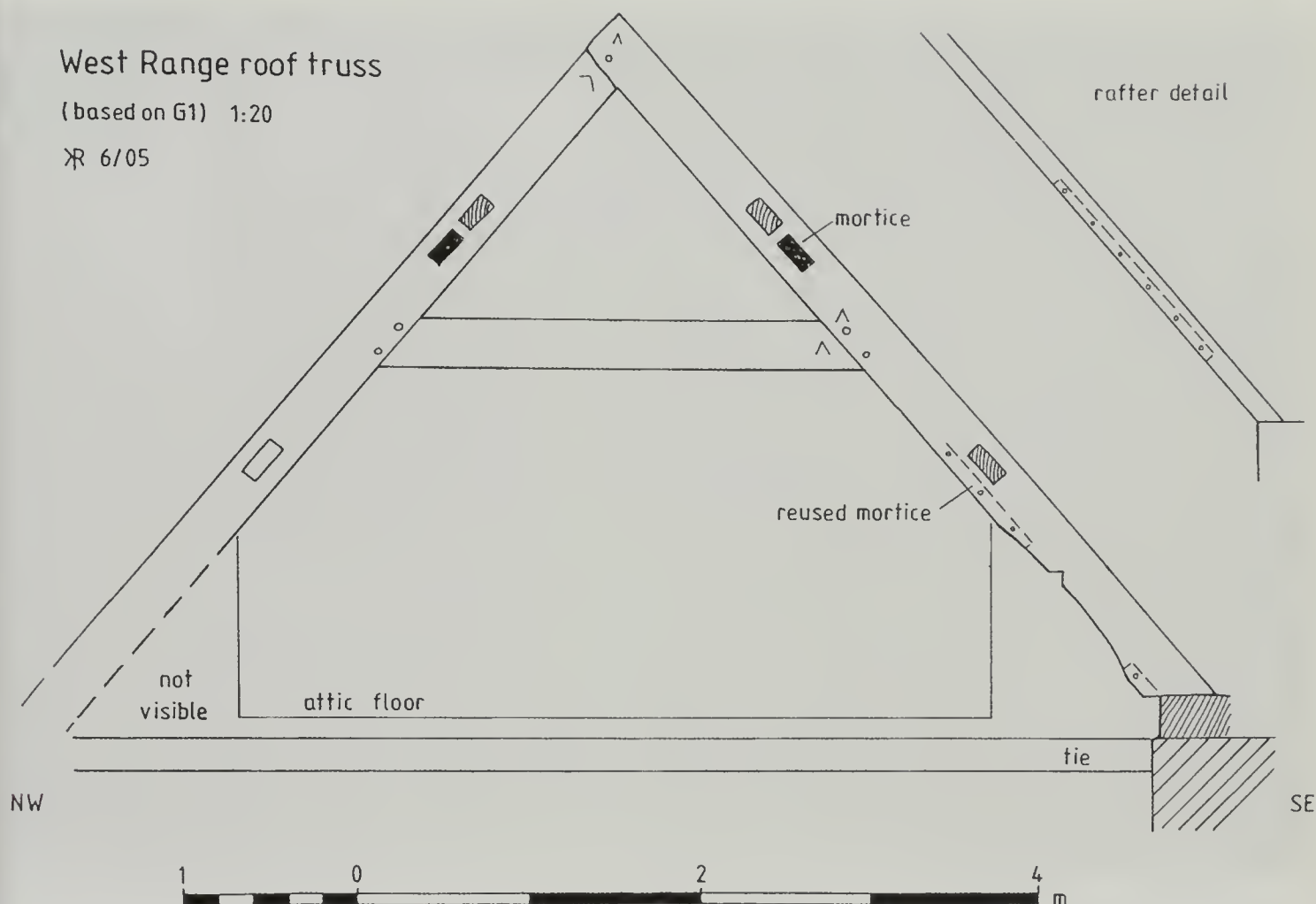


Fig. 2 A re-used roof truss and common rafter in the west wing, drawing by Kirsty Rodwell

between them at the back, bridged by a staircase section behind the front range. The usual method of roofing this arrangement in the 17th century would be a series of equidistant similar trusses spanning the front range. There would be similar roofs running back to cover the wings, and the staircase would have a small separate roof. In contrast, at the Hall (Figure 1), a 17th century roof covers a little more than two-thirds of the front range from the east end with a crosswing roof of re-used timbers abutting and running back about two-thirds of the way to the north wall. This roof is continued in line to the north wall by a roof of later type. There are separate post-medieval roofs over the east wing and the staircase. Three different styles of carpenters' marks were found on roof timbers.

The 17th-century house is a full storey taller than its predecessor must have been. So even if the walls were retained, none of the earlier roofs could be left *in situ* at the rebuilding. The re-used timbers indicate that there had been a crosswing in the same position at the west end of the open hall

There are other possible indications of the earlier house. The very thick wall at the rear of the hall

may be left from the former plan and perhaps other sections of wall including the southwest corner, one of the 'buttresses' of the much-glazed south wall. A remnant of a chimney survives on the east side of the crosswing roof. It is possible that the medieval house was enlarged in the late 16th century by the north addition to the crosswing indicated in the roofs and by the east kitchen wing as there are some indications of lower gable ends in the north walls of the wings.

The crosswing roof

The re-used timbers are a full set of five trusses shaped at the foot and with mortices for former arch-bracing (Figure 2). Between the trusses are coupled rafters which once had arch-braces to collars and possibly ashlaring at the eaves. The timbers are not smoke-blackened. It is likely to have been a medieval open roof over a solar or to have supported a coved plaster ceiling of 16th-century type. Dendrochronologists were employed to examine the



Fig. 3 The south front

timbers of this roof and the later roofs in the hope of establishing firm dates. Unfortunately all the roofs were of quick-grown (pollarded) oak and were not suitable for dating.

The Hall family at the period of rebuilding

The rebuilding of the house was probably by John Hall who died, with his wife Dorothy, in 1620. Elyard⁵ says their son John has been described as 'the wealthiest of a wealthy family'. The latter's will was written in 1630 and proved at Canterbury the next year.⁶ In it he was described as esquire.⁷ The inventory has not survived. He married Elizabeth Brewen of Athelhampton in 1592 and at his death he had sons and daughters some married. The will leaves Abbey House at Bath and the goods and furnishings there to Elizabeth for life in addition to her jointure which gave her the use of the Hall for life. Abbey House, one of the most prestigious buildings at Bath, would have functioned as a town house for the Halls. Ford Farm north of Bradford,

acted as a dower house and could have provided alternative accommodation during the rebuilding.

Discussion of the plan, influences and date of the new house

The rebuilt Hall was the principal residence of a wealthy local magnate, given dignity and seclusion by standing in its own grounds and adjacent to a fairly substantial estate, but near enough to allow ready supervision of the mills. Its quasi-suburban position – of the town but not quite in it – may perhaps be compared with that of Whitehall, Shrewsbury (built in 1578 by the lawyer and regional M.P., Richard Prince) and nearer at hand, that of Beckington Castle (of c.1590), near Frome, again in a clothworking area. The swagger rebuilding of the Hall suggests a higher stake in social claims, but without turning it into a fully-fledged country house: one whose double suite of grand rooms along the show front to the south could sustain short-term



Fig. 4 The west front of the house

entertainment on a lavish scale, though the small number of bedrooms implies that guests were not expected for lengthy stays. It remained in this respect essentially a town house, and one needs to interpret its layout and accommodation in terms different from that expected in a country mansion.

Exterior

The spectacular south front, which is the Hall's most famous feature and without any known parallel, is considered below (Figure 3). The south and west fronts are of ashlar, the north and east of coursed rubble (now exposed but evidently once rendered). The distinction appears to correspond with the original approach to the house from the north-west, a drive being known once to have swept round from the west below the south front: two contiguous show fronts are a common feature of houses of this period, reflecting the likely angles from which visitors would first see it (Figure 4). The lithograph by George Moore published by C. J. Richardson in 1837⁸ shows that all details of the south front have been kept or renewed with scrupulous accuracy; there is no known early illustration of the west front, but no

reason to doubt its authenticity. The more so in that H. O'Neill's watercolour of 1815 (in private hands) suggests the east front once duplicated the existing window trim of the west.

Questions have been raised about the diminutive scale of the doorway in the middle of the west front, but its detail is consistent with the rest of the external architecture, and there are internal reasons for its modest height. It certainly appears to be part of the original design.

The O'Neill watercolour shows the east front without the quoins which are now very slightly proud of the rubble facing, but with window aprons and other trim as on the west, but presumably of plaster; the wall was evidently rendered at the time and stripped in the 19th century when the rugged appearance of rubble was felt to be more authentically old (Figure 5). Relieving arches over the windows have two slightly different profiles: one type for the east end of the south range and the other for the east wing. There is also a change in masonry. The east (and north end of the west) wing walls are about 0.8m thick, narrower than the walls of the south range. O'Neill includes a two-centred arched doorway towards the north end of the east wall, a service entry to the original kitchen: it was



Fig. 5. The east elevation

presumably removed at some stage in the 19th century. The door's position is now obscured by a continuous plinth.

The deeply recessed north front (Figure 6), which may also once have been rendered, was considerably altered in *c.* 1848, when the main entry to the house was moved to this side. A new 'front' door was introduced and the fenestration in the recessed centre amended to light the new entrance hall. The three lowest windows have no relieving arches and are Victorian or later: that at mezzanine level near the west re-entrant angle replaces a door inserted *c.* 1890 at the top of an external service stair which stood inside a now demolished lean-to, the scar of whose roofline is visible on the east wall of the west projecting wing.

Plan and internal layout

The house is divided laterally with the principal rooms in the front range and lesser and service rooms behind - a pattern found in many 17th-century houses at varying social levels. Built into a steep



Fig. 6 The rear of the house

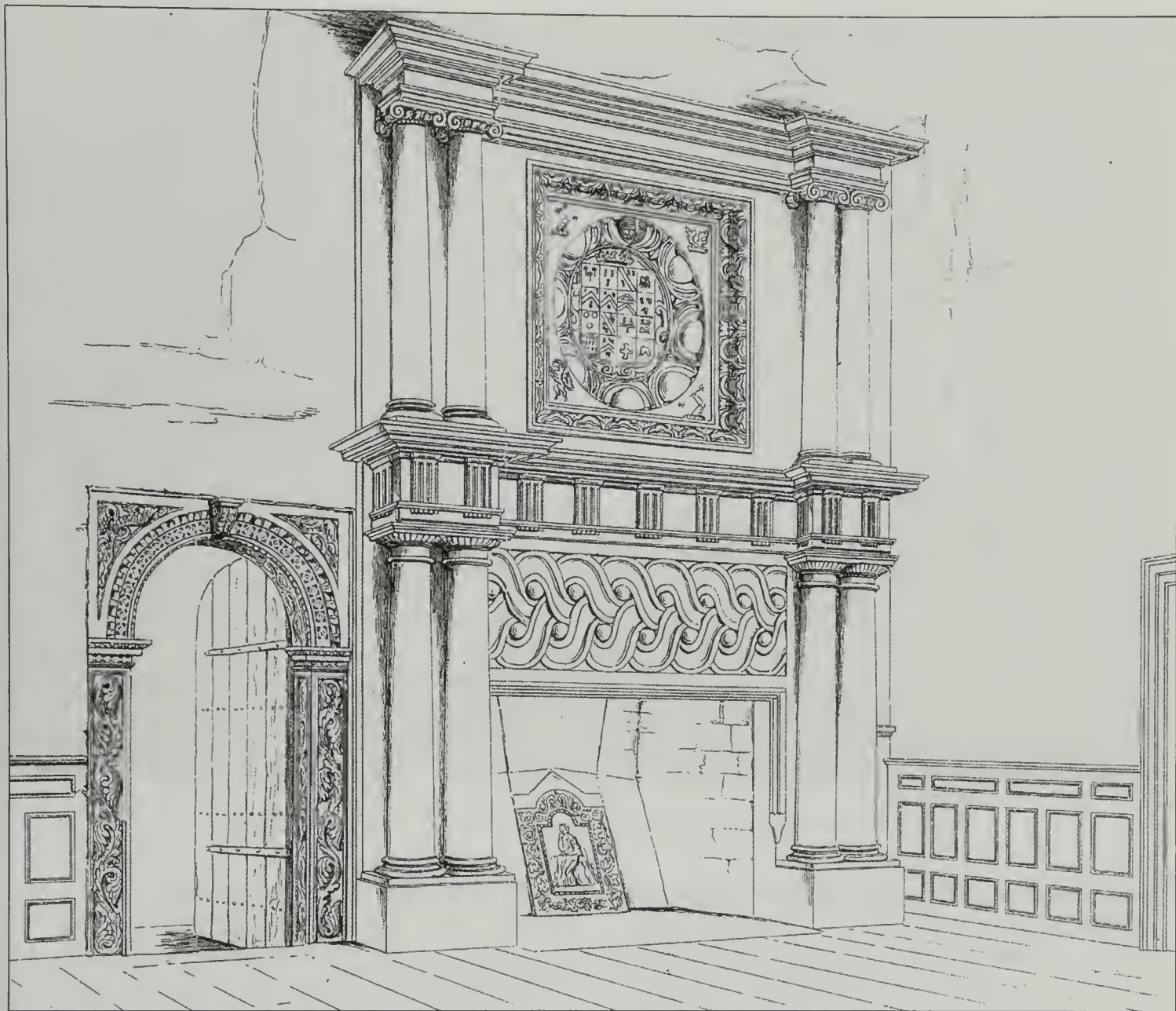


Fig. 7 *The Dining Room fireplace (Richardson, op. cit. below, Plate XXII')*

hillside, it has a cellar, two double-height floors and attic rooms at the front and ground floor, mezzanine, chamber floor and attic rooms at the back. Climbing from the cellars to the attics is a rise of five floors.

The ground floor of the front range

As things stand now the two principal floors of the south range have similar symmetrical tripartite layouts, in which one laterally oriented room takes up the three middle bays, flanked by two which are almost square. The prominent central porch leads into the middle of the present entrance hall. Such a layout would be novel in the early 17th century but not unique. Westwood House in Worcestershire, now known to have been started in 1612, has its hall, laterally oriented, in this position, with a central entrance door and a parlour each side; Holland House and Campden House, Kensington, both

probably designed by John Thorpe and both now lost, likewise had centrally entered halls, though the flanking arrangement differed. There are however strong reasons for doubting whether this was the original plan at Bradford.

The most obvious is that the hall in its present form has no hearth. If it had one it would have had to be on the north lateral wall backing on to the staircase, since the side walls are merely partitions. It would have had to share the central stack with the hearths in the dining room to the west and the great chamber above. However, this stack has only two flues in it, and there is no way in which either of the others could have been diverted.⁹ An unheated hall on this scale would be exceptionally unusual. That it was not the case at Bradford is supported by the evidence of the hearth in the dining room.

The dining room (south-west room) is almost



Fig. 8 The area over the porch, probably once a porch room accessible from a gallery

exactly the same size as the great parlour (south-east room). An engraving in Richardson's book shows the chimneypiece on the north wall with a partition immediately against the right-hand jamb, as at present, except that it has a panelled dado and doorcase (Figure 7). The enormous double-decker chimneypiece is thus, as now, pushed in an ungainly manner into one corner of the room and absurdly out of size for its place. If the room were originally of its present size, it would have been natural for its hearth to be centrally in the external west wall, reflecting that in the great parlour. The engraving is titled 'Entrance Hall' which is perhaps significant.

What then was the original layout? Arthur Oswald in *Country Life* drew a parallel with the plan of Claverton Manor, near Bath, built in 1628 and demolished in 1820. The article was extensively illustrated by Richardson, who included a set of plans as well as lithographs which he described as 'made from sketches taken by the tasteful and accurate pencil of W. Twopenny, Esq.'. A print (dated 1811 in the Braikenridge collection of the Somerset Archaeological Society) claims to be a facsimile of a drawing of Claverton made in 1738. Though amateurish it includes strapwork cresting as shown

by Twopenny and the house is five bays wide like Bradford. However, the supposed parallel must be treated with suspicion: the plans are backed up by measurements in the text and indicate a house close to Bradford in size but Richardson's perspective shows a tall, cuboid house with a three-bay front. (It cannot be a side elevation as it shows the entrance porch). In the five-bay Claverton plan three are taken up by the hall, entered at one corner from the porch. This seems to have encouraged Oswald to imagine an even longer four-bay hall at Bradford made up of the present hall and dining room, the porch entering one bay in from the end.

No other known hall has this sort of plan, and it would be hugely disproportionate in a house of the moderate size of Bradford. Oswald's answer must be wrong and Claverton a red herring. If, however, we suppose that the Bradford porch led not into the hall but in a quasi-traditional manner into a passage, an end-hall to the west would still be the largest room in the house; it would have a hearth and chimneypiece of a size and character appropriate to its primacy and centrally placed on its north wall. The passage would lead at the rear to a possibly arched opening to the foot of the great stair, which was presumably blocked

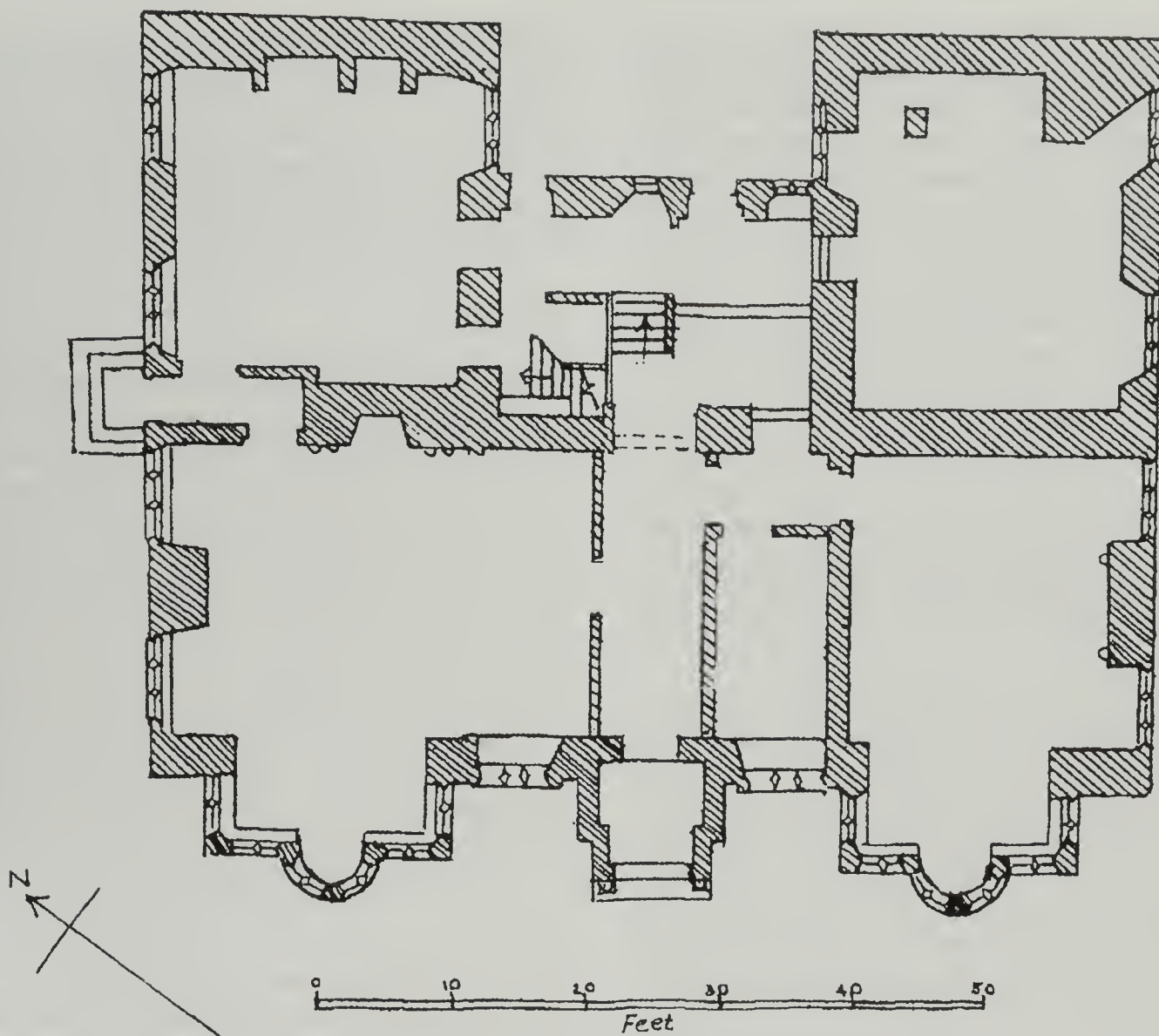


Fig. 9 Reconstructed ground floor plan by Alison Maguire

when the passage and hall were rearranged to the present layout. The bay east of the passage, with easy access from the rear entry, could have provided the otherwise missing master's office. The Claverton plan has an 'ante-room' in this position. Further if there were a gallery over the entrance passage it would have given access to the chamber over the porch which is now an anomaly, only accessible from the entrance hall by ladder (Figure 8). The porch chamber walls are stepped to a narrower width about a metre below ceiling height and a further possibility is that the lower walls of the porch are the carcass of the oriel which was present in 1597. It is in a correct position if the medieval porch adjoined to the west, next to the crosswing. This is a standard position when the crosswing is original.

The central passage was 'quasi-traditional' since, though it ran along one end of the hall, probably with a screen between the two, its main function was to articulate the whole of the ground floor by opening

direct connections between all the rooms and the great stair. In this Bradford takes its place within the rapidly spreading move away from the still loose plans of such houses as Montacute to the boxy, squarish double-piles of which Whitehall is the first known example and which came to dominate the middle ranks of country-house design throughout the 17th century. Bradford comes early in this process and there is awkwardness in the planning (perhaps explained by the conversion of an earlier house) which later designs smoothed away; it is also much showier than most of its contemporaries on this scale. It is clear that the Halls wanted the house to cut a fine dash in the town. What is especially distinctive about it is its combination of a swagger display front with a plan based on convenience.

Assuming this reconstruction of the plan (Figure 9), an explanation is needed of why, at some date before the 1830s, it was replaced by the present layout with its very large unheated central hall and

the unhappy roomscape in the dining room to the west. An inventory of 1726 (see below) suggests the original plan was still in place then and the tenants of the house in the following period were not authorised to make changes. The most likely candidates for the change were the notorious Countess of Bristol, bigamous wife then, after 1773, widow of the second Duke of Kingston or, after her death in 1788, their nephew who became Earl Manvers. The Countess, a woman of 'luxurious habits and profuse display', was bequeathed use of the house for life and is said to have 'occasionally resided' there¹⁰. The porch now led into a grand unheated entrance salon with scagliola (polished imitation marble) floor and perhaps richly emblazoned. Possibly at the same time a coat of arms with ducal crest was added to the hall fireplace partitioned off within the west room (Figure 7).

The ground floor rear rooms

The north-easterly room was without doubt the kitchen: the nine-foot breadth of the fireplace arch and its segmental head, together with the additional fire, or possibly oven, opening on the west side, make this sure. There is reported to be a small chamber accessible from the chimney at approximately mezzanine level above this opening. It may perhaps have been a bacon-smoking chamber, garderobe or the entrance to a former newel stair.

The north-west room has two moulded stone cornices on the north wall which are likely to be original. They are not quite above two fireplace openings with narrow chamfered surrounds of possibly 18th-century date. A spit mechanism is marked 'James Tuck, ironmonger, Market Place, Bath'. The room replaced the northeast room as the kitchen and in the late 19th century the function was moved again to the south-west cellar room. The north-west room has direct access to the cellar stair, part of which appears to be original, and it is likely therefore to have served at some stage in part as a buttery cum pantry, the rest acting perhaps as a secondary kitchen (bakehouse/pastry?) or perhaps servants' hall. There are examples of this elsewhere. The room may have at an earlier date served as a 'winter parlour' when no guests were present. At the south-west corner of the room there is a short flight leading up to the lobby inside the west door to the gardens and to the dining room. The floor of the room may have been lowered to give extra height when it became a kitchen. The ceiling of the room is level with the lobby ceiling.

Basement

This is below the south range and at least two cellar rooms were in existence by 1726. The tiled floor of the present entrance hall is supported on a timber structure. The mullioned windows of the cellars are plain chamfered. The doors and fittings are generally 19th century.

Staircase

There is evidence that the present Victorian staircase followed the pattern of its open well predecessor except at the bottom. The windows in the north wall with relieving arches follow the climb of the present staircase. Because of the change in levels between the two ranges of the house, it is not possible now to be sure how the formal opening of the great stair would have been approached from the service area. As at Whitehall, for example, there is now no secondary stair: but there is space for one within the present 'inner hall' and the two bathrooms directly above on the mezzanine and principal upper floor. One reason for replacing the great stair in the 19th century and redesigning its foot may have been that the secondary stair could be done away with providing space for newly necessary bathrooms.

Mezzanine floor

There is a mezzanine room within each of the two projecting wings to the north: their floors cut across ground-floor windows on both the east and west elevations, exactly along the central transoms. They are linked by a lateral landing. Are they original to the 17th-century house? In the case of the west mezzanine there is clear evidence to suggest that the answer is yes. Both the external west door and the highly decorative doorway from the dining room to the lobby are unexpectedly low for their positions, but can confidently be taken to be original as explained below. They lead into a similarly low lobby: its simple plaster cornice appears to be early 18th century or earlier: exactly the same mouldings are on the ceiling of the main stair and on the back 'inner hall'. The ceiling level of the lobby is fixed by the floor of the north-west mezzanine, which can hence also be taken to be original.

There is no equivalent evidence for the east mezzanine but the great stair was designed to have a landing at mezzanine level rather than the quarterpace that one would expect on a conventional pillar stair. Furthermore there would have been very few bedrooms for a house of this quality. Both mezzanine rooms have Victorian fireplace surrounds but have flues leading to original stacks, implying that the

fireplace positions are original. Despite the low ceilings and the oddity of the floors cutting across the windows, we are of the opinion that both are original to the 17th-century house. Other examples of floors across windows occur at Burghley and Littlecote. If, however, the lower carcasses of the wings date from the late 16th century the floor levels may have been changed in the 17th century.

Principal chamber floor

The layout of this floor closely replicates that of the ground floor as it is now, though with a lateral corridor north of the spine and directly above the mezzanine landing. In the south range the central three bays, directly over the present hall, are taken up by what was plainly the great chamber (now Tapestry Room), flanked by two equal-sized chambers (the 'White Room' to the west and 'Oak Room' to the east), behind each of which, north of the spine, is a further chamber. The decorative features of the great chamber appear to be entirely 19th century or later, but the overall form of the room (which includes the bay above the porch) has not been altered except for the blocking of a doorway at the head of the top flight of the great stair and the recent opening of one into the White Room to the west. The chamber was thus designed to have a symmetrical north wall with a central fireplace between twin doorcases on to the corridor landing. Though not directly above the original hall, it would have been of very similar size.

Both the White and Oak Rooms are formally unchanged, but a question arises about the entrances to each of them together with those to the chambers behind them in the wings. Originally there was no direct entry to either of these rooms from the great chamber, and still not one into the Oak Room, the continuity of whose wainscoting proves that it was never intended. Both must therefore have been entered from the north, i.e. through the lateral spine; but because each is exactly as wide as the projecting wing, its door must be within the breadth of that wing. This could have been managed, somewhat as appears on the 'Claverton' first-floor plan, by extending the corridor to the outer east and west walls so reducing the size of the north chambers, or alternatively by lugging back the spine to allow a sideways entry into each of the main rooms. The latter may have been ruled out for structural reasons but other findings suggest the wall may have been retained from the earlier house. It seems that originally entrance to the White and Oak Rooms was via their adjoining chambers to the north. Though

the inevitable near collision of doors must have been very awkward, this may have worked tolerably well so long as each pair of rooms was regarded as a self-contained suite. When however the rooms came to be used independently, a square space had to be taken from the corners forming in effect large internal porches, though with only arches (not doors) into them from the landing. These rooms are in consequence oddly shaped, especially that to the north-east where, perhaps because of the scale of the kitchen flue, the fireplace stands in the room's west wall.

Attic floor

The great stair probably stopped at the great chamber; the attic may have been reached originally via a secondary stair within the bathroom space of the chamber floor. There is a surviving mullioned window at staircase level at the east end of the north wall. At present the attic stair approximately continues the lines of the great, though on a smaller scale. The attic rooms are entirely within the roof and were unheated. A corner fireplace was added into the east wall stack perhaps in the 18th century and was to be moved to a new position (where it is now) on plans of 1949. There were presumably servants' and related room in the four corners, with perhaps a small prospect room in the centre of the south front.

The 17th-century roof structures

The roofs of this date are plain without windbraces or ornament and so not intended to be visible. The apex joints are unusual for the area. Truss O at the south end of the east wing is halved with a diminished haunch. Truss K over the staircase has a tenoned joint with an oblique shoulder, appearing from one side to be notched. These are stronger joints than simple halved or tenoned joints and would have carried stone tiles. Notched joints are more common in the 18th century and the only other examples of this date, albeit simpler, so far recorded, are at Box Manor of c. 1609. The ashlar stone used for the house is 'dune-bedded' striated in sloping bands as formed from ancient dunes. This is typical of Bradford stone and supports the contention that the building stone came mainly from Combe Quarry in the grounds of the house. However, the finely carved stone is of higher quality and may well be from Box where the best masons were located. Their team could perhaps have included carpenters.

The four trusses of the hall roof are positioned symmetrically to frame the dormer gables. In

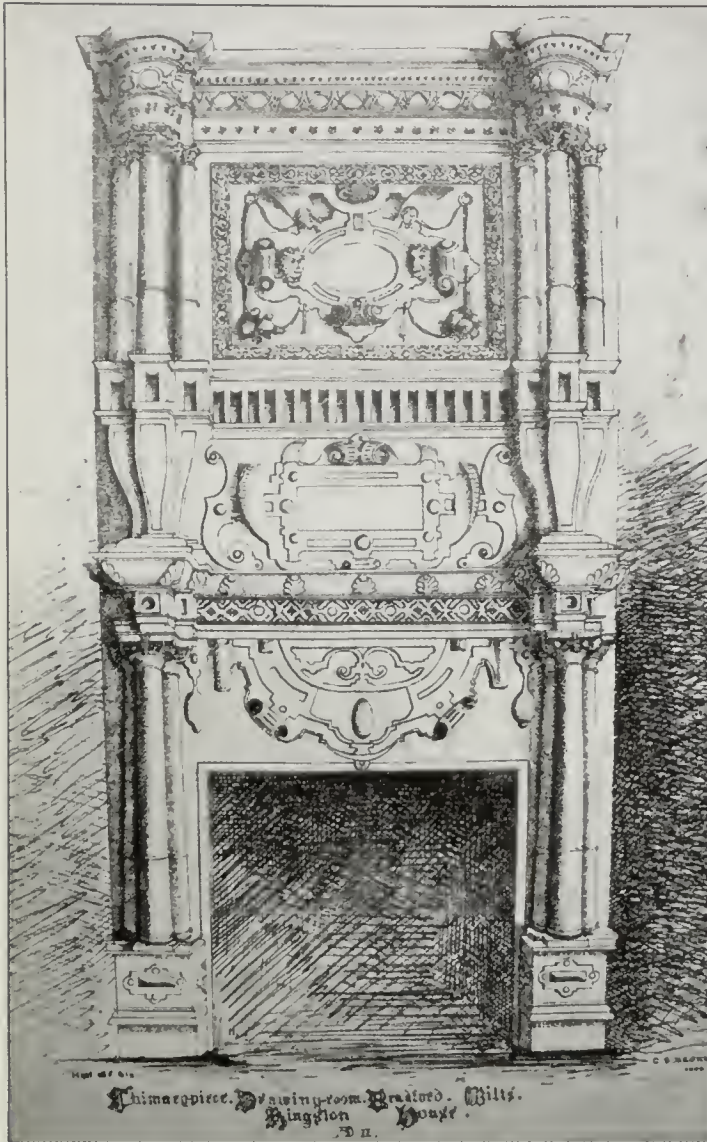


Fig. 10 Drawing of the Study fireplace by C. S. Beckett, 1850 (WANHS Library, Cuttings 24)

addition there is a further truss at the west end adjacent to the west wing roof.

Interior design and decoration

Stonework

The ambitious double-decker classicism of the tall chimney-piece in the former great parlour (the south-east room, now the Study) (Figure 10) has been likened to the design of chimney-pieces at Montacute in the parlour, and more especially the great chamber; the strapwork cartouche in the topmost panel appears to have been taken from the same print by Jacob Floris as that in the gallery overmantel at Stockton House. Other closely similar work in west-country houses has been identified by Anthony Wells-Cole at Wolfeton (Dorset) and Wayford (Somerset). At Bradford the two heads of adults and two of children in the top panel are thought to

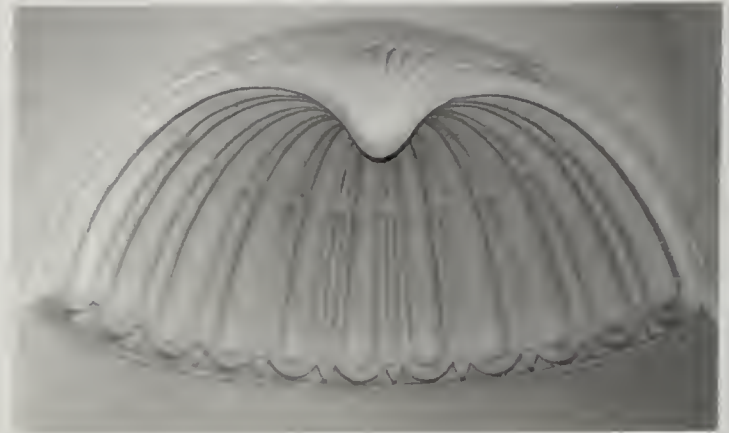


Fig. 11 Head of one of the shell niches

represent John Hall, his wife and children.

Wells-Cole has also pointed to the probable derivation of the massive dining-room (formerly hall) chimney-piece, with its two decks of coupled columns and gargantuan guilloche frieze, from a design in J. A. Du Cerceau's *Second Livre d'Architecture*; and the equally oversize egg-and-dart moulding round the recessed circle in the overmantel can be found in the great parlour at Montacute, at Wolfeton and, more crudely, in the library at Wayford¹¹. The chimney-piece in the White Room above is a reduced copy, of unknown date, of the one below. Shell-headed niches flanking the bay window at the south end of the White Room (Figure 11) appear to be identical with those within and on the fronts of both north and south loggias at Cranborne Manor (Dorset); similar ones are on the main front of Montacute, and all probably derive ultimately from Serlio.

Marc Girouard has pointed out that the lively rinceau swirls in the jambs of the small north doorcase in the dining room (Figure 12) derive from a plate tipped into Book 3, chapter 4 of *Tutte l'Opere dell'Architettura* and included in Robert Peake's English edition of 1610 (Figure 13): since there must have been a doorway there from the start, that might be a terminus ante quem for the interior decoration.¹² Fairly similar rinceaux are in the frieze of the chimney-piece in Dame Eleanor's Room at South Wraxall Manor, three miles north of Bradford.

Plasterwork

Only in the study (former great parlour) can we be confident that the decorative plaster ceiling is original. So far as can be judged, the pattern is complete, confirming that the overall form of the room is unchanged. A plate in Richardson's *Observations*, drawn by George Moore and titled

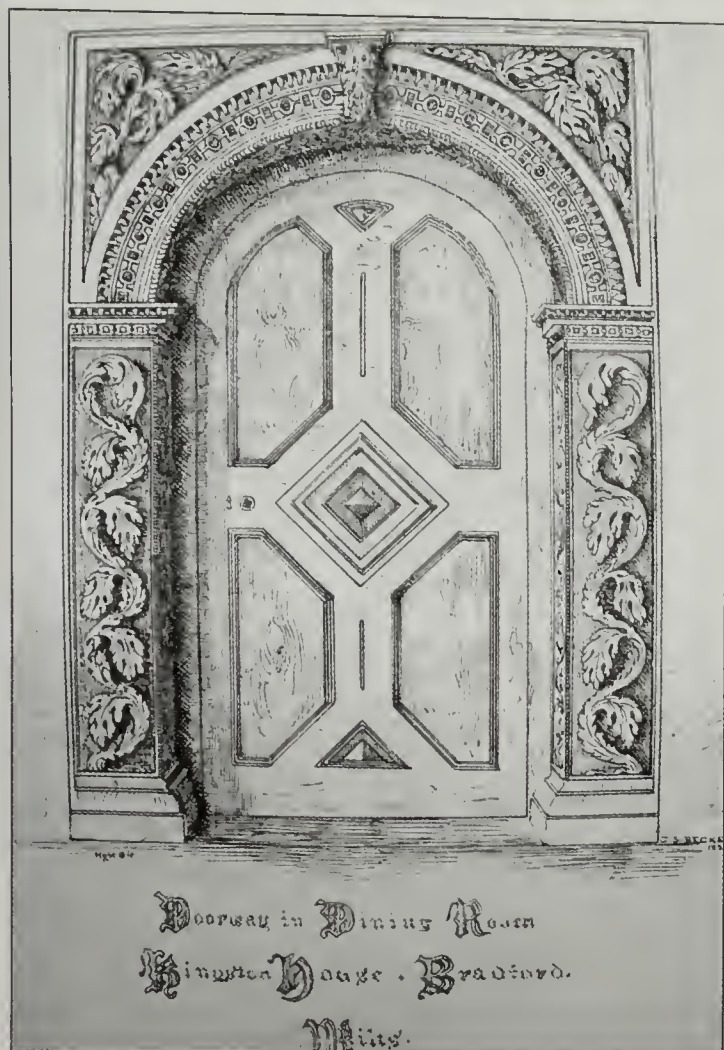


Fig. 12 Drawing of the Dining Room doorway by C. S. Beckett, 1850 (WANHS Library, Cuttings 24)

'A ceiling in the Duke's House, Bradford' (plate XXIV),¹³ shows plasterwork whose pattern is similar to that in the study, though with much thicker strapwork and a different layout of ornaments. It may perhaps show part of the original ceiling of the great chamber, whose present ceiling is undoubtedly Victorian, an overdressed copy of that in the saloon. Moore's drawings of the dining room chimneypiece and its neighbouring door and of the Oak Room chimneypiece accurately represent what can still be identified; hence if the title of the ceiling drawing is truthful (implying that the ceiling was in place and not a proposal of Richardson's) one can presumably accept that the pattern was to be found elsewhere in the house. The simple geometrical ceiling in the dining room is evidently also comparatively modern: the small part of the ceiling visible in Moore's drawing of the chimneypiece is plain, with a few cracks in it, implying that any earlier decorated ceiling had by then collapsed and been cheaply replaced. The present ceiling is based on another plate in Richardson's book, also drawn by Moore and also titled 'Ceiling at the Duke's House, Bradford'.

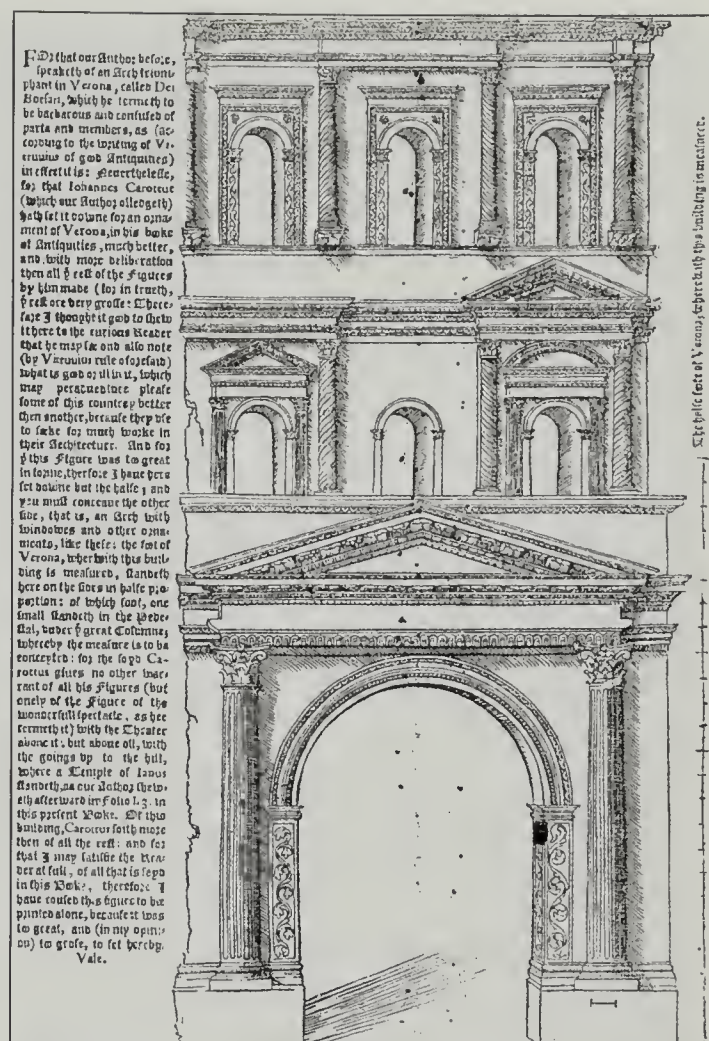


Fig. 13 Drawing from Serlio, Book 3, Chap. 4 (Peake ed. 1610), the inspiration for the Dining Room doorway

Perhaps another part of the ceiling had survived until the 1830s and was replaced in replica.

Wainscot

The stylar wainscot in the Study and Oak Room, the former Corinthian, the latter Ionic, is formal and classically ordered. The two sets are clearly of the same date, which could be that of the building of the house in c.1610. Again a comparison with Whitehall can be made, this time to the alterations of Richard Prince the younger in 1611. However, the fireplace overmantel in the Oak Room (Figure 14), of timber rather than stone, may be a pre-existing feature. It includes two coats of the Hall arms set into square panels above which is a small four-bay arcade of a type found frequently in late Elizabethan and Jacobean houses, both stages being sub-divided by miniature terms. It looks curiously archaic among the sophisticated stylar wainscot which surrounds it, as if it were a pious survival from the earlier house on the site. If so it does not much pre-date the present house. The arched stone fireplace below the overmantel has an ogee/step/ovolo moulding with



Fig. 14 Top of the Oak Room overmantel with panelling and cornice

pedestal stops. The Oak Room may have been the master's own chamber begun in an old-fashioned style and completed with the Study below somewhat later. The wainscot has been said to be identical with that at Woolley Grange, half a mile to the east and dated 1665, but inspection on site does not bear this out. Comparisons were also suggested with the Red Lodge at Bristol (of *c.* 1590) but there each small panel encloses an arch.

The present staircase is presumed to date from the mid 19th century, though it may be later. The present wainscot in the hall and dining room dates from *c.* 1890. The panelling in the great chamber was made by the estate carpenter in 1905.

Structure

The Hall is famous for the prodigious display of glass on the south front: quite as much as Hardwick it is 'more glass than wall'. Even so the proportion of stone to glass is fairly high compared, for example, with the Lady Chapels at Ely and Gloucester which in addition carry the weight of stone vaults. The sparing use of internal bearing walls is nevertheless

noteworthy: only the lateral spine and the internal stretches of the return walls of the north wings briefly flanking the present entrance hall are of continuous masonry. However, the masonry of the south wall is extremely thick (over 1 metre thick at first floor level). It can be presumed that lateral rere-beams bridge all the projecting bays at each floor level, making rigid strips over the south front and kept in compression by the massive stone stanchions which constitute the south-west and south-east angles of the building. One such beam, across the east bay of the south front at basement level, is now exposed. The porch, with a greater proportion of masonry to glass than the bay windows, probably acts as a counter to torsion within the south wall as the bays have little buttressing effect. The substantial and continuous lateral spine, though giving rise to problems of articulation, if new built *c.* 1610 may have been intended to add stability. As elsewhere in Bradford, the rock of the steep hillside has been terraced to provide firm level foundations for the floors.

The transverse bridging beams across the front

of the house are braces in compression; it is assumed that two of them are above the flanking walls of the hall, but their positions are not visible. Carpenters usually prefer timber anchorages for main beams so it is possible that some of the transverse beams are jointed into the beams across the projecting bays. There is a remarkably large wallplate of pine along the east side of the west wing roof, running out to the south wall. It supports the trusses and common rafters of that roof. The roof frames, designed for stone slates, constitute a tensile structure correcting any tendency of outward splay of the walls.

Gardens

It is clear from early drawings that the present late 19th-century sequence of terraces below the south front follows a much earlier layout. Britton, writing probably in the 1820s when the Hall was referred to as a farmhouse, described it as having 'two, if not three, elevations or ascents to it, which are adorned with terraces having either rails or stone balustrades',¹⁴ and Moore's lithograph of the south front shows the present stone terrace with a flight of twelve steps leading up to it from lower ground. The old approach to the house is known to have ended on flat ground well below, with a consequent need for steps or ramps to reach the front door. The west door is likely to have opened on to a formal garden with an orchard beyond, the latter still there in 1841. The land to the east between the house and the farmyard probably included a kitchen garden. There were two stone seats with porticos, rebuilt in the late 19th century, one in a different position. An account of the gardens for visitors was written by Gareth Slater in 2008.

Authorship and relations to other houses

Huge windows, walls almost continuously glazed: these became almost obligatory features of the 'Jacobethan' mania for building. Nevertheless there is nothing closely like the south front of Bradford: it is *sui generis* in its insistence on a maximum possible ratio of glass to stone: the double projections – compass windows within rectangular bays – suggest a determination to add glass simply for the sake of showing how much could be worked in (and afforded), for they do not add to the light inside. The

façade is a piece of bravura display, in spirit more like Wollaton (Nottinghamshire) than any other near contemporary, despite the difference in scale, or perhaps Fountains Hall (Yorkshire) whose façade, with a much smaller display of glass, has a yet more complex system of projections and recessions.

The design of the south front determines the exceptional height of the main rooms but nothing in the rest of the house readily relates to it. The other three elevations are straightforward early Jacobean, of a type found in hundreds of west-country houses. Though the planning is in the van of departures from earlier manners, it is not particularly imaginative with the chamber floor something of a botch; the fluing is constrained especially on the east side where the study flue turns through two near right angles. It was suggested by Oswald, and by Marc Girouard in his book on Smythson who was connected earlier with the building of Longleat, that a platt (design) for the show front was prepared independently of the building of the house.¹⁵ Dr Girouard no longer thinks Smythson was involved though he was responsible for several impressive and daring houses. Oswald also pointed out the 'very close resemblance' between the main entrance doorcases at Bradford and Smythson's Wollaton (begun in 1580). Both have a 'semi-circular arch with classic enrichments, block-like impostes and strapwork in the spandrels'. The Bradford doorcase has in addition cresting above the frieze and panelled pedestals like that of Doddington Hall, (Lincolnshire) begun in 1593 and attributed by Girouard to Smythson. However, they may be simply examples of a widespread form.

What of the much-discussed compass windows? They are not so rare at this period as has sometimes been suggested, though their particular form at Bradford – in which the semi-cylindrical bow is the three-dimensional centrepiece of a tripartite composition – can perhaps be matched only in the following: the celebrated façade of Sir Paul Pindar's house in Bishopsgate, London (c.1600), now in the Victoria and Albert Museum; the now lost Campden House (1612); perhaps most significantly for Bradford, in Walter Raleigh's abortive attempt to reinstate the old castle at Sherborne (Dorset) in 1592; and at Fountains Hall (finished 1611?) where the glazed half-drum of the great chamber makes a trio with separate and not quite identical windows either side. Elsewhere in the north and north Midlands there are or were upper-level glazed drums at Worksop Manor (Nottinghamshire), c.1580-86) and full-height ones at Burton Agnes (East Yorkshire, 1601-10) and Wootton Lodge

(Staffordshire, c.1607-11). Both of the first two have documented connections with Smythson, the third is a fairly confident attribution. In the south-west compass windows are also known to have been built in the north range at Berry Pomeroy (Devon), now fairly securely dated to c.1600. More significantly in the present context, four of them appear on a plan (now in the Hatfield House archives), which is almost certainly the 'plott' that William Arnold is known to have made for Cranborne Manor in 1609. The house was badly damaged in the Civil War, and if the wings containing these windows were ever built, they have not survived.

None of this lends confidence to the once-favoured attribution of Bradford to Smythson if the early 17th-century date is accepted. The houses he has been credited with post-1600 do not have the frenzied architectural display of Wollaton and Bradford and he had long been settled far away in Nottinghamshire. A connection with William Arnold is more promising and has been strongly argued by Anthony Wells-Cole.¹⁶ It is geographically plausible and essentially stylistic: the shell-headed niches in the White Room resemble those in the north loggia at Cranborne; there are rams' heads on the study chimney-piece copied as Wells-Cole has determined, '(like those on the hall screen at Montacute) from [Vredeman de Vries's] *Das Erst Buch*'. Wells-Cole goes on to claim that 'this proves that the interior [of Bradford], which Girouard firmly attributes to Arnold, was indeed designed by him'. In fact it only proves the same print was used in both cases. In addition despite the unqualified assertion that Arnold 'designed and built' Montacute for Sir Edward Phelips, all we know for sure is that it has details (including shell niches) that replicate some at Cranborne, though Phelips did commend Arnold to Dorothy Wadham, who in 1610 brought him from Somerset to Oxford to build Wadham College, where he proved himself competent in a mixture of styles – Perpendicular Gothic, college Tudor and classical. The frontispiece of the east range might suggest a larger version of the study chimney-piece at Bradford, though it is a more consistently classical imitation of that in the Fellows' Quad at Merton College, built two years previously by John Ackroyd. It is widely agreed that Arnold is very likely to have been the designer and builder of Montacute, that he was an architect and mason of more than average ability and that the multiple use of specific identifiable prints in carved overmantels and other decorative features at a string of west-country houses, gives Arnold a good claim to have been the

craftsman responsible for detailed interior work at Bradford. The lack of documentation means one has to stop short of certainty.

At the same time it must be said that if the unostentatious assimilation of classical with 'Elizabethan' features in the elevations of Cranborne, Montacute and Dunster (as illustrated by Buckler before Salvin's amendments) is characteristic of Arnold's architecture, then he is unlikely to have designed the south front of Bradford and whoever did perhaps left the planning and building of the rest of the house to someone else. At Cranborne and Dunster Arnold was limited by building on to or within medieval walls and this may have also been the case at Bradford, accounting for the mismanagement of access to rooms on the chamber floor and perhaps also for the symmetrical façade not being mirrored by the internal plan, though this is also the case at Montacute.

The Hall at Bradford was the principal residence of a wealthy local magnate, living near to the mills that were the main source of his income, but with his own estate to the side and much other property elsewhere. He was a member of the gentry but not of the nobility and in an age when it was important to live in a manner appropriate to your rank, his house is of manor house rather than country house size. It was a house which, with its double suite of grand rooms on the south front, could sustain short-term entertainment on a lavish scale; but it was conceived essentially as what it is now, the hub of a working environment. The layout in one respect, however, confirmed a common pattern in country houses through the 17th century, in which the service side of the house on the ground floor was sharply differentiated from the superior rooms to the south: if there were a direct approach from the road to the north, it must have been essentially for tradesmen.

The house in the 18th century

After the last John Hall's death it is possible that his heiress Rachel Baynton occupied the house for some years. A large collection of documents concerning the Hall estate have come to light in the British Library. In 1726 the overseers of John Hall's will who held the house in trust began a series of lettings to wealthy tenants while reserving several rooms for the family. John Hall had specified that the contents

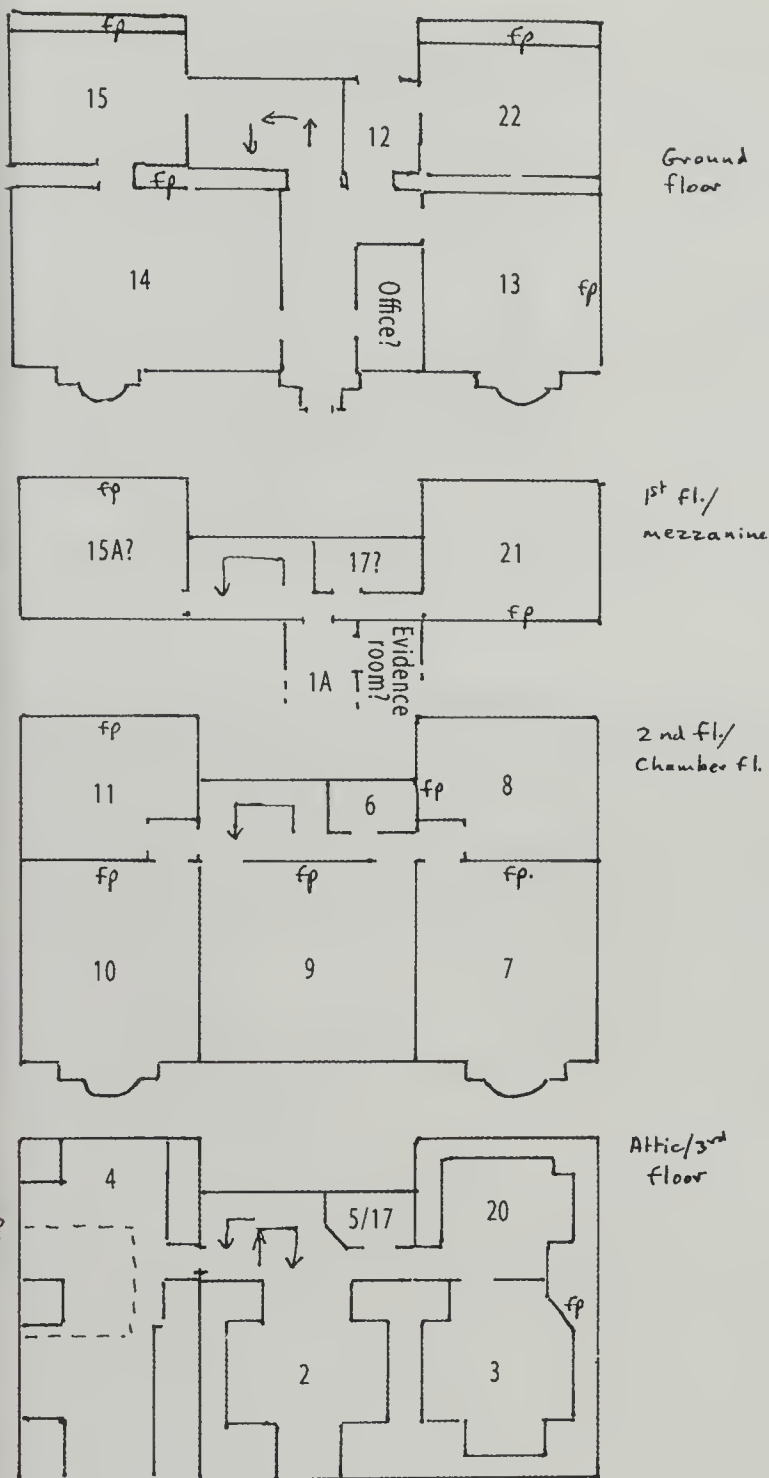


Fig. 15 Diagrammatic floor plans with suggested position of the rooms numbered in the 1726 inventory

of the house were to remain intact.

An inventory was made (see Appendix).¹⁷ It names the rooms of the house and lists their contents. It is clear that many items of furnishing and furniture, such as tapestries and pictures, remained from an earlier period. Some quality items were taken to W—dean, perhaps West Dean in south Wiltshire where the family had a seat.

The positioning of a number of the rooms is straightforward (Figure 15). Problems arise particularly with the butler's room and the 'Room'. The order of listing of the kitchen and the rooms

above suggests the possibility of a back stair. The room over the servants' hall may be in the service range behind the house along with the dairy and brewhouse. In the leases described below the office and the evidence room, not included in the inventory, were reserved for estate use and they may be the putative small room next to the front entrance passage and the room above.

In August 1751 the Duke of Kingston leased to Thomas Rogers of Bradford, clothier, for seven years for £40 yearly, the mansion house called the Great House with offices, gardens, orchard, green court or barton, two stables and coach house.¹⁸ Excepted were 'the dwelling house wherein Mrs Fellows now lives', possibly the farmhouse above the farmyard and backing on to the road. Mrs Fellows had free use of the brewhouse in common with Thomas Rogers. Also reserved to the Duke were the two rooms in the Great House called the Office and Evidence Rooms with full liberty of ingress and regress for the Duke or his agents from the said rooms and the part of the green court 'now meted out for a timber yard' with liberty to access the same with carriages or otherwise. Rogers had to preserve and maintain the glass windows, locks, keys, bolts and gardens. Any new works in the offices or outbuildings 'for the conveniency of the clothing trade' were to be done at Rogers' costs and reinstated after the letting if the Duke so required. Crucially Rogers had to pay the Window Tax. He could use the household goods and furniture. Rate books show that in the 1750s and possibly from the mid 1740s Thomas Rogers also occupied 9 Kingston Road, now called Kingston House and part of the Kingston Mills complex. By 1773 he is named on Andrews and Dury's map and his new house, Manvers House on the other side of Kingston Road, is depicted.

In August 1771 a similar lease¹⁹ was made to John Baskerville, clothier for 21 years at £50 annual rent of the messuage called the Hall House. Reserved for the Duke's use were 'one pair of stairs called the Office and another room over it called the Evidence Room' together with the offices and court 'above the steps' and workhouses and 'all the gardens and orchard and grove behind the said house as the same are now bounded in by a wall from off the street or the Home Croft or Close on the east part thereof and also the Great Stable on the outside of the wall adjoining to the Great Gate'. The Duke paid Land tax and parish rates and Mr Baskerville had to discharge the Window Tax and Highway Assessment and keep the glass windows in repair. The Duke had to put the premises into repair and keep the roofs, walls and

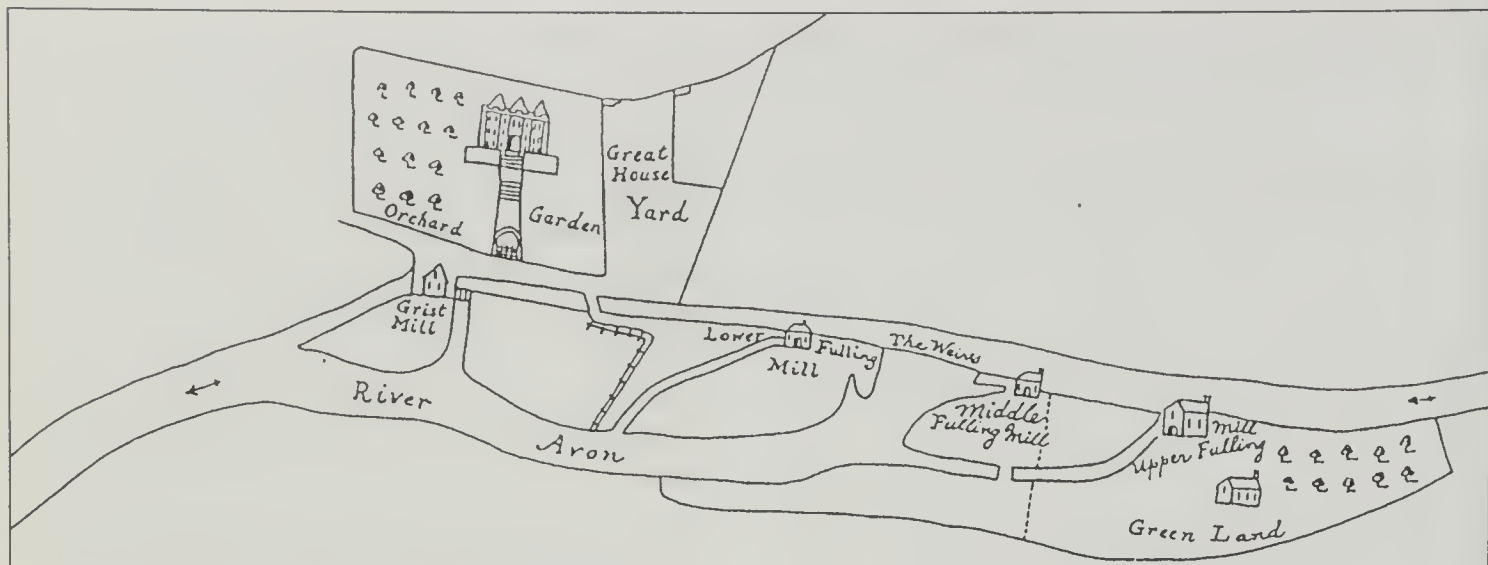


Fig. 16 Plan of the site in 1797



Fig. 17 Painting by Elizabeth Tackle showing the service range behind the house and, in the foreground, the octagonal building and dyehouses, 1850s

floors in tenantable repair.

A plan of 1797 (Figure 16) shows the relationship of the house to the three Greenland fulling mills and the grist mill, successor to the town mill.²⁰ In 1805 Thomas Divett purchased the Hall and the grist mill below on behalf of Divett Price Jackson & Co., a London firm and the five storey Kingston Mill and other related buildings were built. The Hall was said to have been in 'a sadly decayed and dilapidated condition' by 1848.²¹

The repairs and restorations of 1848-51

A visit by the Somerset Archaeological Society²² quotes the then owner John Moulton who said that when his father Stephen Moulton bought the house in 1848 the old pinnacles had tumbled down and he restored it carefully using these old pinnacles. From the interior of the roof it can be seen that the 19th



Fig. 18 The granary in H. O'Neill's painting of 1815
(redrawn)

century repairs to the south front are mainly to the tops of the walls and there are also some patches of newer stone at lower levels but the work is not as extensive as has been suggested by some writers.²³ The window glass, so carefully preserved during the 18th century, required extensive replacement and accounts for this work are mentioned in *Country Life* (25.10.1962). Some tapestries had been removed by 1726 but others survived the period in the early 19th century when the house was used as a workshop and accommodation for weavers.

It is not surprising that Stephen Moulton found that the house would work better if both the main and service entrances were on the north side, close to the public road. The south front could then be

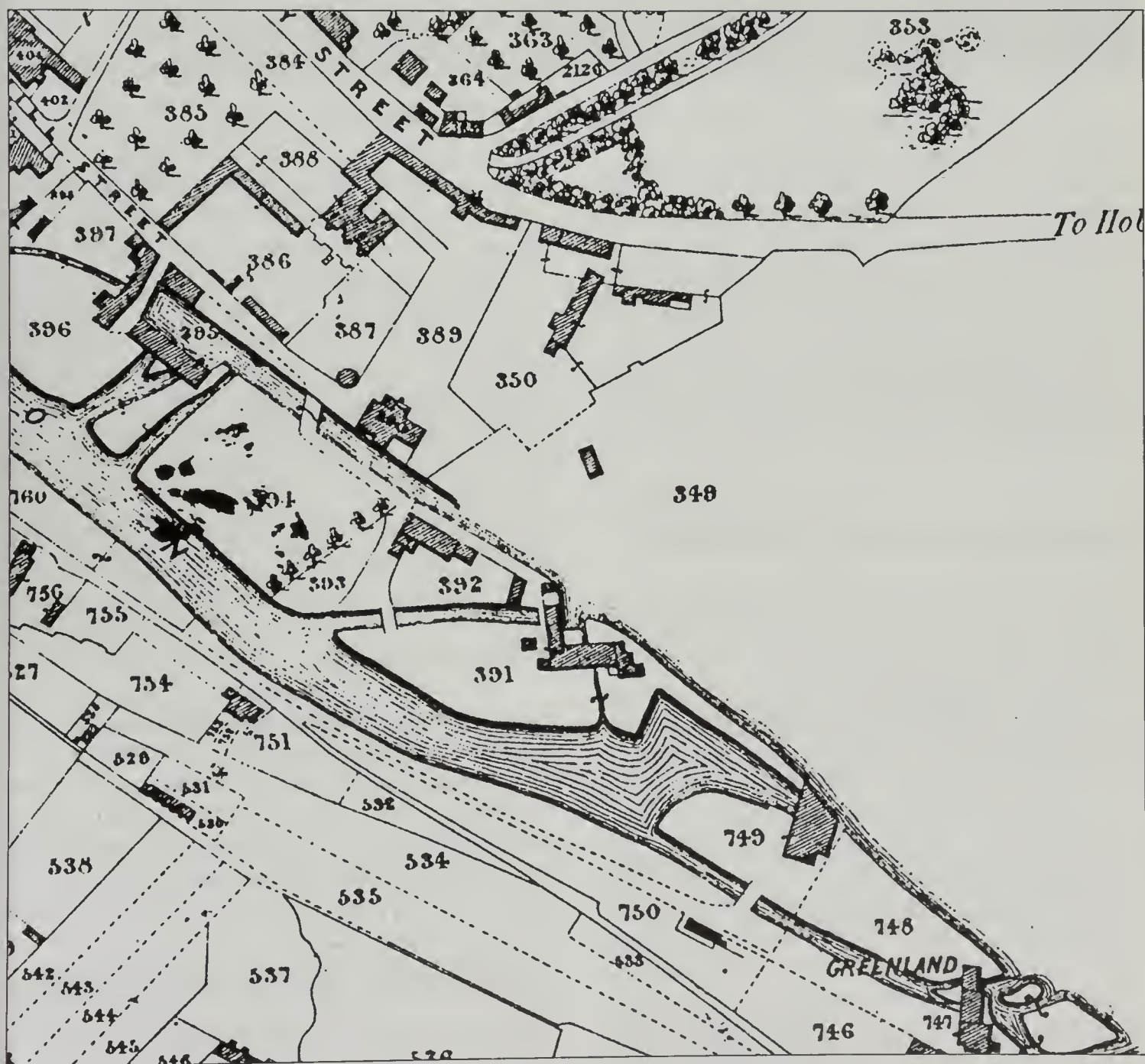


Fig. 19 Part of the Bradford tithe map of 1841



Fig. 20 Part of painting by Elizabeth Tackle showing the farmyard in 1855

explicitly a garden front: the best rooms would look out on to a garden no longer accommodating the principal driveway. Bringing the house up to adequate standards of comfort and hygiene did, it seems, involve sacrificing the secondary stair if there had been one; but space was later gained for an additional reception room by sending the main kitchen to the basement with a dumb waiter up to the dining room.

Buildings in the grounds

O'Neill's painting of 1815 and a painting made in 1850 by the local artist Mrs Elizabeth Tackle, (also in private hands), depict the range of stables and outbuildings behind the house (Figure 17). They have mullioned windows, hood moulds and gables. The range is shown in outline on the tithe map of 1841. The O'Neill drawing also shows a two-storey granary behind the house, perhaps a wool store as it appears to have a hoist (Figure 18). It is not shown on the 1841 map (Figure 19). The service buildings had been turned into seven tenements by this time and were demolished by Stephen Moulton when the grounds were landscaped. The farm buildings of the estate to the east of the house became the new stable yard. The porched barn with attached stable/granary and the cowsheds fronted with tapered stone pillars, probably date from the late 17th century. They are

shown viewed from the east in another painting by Mrs Tackle (Figure 20). The stream Sladesbrook, running down to the Avon, is adjacent to the yard providing a water supply.

The octagonal stone building in the southeast corner of the garden was identified as an 'ancient dovecote' in an article of 1899.²⁴ It has no typical dovecote features and is likely to be a wool-drying stove perhaps of the Divett period but converted to a house before the mid 19th century as methods of drying changed. It was a lodge by 1885. There was originally a large dyehouse close by to the east and another to the west.

Conclusion

In the past it has always been assumed that the Hall was a new-build of about 1600. This latest work shows its complexity and that like many old houses it may have been remodelled, with fashionable new work very cleverly grafted on to a pre-existing structure and the whole raised in height.

Appendix: An account of the goods 'att Bradfoard' 1726

No 1 In the Armory gallery & room joying

Nine Musquets twelve Collers of bandeleers four Chaires a table a Quilt a Lether Carpitt some druggitt hangings two stands a buff coat some pieces of Armer a press bedsted a desk an old Couch & lumber

3 - 0 - 0

No 2 In the Roome at the staires head

A corded bedsted & serge Curtaines two fether beds three bolsters a stand & an Iron Lock

4 - 0 - 0

No 3 In the Rose Garrett

A bedsted a flock bed wth some fethers in it a table & two Chaires

0 - 15 - 0

No 4 In the store Garrett

Three bedsteds two fether beds three bolsters one pillow two mattresses one old Turkey Carpitt one lether Carpitt two Cupboards & a wainescot Chest

7 - 0 - 0

No 5 In the Little Clossett at ye staires head

A small bedsted & blew serge Curtaines a fether bed & bolster two pillows & a Holland Quilt six paire of dogs wth brass heads four paire of tongs two paire of bellows an old Close Stool two old pickters and a serge Curtaine

2 - 10 - 0

No 6 In the Old Nursery

A wainescot Chest of drawers a Lookingglass a Couch & a Chaire

1 - 2 - 0

No 7 In the Parler Chamber

A bedsted & Cloth furniture lined wth silk a Large fether bed bolster & pillow a Cane Couch three Cane Chaires a Table two large serge Curtaines & Rod

8 - 0 - 0

No 8 In the wrought bed chamber

A Corded bedsted & wrought furniture a fetherbed bolster & pillow an old silk Quilt a blanket five Chaires a Table a Lookingglass two Cheny window Curtaines & rods

7 - 0 - 0

No 9 In the great Dineing Roome

Five pieces of Lanscape Tapestry Hangings a Crimson damask Couch & two Chaires five pickters six sconces five small figures of plaster two Cheny Curtaines & Rods

12 - 0 - 0

No 10 In the best bed Chamber

A wainescot bedsted sackcloth bottome & Crimson damask bed lined wth paned silk & yellow silk Quilt a fetherbed & bolster four Crimson damask stooles a small velvet Couch A long stoole & Cushion a small Lookingglass table & stands Cheny Hangings window Curtaines & Rods

11 - 0 - 0

No 11 In Mr Halls Chamber

A bedsted & wrought furniture Callyco teaster & bedcloth

a fether bed bolster & pillow two blankets & a Callyco Quilt four pieces of Tapestry Hangings a Table & a Lookingglass

10 - 0 - 0

No 12 In the Litle Hall

Thirteen Cane Chaires two Tables a ducth Table & Stand a small persia Carpit a Lookingglass a wether glass Three pickters an Iron back dogs shovell tongs & bellows

5 - 10 - 0

No 13 In the Great Parler

Eighteen elbow Chaires a Lookingglass a Table a Turkey Carpit a paire of dogs a Crimson serge pillow some Cheny window Curtaines & Rods

5 - 0 - 0

No 14 In the Great Hall

Two eight square marble Tables on stone pedestalls eighteen Cane Chaires a grate & fender a Clock in a wallnuttree Case two sconces two plaster of paris heads & three pickters

10 - 5 - 0

No 15 In the Litle Parler

Three Cheny window Curtaines a paire of dogs & a brass lock & in the Butlers Roome A bedsted a Carpit a Table & Chaire

1 - 10 - 0

No 16 In the Celler

A Copper Cestern a Table two Table leavs a Chaire a bench an Indian Voider a Cupboard & Lumber

2 - 2 - 0

No 17 In the Litle Roome at the stairshead

A bedsted & green serge Curtaines A Cabinet top a Chaire two stooles a Trunck & a dressing box

0 - 12 - 0

No 18 On the staircase

Eleven pickters

3 - 0 - 0

No 19 In the Celler

Twenty Casks & five stands

3 - 0 - 0

No 20 In the Garrett over the Kitching

Two Corded bedsteds one drugit furniture a fetherbed & bolster one flock bed & fether bolster two Rugs & a Table bedsted

3 - 15 - 0

No 21 In the Roome

One paire of staires A Mohaire Bed Lined wth silk a flock bed & bolster three Chaires a Cupboard & a window Curtaine

3 - 0 - 0

No 22 In the Kitching

A Rainge fender shovell tongs two Cranes a meat screen a painted screen a pestle & mortar a Clock a frying pan a Warming pan two Copper stew pans a scummer three

spits a Dripping pan a paire of Racks & a Bellmetle pot
5 – 2 – 0

No 23 In the Roome over the servants Hall
A bedsted & Cloth furniture lined wth silk a wrought easy
Chaire & Cushion seven other Chaires a Table a Lookinglass
two smirna Carpits some Tapestry & Cloth Hangings a
Table a Turkeywork Chaire & window Curtaines
4 – 13 – 0

No 24 In the deary
Two lead seterns to Coole milk a Crane & hooks
1 – 5 – 0

No 25 In the Brewhouse
A Copper boyler pieced wth lead fixed A small brass boyler
& ironwork A cestern lined wth lead a mash Tub three
Coolers a mash stick a spout a wett horse a stone Cestern
shovell tongs & poker
8 – 5 – 0

No 26 In the Summer house by the water
A Table & four Chaires
0 – 8 – 0

No 27 In the Garden
Two stone Rowlers in Iron frames & some brass locks taken
of ye doors
0 – 15 – 0

From Bradford at W(arr?)dean

No 28 In His Graces Bed Chamber
Five pieces of Tapestry Hangings of the baccanalians &
other figures about 110 ells
15 – 0 – 0

No 29 In her Graces Clossett
Three damask Chaires three stools & Cushions
0 – 15 – 0

No 30 In the Litle Parler
An Eight day Clock in a Jappand Case
5 – 0 – 0

No 31 In the Great Hall
One large Pickter of Susanna & the Elders A man on
Horseback a history piece a fruite piece a Lady whole
Length & thirteene family Pickters
8 – 0 – 0

No 32 On the staire Case
Mr Thynne on Horseback a fine Portrait of Sr Peter Lely
25 – 0 – 0

No 33 In the Supping Roome
King Wm & Queen Mary & four Ladys all half Lengths
6 – 10 – 0

No 34 In the Kitching
A jack Erron
0 – 15 – 0
185 – 17 – 0

Endnotes and references

- 1 The most comprehensive descriptions of the house have been in WANHM 1, 265-279 and in *Country Life* articles of 11.3.1899, pp. 304-8 and 11, 18 and 25 October 1962, the last by Arthur Oswald. These and other records of the house including recent work are in Wiltshire Buildings Record WILBR:B184, at Wiltshire and Swindon History Centre, Chippenham. We are very grateful to the owner Dr A. Moulton for the opportunity to study the building.
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- 20 Wiltshire and Swindon Archives, un-catalogued Spencer Moulton Collection, in George Demidowicz and Toni Demidowicz, 1999, report on Kingston Mills, Bradford-on-Avon.
- 21 RAWLING, C. 1887. op. cit.
- 22 Report of visit to Wiltshire 1914, *Proceedings of the Somerset Archaeological and Natural History Society* 60, p. 41.
- 23 The listed building description has 'South front almost entirely renewed about 1850 ...'
- 24 *Country Life* 11 March 1899, p. 306.

Shakespeare and Wilton

by Barry Langston

Shakespeare's company performed at Wilton on 2 December 1603. Was their offering As You Like It? While this is possible, over-payment for the performance suggests that more than one play was bargained for. If the object was to lobby on Raleigh's behalf, First Quarto Hamlet seems more suitable. Here 'To be, or not to be' makes an appeal that ignores Hamlet's ostensible plight. Alternatively, a performance was called off when an official read the script. Association of Hamlet with Wilton is indirectly implied by a 1604 publication that contains comment on the play and a 'last' poem now attributed to Raleigh.

Plague drove James I from London, his new capital, during the summer of 1603. After a preliminary visit to Wilton House near Salisbury in August of that year, he then settled there in an autumn that saw the notorious trial of Sir Walter Raleigh at Winchester. Sir Tresham Lever reckons that the King was based at Wilton from about 6 October to 12 December.¹ Shakespeare's company, who had just become the King's Men, also abandoned London for a provincial tour, which itself proved hazardous as the epidemic spread. By October they were at Mortlake as guests of Augustine Phillips, a senior member of the company who remembered Shakespeare in his will. When a royal summons came, they travelled to Wilton to entertain James I and his itinerant Court, with a single play performed on 2 December. Their business manager, John Heminge, was paid £30, which was unusually generous when, despite inflation, £10 was still the going rate. It has been suggested that the players made more on the side by performing for the burgesses of Wilton, but this is a misunderstanding. As a scrappy note reveals, the entry in the borough accounts recording the payment of £6/5s./0d. to 'the kings seruants' covers a number of gifts and fees but not to the players.²

While remuneration was more than adequate, the suspicion arises that something had gone wrong. Would the players have been summoned from Mortlake if only a single performance was required? Despite the impression given by James I's adoption of Shakespeare's company in May 1603 only a fortnight after his arrival in London, it was his semi-detached Queen Consort, Anne of Denmark, who became the players' true friend. When they left Wilton, part of their compensation was an assurance that they would be needed at Hampton Court during the Christmas season to assist with her amateur theatricals. Perhaps she was amused by something that caused her husband to dismiss them sooner than intended? At all events, a few months later, in June 1604, the French ambassador wrote:

Consider, for pity's sake, what must be the state and condition of a prince, whom the preachers publicly from the pulpit assail, whom the comedians bring upon the stage, whose wife attends these representations to enjoy the laugh against her husband.³

Shakespeareans are perplexed because the Comte de Beaumont's report is contrary to received wisdom

about what was allowed, but his testimony seems clear enough.

Would-be biographers are reluctant to state categorically that Shakespeare was at Wilton, presumably because they think he might have been off with something less life threatening than the plague. A reference that might seem proof of his presence has only served to create controversy. In 1865 an Eton beak, William Cory, spent part of the summer holidays at Wilton as tutor to a young Earl of Pembroke. In his journal for 5 August, he records that his charge's mother, Lady Herbert, told him, 'The house is full of interest, above us is Wolsey's room; we have a letter, never printed, from Lady Pembroke to her son, telling him to bring James I from Salisbury to see *As You Like It*; 'we have the man Shakespeare with us. She wanted to cajole the King in Raleigh's behalf - and he came.' On the face of it, Cory's leg was being pulled. There is no room at Wilton in which Wolsey could conceivably have slept. James I invited himself and his Court, while William Herbert, 3rd Earl of Pembroke, technically became a guest in his own house for the duration of their stay. This being so, should we trust the statement that *As You Like It* was performed by the King's Men or that Shakespeare was among their number? In a short article in the *WANHM*, Michael Brennan remains sceptical, adding 'it is pleasing that ... Lady Herbert may have succeeded in outwitting the bulk of Shakespeareans for well over a century.'⁴

Interest in Herbert family lore was stimulated by the publication of Cory's journal in 1897. The great Shakespearean amateur, Edmund Chambers, then a civil servant in the Department of Education, was given access to the Pembroke archive in an attempt to find the unpublished letter. Predictably, he drew a blank and reported failure on 4 March 1898. In the same year, when Sidney Lee's *Life of William Shakespeare* appeared, the senior great amateur could not resist the temptation to gloat over his failure: 'No tangible evidence of the letter is forthcoming, and its tenor stamps it, if it exists, as an ignorant invention.'⁵ The sting in the tail was the insinuation that a forgery might exist which Chambers failed to find.

Lee was wrong to disparage the hypothetical letter and, if Lady Herbert had been referring to a forgery, lost or concealed, it would not have been an 'ignorant' one. Even if she was teasing a temporary employee with one of her 'Shakespeare fantasies', she was clever and well-informed. When she mentioned Wolsey's room, an implied distinction was made.

She did not claim 'the man Shakespeare' had been a house-guest, and it is extremely unlikely that he was. Newly arrived Venetian ambassadors had difficulty finding suitable accommodation in nearby Salisbury and the King apologized personally on the day before the players' performance, an event in which the Venetians apparently took no interest whatsoever.⁶ Lady Hérbert was right on one essential point. Mary, Dowager Countess of Pembroke, did lobby on behalf of Sir Walter Raleigh after he was sentenced to death for high treason at Winchester on 17 November 1603. Dudley Carleton was controller of the household to the Earl of Northumberland, who was one of Raleigh's oldest friends. On 27 November, Carleton wrote to a regular correspondent:

I do call to mind a pretty secret, which is that the Lady of Pembroke hath written to her son Philip, and charged him of all her blessings, he employ his own credit, his friends, and all he can do, for his pardon; though she does little good yet she is to be commended for doing her best in showing *veteris vestigia flammæ*.⁷

A Latin tag seems to imply that the Dowager was one of Raleigh's old flames. This letter had been in the public domain since 1778, when it was included in *Miscellaneous State Papers* edited by the Earl of Hardwicke. Philip Herbert, who later became 1st Earl of Montgomery, was half of 'THE MOST NOBLE/ AND/ INCOMPARABLE PAIRE OF BRETHREN' to whom the Shakespeare Folio was dedicated. Despite this, and commissioning a wonderful rebuilding of Wilton when he succeeded his brother as Earl of Pembroke, he was a notorious philistine. His strongest asset in 1603 was the good looks that made him the earliest of James I's English favourites.

Was William Cory meant to understand that Shakespeare played a part in saving the life of Raleigh? Lobbying seems to have led to a dramatic reprieve. The old buccaneer was due to be executed on 18 December but his life was spared at the eleventh hour and he remained a privileged prisoner in the Tower until he was released in 1616 to undertake the last voyage which sealed his fate. The idea that *As You Like It* was performed at Wilton is at least a good guess, because its storyline is appropriate to the unusual circumstances. Orlando is a young man unjustly deprived of his inheritance by a wicked brother who eventually repents. One of Raleigh's concerns, even before he was supposedly drawn into a Spanish-backed scheme to put Lady Arabella Stuart on the throne instead of James I, was

that implication in future treason might deprive his son, Wat, of an inheritance. In the last year of the old Queen's reign, Sherborne was made over to the boy by a conveyance which would turn out to be technically defective.⁸ Though *As You Like It* cannot have been first conceived for a Wilton performance if it was included in a 'staying entry' in the Stationers Register in 1600, significant revision cannot be ruled out. The latest Arden editor argues that it was written for a Court performance in February 1599 with a different epilogue from the one which appeared in 1623 when the old play was eventually published in the First Folio.⁹

The appropriateness of *As You Like It* does not make a Wilton performance a fact, particularly if the King's Men expected to perform more than one play. As a hint that the monarch should go easy on Raleigh, this pastoral romp can hardly have been seen as grossly offensive but, according to the reading of events here proposed, it might still have been a play which was not performed because the company was paid off after James I had been upset by stronger fare. Despite caution regarding specific occasions, it is usually assumed that 'Shakespeare the player' pulled his weight. According to the gossipy Wiltshire antiquary, John Aubrey, who appears to have been unaware of a lasting association with Wilton, he 'did acte exceedingly well.' Curiously, when enquirers tried to discover which parts he wrote for himself, they did not get very far. One was told he had played the old retainer, Adam, in *As You Like It*. Nicholas Rowe, who prefaced his 1709 edition of the collected plays with a dubious biographical essay, regretted he 'could never meet with any further Account of him this way, than that the top of his Performance was the Ghost in his own *Hamlet*.'¹⁰ If Shakespeare was only to be remembered for two roles in which he might not have been recognized by his best friends, there is some explanation of the anomaly if the two plays were associated with a memorable episode which insiders did not like to talk about explicitly.

The heart of *Hamlet* is the play within the play intended to 'catch the Conscience of the King'. It is agreed that no extant version of *Hamlet* can be earlier than 1599. The Stationers Register indicates that some version of *Hamlet* was being performed a year or two later. On 26 July 1602, an entry was made for 'A booke called the Revenge of Hamlett Prince Denmarke, as it was latelie Acted by the Lord Chamberleyne his seruants'.¹¹ Probably this entry referred to a new play, but absolute certainty is impossible because the company had performed a *Hamlet* at Newington Butts in 1594. Though

this is often supposed to have been the *Ur-Hamlet* conventionally attributed to Thomas Kyd, it could also have been a lost Shakespearean version which was 'caviar to the general' - a commercial failure. Nor is it certain that the play 'latelie acted' in July 1602 was the First Quarto *Hamlet* published in 1603, which might have been as late as March 1604. There is no reason why substantial changes should not have been made. If the same entry in the Stationers Register was allowed to serve for three significantly different versions, there might well have been a fourth; there is no hard evidence one way or the other. Hasty reworking would explain the poor quality of the earliest extant text, currently in need of explanation if it was not put together by a rogue publisher with the aid of bit-part players whose minds wandered badly during the most famous soliloquy in world drama. Though the First Quarto version of *Hamlet* has few admirers, its obvious virtue is being short enough to be playable in the conditions which prevailed in Shakespeare's day. According to the title page, the play was 'diuerse times acted by his Highnesse ser-/uants in the Cittie of London, as also in the two V-/niversities of Cambridge and Oxford, and else-where'. If these performances were given by Shakespeare's company as the King's Men, they must have taken place when the London playhouses were closed by the plague. There was no reference to the Globe; 'else-where' might have said Wilton to those in the know.

Introductory scenes with the Ghost, possibly played by Shakespeare himself, may predate James I's accession but they would still have been unsettling from the new monarch's point of view. Until the failed *coup* of February 1601, the Earl of Essex had been his leading English supporter. Though the prosecution at the trial of Essex and his lieutenant, Southampton, treated their so-called rebellion as an attempt to depose Elizabeth I, its declared object was to liberate the Queen from evil advisers who wanted the Spanish-born Archduchess Isabella as her successor. A Scottish army was mustered on the border, ready to invade England in case unexpected success tempted Essex to claim the throne for himself. His failure meant the Scottish King could relax in the assurance of inheriting peacefully in due course. The belief grew, at least among Essex's admirers, that he was betrayed by a brother-in-arms. The late Earl's angry ghost was said to stalk the Tower, where he had been executed.¹² James I recognized that a debt to Essex had to be acknowledged and rehabilitation of the light-weight Southampton was a worthwhile token

payment. Shakespeare's only undoubted dedicatee was with the Court at Wilton throughout the autumn of 1603, though he is unlikely to have over-exerted himself on behalf of Essex's old enemy. Essex, of course, is the obvious original of Hamlet for those who concede that Shakespeare inhabited the real world and the play's outcome neatly suggests the way his death cleared the way for James I by removing the incentive for his rivals to consider alternatives. As Hamlet, last representative of a native royal house, expires, Norwegian Fortinbras arrives to claim the throne. How much more clearly could Shakespeare have suggested James I's succession in March 1603, two years after Essex's execution? In French, Fortinbras meant 'strong in arm'. Though this might not sound like the Scottish King, who is often seen as a physical coward, he prided himself on the strength of arm which allegedly saved him from an assassin at Gowrie House in August 1600; in case his new subjects were unaware of his prowess, the anniversary became a public holiday. Coincidentally, the future James I and his bride had spent part of an unfruitful honeymoon at Elsinore in 1589.

If Shakespeare wrote on the hoof in order to be topical, the best-known speech in all of his plays may have begun life in this way. Even those who know *Hamlet* well can have difficulty locating the 'To be, or not to be' soliloquy. Perhaps Hamlet's creator had a similar problem, since he seems to have been undecided about how to pitch it or where to place it. In the First Quarto it comes earlier than in the longer Second Quarto and First Folio texts. The speech, too, is different. Inferior as poetry, it might have been a showstopper at a command performance:

To be, or not to be, I there's the point.
 To Die, to sleepe, is that all? I all:
 No, to sleepe, to dreame, I mary there it goes,
 For in that dreame of death, when wee awake,
 And borne before an euerlasting Iudge,
 From whence no passenger euer retur'nd,
 The vndiscovered country, at whose sight
 The happy smile, and the accursed damn'd.
 But for this, the ioyfull hope of this,
 Whol'd beare the scornes and flattery of the
 world,
 Scorned by the right rich, the rich curssed of the
 poore?
 The widow being oppressed, the orphan
 wrong'd,
 The taste of hunger, or the tirants raigne,
 And thousand more calamities besides,
 To grunt and sweate vnder this weary life,
 When that he may his full *Quietus* make,
 With a bare bodkin, who would this indure,

But for a hope of something after death?
 Which pusles the braine, and doth confound the
 sence,
 Which makes vs rather beare those euilles we
 haue,
 Than flie to others we know not of.
 I that, O this conscience makes cowardes of vs
 all ...¹³

Why does Hamlet consider killing himself with 'a small instrument used by women' - in effect a hat pin? There is no reason to suppose 'bare bodkin' refers to a dagger or stiletto. An answer to the question is provided by Raleigh's behaviour in July 1603 after his arrest. During lunch with the Lieutenant of the Tower, he suddenly tore open his shirt, grabbed a meat knife and plunged it into his chest, exclaiming, 'There an end!' Needless to say it was not; probably his nerve failed at the last minute, causing a makeshift weapon to slip. It seems that Raleigh had already composed a long suicide note for his wife. After conventionally professing a faith in God's mercy, he descended into 'quasi-hysterical outpouring':

Oh intollerable infamie, Oh god I cannot resiste
 theis thoughts, I cannot live to thinke howe I
 am deryded, to thinke of the expectacion of my
 enimyces, the scornes I shall receive, the crewell
 words of lawyers, the infamous tauntes and
 dispightes, to be made a wonder and a spectacle.
 O death hasten the unto me, that thowe maiste
 destroye the memorie of theis and laye me up in
 darke forgetfullnes ...¹⁴

Raleigh seems less worried than Hamlet about his long-term prospects in the 'vndiscovered country', but sentiments and phraseology are strikingly similar. At the same time, Hamlet's words are more appropriate to Raleigh's plight than what is supposed to have been his own. Also, he has forgotten the *revenant* whose appearance triggers the play's action. In short, the speech can be read as a plea to spare the life of a brave man who could not bring himself to commit suicide. The soliloquy ends, 'Lady in thy orizons, be all my sinnes remembered.' Though the lady is Ofelia, who has been eavesdropping, Richard Burbage as Hamlet could have addressed Anne of Denmark directly at a Wilton performance. In any case, she emerged as one of Raleigh's supporters while her favourite son, precocious Prince Henry, became openly critical of his father's vindictiveness.¹⁵ Perhaps even more appropriately, Burbage could have caught the eye of Lady Arabella Stuart, who had unwittingly helped

to entrap Raleigh. Along with other members of the Court based at Wilton, she had been a spectator at the trial. The Venetians reported that 'Lady Arabella ... though innocent and highly honoured by the Queen' was 'in great perturbation' around the time of their arrival. Additionally, in the context of a Wilton performance, 'I mary there it goes' could have been spoken with a sideways glance at Mary, Dowager Countess of Pembroke. Though the phrase is usually modernised as 'Aye, marry there it goes', there is as much warrant for 'Aye, Mary, there it goes', particularly when 'marry' as an oath was in the first place a corruption of the name of the Blessed Virgin.

As Raleigh penned what might have been a last letter to his wife, he was worried about the conveyance of Sherborne to his son, perhaps fearing that it might turn out to be defective. If his suicide attempt had succeeded, this would not have mattered, as there was no bar to ordinary inheritance if he died before being formally condemned. The play within the play, which is supposed to 'catch of the Conscience of the King' by reminding him of how he murdered his brother, does so in an unsatisfactory way. Anomalies can be air-brushed by editors, but the fact is that the dumb show and the 'play' do not tally. Hamlet's comments suggest this was deliberate. The First Quarto version features a Duke and Duchess who have been married for forty years. The Duchess tells her husband she will not remarry if he dies; Hamlet tells Ofelia that she will keep her word. The Duke is murdered in his orchard by the King's nephew, Lucianus; Hamlet explains, 'He poysons him for his estate.' At this point, the Danish King decides he has had enough: 'Lights, I will to bed.' In the longer Second Quarto and First Folio texts, the play within the play is said to be based on events which took place in Vienna. In the First Quarto, however, the setting is given as 'guyana', which was the supposed location of El Dorado, a country Raleigh failed to discover because it did not exist. Towards the end of his trial, when Raleigh denied taking Spanish bribes, he protested, 'If I had died in Guiana, I would not have left 300 marks a year to my wife and son.'¹⁶ The French ambassador reported that the declared motive of Raleigh's botched suicide was to deny 'triumph to his enemies, whose power to put him to death, despite his innocence, be well known.' The prosecution decided not to mention the attempt during a trial whose outcome was a foregone conclusion, despite Raleigh's brilliance in exchanges with the bullying Attorney General,

Sir Edward Coke. The commissioners who served as judge and jury had to do their duty, but Raleigh won the propaganda war. Having been one of the best-hated men in England, he emerged as the popular hero of patriotic fable.

What happened at Wilton? Though the evidence is circumstantial, there are two likely scenarios. The King's Men arrived to perform *As You Like It* and *Hamlet*, both revised for the occasion. Either a performance of *As You Like It* took place and *Hamlet* was abandoned after the Master of the Revels saw the new script or a performance of *As You Like It* was abandoned after *Hamlet* had upset the King. The second scenario is suggested by a curious publication which appeared in 1604. *Daiphantus, or the Passions of Loue ... by An. Sc. Gentleman. Wherevnto is added, The passionate mans Pilgrimage* had an introductory *Epistle* which referred to 'Friendly Shakespeares Tragedies, where the *Commedian* rides, when the *Tragedian* stands on Tip-toe: Faith it should please all, like Prince *Hamlet*. But in sadnesse, then it were to be feared he would runne mad: Insooth I will not be moone-sicke, to please: nor out of my wits though I displeased all.'¹⁷ While meanings are obscure, the implication is that the play itself did not please everyone. *The Passionate Man's Pilgrimage* is the poem said to have been written by Raleigh on the night before he expected to be executed in 1603. It evokes a last pilgrimage of death and the poet's arrival at a benign judgement seat:

From thence to heauens Bribles hall
Where no corrupted voyces brall,
No Conscience molten into gold,
Nor forg'd accusers bought and sold,
No cause deferd, nor vaine spent Iorney,
For there Christ is the Kings Atturney:
Who pleads for all without degrees,
And he hath Angells, but no fees.¹⁸

The Raleigh attribution is generally accepted. Whoever wrote these verses, they mesh with the concerns expressed in the suicide note and the *Hamlet* soliloquy. As many of the peculiarities of *Hamlet* make better sense in the Wilton context, a circumstantial case for the play being performed there on 2 December 1603 is strengthened. If this goes against what has often been taken as a genuine family tradition, it must be observed that Lady Herbert's assertions are not the only evidence for what such a tradition might have been. In 1741, a memorial to Shakespeare designed by William Kent was erected in Poets Corner in Westminster Abbey. A dapper bard, who looks as though he has

stepped out of a Van Dyck portrait, is pointing to a scroll. This was originally blank but an inscription was added in 1743. Shakespeare now points to the word 'temples' in a misquotation from *The Tempest*.¹⁹ Curiously, in the dedication of the First Folio, 'THE MOST NOBLE/ AND/ INCOMPARABLE PAIRE', Pembroke and Montgomery, were called 'temples' in the hope they would offer sanctuary to the late poet's collected plays. Also in 1743, the 9th Earl of Pembroke acquired the Westminster Shakespeare's 'twin'. This time, the scroll was inscribed with some lines from *Macbeth*:

*LIFE's but a walking SHADOW
a poor PLAYER
That struts & frets his hour
upon the STAGE
And then is heard no more!*

The poet's finger pointed to the word 'SHADOW'. Was this purely fortuitous? Certainly, it was a potential talking point. Taken by itself, the word might have meant 'ghost'. Macbeth himself addresses Banquo's Ghost as a 'horrible shadow', and another Ghost was the role supposedly played by Shakespeare in *Hamlet*. In the context of the speech from which the words on the Wilton scroll are taken, however, one of the functions of 'shadow' is to equate Macbeth with his creator. When Ben Jonson, an undoubted guest at Wilton from time to time, was looking for a new patron, he wrote a begging letter to the Earl of Newcastle which began:

I my self being no substance, am fain to trouble
you with shadows; or (what is less) an apologue
or fable in a dream.²⁰

Lady Herbert's phrase 'the man Shakespeare', which struck Chambers as familiar, has more usually suggested distance. It meant 'Shakespeare the glorified servant' and, if he effectively represented Raleigh's well-wishers, that was what he was. The tangible evidence for a lost family tradition stands in the Front Hall at Wilton.

Notes

- 1 Tresham Lever, *The Herberts of Wilton* (London, 1967), pp. 76-7.
- 2 For the players' visit to Wilton, see Park Honan, *Shakespeare: a Life* (Oxford, 1998), pp. 301-2. Wilton Borough Accounts (ref. G25/1/9) can be inspected at the new Wiltshire and Swindon History Centre in Chippenham.
- 3 Beaumont as quoted in B. N. de Luna, *Jonson's Romish Plot* (Oxford, 1967), pp. 3-4.
- 4 Michael Brennan, 'We have the man Shakespeare with us', *WANHM* 80 (1986), pp. 225-7.
- 5 Sidney Lee, *A Life of William Shakespeare* (London, 1898), p. 411.
- 6 *Calendar of State Papers [Venetian] X*, edited by Horatio F. Brown (London, 1900), pp. 113, 116-7.
- 7 Carleton as quoted in Brennan, *art. cit.*, p. 26.
- 8 Raleigh Trevelyan, *Sir Walter Raleigh* (London, 2002), pp. 410-1, 421.
- 9 Adam Nicolson evokes a hypothetical performance of *As You Like It* in *The Lords of Paradise* (London, 2008), pp. 139-53. On incidental changes, see Juliet Dusinbear's Arden edition of *As You Like It* (London, 2006), pp. 36-9.
- 10 Rowe as quoted in S. Schoenbaum, *William Shakespeare; A Compact Documentary Life* (Oxford, 1977), pp. 201-2.
- 11 On the problematic relationship of the three extant versions, see the first installment of a new Arden edition of *Hamlet*, edited by Ann Thompson and Neil Taylor (London, 2006), pp. 74-6.
- 12 For Essex as James I's 'martyr', see B. N. de Luna, *op. cit.*, pp. 108-108, 248.
- 13 William Shakespeare, *The Tragicall Historie of Hamlet Prince of Denmarke 1603*, edited by G. B. Harrison (London, 1923), pp. 28-9.
- 14 The 'last' letter is printed in Sir Walter Raleigh, *Selections from his Historie of the World, his Letters etc.*, edited by G. E. Hadow (Oxford 1917), pp. 177-81.
- 15 If Henry said 'no one but my father would keep such a bird [ie Raleigh] in a cage', it may have been an echo of Lear to Cordelia in the play performed before at Whitehall on 26 December 1606: 'Come let's away to prison./We two alone will sing like Birds i' th' Cage.'
- 16 Raleigh as quoted in David Mathew, *James I* (London, 1967), p. 140.
- 17 For An[thony] Sc[oloker]'s odd reference to 'Friendly Shakespeare', see *A Short Life of Shakespeare with the Sources*, abridged by Charles Williams from Sir Edmund Chambers's *William Shakespeare: A Study of Facts and Problems* (Oxford, 1933), p. 208.
- 18 *The Poems of Sir Walter Raleigh*, edited by Agnes Latham (London, 1951); see p. 49 for the poem; pp. 140-3 for attribution and publishing history.
- 19 Stanley Wells, *Shakespeare for All Time* (London, 2003), pp. 207-8.
- 20 Printed in Sara van den Berg, 'True Relation: the life and career of Ben Jonson', *The Cambridge Companion to Ben Jonson*, edited by Richard Harp and Stanley Stewart (2000).

The Reverend Charles Lucas (1769-1854) of Avebury and Devizes – a forgotten novelist, miscellaneous writer and crusading clergyman

by Robert Moody

In his Introduction to the 2004 edition of The Infernal Quixote: A Tale of the Day – Lucas's most celebrated work – the editor, Dr M. O. Grenby, writes that 'Not a great deal is known about Charles Lucas. His entry in the Oxford Dictionary of National Biography records little more than that he was born in 1769, that he died eighty-five years later, in 1854, that he was a minister of the Church of England, and that he published several novels and poems'.¹ The purpose of this paper is to record what further has been discovered about the life of this remarkable but largely forgotten Wiltshire clergyman.

Charles Lucas was born on 19 April 1769 and was the second child of William Lucas of Daventry and his wife Sarah. He was baptised on 29 June with his father being described in the baptismal register as a 'quond.grocer'.² However, William Lucas died in 1773 having made his will in 1771 in which the former grocer's wealth undoubtedly entitled him to be styled 'gentleman'. In this will elaborate provision was made for his widow and two children, Mary and Charles. So far as young Lucas was concerned, his mother was left £25 a year for his maintenance until such time as the trustees of the will should think fit to send him to a boarding school for his 'education and learning'. It would then be the responsibility of the trustees to provide out of the income of the estate sufficient for his maintenance and education.³

Soon after her husband's death, Sarah Lucas moved with her two young children to Devizes and by 1780 is shown in the Land Tax Assessment as living in her own house in St John's parish.⁴ As a consequence, Lucas received his early education in the town⁵ at a school run by a dissenting clergyman named Jarvis or possibly his successor

John Ludd Fenner who had been educated at the Dissenting Academy at Daventry.⁶ Two of Lucas's contemporaries at this school achieved fame and were knighted in later life. The first was the portrait painter Thomas Lawrence⁷ and the other Anthony Perrier⁸ who, it is said, 'to the last retained an affectionate remembrance of his early days in their society',⁹ *i.e.* the society of Lawrence and Lucas. While a boy, Lucas would visit his distant relatives the Misses Mary and Catherine Massey who lived in Devizes and at their house he doubtless saw the miniature portrait of Charles I given to their ancestor Dr John Massey by James II.¹⁰ This picture, now in the possession of the Society, was later purchased by Lucas.

It is more than likely that the trustees of his father's will, perhaps at his mother's suggestion, had decided that Lucas's intelligence and promise warranted his removal from Devizes to the famous Grammar School in the Close at Salisbury where the Rev. John Skinner was maintaining the high reputation it had earned under the direction of earlier outstanding headmasters. It cannot have

been long before the trustees decided to disregard the provision in his father's will that 'When my said son Charles Lucas shall attain the age of fifteen years it is my will and desire that he shall be put out to some reputable Trade or Business' for Lucas next entered Harrow School before moving on to Oriel College Oxford, where he matriculated on 15 July 1786. Although on a number of occasions on the title pages of books written by him he is described as A. M. (Master of Arts), the university register does not recognise him as a graduate.¹¹ However, according to *A Biographical Dictionary of the Living Authors of Great Britain and Ireland...* (1816), he took his degrees of Bachelor and Master from Exeter College.¹²

He was soon ordained, taking deacon's orders in the summer of 1792 and priest's orders in the following year and he later recounted what occurred at that time:

My examination for *Priest's Orders*, may, probably be a contrast to what now takes place, and therefore noticeable! Bishop Douglas examined me himself. 'Did I not examine you twelve-months ago for *Deacon's orders*, Mr.L.?' 'Yes, my Lord, you examined me yourself, in this room.' 'Then I'll not trouble you any further.'¹³

In about 1791 he had been appointed curate of Avebury with a population of some four hundred souls and in the following year signed the Bishop's Transcripts of the entries in the parish register as 'Charles Lucas, Minister'. The vicar at that time was James Mayo¹⁴ who had succeeded his father as incumbent but who was also headmaster of the Grammar School at Wimborne in Dorset where he lived until his death in 1822.¹⁵ The twenty two year-old Lucas therefore found himself in the very common position of being curate in a parish with an entirely absent vicar. It seems that he was already living in Avebury as in an assignment of a mortgage over land in Northamptonshire dated 6 January 1790, Lucas is described as 'clerk in holy orders of Avebury Wiltshire only son and heir of William Lucas esquire heretofore of Daventry and late of Devizes Wiltshire'.¹⁶

Little is known about Lucas's activities as curate at Avebury, which was combined with the benefice of Winterbourne Monkton. It is likely that he continued the practice of the vicar in 1783 of conducting a service and preaching a sermon every Sunday in each place alternately and celebrating the holy sacrament four times a year in each church.¹⁷ In a memorandum written in 1804 it is stated that 'About three years ago the Inhabitants, the women

especially, were wretchedly poor'.¹⁸ Although many of the children would have received a basic education in the school founded in the village some years before,¹⁹ Lucas established a Sunday school and was later to write that 'my first object, as the children entered the school, was to ascertain who could say the Lord's Prayer and to have it properly taught.'²⁰ Over and above his stipend as curate, the Rev. James Mayo allowed him two guineas a year 'for the school and the poor'.²¹

During his years as curate Lucas baptised on average about twelve infants a year and on 2 December 1798 noted in the parish register 'Samuel Avebury, a Mulatto²² brought from Jamaica by Sir Adam Williamson K. B.²³ was christened by me the Reverend Mr. Lucas, he is supposed to be about seventeen years of age'. Williamson had recently died and Lucas was doubtless a little surprised when his successor to the manor and estate, Williamson's wife's nephew, Richard Jones, first appeared in church dressed in his full-dress court suit of scarlet coat and sword.²⁴

Having attained the age of twenty three in April 1792, it is likely that the trustees of his father's will decided to cease maintaining him out of the income of the estate and instead to pay him the sum of £2000 as provided in the will. Soon after this Lucas is named as a freeholder amongst the clergy in the *Universal British Directory*²⁵ for Devizes and so it is possible that he had used some of the capital received under the terms of his father's will to purchase land in or near Devizes.

Lucas is believed to have been the first of the clergy residing in Avebury to take an interest in the archaeology of the area.²⁶ He had read Stukeley's *Abury, a Temple of the British Druids* and so would have been familiar with his theories. As a result he wrote and arranged to have printed in 1795 by E. Harold in Marlborough *A Descriptive Account in Blank Verse, of The Old Serpentine Temple of the Druids at Avebury in North Wiltshire with Notes: A Poem*. The verse is based on Stukeley's work, was written anonymously, and was dedicated to the late Sir Adam Williamson. The wording of the dedication to Williamson reveals Lucas's feelings about the monument with which he was, of course, intimately acquainted:

A Stranger to his Person though not to his Worth,
begs leave to offer the following Account of the
Old Druid's Temple, the remains of which, with
Silbury Hill, are chiefly upon his own Estate, and
all upon the Manor of Avebury.

The Author trusts, since the late Inclosure
has appointed so excellent an Owner, the Gigantic

Ruins will escape that Persecution they have so grievously and wantonly suffered within the Present Century.

Lucas also wrote in a preface that:

In so trifling a Composition as the following, it was not thought proper to trouble the Reader with any Notes, - but for the Satisfaction of the more curious Observer, some Admeasurements are placed at the End, where he will find sufficient Data to take any Geometrical proportion.

The poem was not universally well received. A handwritten note in a copy of the second edition in the Society's library reads:

An unfriendly review of the day 1795 - (1st edition) thus dismisses Mr Lucas,

'We are informed that this is the first poetical attempt of a very young man - We think it a friendly wish when we express a hope that it may also be his last'

The reality is that Lucas never intended his work to be seen primarily as poetry, as he made clear in the preface to a second edition of *The Old Serpentine Temple* (1801) when he wrote:

Upon the first publication of the following description of the Serpentine Temple of the Druids at Avebury, some critics thought proper to consider it solely in the light of a *Poem*. It is almost needless to say to the candid reader, that an attempt at poetry was the last thing the author intended, and that the form in which it appeared was but an apology for the trifling, hasty and concise description of the place which the author offered to his friends... I have now been a resident Curate here nearly ten years, and, however little may affect the study of antiquity, the repeated enquiries of strangers, the conversation of the older inhabitants, and my daily walk upon the spot, could not fail to give me continual information upon this individual spot. Again, then, with the old account, which as no merit is claimed in simply collecting them, I may venture to say, will be highly gratifying to the Antiquarian, who may safely rely upon the admeasurements, geometrical proportions, and other mathematical data.

In Stukeley's *Abury, A Temple of the British Druids* an account is given of the damage caused to the stones by Tom Robinson early in the century.²⁷ Lucas would, of course, have heard of the activities of Robinson and others of his kind and in the

'General Remarks' added to the second edition of *The Old Serpentine Temple* a little more is said about Robinson's fate:

The destruction made by T. Robinson was chiefly in the Temple at Avebury, under the pretence of building houses, but the expense of demolishing them was greater than the value of the houses, and soon after they were built the houses were by some accident burnt and T. R. utterly ruined.

Lucas's next literary offering was not poetical but comprised *Free Thoughts on a General Reform, addressed to every independent Man...* a 99-page pamphlet printed in Bath in 1796 and sold at 2s by Dilly, the London bookseller and publisher. Although it appears that no copies of this work have survived, soon after its publication an extensive notice of it appeared in *The Monthly Review* and from this something can be gleaned of Lucas's thinking at this time:

The author of this pamphlet professes to fix his station on broad constitutional ground, unconnected with any political party and uninfluenced by any personal considerations. His avowed object is the correction of that selfish spirit which is the grand obstacle to a general reform. His free censures of the venality and corruption which prevail through all the higher orders of society and his strong exhortation to his countrymen to abandon party contentions and unite their efforts in support of the cause of honesty and virtue demand attention. This pamphlet is written with energy and spirit, and we have only to regret that the writer's patriotism and philanthropy have not been sufficiently powerful to subdue his bigotry and to preserve him from loading with reproachful invectives those who pursue the common interest of mankind in a track different from that which he has chosen; and his treatment of preachers not episcopally ordained is illiberal and contemptuous. On the abuse of commerce, some just observations are made: from which we cite the following as a specimen of the publication...²⁸

During the course of his observations, Lucas expresses his opinion that:

The Lottery is too gross and palpable to require any remarks and it is not only in itself an open vice, but it is the teeming parent of many others. *Si populus vult decipi, decipiat*²⁹ is the only reason that can be given for it, and this will scarcely stand the test even of political wiles.

Free Thoughts on a General Reform was reviewed in a number of other magazines in one of which the writer considered that Lucas's thoughts were:

...not only candid, free and independent, but judicious, sagacious, and solid. The author takes a comprehensive view of the present state of the government, parties and classes of men, in this country and, with much penetration, exposes various vices and follies in all...³⁰

This work was followed in 1798 by Lucas's first novel entitled *The Castle of St. Donat's, or the History of Jack Smith* and published by the Minerva Press in three volumes. In this novel Lucas 'combined an established fictional form – in this case, the gothic – with a blatant anti-Revolutionary and loyalist stance'.³¹ A review published in the following year considered Lucas to be 'a person of talents and observation' and that 'novel-readers will not be disappointed if they look for entertainment in these volumes'.³² An American edition was published in 1800 with another being advertised in the *Federal Gazette* in Baltimore on 10 June 1801 as being 'this day published'. A French translation appeared in 1803 under the title *Le Chateau de Saint-Donats, ou Histoire du fils d'un Émigré echappe aux massacres en France*. Lucas was later to write that in this novel he 'aimed to show the dangerous and fallacious examples of many eminent novels, on suicide seduction, sudden reformation, and some well-known affected virtues'.³³

In 1801 Lucas's most celebrated work *The Infernal Quixote: a Tale of the Day* was printed in four volumes at the Minerva Press, famous for publishing large quantities of cheap fiction and having, in the opinion of many, a distinctly disreputable reputation. William Lane, the proprietor of the Minerva Press, had advertised that it was 'open to such subjects as tend to the public good' and this may have persuaded Lucas to submit his novel to Lane who was well known for his anti-Jacobin views. Lucas was later to make it clear that the novel was 'avowedly written against the modern principles of atheism and licentiousness, disguised as philosophy and liberty' and 'to counteract the *revolutionary* mania among the community at large'.³⁴ Dr M. O. Grenby writes:

His was a propaganda novel, written to expose the wiles of politicians and religious dissidents, to warn his readers of the dangers of Jacobinism, foreign and domestic, and, at the same time, to reassure them that if they were resolute, loyal, and pious, the threat could be overcome. A truly

popular novel was the best way to accomplish this, which helps to explain why Lucas adopted the Minerva mode. What he achieved was one of the most readable of all political novels which contributed to the "Revolution Controversy" of the 1790s and early 1800s. At its best *The Infernal Quixote* is sententious and polemical without being preachy; it is propaganda with panache. It is an enjoyable comic romp, but without ever losing sight of the serious danger which Lucas and so many of his contemporaries thought Britain was facing at the turn of the nineteenth century.³⁵

In September a review of the novel appeared in *The Critical Review; or Annals of Literature*. If this had been brought to Lucas's notice he would doubtless have been displeased to read that the reviewer thought that:

The last one hundred and twenty pages contain no more matter than might have been composed in a dozen...' and that 'As Mr Lucas is a master of arts, and uses Latin in his novel, perhaps he will not object to our quoting Ovid, that he may ask himself how far the world may say of him – "Nec duo sunt, at forma duplex, nec foemina dici, Nec puer ut possint, neutrumque et utrumque videntur"³⁶

However, the current view is considerably more favourable with Dr Grenby further writing that 'The fusion of history and fiction in the *Infernal Quixote* is an impressive feat, and it required a substantial amount of research on Lucas's part'.³⁷

In 1803 Lucas married at All Cannings Sarah Ann, the daughter of Rev. Henry Williams, perpetual curate of Heytesbury. Their home was the vicarage house in Avebury and their first child, Sarah Anne, was born in 1805 to be followed by two more daughters, Frances in 1806 and Sophia two years later.

In the year after his marriage, Lucas's *God and Man, our duty united, a Sermon* was published and then nothing further until 1808 when another novel, this time in three volumes, appeared bearing the title *The Abissinian Reformer: or the Bible and the Sabre*. Lucas was later to write that this novel:

endeavoured to portray the practical result of REAL liberty, independence, and Christianity, in the hero, warrior, reformer, and philosopher. As the satire of the *Infernal Quixote* partook very strongly of sarcasm, so that of the *Bible and Sabre* may be noticed for its ironical bearing.

He went on to write:

It is a subject of self gratulation to the author, that his candour, impartiality, and conscientious intentions, have never been called in question, though unprotected by literary connections, and unknown by advertisements, friendly and party critiques, and other means of publicity.³⁸

Two years later, in 1810, there appeared *Joseph: a Religious Poem Historical, Patriarchial and Typical with notes* printed in two volumes in London. This book, priced at one guinea, was well advertised. The *Scots Magazine & Edinburgh Literary Miscellany* reported that it was 'in the press' and it was also noticed in 1810 in *The Edinburgh Annual Register*, *The Quarterly Review*, *The Eclectic Review* and *The Christian Observer*, as well as *The Baptist Magazine*. In the preface to *Joseph*, an extremely long poem in blank verse, Lucas makes a reference to his increasing family of children when he declares that:

...it has been written chiefly from the chance-accumulated deposit of memory, wanting the advantage of the Library's research, except from my own few volumes; yet so far from the benefit of seclusive meditation, the incipient prattle of three or four little-ones has mingled with my cogitations during the time.

The little ones were his three young daughters who had been followed by a son, named Charles after his father, and born in 1809.

Amongst the list of eighty subscribers, described in the dedication as his friends and acquaintances, are to be found the names of Lord Clarendon,³⁹ Thomas Estcourt, the member of parliament for Devizes,⁴⁰ the poet William Lisle Bowles,⁴¹ the Bishop of Peterborough,⁴² the poet-laureate Henry James Pye⁴³ and John Dougan, to whom the poem was dedicated and who, with his wife, took no less than 50 copies. Notwithstanding the extensive notice that had been taken of his work in a wide variety of literary magazines, Lucas clearly found it not easy to market his work for at the end of the list of subscribers he added:

From the indifference of some Booksellers, and the retirement of the Author, many friendly names never came to hand; but if any person wishes to have the work, and finds difficulty in receiving the same, a line addressed to Mr. M'Dowell, No 95 Leadenhall Street, will meet with immediate attention.

Joseph: A Religious Poem became widely known and after the poet Thomas Moore⁴⁴ had called on Lord Lansdowne⁴⁵ at Bowood in October 1818 he recorded in his journal:

A poem⁴⁶ by Mr Lucas the Devizes Poet, on the table – where he calls Stonehenge a 'mighty carcase' – talked of his famous Poem of Joseph – said I have never read it, but heard he made Joseph a Dandy and described his shaving, his toilet etc.⁴⁷

When Lucas's second son, who had been born in October 1813, was baptised William in 1814 Lucas noted in the parish register that he had been 'curate 21 years'. William was his sixth child, a daughter Eleanora having been born in 1812. Lucas's wife's seventh and probably last child, Henry Richard, was buried at Avebury in September 1815 when a few days old.

In 1810, if not before, considerable work of repair and improvement began to be undertaken on the interior of the church of St James in Avebury, at whose instigation and cost is unknown but certainly with the approval of the absent incumbent and the acquiescence of Lucas as resident curate. Firstly in 1810 were discovered, hidden behind lathe and plaster, the remains of the rood loft that would have been removed as a result of Queen Elizabeth's order in 1561 and two years later the wide Norman arches were replaced with tall Tuscan columns.

On his arrival in Avebury as the new curate, he would have found that, in common with most villages in the county, Protestant Dissent had been well established for very many years with both Presbyterian and Methodist meeting houses serving the quite small population. Lucas appears to have been well disposed to at least one of the ministers of the non-conformist congregations as is witnessed by his account of a conversation with one of them recorded many years later:

In the village of Avebury, about 1814, there was a bed-ridden man of middle-age, who had lost the use of his limbs. I occasionally visited him, and his devotional expressions were of the highest nature. The man had been a soldier, and by no means a moral character. The dissenting minister, a well educated and worthy man, I found also attended; and I said to him, 'Now, Mr G., if you and I were disposed, according to the present fashion, to exhibit to the public a saint, did you ever know a person better adapted for the purpose?' He replied – 'I fear, Sir, you are deceived in him.' This

deception, not of the body, I soon discovered; and could not, if I had not had proof, have believed how false, how ill-disposed, how self-puffed-up, in righteousness this bodily afflicted man was.⁴⁸

By 1813 Lucas's strongly held wish to oppose any measures that might lead to Catholic emancipation must have become well known, as he was one of the 16 prominent residents of Devizes and the surrounding district who, at the beginning of the year, signed a requisition to the High Sheriff of the county to convene a public meeting 'for the purpose of taking into consideration the subject of Catholic claims.'⁴⁹ At the subsequent meeting, however, a resolution opposing all alterations in the laws relating to Roman Catholics failed to meet with the approval of a large majority of those attending who were clearly impressed by the conciliatory speeches delivered by the Marquis of Lansdowne and Lord Holland.⁵⁰

By 1814 it was necessary for Lucas to be licensed by the Bishop of Salisbury to act as curate of Avebury with Winterbourne Monkton and it is likely that the remuneration mentioned in the licence reflected the terms under which he had been acting for the past twenty-three years. The licence specified 'a stipend of £50 with the surplice fees, the gratuitous use of 6 acres of Glebe land, the feed of 2 churchyards and the Vicarage house in which you are to reside'.⁵¹

In 1816, Lucas left Avebury and was appointed curate to the Rev. James Lediard⁵², Rector of the parish of St John with St Mary in Devizes. As Lucas possessed a fortune of his own and was not dependent upon his remuneration as curate, he was able to purchase Greystone House⁵³ in the High Street as a home for himself and his family. This splendid and very large house, quite close to St John's church, had been built in the 1730s and contained much beautiful panelling and plasterwork, as well as a particularly fine staircase. In the garden was a summer house that was probably left unlocked and so an easy target for members of the criminal fraternity, one of whom, a 17 year-old youth named Richard Robbins, was charged early in 1818, according to the calendar of Quarter Sessions 'on the oath of the Rev. Charles Lucas and others with having feloniously entered a summer house in the occupation of the said Charles Lucas of Devizes and stolen therefrom a telescope, a knife and various other articles, his property'.⁵⁴

Before he left Avebury, Lucas began subscribing to the recently formed Wiltshire British and Foreign Auxiliary Bible Society⁵⁵ and attended the meeting of the Society held in Devizes in August 1816.⁵⁶ He

was later to act for some fifteen years as one of its joint secretaries.

In 1817 Lucas's mother died at the age of 87.⁵⁷ She had continued to live in the house in St John's parish that she had purchased on moving to Devizes from Daventry. This house she left in her will to her widowed daughter Mary who also received all her household goods and effects 'except only such plate as is marked with the crest of the Lucas family' that was to pass to her son.⁵⁸

Early in 1818 a General Election was pending. One of the sitting members of Parliament for Wiltshire decided not to seek re-election with the other, Paul Methuen,⁵⁹ making it known that he would stand once again. There were two contenders for the other seat – William Pole-Tylney-Long-Wellesley,⁶⁰ nephew of the Duke of Wellington and who had married a great Wiltshire heiress, and John Benett,⁶¹ a country gentleman and President of the Wiltshire Society for the Encouragement of Agriculture. Methuen was sure to be re-elected and so it was necessary for Lucas to decide in whose favour he should cast his other vote. It was well known that Benett was in favour of the commutation of tithes and it was rumoured that he was no friend of the church and might even be an atheist. Having heard these reports, Lucas decided to make contact with Benett and on 13 June wrote to the printers of the *Salisbury and Winchester Journal*:

When Mr Benett first offered himself as a Candidate to represent this county, some peculiar circumstances induced me to inform him of the injurious reports concerning his religious principles. To which I received a very satisfactory reply, both as to *his own* faith and his liberality towards that of *others*. [Lucas then sets out parts of Benett's reply].

The present malicious propogation of those reports calls for this justice from me.⁶²

According to a later historian 'it required the friendly pen of Rev. Charles Lucas of Devizes to convince the world of the orthodoxy of one who so perversely denied the divine right of tythes'.⁶³

During the weeks leading up to the election every number of the *Salisbury and Winchester* was filled with numerous letters written by or on behalf of the candidates, the true identity of many of the writers being unknown. Lucas had read one in particular written by a supporter of Wellesley in which the county's magistrates were criticised. As a result he wrote an extremely lengthy letter to the editor of the newspaper refuting the claims made by

the anonymous writer and although he signed his letter 'C. L.' no one could have been in any doubt as to his identity when in the course of his letter he wrote:

This letter is written in the right of a freeholder: yet perhaps, some liberal declaimer is already prepared to stigmatise *one of the Parsons* for having written it: indeed we have seen such allusions by Mr Titus and others.⁶⁴

In the event, Methuen and Wellesley were returned to Parliament after an election of unprecedented violence.⁶⁵ Lucas had voted for Methuen and Benett and his feelings about the character of Wellesley and Benett were revealed in *An Impartial Account of the Most Material Circumstances, which led to the result of The Late Election of members for the County of Wilts; with the origin of Clubs and Quorums in the County* published anonymously and printed in Devizes, but believed to have been written by Lucas. This account is far from being impartial and describes Benett as being 'a respectable resident Gentleman, long known, and of ancient family in the county... and an unoffending and unimpeachable character' and Wellesley as being 'an entire stranger, of whom little is known' and 'distinguished...by a general character of selfish extravagance'. Lucas was no doubt delighted when Benett, for whom he duly voted, was eventually returned to Parliament in yet another contested election held in the following year.

Having been appointed curate in Devizes, with the Rector requiring his assistance in ministering to the congregations of two churches – St John's and St Mary's – Lucas still found time to work on and to arrange to have printed by the Minerva Press in 1820 his final novel in three volumes entitled *Gwelygordd; or, the Child of Sin. A Tale of Welsh Origin*. In the Monthly List of New Publication in the July issue of *Blackwood's Edinburgh Magazine*, Lucas's novel appears priced at 16s. Of this work he wrote in the final chapter:

The author had not intended to write another novel, but the peculiar circumstances, and the very interesting characters that came to his knowledge, were an easy temptation; for among the many cants of the day, he knows none more contemptible than the cant of superior scholarship, in the general condemnation of novels...And in the course of his life he does not know an instance of a person professing to condemn novels, but through ignorance, pedantry, or bigotry.⁶⁶

On 10 November 1820 the Government withdrew its Bill of Pains and Penalties that was intended to deprive Queen Caroline of her title as Queen. As a result, scenes of wild rejoicing throughout the country lasted for three days and nights. In Devizes, on the evening of 13 November, in the face of a virtual prohibition by the Mayor and Corporation, almost all the householders lit up their houses and it was reported that 'the house of Rev. Mr Lucas, our worthy and respectable curate, was very neatly illuminated'.⁶⁷

While performing his duties as curate, Lucas would probably have considered that he should not express too forcefully or publicly his views on the practices and organisation of the established church. After some sixteen years, however, in a sermon preached at St John's church on the day appointed for a national day of fasting, prayer and humiliation in the face of a cholera epidemic, he touched on what he termed 'an unrighteous custom' that he had tried over many years but in vain to have discontinued. In the course of the sermon that was subsequently published, he said:

I refer to the custom of the Magistracy of this Borough, upon our two most memorable holy-days (Christmas and Easter-day) when the Holy Sacrament is always administered, not only declining to stay and partake of that divine ordinance, but leaving the Church, and adjourning to the Council-chamber, to take refreshments there.⁶⁸

As a general rule, however, it is likely that his sermons were of an uncontroversial nature as when, on one Sunday in August 1823, he preached at St Mary's on the difference between the Jewish and Christian revelations.⁶⁹

When curate of Avebury, Lucas, with eleven others, had established a Book Club there. Each of the members would choose their own twelve sets of books, changing them every month, and having a dinner at *The Castle* at Marlborough once a year. It was the remembrance of this that induced Lucas and a number of other Devizes men to establish The Devizes New Book Society with its first meeting being held on 1 May 1824. One of the members, writing 30 years later, recalled:

I need not state our *twelve* regulations: it will be enough to say that as we meet at each other's houses on the first Tuesday of the month, and never but at our own houses, so the hour of assembling is 7 in the summer months, and 6 in the winter. We

have then tea and coffee till 8. We play a rubber of good old whist for not more than sixpences, and no betting is allowed; nor has a pipe, much less a cigar, contaminated our meetings: in truth, we have not much been given to PUFFING, or (to the derivation of the game, WHIST) to SILENCE. At ten we go to supper, which ought to be very plain; and at eleven we break up our meeting.⁷⁰

In August 1825 the *Salisbury and Winchester Journal* reported that Lucas, with ten others, had been elected and sworn in as members of the Corporation of the Borough of Devizes.⁷¹ However, it was soon discovered that the election was invalid, there not having been at least nineteen Capital Burgesses present. As a result on 8 October, when the Mayor and twenty-eight other burgesses attended, Lucas and the other already elected burgesses again went through the proceedings of election and swearing in.⁷² However, this was by no means the end of the matter. In June 1827, proceedings were commenced to ascertain by what authority Lucas and his fellow burgesses had exercised their authority two years earlier⁷³ with the Corporation agreeing at its expense to defend the action.⁷⁴

Lucas was always ready to respond to appeals for subscriptions for the relief of the poor of the town by donating, for instance, three guineas in 1821⁷⁵ and one guinea in 1823.⁷⁶ When in 1825 subscriptions were invited for 'improving, lighting, watching, cleansing and improving' the roads of Devizes, Lucas subscribed £10 'and a further subscription if the original plan of Mr Peniston,⁷⁷ No1 which can alone make the thoroughfare wide, commodious and safe be adopted'.⁷⁸ During the next six years he subscribed a guinea in aid of a fund for 'conveying water into the town from the Canal for use in case of fire, watering the streets and other purposes',⁷⁹ three guineas to a fund for Discharging the Expenses that may be incurred in the Maintenance of the Public Peace⁸⁰, £1 towards relieving the distressed Irish⁸¹ and a guinea to enable the poor to celebrate the coronation of William IV.⁸²

In 1826 Devizes received two visits from William Robert Grossmith, known as 'the Reading infant phenomena' and one of the precociously talented child actors who travelled the country in the 19th century performing to very large audiences. In Devizes he appeared on three consecutive nights and soon after it was related that:

On this occasion, the Rev. Charles Lucas, author of 'Joseph, a sacred Poem', did him the favour to select from Milton's Samson Agonistes a dramatic

piece well adapted for the advantageous display of his talents.⁸³

Although there was already what was described as a 'news-room' in Devizes, in 1828 a meeting was convened to consider the establishment of another such room and it was reported that at this meeting Lucas observed that 'as it was admitted there was a great want of rational recreation and amusement in Devizes, he proposed that there should be another News and Book Room established, with a Billiard Room and Racket Court'.⁸⁴

Early in 1829 Catholic Emancipation was about to become a reality. Lucas was one of the many clergymen who joined '40 magistrates and between 3 and 4,000 of the most opulent and respectable freeholders' who signed a petition to the King in opposition to the Catholic Relief Bill. A letter to John Pearse, MP for Devizes, published in the *Devizes and Wiltshire Gazette*, mentions that 'our very worthy curate gave the weight of his name' to the petition⁸⁵ and in the following number of the newspaper Lucas, signing himself 'The Curate of Devizes', confirmed that he did indeed sign it 'after deeply weighing that great rule of Christianity, by which we are directed to do by others as we could reasonably desire that they should do by us'.⁸⁶

One would not normally expect a clergyman and his family to attend the assemblies that were held on a regular basis each year and at which fashionable families would meet to dance and, perhaps, play cards. However, in April 1829 it was advertised that 'The last Assembly for this Season' would be held at the Town Hall in Devizes with Lucas being named as one of the six stewards,⁸⁷ one or more of whom would normally be responsible for making the necessary arrangements for the assembly.

Lucas continued to take a full and active part in all philanthropic activities in the town and so, after a meeting in the Town Hall early in 1832 when it was resolved to establish a Mendicity Society, he was named as one of the members of the new committee.⁸⁸ The necessity for the foundation of such a society was brought home to him in a very a shocking fashion when a woman without a particle of clothing except a cloak, and carrying a child in her arms totally naked, called at his house, pleading her woes and stating that her child was on the point of death, and hoping that Lucas would be willing to baptise the infant. This he duly did as well as 'generously relieving the mother'. Having spent the proceeds of this and further begging in a public house and rendered herself insensible, she eventually

walked to Poulshot where further begging resulted in the kindly parson there baptising the child once again!⁸⁹

In 1833 the Rector of Devizes died and, on 9 May, under the heading 'Devizes Rectory', the *Devizes and Wiltshire Gazette* reported:

Since the Rev. Mr. Phipps has been presented to the above living, the Rev. F. Bayly jun., at the recommendation of the Bishop, has been appointed the curate. The Rev. Mr. Lucas, who has officiated in that capacity for the last 17 years *zealously performing his duties*, and most exemplary in his religious and moral conduct, very naturally conceives that a great injustice has been done to him. His case, no doubt, will be generally considered one of peculiar hardship. A letter from the Rev. gent on the subject will be found in another column.⁹⁰

Lucas's letter explained in great detail what had occurred and concluded:

I have often written and said, that I would sacrifice any hope of church preferment, sooner than tacitly yield to the abuses and corruptions which have so long disgraced the establishment; and I humbly trust, I *gladly*, now become a victim, (although my all was but a poor curacy), if the exposition I have made should add but a title to the holy sense of a temperate arrangement upon the Christian principle of equity and usefulness. At the same time, I cannot but lament, that two young men, who have just entered the sacred pale should by their sycophancy and subserviency, become agents for one so well, and so fatally for me, long versed in the system.

This letter produced a long and indignant reponse from Rev. F. T. J. Bayly contradicting many of Lucas's assertions.⁹¹ Lucas related much later:

The two last Bishops allowed that my situation at Devizes did not require a licence, yet I was dispossessed of the same, under the plea, that I had it not. I appealed to the Archbishop of Canterbury, and my chief argument (exclusive of 17 years service, which I considered a better testimonial than any licence) was, that my own diocesan could not take advantage of his own wrong. At length, after five letters had passed, and I had refuted every argument and invalidated every objection, the Archbishop said, the case did not come under his jurisdiction; and I was about to commence a civil action for my loss, (indeed everything was arranged on my part) being desirous to bring the whole case, whether I could get redress or not,

before the public; but, at the anxious request of my dearest and nearest relatives, I forebode.⁹²

Many Devizes residents were dismayed at the way in which Lucas had been treated. Later in the year, the writer of a letter in the *Devizes and Wiltshire Gazette* declared that:

Nearly every respectable inhabitant of Devizes who attended Church, came forward, and signed a memorial to the Lord Chancellor, testifying to his moral and religious worth, and soliciting his Lordship to confer on him some preferment. Further- to mark the sense of his desserts in a stronger light, another memorial was forwarded by the Mayor and Corporation...⁹³

As a result of the loss of his curacy, Lucas was thereafter able, as an independent clergyman, to devote his considerable energies in publicising his views on a number of matters free from any inhibitions that might have earlier prevented him from doing so. He was later to write:

During my life, and especially the last twenty years, I have exposed (to my own detriment, and as little as possible to the detriment of any other), the abuses of all patronage, in pluralities, consolidations, sinecures, non-residences, &c...⁹⁴

One of the ways in which he did this was to write many letters to the *Devizes and Wiltshire Gazette* and, at a time when nearly all letters to the newspaper were written anonymously, it is almost certain that letters from 'A. M' were written by Lucas who did of course hold the degree of Master of Arts.⁹⁵

In July 1833 a meeting was held in the Town Hall with a view to the establishment of a Mechanics' Institution for the Diffusion of Useful Knowledge. Lucas was one of those attending who 'each contributed liberally to start it'.⁹⁶ The first lecture was delivered on 29 August⁹⁷ and soon after was printed *Some Remarks from an Address to the Devizes Literary and Scientific Institution by the Rev. Charles Lucas, Upon his joining them, and presenting a few Books, August the 29th, 1833; printed by the Unanimous desire of a very large assemblage of that Institution*. He also delivered the fifth lecture choosing as his subject the antiquities of Avebury.⁹⁸

In the following year, Richard Elliott,⁹⁹ the popular and charismatic pastor of St Mary's Congregational or Independent chapel in Devizes, wrote a letter to the *Devizes and Wiltshire Gazette* in which he declared that 'Upon the abstract question of Church and State, it is my decided conviction

that the alliance is unscriptural and unholy'. In his view 'the link made the Church of England a secular Church, which secularity is the fruitful source of its corruption and which spreads a dark and dense cloud over its spiritual glories'.¹⁰⁰ This letter brought forth an immediate, lengthy and vigorous response from Lucas in which, while describing Elliott as his friend, he sought to prove that the link between the State and the established church was most certainly not 'unscriptural or unholy'.¹⁰¹

Lucas soon became an active member of the Devizes Literary and Scientific Institution. In 1835 he delivered to the members what was described as 'a very amusing and interesting lecture on practical Mathematics or Useful Philosophy' and the report of the lecture declared that its object appeared to be 'to turn the minds of the members from useless exhibition, parade, and pretence, so practice and utility were enforced, as the only legitimate means of promoting knowledge, wisdom, virtue and happiness'.¹⁰² In 1837 he was elected President of the Institution.

Having published nothing for fifteen years, Lucas decided in 1835 to have printed in Devizes *An Epitome of Christian Doctrines and Duties addressed to my Godsons and Goddaughters. April 5th 1835*. This small booklet was printed at the request of the parents of his eight godchildren and it is hoped that they looked with favour on Lucas's words when towards the end of the tract he wrote:

Here then, with much pleasing hope, I close: and I am sure you, and your dear Parents, will take in good part this slight expression of my desire to promote your best happiness; and you will do me, as your Godfather, the favor to read and explain it to each other.¹⁰³

As an example of his radical reforming views, in 1836 he wrote a letter to the *Devizes and Wiltshire Gazette* urging that when Church of England livings become vacant they should 'be allotted to the senior curates who have borne the heat and labour of the day and not left to patronage with all its parasitic corruption'.¹⁰⁴

The Municipal Corporations Act passed in 1835 saw municipal reform imposed on all boroughs and, as all ministers of religion were to be barred from membership of the new corporations, in that year Lucas, who had long been a burgess, duly resigned. In January 1836 the *Devizes and Wiltshire Gazette* carried in four of its columns a report of a public dinner to the late Corporation of Devizes. Lucas was unable to attend but during the evening a letter from

him was read in which he stated that he 'joined in the sentiment of Civil and Religious Liberty, but he trusted that such would never be promoted on the principles of French or American liberty, or by the Irish System of agitation and excitement of the populace...' ¹⁰⁵ - an echo perhaps of the ideas contained in his anti-Jacobin writings published so many years before.

The Municipal Corporations Act necessitated the appointment of a new body of trustees to administer the charities formerly managed by the Devizes authorities. A great deal of controversy ensued when the names of those to be appointed were published with one correspondent to the local press asking whether 'the name of the Rev. C. Lucas, another clergyman of considerable property' should not have been included.¹⁰⁶ As a result, on 24 December 1836, with fourteen others, he was indeed appointed to the body of trustees whose early acrimonious meetings, fuelled it seems by personal antipathy between dissenters and churchmen, were fully reported in the press. Although in the first few of these reports Lucas is named as taking part and receiving a certain amount of abuse from one of his co-trustees in particular, the absence of his name in later reports of the meetings may indicate that he decided for a while to absent himself from them. However, he did in due course attend the very infrequently reported meetings of the trustees, many of whom appeared to be engaged in constant arguments with each other. Indeed, in a report of a meeting of the trustees held in 1843, the editor of the newspaper referred to the trustees as 'those most singular, quarrelsome and litigious persons'.¹⁰⁷ When at a meeting held in the following year two of the trustees refused to sign a form of indemnity in favour of Devizes Corporation in relation to a payment of £338, Lucas offered personally to indemnify them against all risks, but they still refused to sign. The editor of the newspaper carrying the report noted that 'Mr. Lucas's offer rebounds to his honor and benevolence'.¹⁰⁸

During the first part of the 19th century, a rapidly increasing population demanded the building of many new places of worship. In 1838 the Salisbury Diocesan Church Building Association held its annual meeting in Devizes and its deliberations afforded Lucas with an opportunity of expressing publicly his view on the difficulties experienced by the Church of England in meeting this demand in contrast to 'Romanists and Dissenters', as he described them, who could, and did, build increasing numbers of new churches and chapels as they

pleased. After the meeting of the Association, the *Devizes and Wiltshire Gazette* published a letter Lucas had written to the Marquis of Lansdowne, who had chaired the meeting, in which he asserted that:

The labours of the Church of England members have been frustrated by the wilful dilapidation of some churches, the consolidation of others and the paralyzing monopolization of plurality of benefices...when the endeavours of Christian liberality would fain provide for the spiritual wants of an increased population, there are the rights of parsons interfering and throwing constant impediments, there are the old claims of incumbents upon seats and sittings endangered, or deteriorated; there are Diocesan's approval, and all the expenses of consecration, endowments &c &c...¹⁰⁹

In the following number of the newspaper appeared a copy of a letter Lucas had also written to the Bishop of Salisbury¹¹⁰ on the same topic. Writing as 'a consistant (though unbeneficed) labourer in the diocese for nearly half a century', Lucas set out 'several impediments in providing for the services of any new church' and mentioned that 'the argument has been that the provision for the minister must be adequate to his education and station' and that 'where this cannot be, it has been thought that an un-endowed new built church was a grievance rather than a benefit'.¹¹¹ Lucas certainly gave financial assistance to the Association and several years later responded to an appeal by donating £5.¹¹²

In about 1840 Lucas arranged to have printed in *Devizes Observations on the Modern Clergy and the Present State of the Church*. This was to be his last substantial work that brought together many of his thoughts on the current state and practice of the church including the way in which its services were conducted and the merits, or otherwise of *ex tempore* prayer and preaching, as well as general remarks about meetings of the clergy, education and modern legislation.

In 1840 The Devizes and Wiltshire Exhibition for the benefit of the Devizes Dispensary and the Literary and Scientific Institution was held in the Town Hall. A bewildering variety of objects was lent for the edification of the numerous visitors to the exhibition and it comes as something of a surprise to find that the sole object lent by Lucas was a bust of Machiavelli!¹¹³

For many years Lucas had been a firm supporter of the British and Foreign Bible Society and was one of the joint secretaries of the Wiltshire Auxiliary

Society. When the Bishop of Salisbury, Edward Denison, withdrew his patronage of the Society, the *Devizes and Wiltshire Gazette* printed a copy of a long letter Lucas had written to the Bishop seeking to know the reasons for his withdrawal and saying that 'if any objection could be openly and truly established against the Society, I would no longer think of attending, and giving my mite, at its annual meetings'.¹¹⁴ Lucas was by no means satisfied with the Bishop's explanation that the activities of the society, supported by all the main dissenting bodies, impeded the work of the established church and demonstrated his sturdy independence by stating in a letter soon published in the Devizes newspaper that what a joy it would be for him to attend one of the great meetings of the Society at Exeter Hall¹¹⁵ and there see many Independents, Baptists, Quakers – not to mention Jews, Roman Catholics and Turks who 'I confess, Sir', he wrote, 'I should feel a pleasure, a greater pleasure, yes a pleasure of hope of success to our great and glorious cause...than from the highly honoured presence of our most revered Diocesan, and other highly celebrated Christian characters'.¹¹⁶

By this time Lucas was horrified at the increasing influence within the established church of the writings of Edward Pusey¹¹⁷ and John Newman¹¹⁸ in leading the Oxford Movement in a direction that was seen by Lucas as a danger to the reformed Church of England. As a consequence when, in August 1842, he heard that the sum of £8 had been given to purchase a communion cloth for St John's church, he wrote to the *Devizes and Wiltshire Gazette* to enquire where in the Prayer Book and its Rubrics, there is mention of anything other than a fair white linen cloth being provided.¹¹⁹ The Rector, E. J. Phipps, was determined to introduce into the church a number of ritualistic changes that failed to meet with the approval of a considerable body of his parishioners, including Lucas. At a meeting in the vestry of St John's in the following year, when a charge of 24s. appeared in the accounts for washing the boy choristers' surplices, Lucas said that this should not be a charge on the parish. The Rector would have none of this and firmly declared that the churchwardens would continue to include this charge in their accounts.¹²⁰ Further, when an appeal was launched to raise money to restore the chancel and chapels at St John's, Lucas's name was conspicuously absent from the long list of subscribers published in both the *Salisbury and Winchester Journal*¹²¹ and the *Devizes and Wiltshire Gazette*.

By 1845 the differences between the incumbent

and a substantial number of his parishioners reached such a pitch that a public meeting was held in the Town Hall 'to consider what means should be adopted in order to obtain a removal of grievances arising out of the mode in which services are performed by the Rector'.¹²² A committee was appointed, upon which Lucas declined to serve, and this led to a lengthy letter being signed by 65 parishioners (including Lucas) addressed to the Rector setting out their numerous grievances. This letter, with the Rector's detailed reply, was duly published in the *Devizes and Wiltshire Gazette*.¹²³ It is unlikely that the Rector yielded to any of the demands being made.

In about 1843 Lucas had been offered a benefice in Dorset worth £300 a year but 'unwilling to accept a post which he could not efficiently fill, he declined the emolument'.¹²⁴ Lucas's age doubtless persuaded him not to accept the living, as well as the fact that he was financially independent. He had inherited considerable wealth from his father including a freehold house, farm and lands in his native Northamptonshire that by his will made in 1852 he was to leave to his son Charles, with his second son receiving land owned by him in Wiltshire.

In 1882, when proposing that a portrait¹²⁵ of Lucas should hang on the walls of the Council chamber in Devizes, the speaker described Lucas as 'a great stickler for truth and temperance'. And so it was that when, in 1840, 'The teetotallers of Devizes assembled at the British School-room and formed a very agreeable tea party... Rev. Mr. Lucas and the Rev. Mr Elliott and other gentlemen addressed the meeting in appropriate speeches'¹²⁶ and some years later, when Lucas attended the annual festival of the Devizes Temperance Society, the President of the festival declared that 'it gave him peculiar pleasure to see their old and venerable friend, the Rev. C. Lucas, amongst them...He was certain his friends would not forget their early struggles: for it was the friend that stood by them in a storm to whom they were especially indebted'.¹²⁷ Lucas responded by saying that he was exceedingly glad to find they were in so flourishing a condition and so no longer required his help.

Whilst Lucas's attitude to the dangers of alcohol would undoubtedly have met with the approval of his fellow townsmen of a non-conformist persuasion, his approval of a little card-playing in which, as has been seen, Lucas was happy to indulge, would surely have raised a few eye-brows. In his *Observations on the Modern Clergy*, having mentioned that he had known six Bishops of Salisbury¹²⁸ including John Hume, he then digressed by writing that:

Lady Mary Hume's¹²⁹ routs were very celebrated; I knew her well, in after life, visiting at her son's at Broad-Hinton, and, if my remembrance fail not, often played a rubber with her! There are those, who cannot distinguish between the use and abuse of a thing, and invariably condemn what they are completely ignorant of...¹³⁰

In the same work Lucas described how in earlier years 'the different stations of society associated more together' and declared:

I have seen the most respectable of each class, the followers of Doddridge¹³¹ and Ashworth,¹³² playing their steady rubber together, even in the borough of Devizes; and close to Doddridge's old seminary in the very town of Daventry, Northamptonshire, have I seen (juvenilibus annis), another kind of gentle rubber played by them, on the bowling green of the chief inn; one or more of the clergymen being a magistrate.¹³³

Lucas doubtless thought that his opinions could more effectively be brought to the notice of the public by publishing them in print and so he was soon to write *The Newmanism or Puseyism* with a second edition being published in London in 1847.¹³⁴ This edition was dedicated to Queen Victoria who, in Lucas's opinion stated on the title page, was 'most interested in supporting our Reformed Protestant Faith against all the subtillies and disguises of Popery'. This work was followed by *The New Schools and Schoolmen. By the author of 'Puseyism' or the 'Newmanism'* consisting of 35 pages of rhyming couplets.

Until 1841, Lucas was president of the Devizes Literary and Scientific Institution. Now, in 1849, the black-balling of a potential member gave rise to a heated dispute between subscribers, some of whom considered that the Institution had become 'A Radical Hot-bed'! In despair at the feuding, Lucas resigned from the Institution and his position is revealed in a letter to the *Devizes and Wiltshire Gazette* in the course of which the writer declared:

What was it, let me ask, that induced the Rev. Mr. Lucas – one of the oldest and most respected inhabitants of Devizes – to withdraw in disgust from your ranks? He, you may remember, was your President, for some time after the Conservatives were driven by repeated insults from among you. In the goodness of his heart, he thought he might be able to bring about that which he always endeavoured to promote in this town – a good understanding among all classes, but alas!: he was doomed to be deceived...and he too not only resigned his office as President, but...he signified

his intention never again to have anything to do with "*The Devizes Literary and Scientific Institution*".¹³⁵

Several letters on the dispute were published in the following numbers of the newspaper in one of which Lucas denied that he had ever said that he would have nothing further to do with the Institution and called for a general meeting of subscribers to be called, the matter enquired into and the 'amende honorable' made.

In the summer of 1849, it was announced that members of the Archaeological Institute, founded just five years before, were to hold their meeting in Salisbury and would be exploring Silbury Hill. This news prompted Lucas to write to the members of the Society and in his letter, after mentioning the activities of earlier investigators 'after whose diggings very probably we know not what unaccountable trash may have been thrown in for the benefit of future antiquaries and explorers', he recalled that 'there is or was during my twenty years sojournment at Avebury, a bare spot on the South West of Silbury Hill which has been supposed to cover some hollow places and to explore this may perhaps amuse the lovers of the science'.¹³⁶ Soon after this, the *Devizes and Wiltshire Gazette* published a long, rambling letter from Lucas upon the 'labors of the Archaeological Society, at Stonehenge – Avebury – and Silbury' in which he wrote:

As the labors of Silbury proceeded – the natives, who did not want intuitive sense, never dreamt of any adequate delivery, but they were now and then amused by whispers of expectation. One while we heard of a brick wall being discovered in the very centre; and again that the Roman Road would be found to have passed through Silbury and, therefore, after all, Silbury was comparatively a modern structure.

He then proceeds to mock the 'Bishops, Deans and Doctors, Knights, Squires, Professors and Proctors' who, he suggests, would do well to heed the opinion of the Rev. Edward Duke¹³⁷ on the origins of these monuments and that:

There should be no blame to Mr Duke's theories, no blame to the very humble writer of these few lines, no blame to my friends, the landlord and tenant of the property – no blame to the able and willing gentlemen, who laid down a plan and pioneered the way for them.

Alas! Alas! if this is to be the progress of the combined efforts of modern Archaeology!...¹³⁸

Towards the end of the year controversy arose out of the supposed want of zeal displayed by the chaplain of the House of Correction in Devizes in performing his duties and in allowing other clergymen, including Lucas, to take his duty without the magistrates' consent. Lucas was incensed by this and in a long letter to the press declared 'and thus my undenied right to officiate for him sanctioned by thirty year's gratuitous services, is forgotten and I am placed by the Magistrates in the situation of an entire unknown stranger and indirectly considered an intruder'.¹³⁹

The now very elderly Lucas's horror at the progress being made by the supporters of the Oxford Movement persuaded him to arrange to have published in about 1850 *An Epitome from the Chief Passages of Scripture:...as a Refutation of the Romish Doctrine of Transubstantiation...* A second edition soon appeared in which Lucas noted that:

The first edition of this little work, was published in a country town; and the edition was disposed of in 16 days. – Hence the Author has not had the advantage of public criticism to assist him in correcting errors and preparing this second edition, which is increased about one-fourth.

The favourable manner by which this work was received induced him to publish *The Doctrines of Regeneration, and Justification...* in, as he stated in the Introduction, 'the same plain and cheap form, and for the same reasons, - to prevent the progress of the errors of Romanism, by bringing into one clear view the scriptural doctrines themselves'. He went on to make it clear that 'it has been from the middle class of society, of which I am myself a member, that a check has been at length given to this new schism in the church, anti-catholic as well as anti-christian'.

In 1850 a meeting was convened by the Mayor 'for the purpose of taking into consideration the alarming measures already adopted and further contemplated by the Pope against the Protestant Faith'. Lucas was called upon to propose one of the resolutions and it was reported that 'the moment the venerable gentleman presented himself he was hailed by three long and hearty cheers as *The Champion of Protestantism in Devizes*'... and was much cheered in different parts of his speech'.¹⁴⁰ It is no surprise, therefore, to find Lucas's name amongst the 80 Wiltshire clergymen who signed a letter addressed to the Bishop of Salisbury declaring that they would do all in their power to avert the threat, as they saw

it, to the established church and their willingness to co-operate with the bishop to this end.¹⁴¹

It is likely that the last of Lucas's work to be published appeared in c. 1851. This pamphlet, *The Pope's Palace; or, A Scene at the Vatican*, appeared as a script, as it were, for a play, the characters including the Pope, Cardinal Wiseman,¹⁴² Dr Newman and some English Neophytes, or Converts and containing words and expressions of the most extreme anti-papal sentiments imaginable.

During the last few years of his life, Lucas became an inveterate writer of letters to the *Devizes and Wiltshire Gazette*, signing one of them 'an octogenerian and superannuated curate'.¹⁴³ Despite his great age, he also continued to attend any meeting whose purpose was to defend the established church against the 'recent aggression of the Pope' as described in the report of one such meeting at which he spoke in September 1851.¹⁴⁴

In 1852 Lucas's daughter Sophia died aged 44 and in the following year his wife Sarah also died. Lucas was now being looked after by one, or perhaps both, of his other unmarried daughters in a typical middle class Victorian household with the help of a housemaid and cook as revealed in the 1851 census return.

In 1853, although by now 84 years of age, his crusading zeal, in defending his beloved protestant and reformed Church of England against those he perceived as her enemies, remained undimmed, and is demonstrated by the conclusion of a letter addressed to a number of clergymen in which he wrote:

As for the success of your agitation no Bible-Christian will doubt a moment – a reaction is about to take place; for it cannot be believed that this noble country is so far lost to HOLY FAITH AND PRINCIPLE, as to throw itself back into the vortex of papal abominations, of Scriptural perversions, idle vanities, gorgeous puerilities, superstitious ceremonies and adulterating idolatries¹⁴⁵!

Lucas did not long survive his wife. He died on 13 November 1854 having attended church twice on the previous day. Three days later there appeared in the *Devizes and Wiltshire Gazette* a long obituary and a lengthy tribute, almost certainly written by his friend George Simpson¹⁴⁶ proprietor of the newspaper, and being most unusually partially bordered in black. The writer movingly describes Lucas as having been 'manly and independent, and of the most undeviating rectitude...of cheerful and pleasing manners, of extensive information,

gentlemanly and obliging in his deportment, pious without ostentation and without austerity'.¹⁴⁷ In the following number of the newspaper, after printing a fulsome tribute paid to him by the Rector, it was reported that 'At the Baptist Chapel, the Rev. Mr. Stanford,¹⁴⁸ on Sunday last, also paid a just tribute to the memory of our venerable friend. In fact he was held in the highest possible reverence and respect by all ranks and sects'.¹⁴⁹

Following his death Greystone House was sold by his executors and his family left Devizes. However, almost thirty years later, the Society received from his daughter Frances 'a very handsome donation of coins (several of them gold), medals, tokens and seals; as well as an original miniature of Charles I., a very ancient watch in wooden case, and many other curiosities, given by Miss Fanny Lucas, and collected by her father, the well-known Wiltshire antiquary, the late Rev. Charles Lucas, of Devizes'.¹⁵⁰ Lucas's two surviving daughters, who moved to Clifton after the death of their father, both ensured that some of Lucas's wealth returned to Devizes for the benefit of the poor of the town. By a settlement made in 1882 Frances placed in trust the Grange in Bridewell Street in which she had established a day-nursery for infants of the working classes and by her will proved in 1886 left £4500 towards its maintenance and for pensioning its existing or future matrons.¹⁵¹ Lucas's other daughter, Sarah, by her will proved in 1881, left the handsome sum of £12,000 to provide pensions for poor women nominated in rotation by the representatives of five non-conformist churches, of whom the minister of Devizes Strict Baptist chapel should be one.¹⁵² What would Lucas have thought had he known that some of his family's wealth would one day be used for the benefit of dissenters from the church that he had so devotedly served throughout his long life?

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Whiteparish 1841: some dynamics of a rural parish

by *David Moody*

This paper investigates the dynamics of kinship and migration in a Wiltshire parish within the context and constraints of land ownership, housing stock, structures of authority and employment. A timid proletarianism co-existed with traditional practices, for example stage-of-life service, and alternative ways of living, such as squatting and non-conformity. As a consequence, the numbers of extended households and levels of kinship links are high (nearly 84 per cent of the households have first order kin within the parish), and the migratory and marital behaviour of the labouring classes is less differentiated from that of other classes than found in certain other studies of southern England.

Introduction

Whiteparish comprised a roughly rectangular area of 6284 acres, with two detached portions to the south, situated within the wheat and sheep belt of south-east Wiltshire bordering Hampshire. In 1841 the agrarian economy was supplemented by forestry, while the northern third of the parish was chalk plain, with a steep scarp forming the boundary and limiting intercourse with five adjoining Wiltshire and Hampshire parishes to the north. Sands and clays covered the populated areas of the centre and south, where the main turnpiked south-east/north-west roads linked Whiteparish to those of Downton and Landford (Wiltshire) and Sherfield English (Hampshire).¹ In 1841 the population was 1263, including the extra-parochial Earldoms: nearly the highest population ever sustained by the parish (877 in 1801 to 1344 in 1851). The 1841 census enumeration figure was higher, but two families and several individuals were double-counted. Some 625 were male and 638 female; 754 were adult and 509 were children under 16.

Three centuries of innovation and enclosure (the last open fields were enclosed in 1804) transformed the parish's appearance and led to the formation of

the nucleated village of Whiteparish, where most of the population lived. Village amenities listed in the 1841 census included four grocers, one of which may have been also a bakers, two butchers and an inn. About 20 per cent of the male population were craftsmen, tradesmen or specialist agricultural workers and about 60 per cent labourers or servants (see Table 4). A tourist guide of 1869 notes impressive 17th-century buildings, including the mansions of Brickworth and New House and the manor house of the Lynches.² In the improvement fever of the early 19th century, the mansions and grounds of Cowesfield and Broxmore were redeveloped, together with new roads, estate houses, lodges, farms and 'immaculate hedge-rows'.³ Order and rationality advanced together with a controlled romanticism. Guide books sought out and waxed eloquently on 'the highly picturesque' - the ancient foundation of Whelpley 'a very interesting relic of the yeoman's establishment',⁴ on the 'extensive and diversified views of a fine and luxuriant tract of country, including the umbrageous woods of the New Forest',⁵ on the 'wild wood of the Earldoms'⁶ and on the temple in the grounds of the extra-parochial mansion at Melchet Park featuring Hindu gods and Warren Hastings 'rising out of the sacred flower of the lotus', all carved in the finest imitation stone and

Table 1 Land ownership and occupation 1842

Name	Acreage owned	% of parish acreage owned	Acreage occupied (own lands)	Acreage occupied (others' lands)	Total acreage occupied	% of parish acreage occupied
Nelson, Countess (of Brickworth)	1355.65	21.53	320.32	0	320.32	5.08
Fremantle, Lady	1104.68	17.55	377.85	0	377.85	6.00
Bristow, Robert Esq (of Broxmore)	911.88	14.48	479.53	236.95	716.48	11.38
Nelson trustees	540.02	8.58	146.33	0	146.33	2.32
Cooper Robert	501.04	7.96	453.63	0	453.63	7.20
Fort, George Yalden	374.12	5.94	56.14	0	56.14	0.89
Ashburton, Alexander Lord	294.58	4.68	0	0	0	0
Wynne, Edward	286.26	4.55	2.39	0	2.39	0.04
Shafto, Robert	205.54	3.26	73.04	0	73.04	1.16
Lawrence, George Esq (of Cowsfield)	159.87	2.53	124.63	68.76	193.39	3.07
Matcham, George (of New House)	146.59	2.33	146.59	0	146.59	2.33
Bell John (Nelson's tenant)	0	0	0	871.83	871.83	13.85
Fox, John (Fremantle's tenant)	0	0	0	464.07	464.07	7.37
Nunn, Arthur (Bristow's tenant)	0	0	0	402.03	402.03	6.39
Whitcher, Joseph (Wynne's tenant)	0	0	0	283.73	283.73	4.51
Webb, Richard Esq (Ashburton's tenant)	0	0	0	282.03	282.03	4.48
Parsons, Stephen (Fort's tenant)	0	0	0	267.66	267.66	4.25
Andrews, William (Nelson's tenant)	0	0	0	223.17	223.17	3.54
Gay, Alfred (Nelson's tenant)	0	0	0	162.53	162.53	2.58

Source: Tithe Map Schedules

'after the chastest models of Hindu architecture'.⁷

This rural idyll imagined by the gentry and the writers of contemporary tourist guides concealed a harsher reality. The 1830s was a decade of agricultural distress exacerbated by rapid population growth and in 1836 some 38 men, women and children from the parish joined 220 from neighbouring Downton in an exodus to the wilderness of Upper Canada. In 1831 seven local men convicted of breaking a threshing machine during what became known as the Swing Riots were each sentenced to seven years transportation. The judge noted that most of the prisoners 'were in better circumstances than the general class of person charged with this offence'.⁸ The names of local yeoman families are recognisable, families for whom the relics of 'the old yeoman's establishment' told a story of destitution.

Land ownership

Domination by a landowning élite, revealed by the tithe map schedules of 1842 (Table 1), is typical and these findings duplicate those in a sample of 40 Wiltshire parishes studied by Crittall.⁹ This concentration of landed wealth was the culmination of a process of several decades, as is shown by comparisons of size of holdings in the Land Tax assessments of 1780 and 1831 (Tables 2 and 3).¹⁰ The proportion of land held by the top 10 landholders

was 44.75 per cent in 1780, 84.46 per cent in 1831 and 91.07 per cent in 1842. Of the last figure, over 30 per cent was in the hands of the Nelson family (who had extensive lands in neighbouring parishes too) and a further 2.33 per cent held by the closely related Matchams, both of whom represent alliances between the parvenus aristocratic incomers, the Nelsons, and the local Eyre family.¹¹ 'New money' was represented by the former banker Alexander Baring, Lord Ashburton, who owned land in several counties and by the heiress Lady Fremantle, née Selina Elwill.¹² The Bristows of Broxmore, the third largest owners, had been gentry in the area for a century and had an estate across the border in Hampshire. This concentration was mainly at the expense of the middling landowners, particularly those with 50-100 acres – the traditional yeoman farmers: 24 individuals accounting for 27.66 per cent of the land in 1780, but only three individuals with 2.96 per cent in 1842. In 1780 there were also 18 yeomen with 20-50 acres, reduced to three in 1842 and a significant decline in land holdings between 100 and 250 acres too, from 12 individuals to three.

At the other end of the scale, that of the very small landowners, evolution is more difficult to plot. Land Tax returns are sometimes deficient in the representation of small landowners,¹³ hence the skewed comparison with the tithe map data, which recorded the tiniest plot, cottages, gardens, orchards and non-agricultural holdings. Amongst

Table 2 Owners and occupiers 1780-1842

	1780	1831	1842 holders of more than 1 acre	1842 full details of holders
owners	72	37	35	63 (28 own less than 1 acre)
occupiers	70	65	71	166 (95 occupy less than 1 acre)
owners who are also occupiers	30	24	23	45 (15 occupy less than 1 acre and 22 own less than 1 acre)
occupiers who are not owners	40	41	44	121 (77 occupy less than 1 acre)
owners who are not occupiers	42	13	13	18 (5 own less than 1 acre)
total owners and occupiers	112	78	82	184 (102 own and/or occupy less than 1 acre)

Sources: Land Tax returns, Tithe Map Schedules

the slightly larger holdings, 1-10 acre and 10-20 acre groups remained overall fairly constant across the period. The much-contended thesis of the demise of the cottager, partly attributed to loss of commons through parliamentary enclosure, does not seem applicable to Whiteparish, as noted by Crittall¹⁴ in her survey of 40 Wiltshire parishes between 1793 and 1870 noted above.

Trends are also discernible in land occupation. The number of small occupiers, with holdings from 1 to 10 acres increased substantially at the expense of the middling husbandmen/yeomen with holdings from 20 to 100 acres. The latter's number declined from 41 individuals farming 38 per cent of the parish to 15 farming 15 per cent. Larger farmers with over 100 acres already accounted for 58 per cent of the land in 1780, but this figure rose to over 84 per cent in 1842 and it is clear that many of these latter farmers were a new breed. All but one of the nine largest occupiers in 1780 also owned some land in the parish, with occupancy still in part a patchwork of scattered freehold, copyhold and leasehold estates. In 1842, eight of the major farmers farming from 162 to 871 acres owned not a single acre but were tenants of the major landowners; three (Fox, Gay, Parsons) were not born in the parish and the same was the

case for four smaller farmers.

Land and power were closely linked, with ramifications throughout local institutions. Of the 14 members of the parish's Select Vestry in 1835, eight feature in Table 1. Suitably behaved poor relief applicants were put to temporary work, given relief or a pair of shoes or trousers. Others, such as Richard Bell or Thomas Bridle, were refused for misconduct when in the employ of Mr Fox and Mr Bristow respectively.¹⁵ Thomas Noble's application for work was likewise refused 'till he give reason for his discharge from Bolton [later Earl Nelson].'¹⁶

Occupations

A full breakdown of occupations is given in Table 4. Agriculture-related activity was predominant, service and brick making excepted.¹⁷ Twenty two individuals were designated farmers, but under this title were subsumed the tenant with 850 acres and the husbandman with 15. Equally unsatisfactorily, the grandeur of the status 'independent' concealed some pensioners in receipt of poor relief during the agrarian hardships of the 1830s alongside

Table 3 Approximate acreage owned and occupied 1780-1842

Acreages owned/ occupied	No of Owners 1780	Percent of land owned 1780	No of owners 1831	Percent of land owned 1831	No of owners 1842	Percent of land owned 1842	No of Occupiers 1780	Percent of land occupied 1780	No of occupiers 1831	Percent of land occupied 1831	No of occupiers 1842	Percent of land occupied 1842
Under 1 acre	n.d.	n.d.	n.d.	n.d.	28	0.18	n.d.	n.d.	n.d.	n.d.	95	0.42
1 - 9.99 acres	6	0.83	11	1.01	10	0.54	2	0.29	26	2.18	32	2.08
10 - 19.99 acres	7	1.54	6	1.02	6	1.53	6	1.71	7	1.76	9	2.03
20 - 49.99 acres	18	11.06	4	2.00	3	1.39	20	12.96	7	3.89	6	2.44
50 - 99.99 acres	24	27.66	3	3.72	3	2.96	21	25.27	7	7.60	9	8.68
100 - 249.99 acres	12	25.79	4	12.78	3	8.13	17	37.94	11	26.59	5	13.85
250 - 499.99 acres	4	22.53	4	25.18	3	15.17	4	20.51	4	27.09	8	45.29
Over 500 acres	1	9.22	3	49.19	5	70.10	0	0	3	28.82	2	25.23

Sources: Land Tax returns, Tithe Map Schedules

n.d. = no data

Table 4 Occupations 1841

<i>profession</i>	1841 <i>male</i>	1841 <i>female</i>	1841 <i>total</i>	<i>Percent of total workforce</i>	1831 <i>20+ age group</i>	1841 <i>20+ age group</i>
Agricultural labourer+	112	0	112	26.60	150	112
Labourer+	49	4	53	12.59	7	52
Servant	31	47	78	18.53	57	42
Other labouring class	3	1	4	0.95		4
<i>Total labouring class</i>	<i>195</i>	<i>52</i>	<i>247</i>	<i>58.7</i>	<i>214</i>	<i>246</i>
Bricklayer/maker/burner	11	1	12	2.85		
Shoemaker	8	0	8	1.90		
Shopkeeper	3	3	6	1.43		
Blacksmith	6	0	6	1.43		
Carpenter	5	0	5	1.19		
Tailor/dressmaker	1	4	5	1.19		
Animal dealer	4	0	4	0.95		
Ostler/groom	4	0	4	0.95		
Gardener	4	0	4	0.95		
Sawyer	3	0	3	0.71		
Schoolteacher	1	2	3	0.71		
Other trades/crafts etc	22	1	23	5.46		
<i>Total trades/crafts etc</i>	<i>72</i>	<i>11</i>	<i>83</i>	<i>19.71</i>	<i>70</i>	<i>83</i>
Farmer	20	2	22	5.23		
Independent	12	14	26	6.18		
Surgeon (doctor)	1	0	1	0.24		
No occupation listed*	16	26	42	9.98		
Total	316	105	421			

* for males 16 and over, unmarried women 16 and over and widows.

+ these figures are distorted because the enumerator in District 4 Whelpley and Earldoms never employs the term 'agricultural labourer', always 'labourer'. The true figure for agricultural labourers will be higher.

Sources : Census analysis 1831(www.visionofbritain.org.uk/census/);
Census Enumeration Books 1841

members of the gentry and aristocracy. Labourers constituted nearly 40 per cent of the workforce, but the traditional 'farm servant' had gone. Often the son of parents with land of their own, hired under a year's contract and lodging in his master's house, part farm worker, part servant and part apprentice, he might even in due course have married his master's daughter. In his place were the landless, wage-based agricultural labourers hired even by the day; the ratio of farm servants: agricultural labourers in Wiltshire fell from 17 per cent to 6 per cent between 1831 and 1851.¹⁸ Of the 150 or so 'ag labs' in Whiteparish in 1841, three at most were lodged with their employer.

Rural craftsmen served the local economy. Of the six blacksmiths, two were brothers, with the surname Hinwood or Henwood. A third Hinwood, son of a third blacksmith, not a first degree relation of the brothers, lived four doors down from one of them, working as a servant. This situation replicates the 'dynasties' of blacksmiths which Everitt found in

Kent: 'sons, brothers, fathers, uncles, nephews and cousins are often to be found at work in a group of nearby parishes'.¹⁹

Apprentices had all but disappeared in Whiteparish: just one was listed, to harness maker John Lush. But an 'unofficial' system is recorded in the Select Vestry minute book: Ann Harris, 'a girl in the poorhouse now nine years of age to be sent to Mrs Amor for the term of 3 years to be instructed in the art of plaiting straw.'²⁰ She was still in Whiteparish in 1841. Now 17 and no longer with the Amors, she was with John Oakford, an incomer from Newcastle, and his wife, Elizabeth Harris, possibly a relative of hers.

In the English pre- and proto-industrial model of domestic service,²¹ putting adolescent children out to service was widespread, not only amongst the poor, for whom it was a necessity, but also among the middling sort. It was considered good for the child's discipline and also for training in trades, crafts and professions. Length of service was considerable, extending from the end of childhood to the start of full adulthood, but not longer, i.e. service was a distinct 'stage of life'. By the 18th century, the

majority of domestic servants were female, males being predominantly farm servants. Service was also a key mechanism sustaining exogamy, particularly for females.

It is clear from Table 5 that there were important changes in this model by 1841, but also some continuity. The percentage of households containing servants had dropped dramatically, from the 32.9 per cent mean found in 100 English communities 1574-1821²² to under 13 per cent but servants still accounted for over 18 per cent of the workforce (Table 4). The male/female ratio was weighted towards the latter, and half the servants (39 out of 78) were concentrated in five households and a further three seem to be residing in the grounds of their estates and were presumably living out. Four of their masters/mistresses, Nelson, Bristow, Lawrence and Matcham, have already been noted above among the major landowners and a fifth, John Bell, as the largest farmer in the parish farming some of the Nelson lands. These major landowners were also

Table 5 Servants

Households which include servants	33
Percentage of households with servants	12.69%
Total number of servants	78
Females	47
Males	31
Households with 9-10 servants	3
Households with 3-5 servants	3
Households with 2 servants	9
Households with 1 servant	18
Servants aged 15-16	21*
Servants aged 17-21	27*
Servants aged 22-26	9*
Servants aged 27-31	5*
Servants aged 32-41	10*
Servants aged over 41	6 (age range 45-70)
Baptised Whiteparish	27
Baptised Downton, Landford, West Dean or Bramshaw	10
Baptised elsewhere Wiltshire	23
Baptised outside Wiltshire	17 (at least 3 from bordering Hants parishes)

*these figures are somewhat distorted towards a younger age profile by the census enumeration recommended practice in 1841 of registering adult ages in multiples of five, e.g. all those born between 1815 and 1820 are given the age 20. Where known, exact ages have been substituted from data from parish registers.

Sources: Census Enumeration Books; Parish Register of Baptisms

the employers of others who could be considered as falling within specialised areas of service; four gardeners, two gamekeepers and two woodmen. Of the 28 more modest households, all with one or two servants except one with three, six were those of major farmers, farming between 160 and 465 acres (Andrews, Cooper, Fox, Gay, Nunn, Parsons). In the last case her 'master' was her grandfather, so perhaps she was a 'living out' servant. There were three independents, a clerk, a publican, and then a range of middle-ranking individuals who conformed to the traditional model of service with one's peers, six 'yeomen' farming between 12 and 79 acres, a grocer, butcher, harness maker, gardener, carrier, coal merchant, woodman and bricklayer.

From a total of 78 servants, the occupation of the parents was known in only 32 cases. Of these, 21 were labourers or agricultural labourers, three were blacksmiths, three were yeomen, one was a gamekeeper and four were single parent women. These figures suggest there was still a residual attachment to the concept of service for the middling classes. There is also evidence for a strong link

between poverty and the servant status. The three Bennett children in service with Robert Bristow were orphaned in the 1830s, and one of their elder sisters had herself been in service at that time, when her widowed mother successfully applied to the Select Vestry for shoes, stockings, aprons and petticoats so that she could continue in service at Mr Parsons.²³ One of Parsons' two servants in 1841 was George Light, who was probably the boy for whom his grandmother Jane Light applied for a pair of shoes in 1833.²⁴ George Light was one of four servants in the parish known to be illegitimate.

There is also evidence to support the view that service was considered a 'stage of life', though commencing at an older age than in the traditional model – 15 or 16. Forty eight of the 78 servants were aged between 15 and 21. It is interesting that the Bennett girl, probably Harriet, in service to Mr Parsons in 1832 was no longer a servant in 1841 despite her presumed poverty; now aged between 21 and 25, she was living with her married brother. Only one of the 78 servants has a specific professional designation, John Coombs, butler to the Lawrence family at Cowesfield House. It was also noticeable that the 'career' servants, those aged 22 and over, were concentrated in the five large households, which together accounted for 21 of the 30 over-22s. These servants were part of more rigorous hierarchies with specialised functions, as was indicated on the 1851 census - kitchen maid, housekeeper etc at Cowesfield, for example.

Approximately half of servants were born in Whiteparish or neighbouring parishes and in some cases the parents were living close by. Three of the grand households, Lawrence, Nelson and Matcham, appear to have a high percentage of outsiders. The Bristow and Bell households were different: Bell had only one of five not from Wiltshire and in the Bristow house eight of the ten servants were probably local, including the three Bennetts mentioned above. The Bristows also had the one instance of a married couple in service living in. The only other known married servant was Moses Holloway at Cowesfield, still there as coachman in 1851, whose wife and family were living close by in the grounds. There are 11 recorded cases in the parish register of children born to married servants between 1820 and 1837 from four families. Living in, of course, brought dangers of exploitation and abuse, particularly for girls, for whom pregnancy, either from fellow servants or the master's family, was a risk. Of 28 out-of-wedlock births for the period 1820-37, nine were babies of servants.

Housing

Perhaps as a consequence of population increase, there appears to have been a shortage of housing. In 1834, Henry Lane applied to the Select Vestry for a place to live. His house having being pulled down he had been unable to find lodging. The Vestry's response was that 'Lane being in full work the vestry cannot interfere.'²⁵ The 1841 census included 260 households (262, but two were duplicated) and 251 inhabited houses, but the 1842 tithe map schedule listed around 228 buildings only (75 houses, 147 cottages and six miscellaneous). The figure for cottages was the least precise, for there were five instances where 'cottages' are listed without the number being indicated. The tithe map indicated several examples of multiple occupation of a house or cottage. Farm workers, servants and the homeless were sometimes housed in barns and outbuildings, as found elsewhere in the 1851 census.²⁶ Twenty years later the Reverend Cobbold in Suffolk noted the same, taking as an example Thomas Goddard:

'Nobody could ever compel this man to go into a workhouse'. He died 'in a miserable hovel – in fact an outshed in which he slept with William Rose to the hour of his death'.²⁷ There were six examples of possible bothy or dormitory-style accommodation in Whiteparish in 1841, where groups of 2-4 young unmarried workers, mostly servants and agricultural labourers, were found.

Table 6 summarizes house ownership or 'occupation' according to the 1842 tithe map schedules, occupation equating to leasehold rather than physical occupation in some cases at least. Lord Nelson, in a paper written 25 years later, identified three types of houses in the parishes of Downton and Whiteparish. First there was the comfortable two-storied mud house in a large orchard or garden of a sufficient size to pay the rent. Secondly there was the low mud hovel built by the squatter along the roadside. Thirdly there was the two-bedroomed thin-walled cottage in a small garden at five pounds a year 'by which the cottage speculator gets interest for his investment'.²⁸ The total number of individuals owning houses in the parish was 49, of whom not

all were residents in the 1841 census. Some 134 occupiers listed on the tithe map schedule, or their spouses, were also listed as household heads or their wives in the 1841 census (just over half the 260 households). A comparison with Table 1 shows that the correlation between land ownership/occupation and housing ownership/occupation was far from exact. Robert Cooper, fourth largest landowner, had no housing at all, and Lady Fremantle, the second largest, had a much smaller housing stock than might be expected. Landowners invested considerably in the development of their parks, mansions and farmhouses in the first part of the 19th century, but not in housing for their workers on their estates, apart from some cottages east of Ash Hill House on the Bristow estates and some lodges and gamekeepers' cottages.²⁹ It was a generality of the age that 'Large farms did not have the provision to house large numbers...'.³⁰ New houses to cope with the population expansion were built mostly around the parish's one major nucleated settlement, the village of Whiteparish, and on the common to its south. This was a common arrangement: 'labourers

Table 6 Accommodation – ownership and occupation

Name	Properties owned	% of total properties	Own properties occupied	Others' properties occupied	Total properties owned or occupied
Nelsons (landowners)	49	21.49	1	0	49
Bristow, Robert (landowner)	33	14.47	10	5	38
Bridle, James (bricklayer)	10	4.39	1	0	10
Fremantle, Lady (landowner)	9	3.95	1	0	9
Webb, Richard (farmer)	8	3.51	0	2	10
Ashburton, Lord (landowner)	7*	3.07	0	0	7
Lawrence, George Esq (landowner)	7	3.07	1	0	7
Wing, George	7*	3.07	0	0	7
Stone, Charles	6	2.63	0	0	6
Stone, Elizabeth (grocer)	6	2.63	0	3	9
Fort, George Yalden (landowner)	5	2.19	0	0	5
Hobbs, Thomas (owns 17 acres)	5	2.19	0	0	5
Crook, Elizabeth	4	1.75	1	0	4
Henwood, Christopher (blacksmith)	4	1.75	1	0	4
Gardner, Elizabeth	4	1.75	1	0	4
Gardner, Frances (grocer)	4	1.75	0	1	4
Gardner, Charles (yeoman)	3	1.32	1	2	5
Welstead, Moses (yeoman)	3	1.32	1	0	3
Wynne, Edward (landowner)	3	1.32	0	0	3
Institutional owners	13	5.70	0	0	13
Owners of 2 properties (8)	16*	7.02			
1 property owners (22)	22	9.65			
Crook, Thomas (bricklayer)	1		1	3*	4
Elkins, John and others	2*		0	9	11

* minimum figure (actual number may be higher)

Source: Tithe Map schedules

occupied the village centres, whilst the farmers and gentry lived in the surrounding countryside'.³¹ The gap left by the landowners' relative indifference to housing was filled by the 'middling' sort, whose activity in the housing market fitted that of the 'cottage speculator' noted by Lord Nelson. Included were Bridle the bricklayer, who was perhaps involved in house building, with ten properties and seven individuals who appear to be leasing properties for the purpose of sub-letting.

Migration

Table 7 lists the birthplace of all those recorded on the 1841 census, with just over half of the adults and four fifths of children born in Whiteparish. This suggests substantial mobility amongst unmarried adults, but that, once married and with children, they settled. For the most part migration was local: nearly 25 per cent of adult migrants came from adjacent parishes in Wiltshire and Hampshire, a further 50 per cent either from other parts of Wiltshire or probably from other parts of the county and 15 per cent from the rest of Hampshire, human traffic mostly following the South East/North West axes noted above. The county boundary appears not to have acted as an obstacle. Even amongst the most adventurous, the 31 adults from neither Wiltshire nor Hampshire, 61 per cent were from the other neighbouring counties, Berkshire, Gloucestershire, Dorset and Somerset.

High levels of mobility, albeit, as in Whiteparish, often only as far as the next parish, are now considered to have been commonplace in England from the 17th century if not before, with less than 25 per cent of the population spending their lives in one place.³² Whiteparish in fact appears on the conservative side, compared with Hernhill, Kent, for example, where only 32.8 per cent of household heads and their spouses in 1851 were born in the parish,³³ and with south-east Surrey, with total figures of 37 per cent and 29 per cent for men and women respectively.³⁴ A possible reason for this difference is the proximity of London to the Kent and Surrey parishes. The closest urban centres to Whiteparish, Southampton, population 26,000 in 1841, and Salisbury, with half that number, probably had less pull.

Table 8 suggests that exogamous marriage was the chief motor for long-term or permanent relocation. This is a general finding, as is the pattern that 'The higher the socio-economic group, the

Table 7 Inhabitants of Whiteparish 1841: parish of birth

<i>Parish</i>	<i>Number</i>	<i>%</i>
Whiteparish	792	62.71
<i>Adults</i>	384	50.79
<i>Children under 16</i>	408	80.16
Downton	37	2.93
<i>Adults</i>	34	4.51
<i>Children under 16</i>	3	0.59
Landford	38	3.01
<i>Adults</i>	26	3.45
<i>Children under 16</i>	12	2.36
Other adjoining Wiltshire parishes	12	0.95
<i>Adults</i>	9	1.19
<i>Children</i>	3	0.59
Bramshaw	7	0.55
<i>adults</i>	7	0.93
<i>Children</i>	0	0
Wiltshire (apart from above)	43	3.40
<i>Adults</i>	39	5.17
<i>Children under 16</i>	4	0.79
Sherfield English	20	1.58
<i>Adults</i>	17	2.25
<i>Children under 16</i>	3	0.59
Other adjoining Hampshire parishes	4	0.32
<i>Adults</i>	4	0.53
<i>Children</i>	0	0
Hampshire (rest of)	58	4.59
<i>Adults</i>	57	7.56
<i>Children under 16</i>	1	0.20
Dorset	11	0.87
<i>Adults</i>	9	1.19
<i>Children under 16</i>	2	0.39
Other counties	27	2.14
<i>Adults</i>	22	2.92
<i>Children under 16</i>	5	0.98
Parish of birth not known	214	16.94
<i>Probably Wiltshire</i>	156	12.35
<i>Adults</i>	95	12.60
<i>Children under 16</i>	61	11.98
<i>Probably not Wiltshire</i>	58	4.59
<i>Adults</i>	51	6.76
<i>Children under 16</i>	7	1.38

Sources: Census Enumeration Books; Parish Registers of Baptisms. There were many discrepancies between birthplaces listed in 1841 and those listed in later censuses. Amendments have been made to the 1841 data where an alternative birthplace has been consistently indicated.

greater the distance between residence of the bride and groom'.³⁵ Lord found in her Surrey parishes that 7 per cent of 183 labourers' marriages were between couples residing in different parishes, against ten or 83 per cent of the 12 marriages involving gentlemen.³⁶ The labouring classes had more potential partners available locally and were subject to greater constraints, both financial and political. Vestry controls, motivated in part by fears of extra burdens on the poor rate, were considerable. Incomers' applications for 'work and lodging' were refused³⁷ and certificates were

Table 8 Spouses 1841 : parish of origin by occupational group

Category	Number	Per cent	Labouring class	% lab class	Trades/crafts	% trades/crafts	Farmers	% farmers	Independent/gentry	% ind/gentry	Not known
No of married couples/widow(ers)	259	100	140	100	67	100	20	100	11	100	21
Both partners from Whiteparish	67	25.87	48	34.28	15	22.39	1	5.00	1	9.09	2
One partner from Whiteparish	112	43.24	60	42.86	30	44.78	8	40.00	4	36.36	10
<i>Other partner from Downton</i>	11	4.25	7	5.00	2	2.99	0	0	0	0	2
<i>Other partner from Landford</i>	10	3.86	4	2.86	2	2.99	3	15.00	0	0	1
<i>Other partner from Sherfield English</i>	9	3.47	6	4.29	0	0	1	5.00	0	0	2
<i>Other partner from other adjoining parishes</i>	5	1.93	2	1.43	2	2.99	0	0	0	0	1
<i>Other partner from rest of Wiltshire</i>	34	13.13	18	12.86	12	17.91	2	10.00	1	9.09	1
<i>Other partner from rest of Hampshire</i>	22	8.49	12	8.57	7	10.45	2	10.00	1	9.09	0
<i>Other partner from further afield</i>	8	3.09	4	2.86	2	2.99	0	0	2	18.18	0
<i>Other partner's origin not known</i>	13	5.02	7	5.00	3	4.48	0	0	0	0	3
Neither partner from Whiteparish	71	27.41	30	21.43	22	32.84	9	45.00	3	27.27	7
<i>With children born elsewhere than W/parish</i>	22	8.49	8	5.71	10	14.93	3	15.00	0	0	1
<i>One partner from neighbouring parishes</i>	21	8.11	12	8.57	4	5.97	2	10.00	1	9.09	2
<i>Both partners from neighbouring parishes</i>	5	1.93	0	0	4	5.97	0	0	0	0	1
<i>Neither partner from Whiteparish and/or adjoining Wiltshire parishes</i>	45	17.37	19	13.57	15	22.39	6	30.00	2	18.18	3
One not from Wiltshire; other not known	9	3.47	2	1.43	0	0	2	10.00	3	27.27	2

Sources: Census Enumeration Books; Parish Registers of Baptisms; Parish Registers of Marriages

Table 9 Husbands and wives 1841

category	Husbands (no)	Husbands %	Wives no	Wives %
Total (inc deceased with widow(ers) alive)	259	100	259	100
From Whiteparish	142	54.83	107	41.31
From adjoining parishes	33	12.74	36	13.90
From rest of Wiltshire	38	14.67	46	17.76
From rest of Hampshire	16	6.18	39	15.06
From further afield	11	4.25	17	6.56
Origin not known	19	7.34	14	5.41
<i>Of whom origin is outside Wiltshire</i>	10	3.86	4	1.55

Sources: Census Enumeration Books; Parish Registers of Baptisms; Parish Registers of Marriages

still issued for emigrants wishing to reside in other parishes.³⁸ Such controls help to explain the migration bias in favour of farmers and trades/crafts specialists, desirable recruits for local landowners. Some incomers were notoriously outsiders, such as gamekeepers 'the most isolated members of the community'.³⁹ Notwithstanding these constraints, and despite the fact that Whiteparish conformed in general to the pattern of residential distances of bride and groom, nearly 43 per cent of the parish's labouring class married partners outside the parish, against the figure of just seven per cent in Surrey. Lord suggests that membership of non-conformist churches was a spur for spatial exogamy, and this

may be a factor in Whiteparish, with its strong Methodist presence. Three houses had been registered for Wesleyan worship in Whiteparish between 1798 and 1816 and a chapel was registered in 1826. Primitive Methodists built a chapel in the late 1850s. Independents had also been active. The Methodist circuit system brought church members into contact with fellow believers from a wide area and the deep personal commitment often associated with non-conformism was an incentive to marry within the church membership.

Table 9 supports the view that women were more mobile and more exogamous than men. 'Females are more migratory than males within the county of their birth, but males more frequently venture beyond' was Ernst Ravenstein's sixth law of migration presented to the Royal Statistical Society in the 1800s.⁴⁰ But Lord found that women travelled further in Surrey⁴¹ and in Whiteparish they did too. Marriage partners were chosen during youth and early adulthood; partners often met in the parish where they were working, as servants or harvesters in many cases.⁴² Female exogamy is neatly illustrated by the case of the doyenne of the parish, 104 year-old Elizabeth Heath née Wiltshire (106 according to the *Salisbury Journal*), who hailed from Mottisfont in Hampshire, some five miles away. Her daughter Elizabeth, a mere 66 (over 80 in the newspaper), born in Whiteparish and married to Richard Wort, 'has lately been on a visit to see her' wrote the *Salisbury*

Table 10 Emigration 1772-1841

10 year cohort	Baptisms Whiteparish register	Baptisms – non-residents	Deaths before 1841	In Whiteparish 1841 census	Residue not on 1841 census (max no of emigrants)	Residue – parents on 1841 census	Residue – no parents but siblings 1841 census
1772-81	253	10	80(12)	25(4)	138	4	23(7)
1782-91	258	*9	64(6)	48(16)	137	2	43(2)
1792-1801	228	*5	26(2)	43(8)	154	14	33(2)
1802-1811	308	4	68(2)	57(8)	179	51	19
1812-21	336	16	32	127(14)	161	75(2)	13
1822-31	364	36	35	180(3)	113	48(1)	2
1832-41	362	*14	*8	245(5)	95	28(3)	0
Total	2109	94	313(22)	725(58)	977	222(6)	133(11)

* data available is incomplete

Figures in brackets indicate possible flawed data

The discrepancy between the 725 in Whiteparish in 1841 listed here and the 792 1841 residents born in Whiteparish in table VII is accounted for partly by 7 residents aged over 70 not included here and 8 married women claiming Whiteparish as their parish of birth in later censuses but whose marriages and hence their maiden names have not been traced, but mostly by the number of inhabitants claiming birth in Whiteparish in later censuses but who are not recorded on the baptism register.

Sources: Census Enumeration Books; Parish Registers of Baptisms; Parish Registers of Marriages; Parish Registers of Burials

Journal correspondent,⁴³ indicating that she had migrated in turn.

Turning from immigrants to emigrants, an attempt was made to measure how many individuals born in Whiteparish between 1772 and 1841, those up to 70 years old in other words, had left the parish and not returned. Findings are summarized in Table 10, but shortcomings in the data available mean that a conclusion can be expressed only in broad terms. Some 977 individuals or 46 per cent of those baptised in Whiteparish during the period were not there in 1841, but the true percentage of emigrants lies somewhere between this figure and as few as 12 per cent.⁴⁴ In the publicly-funded mass exodus to Canada of 220 persons during the 1830s depression, 38 Whiteparish inhabitants were included, of whom only twelve can be identified in the parish register, five from the 1832-41 cohort, four from 1832-41 and three earlier.⁴⁵

Households and kinship

The Whiteparish mean household size in 1841 was 4.86, a figure matching the household size

Table 11 Household structure (servants not included)

Household type	number	percent	Labouring class/servants	% labouring class/servants	Middling class inc trades/crafts	% middling classes	Gentry, Farmers, independents	% gentry, farmers independents	Profession not known
Solitaries	7	2.69	0	0	5	6.10	1	3.85	1
Married couples	22	8.46	15	10.27	3	3.66	3	11.54	1
Nuclear families	140	53.85	82	56.16	44	53.66	12	46.15	2
<i>With child(ren) > 16</i>	97	37.31	64	43.84	25	30.49	7	26.92	1
<i>Inc child(ren) 16+</i>	43	16.54	18	12.33	19	23.17	5	19.23	1
Multiple (extended)	60	23.08	28	19.18	24	29.27	6	23.08	2
<i>Inc married children</i>	1	0.38	1	0.68	0	0	0	0	0
<i>Inc married children with child(ren)</i>	5	1.92	1	0.68	2	2.44	1	3.85	1
<i>Inc single parent(s) with child(ren)</i>	3	1.15	1	0.68	2	2.44	0	0	0
<i>Inc parent(s)</i>	1	0.38	1	0.68	0	0	0	0	0
<i>Inc aunts, uncles, cousins, nephews, nieces</i>	8	3.08	5	3.42	2	2.44	1	3.85	0
<i>Inc grandchild(ren)</i>	6	2.30	3	2.05	2	2.44	0	0	1
<i>Inc more distant relative(s)</i>	2	0.77	1	0.68	1	1.22	0	0	0
<i>Inc unknown relative(s)</i>	7	2.69	3	2.05	4	4.88	0	0	0
<i>Siblings co-resident</i>	4	1.54	1	0.68	3	3.66	0	0	0
<i>Complex – inc two or more of above cases</i>	23	8.85	11	7.53	8	9.76	4	15.38	0
Multiple (with non-relative(s))	31	11.92	21	14.38	6	7.32	4	15.38	0
<i>Bothy type accommodation</i>	6	2.30	6	4.11	0	0	0	0	0
<i>Households of servants with masters absent</i>	2	0.77	2	1.37	0	0	0	0	0
<i>Inc lodgers, boarders, visitors</i>	23	8.85	13	8.90	6	7.32	4	15.38	0
total	260		146		82		26		6

Sources: Census Enumeration Books; Parish Registers of Baptisms; Parish Registers of Marriages

Table 12 Households with first order kin in other households

Enumeration district	No of households	Households with first order kin in others	No of related households	Parents' households	Children's households	Siblings' households	In laws' households	Grandparents/children's households	Unknown relatives' households	Households with kin within 5 doors	kin next door	kin 2 doors apart	kin 3 doors apart	kin 4 doors apart	kin 5 doors apart	Total kin within 5 doors
1	70	60	176 (33)	36 (2)	45 (2)	82 (13)	10 (1)	0	6 (4)	35 (2)	24 (2)	12	6	4	4	50 (2)
2	80	63	222 (46)	42 (2)	47 (1)	99 (25)	15 (5)	0	21 (14)	26 (6)	10 (2)	6 (2)	10 (4)	6	6 (4)	38 (12)
3	34	23	67 (6)	21 (1)	12	31 (4)	4	0	0	11	10	2	2	0	0	14
4	76	61	167 (38)	36 (4)	31 (5)	80 (11)	15 (3)	2	8 (4)	21 (2)	12 (2)	8	2	4	2	28 (2)
total	260	207	631 (123)	135 (9)	135 (9)	292 (53)	44 (9)	2	35 (22)	93 (10)	56 (6)	28 (2)	20 (4)	14	12 (4)	130 (16)

Notes: in-laws' households are counted in the absence of blood relatives and grandparents/grandchildren's households in the absence of parents. Uncles, aunts and cousins are not included. Adjacent households with relatives are double counted (i.e both households are counted for each occurrence).

Figures in brackets indicate individual attributions without full baptismal register corroboration. These are 'multiple counted' e.g. a group of five presumed siblings with the surname Wiltshire originating from Thatcham, Berks are counted as four non-attributed relations for each of the five households, 20 individuals in total.

Sources: Census Enumeration Books; Parish Registers of Baptisms; Parish Registers of Marriages

for 100 English communities between 1574 and 1821 (4.821).⁴⁶ The case is otherwise with the percentage of extended households (Table 11) where the mean for 100 English communities 1574-1821 was 10.1 per cent⁴⁷ against the Whiteparish figure of 23 per cent (35 per cent if other multiple households - i.e those with non-relatives - are included). The percentages for the 1851 Kent and Surrey studies were 15 and 15.1 respectively,⁴⁸ but Williams found, as in Whiteparish, that a quarter of households in Ashworthy, Devon were extended in the 19th century.⁴⁹ In the Surrey study nearly 44 per cent of the extended families were so because of the presence of grandchildren, the grandparents seemingly acting as child minders. In Whiteparish only ten per cent were owing to grandchildren.

Many studies indicate a higher proportion of extended families amongst the middling sort and Whiteparish was no exception. Wall identified a strong bias for multiple households amongst this class across the country in 1851, accounting for 25 per cent of their households as against not much more than 12 per cent for the labouring classes.⁵⁰ Reay's figures for Kent were 22 per cent and 10.6 per cent respectively and those for Whiteparish (extended families only) were 29 per cent and 19 per cent. The middling sort also showed a greater propensity to have children over 16 at home - probably a consequence of greater economic autonomy.

Tables 12 and 13 demonstrate that Whiteparish households had much more extensive kinship links than Reay identified in Hernhill in East Kent for 1851 (see comparative data in Table 13). Reay's figures were similar to those for Claybrooke Parva in Leicestershire and Melbourne, Cambridgeshire in 1841, where nearly 50 per cent and 41 per cent of households respectively were related to no other in the parish.⁵¹ Closer to the Whiteparish figure for

Table 13 First order kinship: number of related households per household

Number of related households	Number related	% of total households	% Hernhill, Kent 1851 (Reay 1996 p 93)
Related to no other households	54	20.77	45.0
Related to 1 other household	39(8)	15.00	27.9
Related to 2 other households	60(15)	23.08	8.5
Related to 3 other households	34(17)	13.08	6.2
Related to 4 other households	33(21)	12.69	
Related to 5 other households	21(32)	8.08	12.4
Related to 6 other households	10(11)	3.85	
Related to 7+ other households	9(3)	3.46	
Total related	206	79.60	55.0

Figures in brackets see note with Table 12

Sources: Census Enumeration Books; Parish Registers of Baptisms; Parish Registers of Marriages

Table 14 Enumeration districts – kinship proximity and extended households (percentages)

	District 1	District 2	District 3	District 4	Total
Percentage of households with relatives in other households	85.7	78.8	67.6	80.3	79.6
Percentage of households with related households within 5 adjacent households	50	32.5	32.4	27.6	35.7
Percentage of extended households	24.29	23.75	26.47	18.42	22.69
Percentage of households with relatives in other households and/or are extended	88.57	80.49	82.35	81.58	83.85

Sources: Census Enumeration Books; Parish Registers of Baptisms; Parish Registers of Marriages

Table 15 First order relationships in 7 consecutive households census 1841

	Name	occupation	relatives
1	1 Beauchamp, John (head) b 1803 2 Susanna née Genge (wife) b 1811	labourer	parents 3.1 and 3.2; brother 5.1
2	1 Avery, Joseph (head) b 1783 2 Elizabeth née Eldridge (wife) b 1789	bricklayer	daughter 7.2 brother 4.1; daughter 7.2
3	1 Beauchamp, Samuel (head) b 1775 2 Sarah née Curtis (wife) b 1780/1 3 Beauchamp, Sarah (9) and Ann (5) 4 Curtis, Hannah b 1825	ag lab* servant	son 1.1; son 5.1; sister 4.3 son 1.1; son 5.1; probable relative 3.4 parents 5 probable relative 3.2
4	1 Eldridge, Thomas (head) b 1778 2 Eldridge, Joseph (son) b 1817 3 Long, Ann née Beauchamp b 1781 4 Beauchamp, Ann b 1833 b 1833	farmer + not stated servant	daughter 5.2; sister 2.2 son 7.1; brother 3.1 daughter of 5
5	1 Beauchamp, George (head) b 1805 2 Louisa née Eldridge (wife) b 1809	labourer	parents 3.1; daughters 3.3 & 4.4; brother 1.1 father 4.1; daughters 3.3 & 4.4
6	1 Prince, John (head) b 1787 2 Sarah née Dibden (wife) b 1800 3 Snelgrove, Sarah b 1836 4 Dibden, Moses b 1791	labourer not stated	probable relative 6.4 probable relative 6.2
7	1 Long, Joseph (head) b 1811 2 Eliza née Avery (wife) b 1812	not stated	mother 4.3 parents 2

*ag lab on census, but farming 79 acres according to the tithe map 1842

+ owns 12.9 acres according to tithe map

Sources: Census Enumeration Books; Parish Registers of Baptisms; Parish Registers of Marriages

related households was the 75 per cent found in Almondbury near Leeds.⁵²

Table 14 suggests that the extent of kinship links was not uniform across the parish. The highest concentration was in enumeration district one, significantly including the southern detached portion of the parish. This was forest land assarted in the Middle Ages.⁵³ A sequence of 19 households in North Common, Wittern's Hill and Wickett's Green included eleven households with kin living next door. Table 15 shows seven of these, listing their relationships.

A similar concentration was found in Earldoms, the extra-parochial 'wild wood' to the south. The above group had a further five relatives within a group of five households in Earldoms, the most interesting of which was that headed by agricultural labourer James Rawlins, who had with him two adults Sarah and Matilda Avery (born 1813 and

1818), daughters of Joseph and Elizabeth Avery (household two in Table 15). The relationship between James Rawlins and the Avery girls via two sets of in-laws is shown in Figure 1.

Conclusion

The fact that 83.85 per cent of households have first order kin within the parish represents a rebuttal of the 'weakness of kinship in early modern England' hypothesis. As Marilyn Strathern found in Elmdon in Essex 'Villagers indeed seem to be embedded in a kinship network' which bound them together and was 'experienced by outsiders as a boundary'.⁵⁴ It was, indeed, in the interests of the local élite as well as the community itself to sustain such a network; hence the Select Vestry dispatched farmer Fox to

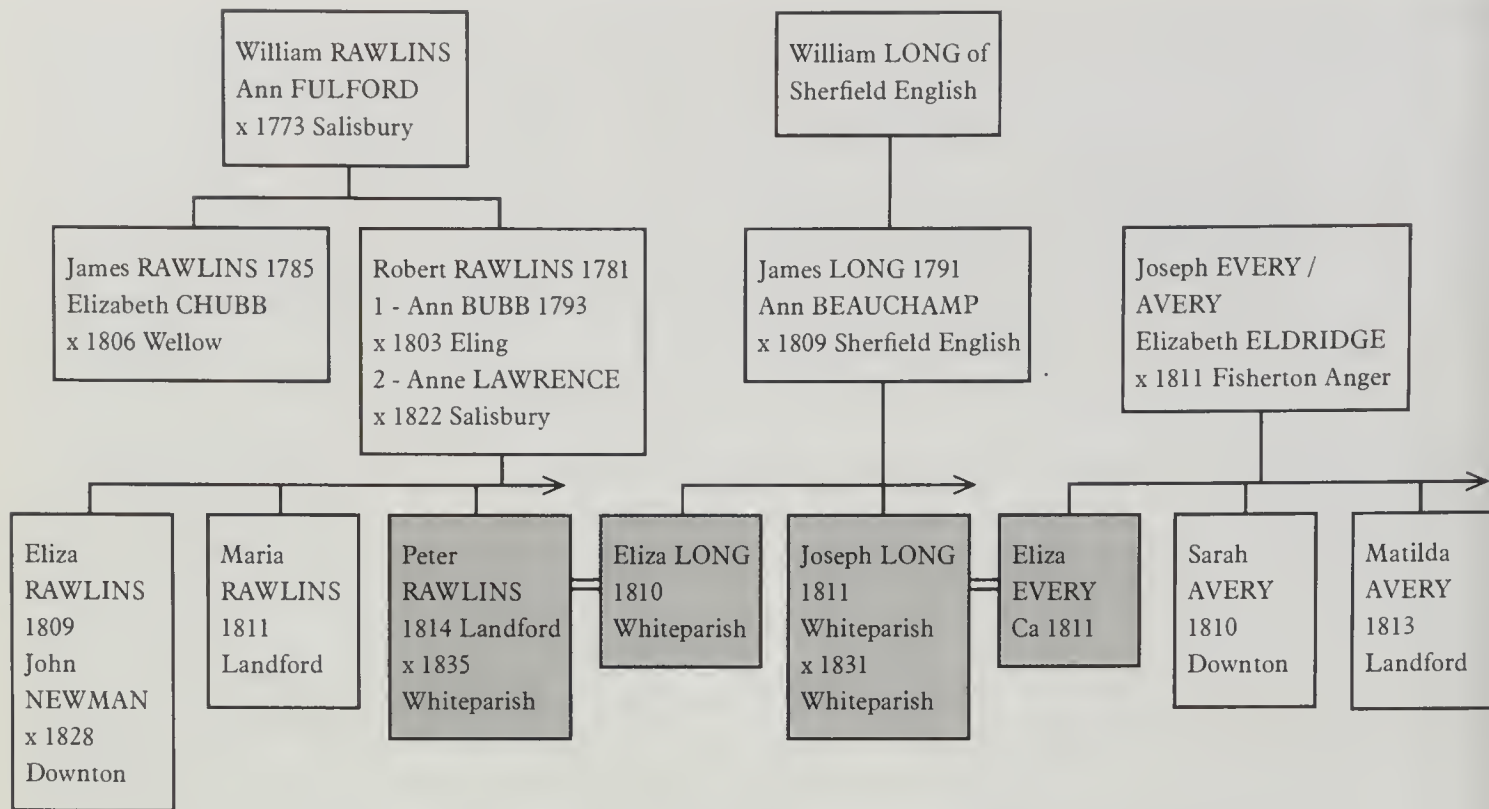


Fig. 1 Marriage alliances and kinship: Rawlins, Long and Avery / Every families. Married partners in grey

Romsey to find out whether Henry Alford's son had the means to support him.⁵⁵ But a question, which has to be addressed, is why Whiteparish's network was more extensive than other south of England parishes that have been studied in depth. Lord found higher densities in 'a parish where land was likely to be under owner-occupation and holdings were small and farmed by the owner and his family,⁵⁶ but this hardly applies to most of Whiteparish despite its proximity to the New Forest where a cottager economy was still the norm.⁵⁷ Coster suggests that 'a greater density of kin was present within highland and pastoral communities',⁵⁸ and perhaps this generalisation could be extended to 'forest-edge communities'. Though Whiteparish was enclosed, and dominated by a few very large landowners, there were unenclosed commons in the forested parish of Landford, in which the detached portion of Whiteparish lay, connected with recent histories of squatting. These 'alternative communities' with their strong sense of independence were reinforced by nonconformity, which was little appreciated by some of the élite. Countess Nelson, for example, allegedly demonstrated 'an implacable hostility' towards it.⁵⁹ This would help to explain the fact that, though the labourers of Whiteparish conform to generalisations about the marriage, migration and kinship behaviour of this class, the divergence between them and the middling sort was less pronounced than elsewhere.

However, the plausibility of this idea is undermined by the fact that next-door Landford, a very pronounced forest-edge parish, enjoyed a much lower level of kin density than Whiteparish. Only 58.63 per cent of Landford households had relatives in other households in 1841 as against 79.6 per cent in Whiteparish. It would appear that typologies are not entirely satisfactory and that a detailed analysis of the circumstances of each parish is necessary to fully understand its dynamics. In Whiteparish 62.7 per cent of the 1841 population were born in the parish whereas only 47 per cent were natives in Landford. This comparison suggests that Whiteparish was more successful in retaining and absorbing its people: it was more progressive, modern in its farming methods, and key landowners were *in situ*. In Landford, by contrast, still partly unenclosed, big houses were let to non-farming outsiders who, with their visitors and servants, altered the ratio of incomers to natives and obliged the latter to leave to seek work elsewhere in greater numbers. In other respects Landford *does* conform to the high-density kinship model. Over 31 per cent of households had relatives living next door (21.5 per cent in Whiteparish) and 27.49 per cent of households were nuclear families including children aged 16 or over (16.54 per cent in Whiteparish).

It is argued therefore that in Whiteparish in 1841, economic exigencies and kinship customs were in favourable conjunction, with advantages

to all social classes. High kinship densities helped to provide a cheap, flexible and inter-reliant work force for landowners, many of whom shared the views of the machine breakers; and the kinship networks provided support for families in the new precarious job market of the agricultural labourer, just as they did in the equally precarious job market of new industrial towns of the north.⁶⁰ A nucleated village which was not the work of a single landowner but a piecemeal development involving a range of proprietors, large and small, offered scope for kin proximity just as much as cottager settlements on commons and woodland. It appears that the inhabitants of Whiteparish took full advantage and it seems likely that the kinship networks of the 1840s were more extensive than they had been previously. This view is supported by the evidence from the 100 English communities from 1574 to 1821 studied by Laslett, where the percentage of extended households was less than half that found in Whiteparish in 1841.

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Notes and Shorter Contributions

Unique populations of Marsh Horsetails in North Wiltshire

by *Jack E. Oliver*

Introduction

Horsetails (Class: Equisetopsida) appeared on the earth 300 million years ago, but are now reduced to a mere 29 species in the Equisetaceae family. They are sometimes called 'Living Fossils' because of their relationship to the giant horsetails, the *Calamites*, dominant flora of the Carboniferous period 330 million years ago. All 29 extant species fall within the *Equisetum* genus and are typified by hollow jointed stems, (usually) with whorls of thin, green jointed branches. The latin *equus* + *seta* (bristle) = *Equiseta*, the name alluding to the whorls of 'horse-bristle leaves'. Reproductive spores in the *Equisetum* genus are produced by a single terminal strobilus called a 'cone'.

Marsh Horsetail: *Equisetum palustre* L.

This species can grow in abundance in wet, damp, boggy or marshy areas. It is one of the commonest plants in the northern hemisphere: Circumboreal - Alaska, Canada, USA, Eurasia - Mediterranean, Kashmir, Tibet, China, Japan (Rook 2004). In Wiltshire it occurs in 71% of the county's 10km squares. The stems are typically 10-50cms high

arising from horizontal rhizomes 30 - 100cms deep, but the plants are extremely variable (Page 1982), especially in the Cotswold Water Park areas (CWP) in the far north of Wiltshire (Oliver 2007). Some plants in the CWP have few or no branches, many have re-branched branchlets, some have stems creeping along the ground or water surface. Young shoots often have the attractive minaret-like appearance, but older ones can carry firm or lax branches of very different lengths even in the same whorl, causing the mature plants often to look asymmetrical, limp or lop-sided, very different from the illustrations in standard floras.

Polystachions

A polystachion (= many spikes) is a plant structural rearrangement in which several cones, spikes or spikelets (in grasses or sedges), flowers, bunched inflorescences (flowerheads), replace the usual single terminal structure on the main central axis. Because of its rarity, the term has slipped from British botanical dictionaries but is still used by other English speakers and in Germany. A 2006 internet search turned up more than 80 polystachion references, but nearly all of these related to flowering plants, mainly Knotweeds (Polygonaceae), Cotton-grasses (Cyperaceae) and Grasses (Poaceae).

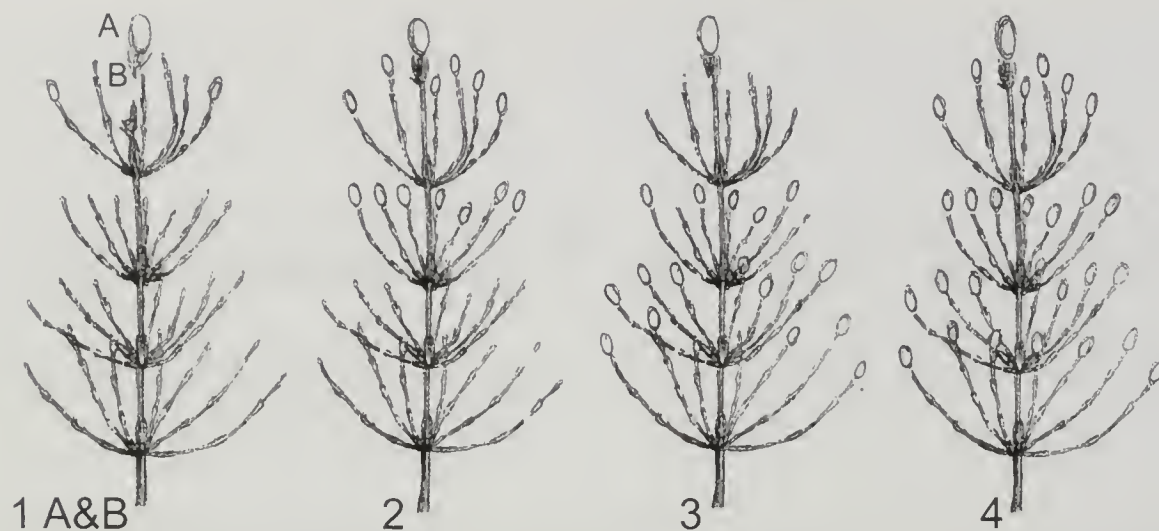


Fig. 1 Four of the nine types of polystachion configuration in *Equisetum palustre* found in the Cotswold Water Park. 1B, central cone present, very much commoner than 1A, lost or damaged central cone. Semi-diagrammatic.

Only two were studies on *Equisetum* polystachions, one for West Berkshire and Wiltshire (Oliver and Storey 1996), and a German entry on old (1924) records of British plants including the aberrant *E. palustre*. Freethy (1987) attributes one of the earliest descriptions of *Equisetum* polystachions to the English Victorian naturalist Anne Pratt (1855) who described ‘... several of the branches of the two upper whorls terminate in cones ... darker, more compact, appearing later in the season...’. The German entry showed a single eight-coned whorl, fully symmetrical in cone size and branch length. Many Wiltshire colonies contain one or two plants with between one and three small peripheral cones asymmetrically placed, and Donald Grose in his *Flora of Wiltshire* gives the polystachion form of *E. palustre* found in 18 Wiltshire sites varietal status (Grose 1957). In other plant species, central axis damage can cause compensatory branch developments, but Grose clearly considered genetic factors as of main importance in the formation of *E. palustre* polystachions.

Cotswold Water Park Marsh Horsetails

The *E. palustre* plants from the Waterhay Reserve east of Ashton Keynes and populations in and around the gravel pit lakes surrounding Ashton Keynes can be riotously variable. Some of the main vegetative variations noted were as follows:

1. Very long lower branches, sometimes much over-topping the central axes; if also polystachions, masses of cones bunched above, cones sometimes of different ages.
2. Extreme variations in numbers of branches per node (0-10)
3. Extreme variations in lengths of undamaged branches (2-25+ cms)
4. Unbranched, or hardly branched (from the base) shoots (cones infrequent).
5. Compound branching (rebranched branches. See also Grose 1957; Oliver and Storey 1996).
6. Prostrate creeping forms with single (but sometimes rebranched) branches from some nodes. (No cones yet seen).
7. Creeping horizontal stems floating on water surfaces from the deep rhizomes, with vertical branches from the nodes: interspersed between the verticals of *Equisetum fluviatile* (Water Horsetail). No cones seen.

Stranger still were some of the colonies with reproductive strobili (cones), see Figure 1. Four main types of *E. palustre* polystachions are illustrated in semi-diagrammatic form (from nine possible categories: Oliver 2007). Types 1 and 2 would have been known to Anne Pratt (1855) and Freethy (1987). In particular Type 1 is not rare in Wiltshire whether or not the central cone has been dehisced or the central axis damaged; but usually the plant is undamaged with the central cone and about 2-3 smaller upper whorl peripheral cones. Type 3 is rare and undescribed elsewhere, with the lower whorls but not the upper ones coned. Type 4 is also

unique to the area: there can be three, four or five coned whorls, and I have found one colony with the odd additional cone in the sixth whorl also. The symmetrical appearance of these diagrams is misleading (see points 1-3 preceding) on account of the variability of the vegetative branch numbers and lengths, and degrees of stiffness. Also, the cones usually vary in size, age, colour and maturity, with some very young peripheral cones only 1-2mm long and starting to form. The effect is usually of a mass of branches and cones touching, or limp, or lop-sided, but a predominantly multi-whorled polystachion (although some branches might have been bitten off or damaged). Revisiting the Clattinger Reserve after an interval of four years has confirmed an observation of Donald Grose of recurrence of polystachions in the same localities in successive seasons. Two of the Clattinger patches were producing 2, 3, 4 and sometimes 5 whorl polystachions in 2005, 2006 and 2009, although pinpointing all the polystachion colonies precisely would require more exact measures.

Discussion and Conclusions

There are a number of reasons for supporting Grose's contention that some of these Wiltshire *E. palustre* polystachion populations are special genetic variants, rather than purely environmentally induced phenomena. These include recurrences of similar plants within the same patches in subsequent years, the radial organisation of cones in two or more whorls, the numbers of coned whorls, the usual presence of the central axis terminal cone, invariable absence of central axis damage, vigour of the aberrant plant patches, no obvious evidence of sawfly, weevil or flea beetle damage, and plant stems of average or above average heights. Very few floras or studies mention *E. palustre* polystachions, and I have yet to find any mention of multiple cones

on branch tips in other *Equisetum* species. From the extensive northern hemisphere distribution of *E. palustre*, central England would seem to be the main home of the plants with the propensity to form peripheral cones. The most extreme variant, radially symmetrically organised cones in two to five whorls is centred in North Wiltshire, but perhaps also in adjacent South East Gloucestershire and South West Berkshire. '*Equisetum* evolved from Carboniferous *Calamites* ancestors' (Stewart and Rothwell 1993). Cones on these ancestors and related groups usually were numerous, and could be radially arranged or scattered, peripheral or sessile; whereas the *Equisetum* genus has, typically, the single stalked central axis aerial shoot terminal cone. The Cotswold Water Park populations of two to five whorl radially symmetrically organised peripheral *E. palustre* cones have the look of ancient evolutionary throwbacks.

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A Disturbed Romano-British Grave and Boundary Ditch at Lower Upham Farm, Ogbourne St George

by *Julia Sulikowska and Kirsten Egging Dinwiddy*

Human remains were found during site works prior to the construction of a hangar at Lower Upham Farm, Ogbourne St George (NGR 420781 177650). Following a visit by the police and Mrs Gill Swanton (local archaeologist), a small excavation and subsequent watching brief were undertaken by Wessex Archaeology. The site lay to the north of the village (Figure 1) on a shallow, west-facing slope on Upper Chalk at around 185m aOD. No previous archaeological remains were known but the site lay within 1km of the alignment of a Roman road from Wanborough to Mildenhall (now the A346) with Iron Age hillforts at Liddington Castle and Barbury Castle 2km to the north and 6km to the west, respectively and a number of findspots are indicated on the Wiltshire HER (Figure 1).

Human bone had been disturbed during groundworks. Excavation revealed a substantial early Romano-British ditch cut by a grave. The ditch (feature 13) was 0.7 m wide, 0.7 m deep with steep sides and a flat base, running on an east-west alignment (Figure 1) and was probably a boundary ditch. Domestic pottery, mostly grog-tempered Savernake wares, and animal bone were recovered from the fill. Everted rim and bead rim jars including one base sherd with multiple post-firing perforations were present. Cattle, sheep/goat, horse and dog were represented with evidence of butchery and dog gnawing suggesting discarded food waste.

Grave 5 (Figure 1) measured 0.7m wide, 0.45m deep and *c.* 1.7m long and was aligned east-west, as was the skeleton, with its head to the east. No bone was recorded *in situ*, there was no evidence for a coffin and, because of the disturbance, no finds can be confidently described as grave goods. A sample of the right femur produced a middle Romano-British date of cal AD 80-230 (1863±25BP; NZA 31094). Approximately 80% of the skeleton was recovered, in a largely fragmentary state but very good condition (grade 0-1 according to McKinley 2004, fig 7.1-7),

the missing components comprising mainly parts of the legs and feet.

The remains were those of an adult, probable male aged *c.* 35-40 years (Bass 1987; Buikstra and Ubelaker 1994; details in archive). Mild to moderate dental calculus (calcified plaque; Brothwell 1972, fig. 58b) was observed on most teeth and there was evidence for gingivitis (Ogden 2005), a lost second premolar, dental caries in eight teeth (32%) and dental enamel hypoplasia; the latter indicating that the individual had suffered from repeated, mild to moderate nutritional stress and/or illness, between the ages of *c.* 2 and 5 years. A well healed fracture on a mid range rib suggests a fall.

Single inhumation burials are often found associated with small Romano-British rural settlements or farmsteads, situated away from major centres, where it was more common to bury the dead in cemeteries. Although no settlement structures are recorded from the vicinity, the material derived from the ditch is clearly domestic in origin indicating the settlement activity nearby.

Acknowledgements

The work was commissioned by Wiltshire County Council and Wessex Archaeology would like to acknowledge the help and support of Vanessa Clarke and Melanie Pomeroy-Kellinger. The assistance of Mrs Gill Swanton and Mr Peplow (land owner) is also appreciated. The fieldwork was undertaken by Vaughn Birbeck, Andy Sole and Julia Sulikowska and post-excavation work by Kirsten Egging Dinwiddy (human bone), Jessica Grimm (animal bone) and Lorraine Mephram (finds). Figures 1 and 2 were prepared by S. E. James. The project was managed on behalf of Wessex Archaeology by Caroline Budd.

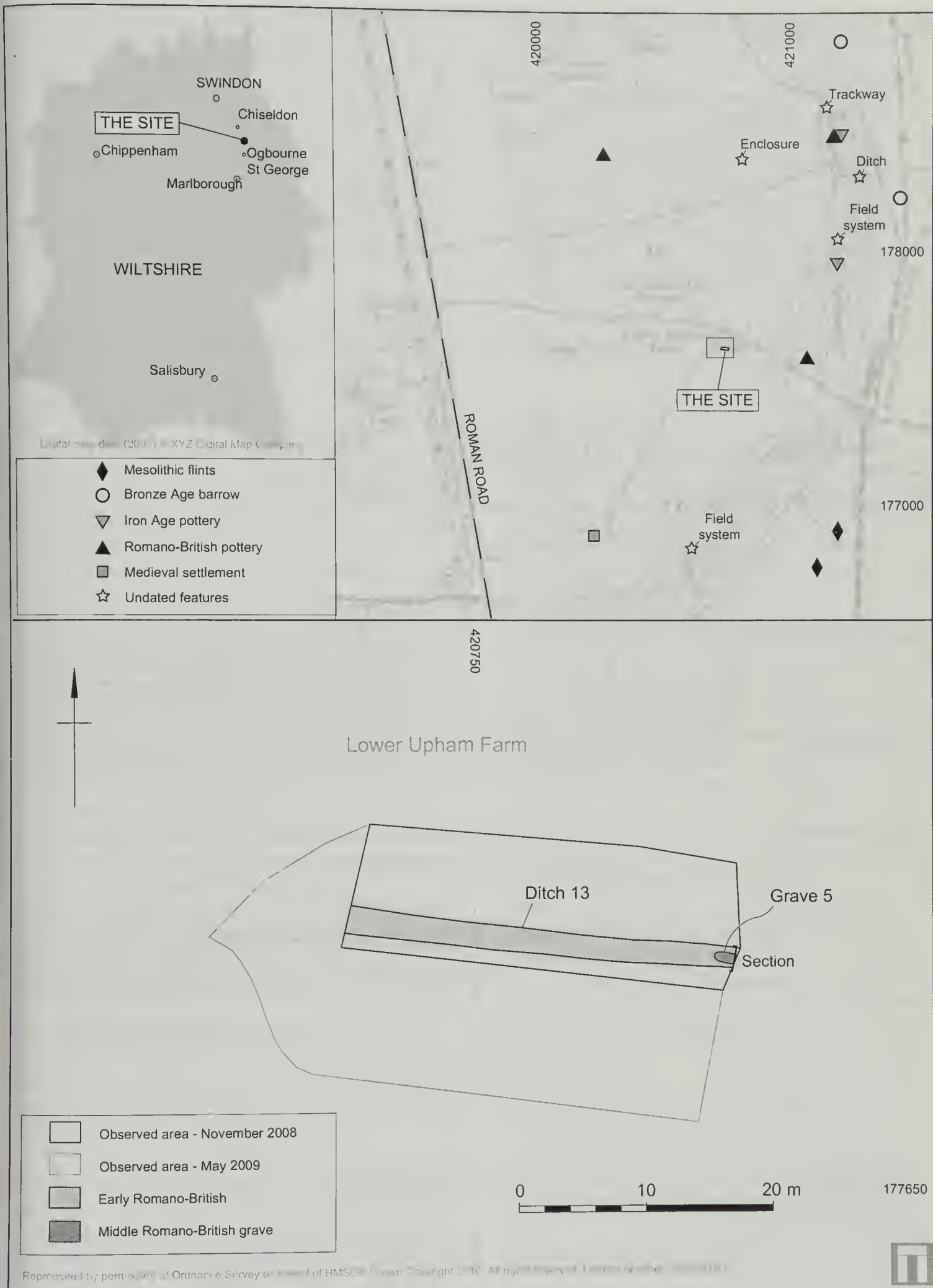


Fig. 1 Site location plan showing other archaeological sites in the vicinity

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The Britons and Yarnfield

by Andrew Breeze

Yarnfield (NGR ST 7738) is a small place near Maiden Bradley, on Wiltshire's border with Somerset. It lies above the south and top end of a thickly wooded valley and is remarkable for the extensive earthwork remains of a deserted medieval village (Pevsner and Cherry 1975, 321). Although it is centuries since Yarnfield (which was part of Somerset until 1895) counted for much, its name has attracted attention. It figures in Domesday Book as *Gernefelle*, thereafter as *Gernefeld*, and from the 13th century onwards as *Jernefeld*, *Yarnefeld*, or *Yernefeld*. The last element is English *feld* 'open land'. Ekwall hesitantly took the first element as 'of eagles'. But that does not explain initial *g*; and eagles are rare in Wiltshire. Others have regarded it as a Celtic river-name, comparing Yarmouth, on the river Yare in Norfolk. Yet Dr Kristensson of Lund prefers a new explanation. English lay subsidy rolls of the 14th century refer to Will *attheyorn* in Norfolk, Robert *atte Yorne* in Devon, and so on, where the forms are explained as 'at the yarn'. On the basis of the cognate *garn* in Swedish toponyms, it is suggested that these English terms mean 'guts' and therefore 'something extended and narrow'. The implication is that Yarnfield was 'long (and narrow?) open country' (Kristensson 2000, 4-5).

The purpose of this note is to disagree totally. It is

admitted that we cannot determine the topographical sense of the *yorn* that distinguished Will in Norfolk or Robert in Devon from other 14th-century taxpayers called Will or Robert. There is also the objection that our Wiltshire forms have the vowel *a* or *e*, but not *o*. Nor is there evidence that Old English *gearn* meant 'guts' or anything other than 'yarn', a sense already attested in the 8th-century gloss *gearnuuinde* 'yarnwindle' (Lindsay 1921, 154). There is also something odd about the stereotyped nature of the lay subsidy forms, where one feels that a quite different explanation is possible. So the case for 'guts; something extended and narrow' at Yarnfield is weak. The first element is probably Celtic after all, on the analogy of Yarmouth and other places. But what does it mean?

With Yarmouth we have the advantage of ancient attestations. Ptolemy refers to the Yare as *Gariennus*; *Notitia Dignitatum* mentions *Gariannum*, a Saxon Shore fort (now Burgh Castle) called after the river below it. Scholars have related the river to a Celtic form meaning 'babbling one', even though Rivet and Smith, in their great study of place-names in Roman Britain, observed that Norfolk is flat and the Yare does not babble. The present writer agreed and followed others in explaining the Yare as 'heron

river'. Many places are called after this bird. They include Llangarron 'church on a heron-river' south of Hereford, Nantygaran 'stream of the heron' near Lampeter, and Tingaran 'heron's fort' on the Cornish coast by St Austell. They echo Birkenhead's Tranmere 'sandbank of herons' (famous for football), which is from Norse, or Osaka's suburb of Tsuruhashi 'heron bridge' (famous for Korean restaurants) in Japanese. Some place-name scholars have hesitated at the explanation 'heron river' as regards Ptolemy, because of a quite undeserved respect for the purity of his text. It must, nevertheless, here be amended to British-Latin *Garannus*, while the fort overlooking it would have been called *Garannum*. This makes sense out of what lacks sense.

It also helps with Yarnfield. It is unlikely that herons came to this elevated spot, just below the 750-foot contour. Yet they might have lived on the brook which rises below it, and then flows through Penstones Wood to enter the river Frome, itself with a British name, the equivalent of Welsh *ffraw* 'brisk, lively, strong', as at Aberffraw 'estuary of the Ffraw' in Anglesey, once a court of princes (Breeze 2009, 39, 88). Herons feed by all kinds of fresh and salt water, but can be found elsewhere, even in rickyards (where they hunt rats). So they might give a name to the stream that runs from Yarnfield down to the Frome.

If Yarnfield refers to the old Celtic name of the brook below it, we shall have further evidence for British survival in south-west Wiltshire. The county boundary to this day passes along what in the earlier

7th century (before the English conquest of Somerset) was the frontier between Saxon and Celt. Nearly three centuries later, Selwood Forest was still known as *Coitmaur* 'great wood' to Bishop Asser, King Alfred's Welsh biographer (Coates and Breeze 2000, 333). Penselwood, on the Somerset side of the border, is a village only four miles south of Yarnfield. Given this British presence, we may feel sure that Yarnfield has nothing to do with yarn, guts, or long narrow country. It would have been open land above a stream that was a namesake of Nantygaran in West Wales, the Garan south of Hereford, or the Yare in Norfolk. Its name will be an English-Celtic hybrid, meaning 'open land above a heron-stream'.

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Sun and Moon on a finger ring from Groundwell Ridge, Swindon, Wiltshire

by Jörn Schuster

During the 2003 excavation at the Roman villa at Groundwell Ridge (cf. Morley and Wilson forthcoming a and b) a metal detectorist discovered a gilded brass finger ring (Figure 1) while screening

the spoil heap of excavation Trench 2 at the site.

The finger ring has a diameter of 20.0mm and is 4.7mm wide. Its thickness ranges from 0.9mm to 1.1mm. The outer face is decorated with a recurrent

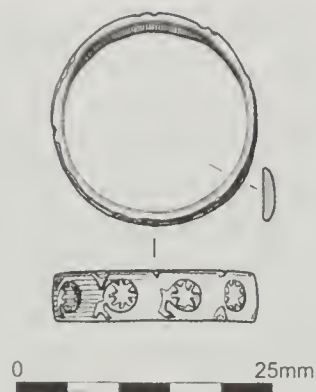


Fig. 1 Groundwell Ridge, Swindon, Wilts. Gilded brass finger ring

motif of crescents and suns or stars. The more raised parts of the ring are heavily abraded, and thus the gilding is now only preserved in recessed parts of the ornament. Where the gilding is relatively unaffected by abrasion a cross-hatching structure is only just visible with the naked eye but quite clear under magnification (Figure 2).

No similarly decorated ring has yet come to the author's attention. Although it was discovered on a Roman site, with as yet only very little evidence for medieval or later occupation, the style of the ornamentation does not rule out a medieval date for the ring. In the following, possible explanations for the ornamentation and its symbolism are discussed with the results of investigative conservation which together provide a basis on which to establish a date for the period when the ring was made and used.

The ornament and its possible symbolic meaning

Depictions of the celestial bodies frequently occur in Roman art where they can be found on a very wide range of objects like oil lamps (e.g. Conticello *et al.* 1993, 182, cat. no. 69), shields of legionaries, as shown on the Flavian Cancellaria relief A (Bishop and Coulston 2006, 7, fig. 2) or quite frequently on coins (e.g. Hadrian RIC II 200, with a rendition of crescent and star/sun very similar to the ring from Groundwell), to mention but a few. On a gemstone from Caerleon the intaglio of a crescent moon containing one star, and surrounded by six more, was identified as referring to *Aeternitas* (Zienkiewicz 1986, 140 no. 83, pl. 17), and the goddess *Aeternitas* herself is often depicted in conjunction with *Sol* and *Luna*, as for instance on aurei of Vespasian (RIC

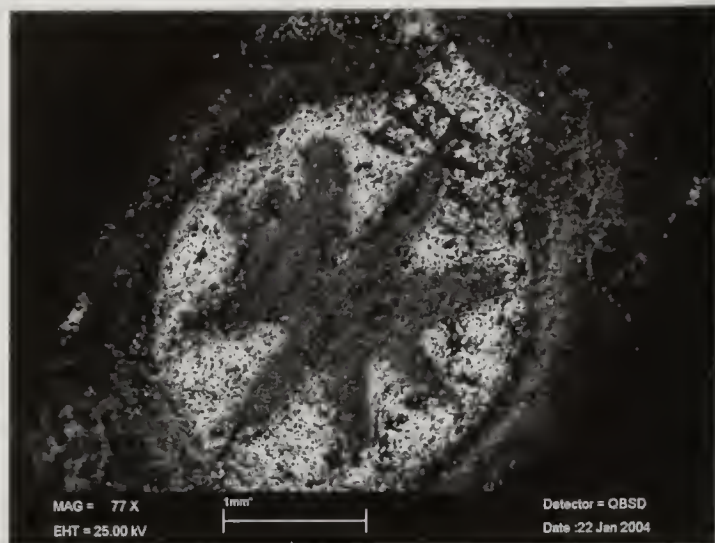


Fig. 2 Detail of the ornamentation on the finger ring. Scanning Electron Microscope Image (Backscatter Electron Detector)

121 [b]), holding heads of the two deities. In the mystery cult of Mithras the fifth grade of initiation includes, amongst others, sun and moon (Ulansey 1991, 39, fig. 3.9).

The incorporation of sun and moon into Christian art can already be seen in the earliest stages of the new religion, for example on an oil lamp, believed to have been found in one of the Roman catacombs and dated to the late 2nd/early 3rd century AD. On its face this lamp from the workshop of Florentinus again shows the heads of *Sol* and *Luna* and seven stars above a shepherd carrying a sheep on his shoulders, combined with scenes from the Old Testament (Effenberger and Severin 1992, 69, Kat.-Nr. 1 and Abb. 52).

While sun and moon in the above examples are employed to signify eternity, divinity or cosmological order, they have a different meaning in medieval crucifixion scenes which frequently show the sun to the right and the moon to the left of Christ's head (Spencer 1998, 173, figs 194a-c). Here, sun and moon are seen as referring to the gospels where it is stated that, as a sign for the heavens mourning, a darkness fell on the land from the sixth to the ninth hour, i.e. noon until three in the afternoon (Mt 27.45; Mk 15.33; Lk 23.44; Hall 1986, 85-6). Sun and moon were also used as attributes of the Virgin Mary (Spencer 1990, 103-4).

A Christian religious connotation is also the likely context for sun and moon depicted in a copper-alloy seal matrix from Ludgershall Castle in Wiltshire. The object comes from a dump context with a date range between the late 13th to 15th centuries. The oval face of the matrix shows

a kneeling figure at prayer under what is probably meant to represent an ogee arch. In the point of the arch there is a star above the figure's head and what appears to be a crescent behind the head (Cherry in Ellis 2000, 130–1, fig. 6.7).

In armorials from the northern Netherlands, dating to the decades around 1400, the arms of Casper of the Three Magi are sometimes shown to be moon and star; all three Magi are shown to have an angel as supporter of their arms, and this is taken as a reference to their dream in which the angel shows them the way to Jerusalem (Anrooj 2001, 229–30, ill. 2 and 3).

A less religious explanation can be given for depictions of crescent moons and suns or stars which frequently appear on seals of the 12th to 14th centuries of harbour towns and cities, both on the continent and in England, for instance Nieuport, Staveren, Dunwich, Ipswich, Lyme Regis, Newtown or Southampton: their occurrence on this class of objects is explained with the importance of the heavenly bodies for navigation and ceases once the use of the compass becomes more widespread (Ewe 1972, 16–7).

In England, the crescent and star/sun emblem was used by three Plantagenet kings: Richard I (1189–99), John (1199–1216) and Henry III (1216–72) (Bury-Palliser 1870, 357–9; Boutell 1983, 210; Fox-Davies 1986, 336). The emblem appears on Richard I's first great seal in much the same form as on the ring from Groundwell (Scott-Giles 1965, 51, fig. 62; 59–60), while his second great seal clearly shows the moon to the left and the sun to the right of his head (*ibid.*, 58, fig. 71). Metallic retainers' badges with the combined emblem were quite popular in the years around 1400, just shortly before it became more appropriate – due to the political circumstances – to chose more explicitly Lancastrian or Yorkist emblems; one with a version of the badge very similar to that on the ring was found at Steelyard, London (Mitchiner 1986, 195, no. 672).

A more locally-based third possibility is that it is connected to the Daunger (or de Aunger) and Bowles families who held land in south and south west Wiltshire during much of the later medieval period (Buckeridge 1995, 10, 38; Spencer 1990, 104). However, this seems a less likely explanation because although their arms are blazoned as a crescent moon with a sun above it, this would imply that the armorial bearings rather than a customary badge were depicted on the ring; a caveat which also holds true for the arms of Casper mentioned above.

Metal analyses

The finger ring is made of a strip of brass bent into a hoop with its ends soldered together. The base metal of the ring, which is thinly covered with gold, is a brass containing 14.2% zinc. Energy Dispersive Scanning Electron Microscopy (ED-SEM) discovered no mercury, which would have been a certain indicator of fire gilding. However, because of the thinness of the gold layer, this remains the most likely explanation for the method employed for gilding the ring. The solder is a brass containing 24.4% zinc, providing a melting point only *c.* 50°C lower than the metal of the ring. Hard solders – i.e. with melting points above 500°C – of this composition have so far not been recorded from antiquity (Wolters 1975, 75–77; 1996, 196 ff. tab. 1); the earliest recipe of a hard solder with the addition of pure zinc dates to 1760 (Klein 1760), the pure metal itself being first described in Europe by Paracelsus in the early 16th century, although it was known before that time in the Far East (Hoover and Hoover 1950, 408, fn.). However, recipes for hard solders with the addition of brass have been known at least as early as the beginning of the 13th century, but these also contained tin (Wolters 1975, 76; 1996, 197, tab. 1).

Conclusion

Considering the composition of the solder, the finger ring is unlikely to date to the Romano-British period. Without further contextual evidence it will not be possible to decide whether the ring identified its bearer as someone stating his or her piety or whether it was worn to record loyalty to a person or political cause, a custom which begins to appear in the 15th century (Oman 1974, 65). A date range between the late 14th to early 16th century is therefore suggested.

Acknowledgements

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on a regular basis, every five years or so, and left to dry and air, when oats might be grown in the bottom (Hickling 1971, 118-123). A vivarium, or breeding pond, might be incorporated into the set up alongside the stagnum, or principal pond. The alternative was to buy and transport young fry in canvas-lined barrels. The expenses of construction and maintenance were considerable, but Roger North was clear about the advantages. 'Fish furnish your table, oblige your friends and raise money'. Meadow, he said, was valued at £2 acre, whereas four acres of fishpond was worth £25, '...even when selling carp at 6d each, when they might be 12d' (North 1713, 71).

The pond at Alderton is situated north of the parish church and in line with the spire, with the site of the manor house immediately to its east (Figure 1). Andrew and Dury's 1773 map of Wiltshire clearly shows the long rectangular pond, house and church in that relationship, and some schematic parterres just west of the pond (Figure 2). The arrangement hints at the aesthetic, as well as the practical (W&SHC, Neeld 1305.2). In 1665, Christopher Jacob was engaged by Thomas Gore to make a survey of his manors of 'Aldrington, Surrenden and Clapcote'. There the pond is described as being 'contayned betweene the wall adjoining to Rolles Gate and the Lower Orchard', and it covered thirty six square perches. (W&SHC, Neeld 1909.1) Sadly, the second volume of the survey, containing the maps, has been lost. However, the present two by 18 linear perches (11' x 99') accords well with the surveyor's measurements. The survey remains the earliest mention of the pond in its present form. It may, at some time prior to the survey, have been converted from a less regular stew pond. The ponds at Dyrham Park, Gloucestershire, make a later and grander parallel.

The Alderton estate belonged to the Gore family for nearly 400 years. Thomas Gore 'the Antiquary' (1632-84), who commissioned the beautifully penned survey in 1665, was a neighbour of John Aubrey at Easton Piers, and Aubrey made notes of his friend's memorials and armigerous history for his proposed *Description of Wiltshire*. In his *Natural History of Wiltshire*, he described Gore's house with its high stone wall and gatehouse, 'a little green court' and barn on one side, a great hall with a carved screen and windows of heraldic glass (which the owner had 'rectified'), and a parlour. It was, he said, 'of the fashion of Bradfield', which he drew from memory (Aubrey 1969, 101; Aubrey and Jackson 1862, 47. pls iv and xxiv). Later, their relationship became



Fig. 2 Andrews and Dury (1773), Alderton village, showing house with pond and parterres immediately to its west

fraught, Aubrey describing Gore as 'a fiddling peevish fellow' and 'my stiffe starcht friend T.G., cuckold & Esq'. Aubrey's estates had been mortgaged to the Gore family by 1664; that circumstance may have coloured his judgment (Powell 1963, 141, 146 and 137).

The property passed by marriage firstly to the Hedges of Compton Bassett and then to the Montagus of Lackham, who pulled down the much-altered house in 1819 (Aubrey and Jackson 1862, 51-2 n.1; McConnell 2004, 987). The denuded estate was sold to Joseph Neeld of Grittleton in 1827, and he virtually rebuilt the village, church and rectory on model lines. Subsequently, much of the land was purchased by the Badminton estate in the 20th century (Jeffrey Lippiatt pers comm.).

After a fashion, the manor house pond survived the vicissitudes, but its condition caused increasing anxiety. Decaying willows threatened the perimeters; silt and other rubbish filled the centre. The walls at the narrow ends had survived, though the lower one was submerged. The long side-walls were not visible, and it was thought that they may have been removed to provide access for cattle, though the banks remained steep. In certain parts, however, the water remained to a considerable depth. The pond appeared to be spring-fed at the end nearest the church. The source may have been 'the ancient well under the road to the north of the church' which in

1849 was supplying both vicarage and Manor Farm (W&SHC, Neeld 1078.8). The pond was drained via a plastic conduit at the opposite end, at a greater height than its designers had envisaged, thereby creating a morass beyond the dam. The original stone drain which ran north for some considerable distance had been replaced by a ditch (Jeffrey Lippiatt pers. comm.): a small sewage pipe also discharged into the pond.

Local concern led to the formation of a small committee to consider what might be done. At first, a very limited intervention was considered, which would leave the area a wildlife habitat. It was soon realized that something more substantial was needed, before the silt totally overwhelmed the water. Consequently, in 2001, a society was formed with a broader remit, to renovate this pond and others in north Wiltshire; the stated reason being the historic environment, particularly wildlife. Initial approaches for grant aid were made to DEFRA and the Cotswold Area of Outstanding Natural Beauty (AONB). The pond was inspected by Wiltshire Wildlife to determine if it had any interesting denizens; none was found. The County Archaeologist gave his approval and the first grants were received as part of a rolling programme. Mr Andy Godwin of Wyck Farm was engaged as contractor.

The first stage of renovation required the removal of accumulated household and builder's rubbish and the decaying willows. The Badminton estate gave permission for a small, disused quarry to be used as a disposal site, provided the debris was levelled and covered with topsoil. Stage one was thus completed and there remained the not inconsiderable task of removing the silt. An application for the second phase was turned down after DEFRA revised its rules. The pond remained for a season rubbish-free but oozy. Mallards nested on submerged elm boles, whilst the committee cast around for other finance. Meanwhile Mr and Dr Maxwell, who own the small paddock between the road and pond, had the dry-stone walls repaired and the area tidied and planted with a selection of interesting trees.

The final stages in the restoration were made possible by a whole series of inter-connected grants. A North Wiltshire Community Area Award provided the bulk of the money. Wiltshire Biodiversity, Community First and Wessex Watermark almost made up the balance. Mr Andy Godwin generously accepted less than his estimate. Clancy Docwra, Wessex Water's contractor in a major scheme to bring mains drainage to the village, provided invaluable help with a powerful pump. A banked lagoon was



Fig. 3 Restored pond, looking south to church and spring inlets

formed in a neighbouring field, whither the tons of silt were transported to dry out before spreading. The elm boles, remnants of an avenue planted by the Neelds in the 1830s, (W&SHC, Neeld 1078.8) were winched out. The damaged drystone entry from the spring was cleared. The mouth of the stone overflow culvert, situated in the top and centre of the dam at the other end, was re-opened, and the ditch into which it now discharged was cleaned up. Whilst the pump remained on station, the clay bottom of the pond was given further attention. Few interesting artefacts were found in the silt, save some pieces of dressed stone that may have come from the manor house buildings and a piece of metalwork that may have been part of a latch. Drainage revealed that the side-walls had indeed been removed, but the curved corners, which would have been stronger than straight joints, survived in part.

Finally, volunteer Cotswold Wardens, under the leadership of Mr Noel Banks MBE, erected new fences around the site with materials provided by the Cotswold AONB and set up the statutory lifebelt with funds from the same source. They carefully restored the upper drystone wall with its



Fig. 4 SW corner with inlet, showing barley bale and turn to vanished side wall

spring entry, standing on wooden pallets above the pond lining. At the same time, the village drainage scheme reached completion and the small sewage inlet became redundant. Water, clear and clean, soon refilled the renovated pond (Figure 3).

Eight years have passed since the founding of the Society in 2001 and future maintenance of the pond is in the Wardens' hands. They have devised an ingenious method of scraping off the blanket weed with a length of barbed wire held up in the centre by a float and weighted down at the bank sides. Two people can then walk down the pond and deposit the weed at the end: a time consuming chore has become comparatively simple. The Society is experimenting with barley straw filters at the inlets (Figure 4) and contemplating raising the water level by a foot, thereby reducing its temperature in an attempt to control the spread of weed in the summer. The rough finish of the top of the lower wall and the overflow culvert may suggest they were once higher, though not much. The reseeded banks have germinated and when the small amount of planting is established, Thomas Gore's 'fishful pond' will recover its beauty (Carew 1953, 174). There remains the cheerful task of re-introducing some fish.

Acknowledgements

I should like to record the help given towards the restoration of the fishpond and much advice offered on matters piscatorial by Professor James Campbell of Worcester College, Oxford. I am grateful also to Mr Jeffrey Lippiatt of Manor Farm, Alderton for providing local information.

Primary sources (Wiltshire and Swindon History Centre)

Neeld 1305.2; Marriage settlement 17 June 1656 mentions the garden, dovehouses and a close 'called the bowling alley', which was near the pond, and hints at the recreational arrangements.

Neeld 1909.1 Surveys of Manors co. Wilts; Aldrington, Surrender and Clapcot, 1665. The survey was luxuriously done on parchment and bound in leather with inscribed arms. The maps were kept in a separate box with locks. Both were specially mentioned in Thomas Gore's will (Jackson, J.E., 1874, *The Last Will of Thomas Gore, the Antiquary*. *WANHM*, 14, 9). The surviving volume is now bound

with the arms of the 5th Duke of Newcastle. It is possible that the maps went astray during the Alderton/Lackham sale in 1815/16.

Neeld 1078.8 Notices of Alderton Parish 1849. The present copy might have been written in 1859 by the Rev. A.G. Atherley who resigned in 1864. He also refers to Mr Neeld's avenue of trees (whose boles were to finish in the fishpond), and the 'bowling green'.

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The Temple of Apollo, Stourhead

by Michael Heaton

Introduction

The Temple of Apollo, well known to readers of this journal, is situated at the south end of the lake at Stourhead and was built c. 1765 by Henry Hoare to a design by Henry Flitcroft heavily influenced by John Wood's 1757 drawings of the Temple of Venus at Baalbek (Lebanon). The Stourhead Estate accounts refer to its building and completion and record total estate expenditure during that period but, unfortunately, specific construction records have yet to be identified. Its original external form is recorded in several 18th and 19th century drawings, paintings and photographs (Mako, 2008), all of which show a shallower dome profile than the present. By c. 1912 it had lost its dome, which was not replaced until 1956, when a timber replacement of curved rafter form was installed.

Though of a relatively common style and based

on a Classical precedent copied widely in landscape gardens of the 18th and early 19th century, the Temple of Apollo at Stourhead is – as far as the author knows – unique in its strict replication of the exterior of its Levantine model. However, historical sources suggest that it had a bipartite or tripartite ceiling incorporating an internal rotunda light, based on Renaissance and Baroque forms, possibly incorporating a star-form element.

The present survey was commissioned by The National Trust to assess and then record evidence of such structures exposed during non-elective replacement of the roof structure during the Summer and Autumn of 2009. A comprehensive report has been submitted to The National Trust, English Heritage and Wiltshire Council, a copy of which is available from the author's website (www.archaeology.demon.co.uk/list.htm). The following is a summary and interpretation of the more significant observations.

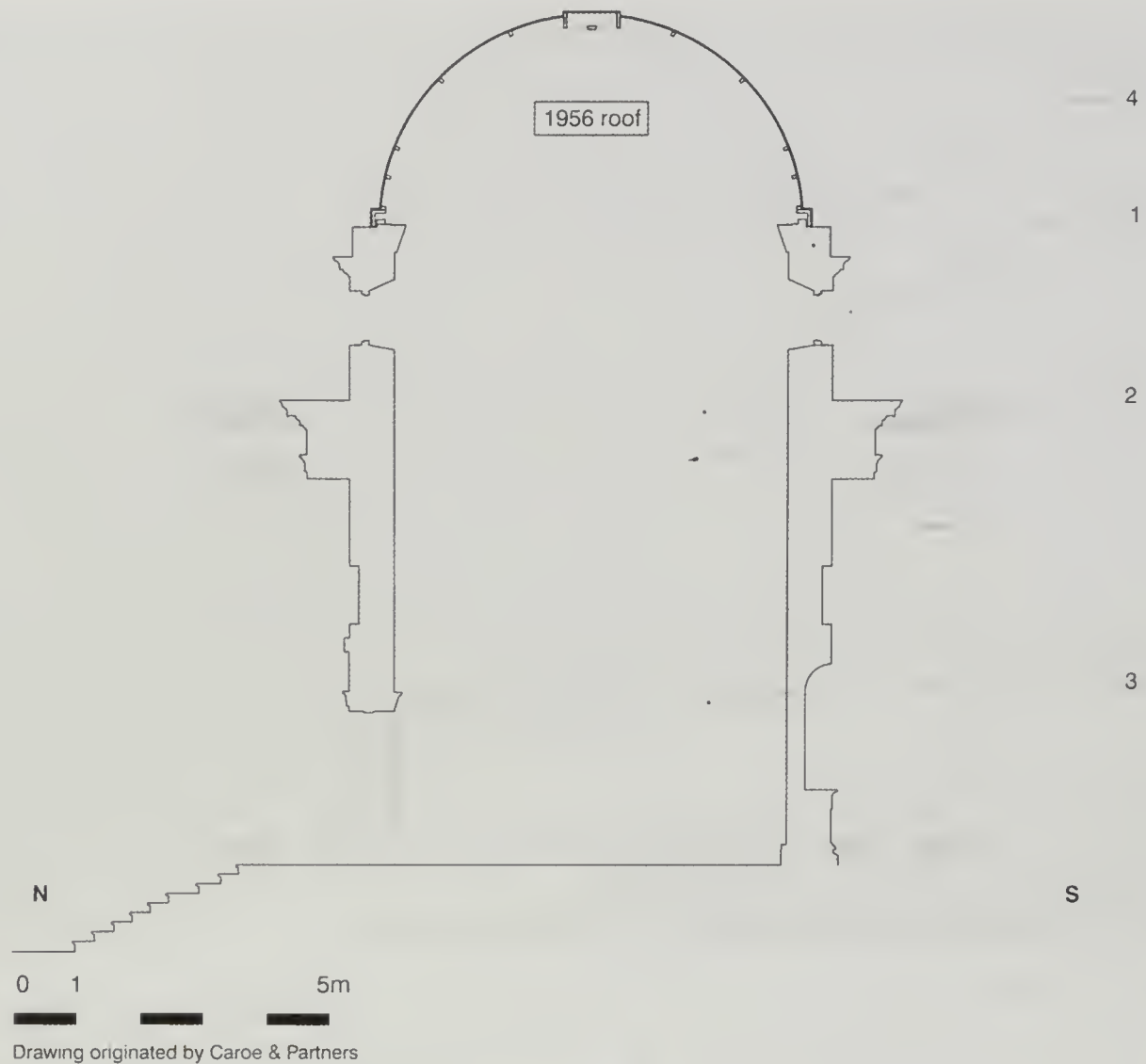


Fig. 1 Cross-section through the building showing general layout of details referred to

Results

Figure 1 shows the form of the building with its 1956 roof, in section. The numbered details are: (1) a discontinuous ‘parpain’ course with ‘drafted’ squared planes dressed on its innermost face at c. 200-400mm intervals; (2) iron cramps tying the inner skin of brickwork to the outer structure of Chilmark-type stone, the positions of most of which correspond to the spacing of external pilasters and the bed joints therein; (3) a continuous ‘parpain’ course that has been roughly hacked-off, but which formerly continued the detail of the door architrave around the interior, as a structural cornice; and (4) an ashlar block wallhead with an upstand roughly dressed internal cornice.

Figure 2 illustrates the cross-section through the wallhead and an extrapolation of the cornice circumference. Figure 3 presents a plan of the wallhead and selected details, showing the mortar bedding for the 1956 roof (4/11), extensive historic

plastic repairs (4/3, 4/4, 4/7 etc.), a chimney flue exit (4/2), the filled sockets for a tripod (4/1, 4/5 and 4/8) and two phases of lime mortar bedding on the top of the wallhead cornice (4/9 and (4/10), the uppermost (4/9) retaining the ‘casts’ of pit-sawn annular timbers.

Interpretation

Most of the details are commonplace components of 18th century construction or are self-evident and will not be discussed further here: Vitruvius (Rowland and Howe 1999, fig. 32), Wren (cf. Bolton and Henry 1928, 17) and a host of Continental Renaissance and Baroque architects (cf. Giustina 2003) specified iron cramps in multi-skinned construction such as this. The use of ‘parpain’ throughstones was equally commonplace (cf. Salzmann 1952), especially in the construction of cornices (Campbell *pers comm.*); and the building could not have been erected without

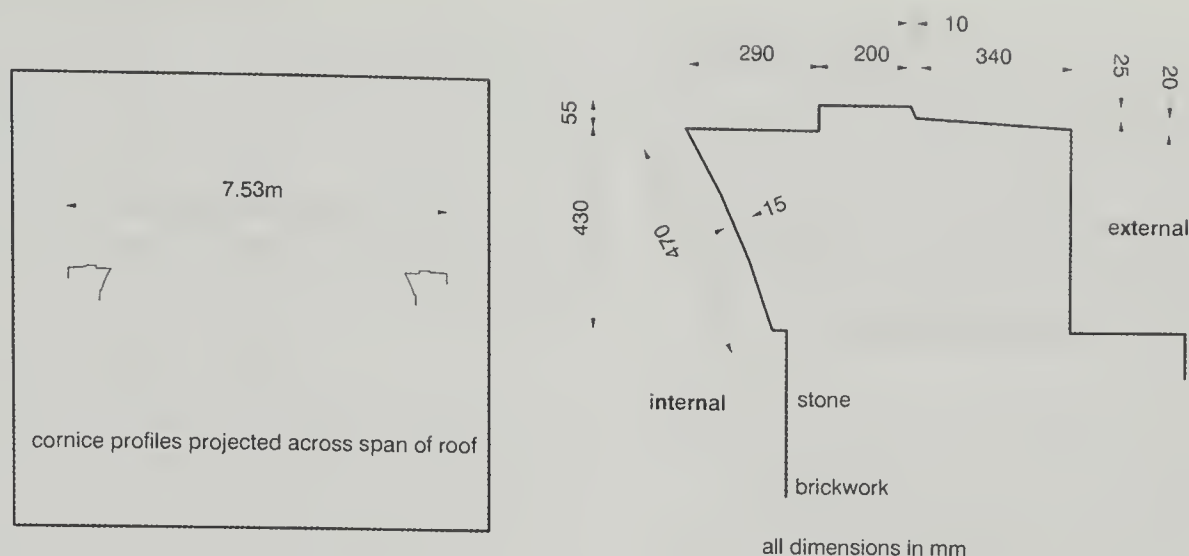


Fig. 2 Wallhead profile

some form of tripod or hoist.

The *form* of the ostensibly original dome has already been established (Mako, 2008) and has been replicated by the new replacement: a shallow segmental dome of Roman rather than Baroque profile, nominally 2.0m high (Heaton 2008, fig. 3). The new roof is of timber and steel, the original roof – or roofs – were plausibly of three constructions: stone masonry, brick masonry or timber. Contrary to the author's 2008 hypothesis, there is no conclusive evidence for a brickwork dome but there is evidence for both a stone *and* a timber dome.

The face of the wallhead cornice (4) is clearly hollowed and there is a compacted layer of fine mortar (4/10) on the upper surface of the inner berm, consistent with a masonry joint, and the upstand might have functioned as a joggle. Whilst the projected circumference of the cornice face could not have formed a smooth, curved dome (see Figure 2), it remains nonetheless possible that the architect or builder commenced with the intention of doing so. However, a stone dome of low profile would have caused problems here, exerting excessive lateral thrusts on the wallhead that would have required substantial chains within the wall fabric (Bowles *pers comm.*), as well as probably testing the local stonemasons beyond their competence. There is also no evidence of centering. Whilst small-span stone domes can be built of stone without centring – the smaller domes at St Paul's, their West Country versions at St George's, Portland (c. 1754) and some Continental models were built without it and with horizontal courses (Mozo 2003) – it is arguable that this structure is too wide.

Nonetheless, a timber dome is the most likely

candidate. It could have accommodated just about any profile; there is clear evidence in mortar bedding (4/9) for a circular wallplate preceding the 1956 roof; and it would have been within the capabilities of most local carpenters; architectural treatises of the time all included detailed sections for timber domes. Both Rawlins (1768) and Langley (1736) include several truss forms for domed roofs, with or without tie beams, the more complex of which follow European models published at the time. All involve triangulated trusses of one form or another supporting a curved outer membrane, formed, probably by counterboarding fixed to profiled furring pieces. Whilst curved truss members had been proposed by de L'Orme in the 16th century (Campa 2006) and adopted widely in France and Germany in the 18th and early 19th centuries (Haupt 2003), the author is not aware of evidence of their use in mid 18th century Britain. No evidence survives for its superstructure, but it appears to have risen from a circular wallplate or sill set upon the inner berm and retained in position by the upstand. The upstand would therefore have supported secondary rafters and counterboarding, with a lead covering discharging on to the sloping outer berm, itself also covered with lead sheeting. In all probability, only the outer face of the upstand was protected by lead, leading to its subsequent extensive decay through percolation and freezing of condensation off the underside of the roof covering.

Construction would have proceeded in line with modern building practice, albeit with more people and less machinery, but the three sockets – (4/1), (4/5) and (4/8) – are slightly anomalous. It is reasonable to assume that they are the sockets for a tripod used

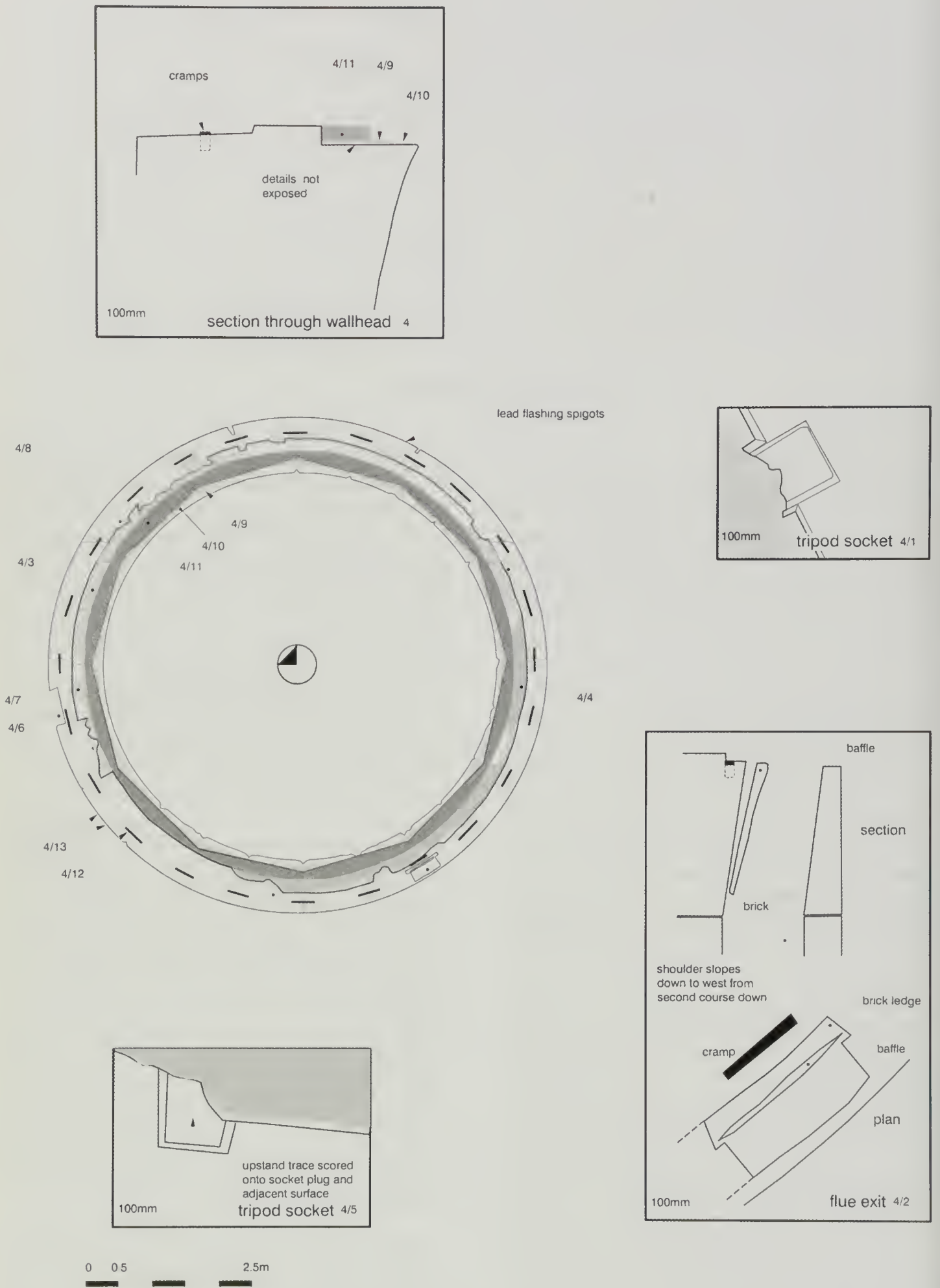


Fig. 3 Plan of wallhead showing principal details

to hoist stone and all other materials to the working level, and it is likely that there are similar sockets on several other courses – if not all – of the structural wall. However, without lateral restraint (which would have impeded its use), the tripod would have exerted considerable outward thrust on the walls, which is why towers of this sort (lighthouses, campaniles etc.) are invariably shown in historical sources with a central jib type crane operating off an internal floor (cf. Zabaglia 1743).

Notwithstanding its utility as a crane, the relationship of the sockets to the wallhead is also ambiguous. They are cut into the outer edge of the upstand and do not extend inwards as far as the inner berm, which suggests they could still have been used to hoist the roof structure, but all three have the upstand's outer edge scribed into the upper face of their filling blocks. This suggests the filling blocks were fixed in place before the upstand – or at least the outer berm – was formed, assuming the circular trace was cut as part of the profiling of the wallhead, i.e. that the upper surface of the wallhead was cut *in situ* after the tripod had been dismantled. This possibly supports the thesis (above) that the dome was originally conceived in stone with a simple joggle on the *tas-de-charge*, which was later modified to form the present upstand to provide additional weather protection for a timber roof structure. It is, therefore, an example of the all-too-rare, but inevitable, mistakes that must have occurred frequently as builders and architects grappled with architectural innovations, but which are rarely visible now.

Acknowledgements

The author is grateful for the assistance of Dr James Campbell RIBA of Queens College Cambridge and Robert Bowles of Alan Baxter Associates in preparing the report on which this summary is based.

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WANHS Archaeology Field Group: recent activities and future plans

by *Jim Gunter*

with contributions by *John Baumber and Lynn Amadio*

In 2009 the AFG undertook a range of projects. At Cumberwell, Bradford-on-Avon, excavations were concluded at the Romano-British site discovered during fieldwalking in 2007. In addition to stone walls, finds include animal bones, including an engraved bone, and many small finds, including brooches, pins and broken vessels of large size. Human remains along one of the walls indicate the presence of a cemetery. Post-excavation analysis will hopefully reveal the nature of this enigmatic site and it is intended to return to the area in the future to investigate the relationship between the excavated remains and local Roman roads.

At West Woods (NGR SU155685), 3km southwest of Marlborough, archaeological survey using, among other methods, a hand held GPS (Global Positioning System), identified various earthworks. Just over half the 400ha wood has now been surveyed and in March 2009 Professor Peter Fowler, who had surveyed parts of the wood whilst researching for *Landscape Plotted and Pieced* (2000) accompanied the AFG team (see Fowler this volume). Features range in date from the late Neolithic period to present. At least one sarsen polissoir – for polishing stone axes – is of probable Neolithic origin. Evidence for pre-woodland features was recorded in the form of so-called ‘Celtic’ field systems and medieval ridge and furrow. Lynchets of probable mediaeval date have also been traced along with natural swallet holes, sarsen quarries and chalk marl pits. Investigations are scheduled to continue over winter 2010/11.

The search for Sir Edward Seymour’s Tudor mansion at Bedwyn Brails identified further water supply features thought to be associated with the

mansion whose construction was begun in 1549 but stopped in 1552 before completion. Previous work identified a brick-lined water conduit traced for some 500 metres. A new discovery is that the brick structure enters a fine ashlar and brick lined channel forming a Y-shaped junction with a further conduit. Further work is planned.

Fieldwork continued at Godwin’s Meadow, Rodbourne (NGR ST934826). The name Godwin has been associated with the meadow since the 1681, which was a possession of Malmesbury Abbey in the Anglo-Saxon period. Earlier geophysical surveys and evaluation had revealed substantial structural remains. The recent excavations uncovered a substantial medieval building dated by pottery to the 12th-14th century. The walls also contain some recycled Roman pennant floor tiles and residual Roman pottery. Several medieval tokens, including a possible brothel token, and another for the Bull in Malmesbury dated 1664 were also found. Coin finds date from the Roman period through to Georgian times and include a silver long-cross penny of Edward I.

The route of the Roman road between Poole and Bath (Margary 1D, *Roman Roads in Britain*, 1973), probably a significant military and trade route, is uncertain for much of its length through Wiltshire. Robert and Richard Miller, from Donhead St Mary, have been researching the missing link between Donhead St. Mary and Semley. Earlier in 2009 they had discovered a group of regularly shaped, stone cobbles on both banks of a stream, a tributary of the River Nadder. This potential crossing place is on the line of the road route as plotted elsewhere in the

locally. The AFG undertook a four-day excavation that revealed ditches on either side of a cambered layer of rotted green sandstone: the spread of cobbles is probably the remains of the original road surface. One of the ditches produced Romano-British pottery indicating the date of the structure. The line of the road to the south of the stream indicates an oblique crossing. Close to the stream, the road surface was entirely eroded revealing a deposit that overlaid a large culvert covered with lozenge-shaped greensand containing a Roman coin. Dressed stone fragments lay in the south-side stream bed, although no traces of a bridge structure were found.

Renewed activity by English Heritage at Marden Henge has brought the archaeology of the Vale of Pewsey into sharper focus. Previous studies have concentrated on specific sites or eras of activity, particularly the Late Bronze Age/Early Iron Age black-earth 'midden' sites (see Tubb this volume). To address this situation, the AFG aims to complete

an 8km long field-walking cross-section of the Vale from the higher ground of Salisbury Plain to the south and to the edge of the Marlborough Downs to the north. With the agreement of Bryan Read of Church Farm, Stanton St Bernard, initial survey in Autumn 2009 covered the fields to the north of the village up to Tan Hill - a total of 2km. Linear sampling was adopted with 50m lines at intervals of 20m across a band 300m wide. With the help of Dr Nick Snashall of the Alexander Keiller Museum, 74 worked flints have been identified, including one leaf-shaped arrowhead, along with two hammerstones. Also recovered were 1,200 sherds of pottery with Romano-British pottery predominant, and with some apparent clustering of finds.

As ever the AFG would like to thank the various landowners who have allowed access to their land and to the panel of experts who willingly offer advice. Full reports on all these projects will be published in due course.

Reviews

edited by Robert Clarke

Wiltshire Beetles: History, Status, Distribution and Use in Site Assessment, by Michael Darby, Malthouse Books, 2009, softback, 355pp, colour plates and figures, price £23.00. ISBN 9780955850615

Michael Darby has spent the last 16 years as County Beetle Recorder and during that time has been very energetic in tracking down records in archives and literature, in personal fieldwork and in obtaining the records of other recorders of Wiltshire beetles. This well researched and enjoyable book is the result. It is the first devoted to the beetles of the county, one of the largest in southern England. Although famous for its chalk grasslands, which make up the major part of the county, there are other important habitats including ancient woodland, wetland areas and lowland meadows. A well-illustrated introductory chapter describes these. This is followed by chapters dealing with the history of beetle recording in Wiltshire, the nationally scarce species, indicator species of woodland and grassland, changes to the beetle fauna and details of the principal sites. The history chapter has a wealth of information with fascinating details about entomologists from 1828 onwards who have worked in the county, as well as the school Natural History Societies at Marlborough and Dauntsey. The most innovative item is Darby's proposed Calcareous Grassland Quality Index, which will promote considerable interest. The principal sites are well described with grid references, a selection of colour photographs and lists of notable beetles. I am inspired to visit a good number of them this summer.

The bulk of the volume is the species accounts where every county record for each of the 1,839 species is given, a total of over 20,000 records. The list is clearly laid out with Latin name, English name where one exists, National status, brief habitat

details, information on localities including 10km grid references, dates when found and names of recorders. This section is enhanced by excellent coloured photographs of 155 species, most of them taken by the author using specimens from the county. There is a comprehensive bibliography and index.

As the author explains this book is not intended for the amateur naturalist wanting to study beetles for the first time. He does, however, offer valuable advice for such a person wanting to add records for this interesting and important part of the county fauna. In essence, it is to begin with a small group, perhaps the large ladybirds, which are easy to identify, and well covered by a modern and inexpensive handbook. Recent publications also make this possible for the larger ground beetles.

This book with its extensive list of beetle species records is of particular interest to the dedicated beetle enthusiast, who will surely be encouraged to provide additional Wiltshire records. There are still many areas with few or even no beetle records, including a number of Sites of Special Scientific Interest. As I have indicated, there is also much that will appeal to the more general reader with an interest in the wildlife of Wiltshire.

A. J. W. ALLEN

The Bluestone Enigma. Stonehenge, Preseli and the Ice Age, by Brian John, Greencroft Books, 2008, 160pp, colour, paperback, price £9.95. ISBN 9780905559896

I have always believed that everyone should have a little Stonehenge paper (pace Jean Muir) and this is Dr John's contribution and, like Ms Muir's dress, the

intention here is to draw attention, cause comment and, perhaps, be provocative.

Dr John is a glaciologist by profession, Pembrokeshire native by persuasion and a passionate - sometimes strident - advocate of his main cause, namely that Stonehenge is an incomplete monument erected from locally/regionally available stones. Few, if any, dispute the regional (defined here as more than a day but less than week's walk) nature of the large, sandstone sarsens used in the Stonehenge Sarsen Circle and Sarsen Horseshoe, but most workers suggest that their origin is 30km or so to the north on the Marlborough Downs and that Stonehenge itself sits in an area that was originally devoid of sarsens. Dr John, however, suggests this dearth of sarsens in Salisbury Plain around Stonehenge is due to their incorporation into the monument as 'a truly motley collection of all shapes and sizes' or as 'simply a collection of stones from the neighbourhood.'

Whatever the truth, it is clear that the sarsens remain in the role of Cinders in Stonehenge lithic studies (unlike the bluestone lavas and ashes) and that all aspects of them should be re-examined. However, as the book title suggests, it is the eponymous rocks and their mode/modes of transport to Stonehenge that mainly exercise the author. He totally rejects the idea that the bluestones (here, defined as any non-sarsen, Stonehenge-related rock), whose ultimate origins are, with the exception of the Altar Stone, southwest Wales, were transhipped 230kms from the Preseli Hills by man and so uses Chapter 3 'The Bluestone Myth' to some effect. Rather, he suggests that an Irish Sea glacier moving eastwards along the Bristol Channel moved the varied bluestones to Somerset and perhaps even closer, to Stonehenge. Hence, the Welsh Preseli bluestones were collected by the monument makers from no further than Somerset. This suggestion, that nature is largely responsible for the movement of the bluestones, historically favoured by geologists rather than archaeologists and geomorphologists is, of course, not new. Dr John gives full credit to the Open University (and colleagues) team who closely argued this position in 1991. What is new and what demands serious attention is the author's discussion in Chapter 7 'The Irish Sea Glacier', on the possible natural mechanisms of rock selection, rock movement and finally deposition, by glaciers. It appears that nature can be as careful or as capricious as mankind in selecting rock for transport.

Both his expertise and experience in this very specialised field (that has very little to do with geomorphology!) means that this chapter deserves

careful reading. It is easily the author's most successful and is, and should remain, a significant contribution to Stonehenge studies. A visit to Dr John's blog, where he continues his campaign, shows that recent Pleistocene studies confirm his views rather than counter them - still, as ever, it is early days. But, but, but, this independently-produced and excellently illustrated little book has problems. There is too much 19th century-style political tract and not enough nice Victorian scholarship.

The author has a sub-theme namely that the (archaeological) establishment has deliberately suppressed the truth partly for national and personal aggrandisement, partly out of inertia and, I wonder, even plain naughtiness. This is wearing, well before the end of the first quarter of the book, progressively becoming predictable, tedious and counter productive. Without this, the book might have been less enjoyable and cathartic to write but would have been far more persuasive. Being partisan does not mean taking pot shots at the enemy; Professors Darvill and Wainwright especially, must feel peppered, and this is a disservice to them and to Dr John. It is a great pity when the lasting impression of this book is not its salutary nod to the power of glaciers but its grimace at archaeologists. A second edition, and I really hope there will be such, might take a softer approach.

There are minor errors, some trivial like references incorrectly cited in the text, others suggest that some of the text is moulded from secondary/tertiary sources and so perpetuates archaeo-urban myths (Stonehenge is as cursed by as many of these as the Egyptian Pyramids). 'Facts' from a website, however Pagan, are not and cannot be treated as the equal to peer-reviewed data from *Antiquity*. A few examples will suffice.

Thomas (who first realised that the ultimate origin of the spotted dolerites from Stonehenge was the Preseli Hills) was not 'distasteful of Judd's (petrographical) work of 1902' indeed he called the work 'excellent'. The recent history of the Boles Barrow spotted dolerite, an important dolerite found in Wessex outside Stonehenge and its environs and a cornerstone in the man versus ice argument is not as Dr John's (p. 140) and almost all the post 1980 literature suggest, secure in its Boles Barrow provenance: the primary literature is ambiguous. Despite web-based assertions, Drs Ixer and Turner have not suggested that the Altar Stone came from the Brecon Beacons; they merely state it is not from Milford Haven. Almost every sentence about the Great Cursus and its associated lithics (p. 68, 69,

77, 103, 108) is incorrect: once again these errors, missing from the original papers, are found online. A second edition can correct these simply and the missed Pitts-Howard lithological contribution of the early 1980s can be incorporated alongside more recent petrographical work (often published in *WANHM*).

Then there is emphasis; 'the sheer number of rock types (at Stonehenge) is a grave inconvenience to many who write about Stonehenge; and so they conveniently fail to mention it' (p. 8), for Dr John the dozens of rock types are important as they show the haphazard collection/deposition-strategy of ice, for some archaeologists they suggest the number of collectives contributing to the manufacture of the monument and for others, Dr John is probably correct, they have failed to find/understand their import. The reasons for the large number of Stonehenge-associated rock types are as varied and numerous as its summer visitors, for there are dozens of different rock-types recorded, granite, gabbro, slate and limestone; brick, cement and burned coal and these days sacred crystals and 'magnetic haematite' (look anytime beneath the Altar Stone to see a selection of these) but have they any (non-sociological) significance? The meaning of 'bluestone' already endlessly argued over should be re-defined once more as 'any non-sarsen lithology employed as a Stonehenge orthostat'. This would reduce the origin/transport problem to a few lithologies and their geological provenances. If, as seems likely, these lithologies have multiple sources then speculation can recommence, but with much of the rock clutter removed.

Enough, now for a final verdict on the book - set aside the polemics, forgive the factual errors and unsafe excursions into TAG-territory and enjoy the splendid photographs, for this is a cheap but valuable book that should sit alongside the many recent Stonehenge books written by archaeologists. Dismissing/ignoring its central theme, that glaciers have a role in Stonehenge stone transport studies might just turn out to be a Michael Fish hurricane/what hurricane? moment.

ROB IXER

Social Relations in Later Prehistory: Wessex in the First Millennium BC, by Niall Sharples, Oxford University Press, 2010, 383pp, black and white figures, hardback, price £70. ISBN 9780199577712

Many archaeological texts go out of their way to use obscure and convoluted language; Niall Sharples' new survey of the 1st millennium BC in Wessex is not one of them. In clear and concise language, supported by figures of such clarity that others could imitate them, Sharples sets out his analysis of the period from the Late Bronze Age through to the Roman invasion of Wessex.

In the Introduction Sharples defines what he means by Wessex, discusses the historiography of the Iron Age in Wessex since the 1980s and outlines his own thoughts and contributions. He highlights the transformation of prehistoric society coincidental with the introduction of iron into Britain, changes built on those that had already taken place in the Middle and Later Bronze Age. Sharples justifies his 'Wessex-centric' perspective arguing evidence from the Iron Age (sites, artefacts and fieldwork archives) in the region is well preserved and can reveal much new information.

The Iron Age landscape and the sites within it are discussed in Chapter 2. Wessex is synonymous with chalk downland, but Sharples extends his survey to the sands and gravels of the south coast and the intrusive clay vales. He emphasises the historicity of the Wessex landscape; it is a landscape rich in monuments but it is, and has been, a contested landscape. He draws attention to the archaeological problem of reconstructing Iron Age landscape narratives using the relationship between linear earthworks and barrows as an example. Sharples' emphasis on territorial units is, perhaps, inappropriate; recent work in the Yorkshire Wolds (Giles 2000) and Dartmoor (Wickstead 2008) have questioned whether the concept of land ownership or territoriality existed in late prehistory. His analysis of the differences between enclosures and hillforts in the landscape at this period is instructive; size, topographical location, visibility, respective distribution of each type and the changing relationship between enclosures and hillforts over the Iron Age are considered.

Sharples then turns his attention to the problem of identifying communities and social relationships in later prehistory. He argues that gift exchange was central to the process of social reproduction and much of the archaeological record is a result of that process. He explores the differing nature of consumption and exchange in the period from the large-scale deposition of bronze metalwork to the introduction of iron, the meaning of metalwork in the 1st millennium BC (and the difficulty of identifying ironworking on Iron Age sites) and the

role of ceramic production. He argues that hillforts are the product of the conspicuous consumption of local resources from their surroundings or polities, explores the introduction of coinage and the development in the Late Iron Age of places of exchange, for example Hengistbury Head and Silchester.

Chapter 4 discusses the role of the house in the first millennium BC with a much-needed review of the historiography on this topic. Sharples analyses the evidence for the changing characteristics of the house over the period. The lifecycle of a house is considered, the repair or replacement of structures, the resources required and a consideration of the roundhouse in each phase of the first millennium BC is offered. Finally, the death/abandonment of roundhouses is discussed and the apparent unwillingness to construct new buildings over the remains of a recently abandoned structure is noted.

Evidence of personhood in the Iron Age is considered in Chapter 5. Drawing together evidence from the burial record, the presence of structured deposits incorporating human remains and the current emphasis in archaeology of partible individuals or 'dividuals', Sharples distinguishes between the largely intact burials encountered in settlements and the partial remains found elsewhere. He argues that the enclosures' 'boundedness' extended to the buried individuals; they form evidence of closely-knit communities. In support of this argument, he deploys the ideas of Mary Douglas, especially her work on social analysis *Natural Symbols* (Douglas 1970): Douglas's use of the Grid/Group matrix certainly supports Sharples' argument but is heavily influenced by both Structuralist and Functionalist ideas. The Grid/Group matrix oversimplifies complex human inter-relationships and their responses to external factors, it makes things too black and white. However, Sharples' use, within Iron Age societies, of Douglas's concept of 'pollution' is interesting; concepts of taboo, inclusion and exclusion must have circulated particularly in terms of boundaries, which, whilst probably not territorial, marked out significant places and meanings.

In Chapter 6, Sharples places Wessex in the first millennium BC in a wider context. He notes how different Later Bronze Age and Iron Age society was in Wessex in comparison to northern England or the west coast of Scotland. He argues all three areas responded uniquely to the trauma of the collapse of the long distance bronze trade in the Llyn Fawr

period, and how different the response of societies in Britain was in comparison with Continental counterparts.

This is an excellent survey of the Iron Age in Wessex but there are a few minor niggles. There is the occasional misspelling; 'Wylie' instead of Wylie. At times the footnotes (I am not a fan of footnotes) are too extensive. Similarly, some figure descriptions, for example Figure 2.13, are too lengthy; both these and the footnotes suggest a desire to add information after the main text has been completed. These points aside, this is a work of great value to all students of the Iron Age in Wessex and beyond, providing a synthetic and critical survey that we have sorely lacked over the past three decades. This makes the publisher's decision to market the book at such a high price incomprehensible and will discourage many from buying it. One hopes that a more sensibly priced paperback version will appear in due course.

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PAUL C. TUBB

The Anglo-Saxon Cemetery at Blacknall Field, Pewsey, Wiltshire, by F. K. Annable and B. N. Eagles, WANHS Monograph 4, 2010, 320pp, black and white and colour figures, hardback, price £40. ISBN 9780947723149

For many years, archaeologists studying the early post-Roman period in Wiltshire had only a limited body of material to work with, principally a small group of cemeteries, mostly in the Salisbury region, with even fewer such sites known from the northern part of the county. To complement these cemeteries is a series of isolated interments often, but not exclusively, cut into pre-existing barrows, those at Roundway Down and Ford, Laverstock foremost among the latter type. Many of the larger known cemeteries were excavated and recorded in

the later 19th and early 20th centuries in a fashion unacceptable to modern archaeology.

Recently, however, valuable new additions to the database have been made and new sites are known from the central region of the county to plug the apparent gap portrayed by discoveries made up to the late 1960s and the discovery of the important late 5th to mid-6th century burial site at Blacknall Field, near Pewsey, a cemetery also known in the literature as 'Blackpatch' – itself a reference to a significant Late Bronze Age/Early Iron site upon which the later cemetery was located. Further Early Anglo-Saxon burial sites in central Wiltshire, for example, at Collingbourne Ducis (first published by Chris Gingell in *WANHM* in 1975-6, but with more recent substantial finds) and Market Lavington can now be brought to bear on a range of debates surrounding the Germanic cultural presence in Wiltshire.

Before the discovery of Blacknall Field and the other central Wiltshire cemeteries just noted, a polarised view prevailed whereby the northern part of the county (which, of course, did not exist in its present form probably until the 9th century) was firmly paced in a cultural milieu defined by extensive cemetery finds of 5th to 7th century date in the Upper Thames region, while the burial sites of the Salisbury area, looked towards Hampshire and the south coast. Of further interest, the Blacknall cemetery also lies at – what had become by the 7th century – the westward limit of 'Germanic' funerary culture: i.e. the interface between Anglo-Saxon England and the 'Celtic' west. Elements of the grave furnishing and skeletal pathology of the population buried at Blacknall Field arguably reflect their 'liminal' or 'gateway' experience depending on one's interpretive perspective. The publication of Blacknall Field under the guiding hand of Bruce Eagles is therefore an important milestone in our understanding of central Wiltshire in this formative period at a local level, but it also provides key insights into what might be described as a cultural 'ecotone', or nexus, between the Upper Thames and the Hampshire/South Coast region and western 'Celtic' and eastern 'Germanic' culture.

As Dr Eagles notes, his report encapsulates in large part a text prepared by the late Ken Annable, but Eagles' unparalleled knowledge of the early Anglo-Saxon period in the county and region is evident throughout, not least in Chapter 3 (Interpretation), where the discussion is augmented yet further by another regional specialist Dr Nick Stoodley who comments on the social structure of

the community who utilised the Blacknall Field cemetery.

The first part of the report (Chapter 1) gives a straightforward account of the circumstances of the discovery of the site and its subsequent excavation. Chapter 2 detail the range of objects recovered and includes reports by leading authorities: Barry Ager, Tania Dickinson, Sonja Marzinzik and Sue Youngs on the dress fittings, Sam Moorhead on the Roman coins, Birte Brugmann on beads and Diana Briscoe on pot-stamps incorporating the work of the late Teresa Briscoe.

Overall, just over 100 graves were recovered with four cremations, the latter until recently associated largely with northern and eastern England, but now recognised as an infrequent but persistent rite south of the Thames into the 7th century, although the date range of the Blacknall field graves – at least on the basis of the datable artefacts – is relatively brief: from c. AD 475-550. The recovery of infant graves – often absent from early Anglo-Saxon cemeteries – is an important aspect of the Blacknall site. In view of the cultural setting of the cemetery in geographical terms it is unsurprising that the grave finds reflect cultural contacts in all directions and include a penannular brooch of Western British ('Celtic') type together with material familiar from the Upper Thames region, Hampshire and Kent. Material best paralleled in East Anglia and Sussex represents what might be best termed 'exotica'.

The volume itself is clearly organised, well produced and well written. As a welcome new addition to Wiltshire studies more generally it deserves a place on the bookshelves of all those with an interest in the early history of the county which, after all, can only be written on the basis of the study of its material remains. The officers of the Society are to be congratulated for their determination to bring the Blacknall Field excavations to publication and fortunate to have been able to bring together specialist reports of a high quality under the overall co-ordination and guidance of Dr Eagles, the principal scholar of the post-Roman period in the region.

ANDREW REYNOLDS

Malmesbury Borough, by Donald Box, Warden and Freemen of Malmesbury, 2007, 300pp, colour and black and white figures and plates, paperback, price £11.95. ISBN 9789055921300

Malmesbury Borough chronicles the administrative history of the North Wiltshire town from the Anglo-Saxon period through to the modern era. It introduces the reader, through a series of well-organised chapters, to the myriad of agreements, charters and corporation acts that have so characterised the development of the town. Malmesbury and the Burgess' administrative system is well known, lesser aspects rarely receive the same coverage – this publication attempts to re-address that apparent imbalance.

The main text is preceded by a useful breakdown of the book's intent and focus. Areas of specific interest include the initial layout of the Anglo-Saxon *burh*, the post-Norman administrative period, formation of the Abbey and Guild and subsequent market development and rise of the Burgess system post-dissolution of the Abbey. It is refreshing to encounter a well-disciplined author, often there is a temptation to 'chronicle' the preceding prehistoric and Roman period, thankfully this is resisted here and the work subsequently benefits.

Books containing landscape descriptions require a map or plan to illuminate the text and guide the reader through the often complex developments administrative periods force on the area. The author has included six hand drawn maps; unfortunately these let the work down. This reviewer does not object to hand drawn illustrations however, the maps are not of a standard that can be considered publishable. The original location titles have been partially erased and re-written, both show in the reproduction making them appear untidy. That said, the maps do add to the general understanding of the text. A number of spelling and grammatical errors are evident but these do not detract greatly from the text. Whilst the use of referenced material appears limited, the use of endnotes with each chapter means what is used is readily available; the book is complimented by three annexes and an index.

The greatest attribute of the work lies within the structure of the subject matter. Topics regarding local government often require a dedicated reader; this is not the case here. Box masterfully chronicles Malmesbury's development while managing to retain the human story, this work will add greatly to our understanding of the Malmesbury Borough.

BOB CLARKE

A History of Chippenham; from Alfred to Brunel, by Richard Baines, ed. Tony Pratt, Mike Stone and

Kay Taylor, The Hobnob Press, 2009, 160pp, black and white figures and illustrations, paperback, price £12.95. ISBN 9870946418763

This informative and book on Chippenham covers a 1000 year period from Alfred (King of Wessex 871 to 899) to the arrival of the railway in 1841. The intention is to fill a gap in current written accounts of Chippenham's history.

Thirty-four chapters each discuss one period of the town's development. The initial chapter '*The kingdom of Wessex*' sets the scene for the following text describing the origins of Anglo-Saxon Chippenham, the first structures appearing on a knoll within a loop of the river Avon. From here themes are ordered chronologically, discussing the development of the town and surrounding landscape through the many manorial, religious and economic drivers of the medieval period.

In 1554 Chippenham was granted a Charter of Incorporation and became a Borough. The unexpected results of this are explored over four chapters. The town was in constant dispute with landowners over the rights of land contained within the borough; indeed such were the levels of disagreement that the borough ran out of money defending actions over land and the market. Prominent names appear throughout the text including the Hungerford, Sharrington and Baynton families, all of which had a major hand in the development of the Chippenham area, complimented by the famous 17th-century antiquary John Aubrey, and John Britton, 19th-century topographer and Chippenham's first historian. Britton recorded over a 50 year period the demise of the town's once lucrative textile industry.

Connection through transport and trade has been the main driver in the town's post-medieval development, succinctly summed up by the opening statement of chapter 7 'From the beginning Chippenham was a commercial centre and crossroads' (p. 24). This central aspect was further strengthened by the introduction of the Turnpike network. Chippenham Turnpike Trust was formed in 1727 and immediately competed with neighbouring trusts for tolls. As roads were improved, including a new bridge at Chippenham by the end of the 18th-century, so the focus of trade moved. Interestingly Lacock's development became static at this time as passing trade now focussed on Chippenham. Evidence of the turnpike in the area survives through the roadside toll houses.

Other topics addressed include the effects of

the Civil War, agriculture and the textile trade from the mid-16th-century and Chippenham's burgesses and members of parliament from 1295 through to 1841. Not all were effective in this role, indeed Charles Wynn was reported to have said of William Maddocks, MP for the town from 1820, that he performed 'with less ability than those who rate him lowest would have expected' (p. 139).

This publication is well referenced; it contains copious notes at the end of each chapter and is complimented by a comprehensive bibliography and index. The chapters contain relevant illustrations throughout; however many photographs are too light in reproduction – this is especially the case on p. 20. That said, this publication achieves its goal and is recommended to anyone who has an interest in the pre-railway historic development of Chippenham. It is detailed enough to please the academic and the ease of its text allows the book to be used as an informative guide around the town. The blurb notes this work 'is set to become the standard text book for many years', this reviewer agrees.

TONY VAN CRUMP

Salisbury Cathedral: The Making of a Masterpiece, by Tim Tatton-Brown and John Crook, Scala Publishers, 2009, colour and black and white plates and illustrations, paperback, price £16.95. ISBN 9781857595505

This book describes the story of Salisbury Cathedral via a detailed and thoroughly researched history of its development. The authors take each major phase of construction, from the laying of the foundation stones in 1219 to the completion of Britain's tallest spire. This work provides references and acts as an architectural guide.

Reminding us that this building is more than just a cathedral, we are treated to a copious history of those who have influenced architectural style or worked on the site through the last 800 years. From kings and bishops down to the craftsmen whose physical input created this masterpiece, all are mentioned alongside the numerous periods of renovation, dilapidation and construction of the Cathedral Close.

The text is greatly complimented by the photographic work of John Crook. Superbly reproduced imagery allows the visitor to follow the many architectural features contained within the building. To further aid the visitor a number of

illustrations and period plans are also included, all of which add greatly to the emerging story of this phenomenal building's creation. One observation here is the lack of images depicting scaffolding. As Salisbury Cathedral needs constant maintenance it would have helped to portray the work of the craftsmen currently engaged in the renovation of the structure.

The final chapter '*Renovations*' has been written with an entirely different pace, imparting a sense of urgency. Whilst this approach may have benefitted earlier chapters, the final one leans too far the other way, making the text a little disjointed. The content too is sparse, the current renovations are given no more than a passing mention, and the installation of the new font in 2008 receives just one line.

That said this work is generally of a high standard, it is reasonably priced and when used as a guide allows the visitor to appreciate the spectacular architecture present in the Cathedral.

JO LINDLEY

Samuel Powell's House: The Early 18th Century Town House of a Devizes Clothier, by Matthew McMurray, WANHS, 2009, 160 pp, black and white plates and illustrations, hardback, price £12.50. ISBN 9780947723156

The subject of this publication, 8 Long Street, Devizes, is described by historic buildings archaeologist Matthew McMurray, covering a 286 year period from the first recorded owner, Samuel Powell, a Devizes clothier, through to the present day. Written in two parts, the first covers the history of the house whilst the second investigates the architecture and in so doing compiles a building record.

This extremely well-researched book was clearly a labour of love for the author. As a newcomer to the Wiltshire town, and someone with a passion for historic buildings, it was pretty much 'love at first sight' when he stepped into 8 Long Street. His initial visit to the house was to discuss a minor detail of a subject unrelated to the building; the visit set in train an investigation that took three years.

The first part considers the origins of the house, describing the plot of land in Long Street upon which it stood during the reign of William III. The plot and subsequent dwelling was first owned by Edward Coleman, a tailor, who sold his house to one Samuel Powell, Devizes clothier, on 5 September 1696 for £80. Eager to demonstrate his burgeoning

wealth, Powell went on to redevelop the house in contemporary style, eventually owning, with his brother 7 Long Street as well. By the mid-1730s Powell's son (also Samuel), owner of the property, had to sell the house in the face of mounting debts. The subsequent owner was surgeon Joseph Needham; his improvements include the rainwater heads dated to 1737.

Many other, often colourful, characters go on to own the property, not least Admiral Joseph Needham Tayler, a larger than life hero of the Napoleonic Wars, suggested to be an inspiration for C. S. Forester's character Horatio Hornblower. Other occupants include various mayors, chamberlains, chancery, surgeons and grocers; included are photographs church monuments and memorials relating to inhabitants of the house. Unlike many publications purporting to describe social history, the author resists the temptation to stop in the early 20th-century, continuing through the evacuees who were housed through the early period on the war. He chronicles the quick succession of occupants in the 1990s, concluding with the current owner. This has been possible as a complete set of deeds is extant for the property.

The second part of the book is a complete and comprehensive description of every inch of the house and leaves no stone, brick or roof tile unturned. It covers the front façade, north side, south side and rear elevation of the main building; the stable and coach house and then steps inside to explore the cellars, ground floor, hayloft, first floor, second floor, attic stairs and then roof and attic. The intricacy of the text is impressive as is the descriptive nature of the condition of the structure, noted in 1971 as 'literally about to fall down'.

There are many monochrome photographs, unfortunately those of most interest tend to be quite small, an example being the town map on the first page, based on Edward Dore's map of 1759, measuring just 6cm x 6cm, this would have more appropriate by being much larger. There are, however, some full page illustrations of interior plans of the house and larger pictures of wallpaper samples found within the house. In the second section there are some large photographs of the interior and exterior demonstrating the many architectural features complemented by diagrams of fixtures and fittings. Some of the finest photographs, however, are, in my opinion, not of the house, but of the Wilkins family, ironmongers and accountants, who lived there from December 1895.

Samuel Powell's House: The Early 18th Century

Town House of a Devizes Clothier will appeal to those with an interest in the social or architectural history of Devizes. To the many families with a connection to 8 Long Street, this book will hold a special fascination. It will also serve as a valuable reference for the architectural historian; however, beyond these its circulation could be limited. That said the thorough research which underpins the work has succeeded in providing the house with a voice, allowing it to speak eloquently of the many changes to which it bore witness throughout the generations.

DEBRA EDMONDS

Joseph Priestley in Calne, by Norman Beale, The Hobnob Press, 2008, 90pp, 18 black and white plates and illustrations, paperback, price £7.95. ISBN 9780946418817

Joseph Priestley, the famous 18th century chemist and scientist spent seven years in Calne. In that time he made a number of important discoveries, probably the most famous being oxygen. Priestley was more than just a practitioner of science; he was an ordained Minister of Non-conformism and dabbled in politics. This work concerns itself primarily with the period Priestley resided in Calne.

The first three chapters take the reader through Priestley's early life including the time spent between relatives throughout Yorkshire, contraction of tuberculosis at the age of 16 and movement through a number of minor sects from the Reformation. Beyond childhood schooling Priestley was educated at the dissenting Academy at Daventry before being appointed as minister to Needham Market, near Ipswich in 1755. This was not a successful appointment and within three years he had moved to the larger district of Nantwich. At this time he successfully started a school for the education of boys and published a work on grammatical standards, moreover he also purchased an air pump and electrostatic machine. Priestley was awarded a degree from Edinburgh in 1764 and, after appointment to an academy in Warrington, began experimenting with the apparatus he discovered there. This led to a fellowship of the Royal Society and a flurry of more scientifically based publications covering light, electricity and perspective. By 1772 Priestley had developed soda water through the infusion of carbon dioxide, publishing a best seller on the subject; unfortunately one Johann Schweppe patented the

idea, denying Priestley any major benefit from his discovery. 1772 also saw Priestley presenting a number of papers to the Royal Society on the subject of 'airs'; discussing its constituent properties, this work set him on the road to his most famous discovery – oxygen. On being recommended, and after a lengthy pursuit, Priestley took up the position of 'Companion and Educational Advisor' to Lord Shelburne who owned the Bowood Estate – in June 1773 he and his family arrived in Calne. Originally they were housed at 19 The Green; however, the family eventually moved to The Old Vicarage after it had been extensively renovated.

As Priestley was employed as 'companion' to the Lord he was given quarters at Bowood, unfortunately this did not extend to his family and they became increasingly isolated in Calne. Shelburne also provided a room for experimentation and funded many requests for apparatus. In this extremely productive year Priestley continued to investigate 'airs' discovering nitrous oxide and hydrogen chloride. It was in 1774 that experiments, via a newly acquired 'burning mirror', produced the first recordable effects of what was later recognised and oxygen, named at the time by Priestley as 'dephlogisticated air'. A trip to Northern Europe with Shelburne halted further work on 'air', however whilst in Paris he demonstrated his latest – as yet unpublished – discovery; this would lead to problems over precedence later. Once back at Bowood his continuing work produced sulfur dioxide and further refinements in the study of 'dephlogisticated air', this time taking the step to breathe the gas in, thankfully noting no harmful side effects. On the evening of 23 March 1775 a letter announcing his discovery was read to the Royal Society, the discovery was formally published in the Society's Transactions the following year.

Priestley's interests in science waned somewhat over the next year despite having access to three well-equipped laboratories. He did, however, experiment with gases found issuing from the bottom of the pond at the Old Vicarage in Calne, this time identifying methane. This is probably the origin of the local story of 'The Drs Pond' where many would have it he discovered oxygen. Around this time Priestley's professional relationship with his employer was beginning to unravel, especially once he began publishing non-conformist material and using Shelburne's postal account to ship copies around the country. This was further exacerbated when, in 1778, Shelburne's youngest son died whilst the Lord was wintering in London. Priestley

immediately travelled from Calne to the side of Shelburne; he also took the opportunity to spend a further £10,000 (at current prices) on apparatus and became involved in discussions surrounding the War of Independence, surprisingly expressing his support for the Americans. Shelburne, becoming a major name in the Whig party (he would become Prime Minister in 1782) began to distance himself from the views and discussions Priestley often sparked when in London. The same year Mary Priestley, having tired of the imposed isolation the family experienced in Calne, left for Leeds. In late 1780 James was dismissed from the service of Lord Shelburne with an annuity of £150, soon after he moved to Birmingham in an attempt to win back Mary. The final two chapters cover Priestley later life and subsequent emigration to the United States.

Norman Beale's work is a highly readable account of the man's time in Calne. The text flows at an engaging pace, sweeping the reader along to the end with ease. This publication is of interest to those who know Calne and Bowood; however its greatest asset lies in the description of two lives from very different backgrounds and their ability, for a time, to ignore each other's clear religious views in return for companionship.

BOB CLARKE

The Life and Letters of William Lisle Bowles: Poet and Parson 1762-1850, by Robert Moody, The Hobnob Press, 2009, 410pp, black and white illustrations, softback, price £17.50. ISBN 9781906978020

William Lisle Bowles is considered by many to be the father of the Romantic poets. He was incumbent of Bremhill, friend to the Marquess of Lansdowne and latterly a canon residentiary of Salisbury Cathedral. Whilst Bowles' work was well known at the end of the 18th century his often confrontational life was not. In the last 20 years there have been calls for a more balanced work on the life of Bowles (Slatter 1993; 1996), this publications attends to that request, placing both work and life in context for the first time.

Bowles was well known in literary circles as the author of *Fourteen Sonnets Written at Picturesque Spots on a Journey*, published in 1789. The initial print run of just 100 soon sold and a further 500, complimented by seven more sonnets, published in May the same year proved a sensation. Bowles, capitalising on the work's popularity, produced

a third edition the following year, this time comprising twenty-seven sonnets and a further thirteen poems. So popular was his work that other literary figures considered him the 'founding figure of English Romanticism' (p. 18). Fame often brings with it controversy and notoriety in equal measure and Bowles was no exception. In just one example Bowles, at the request of a London publishing house, had begun work on a publication describing Alexander Pope's works. The subsequent publication was to so upset many of the poetic establishment that a 'war of pamphlets' (p. 107) commenced that was to last thirteen years. The feud was revived five years later when, in the July 1820 edition of the *Quarterly Review*, Bowles was openly attacked in a review of a work relating to Pope. Bowles, unsure of the author of the review, proceeded to write to likely candidates in confrontational tone. It was only later that the author's true identity, one Isaac D'Israeli – father of Benjamin – was revealed but it was too late, the damage had been done. Eventually the dispute attracted the attention of Lord Byron, who by September 1821 was describing Bowles' work as 'squibbling, squabbling and snivelling ...' (p. 125). Disputes aside, the first three decades of 19th century saw his work regularly published in both national and regional magazines – often to critical acclaim.

Bowles was more than just a popular literary figure. In 1803 he took part in patriotic events sweeping the country in the face of war with the French and was appointed the vicar of Bremhill the following year. His military connections extended to becoming chaplain to the West Wilts Regiment of Volunteers and later that year he was appointed to the Prince of Wales. The parsonage inhabited by Bowles was extensively restored by him and the gardens became a particular favourite, receiving a detailed description in the *Gentleman's Magazine*. Its success lay in the employment of Josiah Lane, a garden designer from Tisbury who had created ornamental landscapes at Bowood and Wardour Castle. Bowles also took an interest in history, attending a number barrow openings in the Fovant area. One such investigation, directed by Sir Richard Colt Hoare, encouraged Bowles to write a descriptive poem on the events surrounding the work. Colt Hoare encouraged Bowles to collate historical information on the Bremhill area for a forthcoming volume he had proposed on the history of Wiltshire. The subsequent hand written manuscript had to wait until 1926 to be published.

Bowles did, however, publish an extensive work on *The Parochial History of Bremhill in the County of*

Wiltshire in 1824. The manuscript, running to 285 pages, contained previously unpublished documents regarding the Abbey at Stanley, musings over the origin of the Wansdyke, thoughts on Silbury and Avebury, agreeing in principle with Stukeley and Colt Hoare. Moreover, discussion on agricultural practices, the origins of the Old Hundredth psalm tune and a detailed perambulation of his house and gardens all led to the work being described as 'a literary curiosity' (p. 209). The same year Bowles published *Hermes Britannicus*, specifically discussing the origins of Avebury; now the monument was a druidic temple to the Celtic deity Teutates. Naturally the work courted controversy; by 1826 a dispute over the origins of Avebury had spilled over into the pages of the *Gentleman's Magazine*. The magazine was to suggest that the work was no more than 'improbable hypotheses'. Undeterred, Bowles went on to publish the *Annals and Antiquities of Lacock Abbey* in 1835, the final major work by his pen. Upon the death of Bowles in 1850, Thomas William Wake Smith noted of *Hermes Britannicus*, 'I believe all this to be 'bosh' (p. 213)!

The author has accessed many national and international collections in pursuit of material. What he has uncovered is a paradoxical character; a man of great compassion and literary competence who undertook some very public disagreements, it would appear with great vigour. The reproduction of letters, often in full, surrounding his work, life and describing events across the County have ensured this important west country literary figure now receives the correct recognition for his place in late 18th and 19th century society. Robert Moody's book is a competent account of William Lisle Bowles and is thoroughly recommended.

References

- SLATTER, D. 1993. The Revd William Lisle Bowles (1762-1850): The Need for a Re-appraisal. WANHM 86, 136-141
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BOB CLARKE

A Guide to the Industrial Archaeology of Wiltshire, compiled and edited by Pamela M. Slocombe, Association for Industrial Archaeology, 2008, 68pp, colour and black and white plates and illustrations, paperback, price £6.00. ISBN 9780956025104

The range of subjects included under the umbrella of 'Industrial Archaeology' never ceases to amaze, one only has to look between the covers of *A Guide to the Industrial Archaeology of Wiltshire* to appreciate that. This compact, glove-box or backpacked sized book is testament to the diversity contained within the County boundary and should be the first port of call for anyone wishing to discover the rich industrial heritage of Wiltshire.

The layout of the work allows the user to navigate through the five principal areas of the County, assisted by a two-page map showing the location of each site mentioned in the text. Each major concentration, Swindon Town being one, is further depicted by a map of the immediate area and site locations within the appropriate chapter of the book. The individual sites are furnished with a six-figure National Grid Reference accompanied by a brief note covering key dates and surviving infrastructure. A series of well balanced, mostly colour photographs complement the text, giving clear reference to the site they represent.

This publication takes its cues from a number of sources. In 2008 WANHS hosted the Association for Industrial Archaeology's annual conference at Wiltshire Collage, Lackham. This event was considered a convenient juncture at which to revisit previous work on the subject, the fruits of which are printed here. Fieldwork by a number of published experts was undertaken to complement existing records, running to just over 300 sites in this guide. There are a few lay-up typos and a couple of sites have discrepancies, although none of this detracts from the guide's remit. This work is excellent value and thoroughly recommended.

BOB CLARKE

Wilton Through Time, by Chris Rousell, Amberley Publishing, 2010, 96pp, colour illustrations, paperback, £14.99. ISBN 9781848684010

Wilton Through Time provides an interesting review of the development of the town over the last century primarily through 'then and now' photographs. The early sepia tone pictures are largely taken from postcards produced by William Jukes who owned a printing press in the town, supplemented by photographs taken by the grandfather of the author, previously a Wilton correspondent for the *Salisbury Times*. The 'now' photographs provide similar views in colour allowing direct comparison whilst offering a clear impression of the changes which have occurred in the interim. Each pair of well-chosen pictures is supported by an informative caption providing background and highlighting changes.

The introduction to the book offers a historical context, outlining the social and industrial evolution of the town. Major developments are reflected in the choice of pictures, the conversion of the Wilton Royal Carpet Factory to a shopping village and the obvious impact of the car on the environment are both described. The featured scenes are at their most interesting when tangible evidence of the past survives in both pictures and this is largely the case; however, the inclusion of a number of pictures of railway lines in the countryside, omitting trains, stations or other features, show little change and will be considered by the reader to be a poor choice.

Society members will be interested to note the picture on p. 40 of the Pembroke Arms Hotel with the comment that the Wiltshire Archaeological Society held a meeting in the town in 1870 and partook of a meal in the Hotel. Further reference to the Society is made on p. 30 which features 'the Mount', home of James Nightingale who was a regular contributor to the *WANHM* in the 1800s.

Having worked in Wilton for almost 2 years, this book has encouraged the reviewer to revisit some familiar sites and contemplate the changing urban landscape. This book will be of great appeal to all those Wiltonians, past or present, with an interest in the history of the town.

ANDREW LAW

Excavation and Fieldwork in Wiltshire 2009

compiled by Simon Draper



Fig. 1 Location of excavation, fieldwork and PAS highlights

Bradford-on-Avon

1. *St Laurence School (ST 8208 6150)*; watching brief
Michael Heaton monitored groundworks associated with construction of a new dance studio. They revealed the base of a heavily-truncated natural soil sequence. No archaeological deposits were revealed and no artefacts were recovered.

Blunsdon St Andrew

2. *Brook Farm (SU 1687 9100)*; watching brief

John Moore Heritage Services conducted a watching brief during groundworks for the construction of a new farmhouse. No archaeological features were observed within the development site.

3. *No. 1 Castle Hill Cottages (SU 1570 9103)*; watching brief

Foundations Archaeology undertook a programme of archaeological monitoring during groundworks associated with the construction of a detached garage. The development site was situated less than 10m from the edge of the hillfort and lynchets on Castle Hill (SAM 28951). No archaeological features or artefacts were present within the monitored area.

Calne

4. *Zion Baptist Chapel, Phelps Parade (ST 9981 7115)*; watching brief

A watching brief was undertaken by Cotswold Archaeology. The chapel opened in 1837 and a register of burials and transcription of headstone/memorial slab inscriptions, both held at the chapel, show that a minimum of 66 individuals were buried in the graveyard between 1840 and 1881. During the works 21 earth-cut graves and six burial shafts were identified. The burials lay below the contractor's formation level and were unexcavated, but the capping stones and uppermost lining course of some of the burial shafts were removed exposing metal coffins in two of the grave shafts: these were left *in situ*. Although no artefactual material was recovered, the bricks and coffins exposed are consistent with the 19th-century date of the graveyard. In addition to the burials, walls

and a pathway associated with the graveyard were identified.

Castle Combe

5. *Castle Combe Castle (ST 8380 7781); earthwork survey, watching brief and excavation*

A programme of archaeological recording was undertaken by Cotswold Archaeology. An earthwork survey recorded the remains of a stone-built tower and surrounding earthwork mound. These were partially exposed in a watching brief and excavation, which identified at least two medieval structural phases. The original tower appears to have been free-standing and of at least three storeys. It was later modified by the addition of a surrounding earthen mound.

Chippenham

6. *Wiltshire College (ST 9240 7375); excavation*

An evaluation excavation by Foundations Archaeology comprising nine trenches identified only modern features, probably associated with previous use of the site by caravans. Intact subsoils were identified across the site area, suggesting that the site has seen little truncation or modern disturbance.

Crudwell

7. *All Saints Church (ST 9564 9290); watching brief*

During a watching brief undertaken by Cotswold Archaeology rubble foundations for the existing walls and a column were revealed, in addition to stone bases possibly associated with the 19th-century pews. An undated wall foundation may correspond to an earlier phase of construction.

Devizes

8. *27-28 Market Place (SU 0037 6158); watching brief*

Context One Archaeological Services carried out a watching brief during work on a new mixed-use retail and residential development. The archaeological work confirmed the location of the outer bailey ditch of Devizes Castle. Pottery dated to the 13th or 14th century was recovered from its upper fills. The ditch was cut by a post-medieval stone wall that was possibly constructed on the boundary of a former burgage plot. Some of the stones within the wall were re-used architectural fragments that may have belonged to a former high-status building nearby. A large undated rubbish or cess pit was also

recorded cutting through several earlier features and deposits, including part of a possible cobbled floor or yard surface. At the southern end of Snuff Street a cellar was recorded that was cut by the 19th- or 20th-century cellars to the west. Its location within the road itself suggests that it pre-dates the current layout of Snuff Street (formerly New Street), which was constructed in the mid 18th century.

Durnford

9. *Little Durnford to Stratford-sub-Castle Water Supply Main (SU 127 336); watching brief*

Context One Archaeological Services carried out a watching brief from Little Durnford to Stratford-sub-Castle during work on a new water supply main. The archaeological work produced evidence of agricultural activity in the form of three negative lynchets. These may have originated in the medieval period, although finds recovered from their fills suggest they remained in use in the post-medieval period. Despite the proximity of the site to an extensive Bronze Age barrow cemetery, the only evidence for prehistoric activity on the site was a small number of undiagnostic flint flakes recovered as residual finds from a post-medieval context.

Erlestoke

10. *Erlestoke village hall car park (ST 9654 5390); watching brief*

Groundworks monitored by Michael Heaton for construction of a car park revealed a shallow, homogenous topsoil disturbed by drainage features lying over an abnormally argillaceous sand subsoil. The groundworks, limited to 300mm depth, did not penetrate below the topsoil across most of the site, but it is probable that the soil sequences have been altered through late 19th-century landscaping associated with the relocation of the church and parkland creation.

Fovant

11. *Buxbury Hill (ST 984 266); excavation*

Oxford Archaeology South carried out an evaluation on land adjacent to the scheduled monument (SM 830) known as Cross Ridge Dyke. The evaluation revealed the continuation of the ditch and the probable eroded bases of its associated banks in an area previously thought to be undisturbed. No dating evidence for its construction or backfilling was recovered.

Hankerton

12. *Holy Cross Church (ST 9725 9076); watching brief*

A watching brief was maintained by Cotswold Archaeology, during which two undated burials were found within the church. Foundations for the tower were also recorded and the opening of a blocked north aisle doorway produced 16th-century or later artefacts from the blocking material and 13th- or 14th-century worked stones fragments.

Luckington

13. *Luckington First Time Sewerage System (ST 8315 8375); watching brief*

Context One Archaeological Services carried out a watching brief during work on a new sewerage system. No archaeological features were encountered, although a discrete scatter of medieval pottery was recorded *c.* 50m east of Luckington village.

Marden

14. *Marden Henge/Hatfield Barrow (SU 091 582); geophysical survey*

Following trial surveys conducted in 2008 (see *WANHM* 103, 339), English Heritage extended its magnetometer and earth resistance surveys to cover *c.* 12.7 ha and *c.* 6.1 ha of the monument respectively. The aim was to investigate the extensive interior of the henge enclosure for any internal activity but with particular reference to further characterising the two known internal features, namely the levelled former Hatfield Barrow mound and a circular depressed earthwork feature to the south-west.

The magnetometer survey responded to some of the known archaeological features still expressed as variations in local topography, such as the main henge enclosure ditch; however there was no corollary response to the Hatfield Barrow or second internal earthwork feature. There was also little magnetic evidence for occupation of the site with only sparse indicators of magnetic enhancement, none demonstrating a clear patterning or distribution that might aid further interpretation as pits, hearths or even timber structures. It is highly likely that the magnetisation of the local soil, derived from the parent Greensand geology, is not significantly enhanced by anthropogenic processes.

In contrast, the earth resistance survey successfully located both the levelled remains of the Hatfield Barrow and the other circular

internal feature providing valuable information on their form, extent and character. The response to the latter indicated double segmented ditches surrounding a central oval area, contradicting all previous interpretations of the topographical feature. Potential further enclosures were also identified and elsewhere sections of the bank and ditch of the main earthwork enclosure perimeter were recorded including a possible new ditch terminal. A programme of limited follow-up intrusive investigation is planned in 2010.

Melksham Without

15. *Shaw C of E Primary School (ST 8881 6582); watching brief*

Groundworks occasioned by construction of a new hall immediately north of the existing school buildings were monitored by Michael Heaton. They revealed wholly natural soil sequences with no archaeological deposits or artefacts.

Salisbury

16. *Leadenhall School (SU 1408 2932); excavation*

A single trench excavated by Michael Heaton within the postulated outline of an east range of the medieval Leaden Hall (demolished in 1915) revealed *in situ* masonry and associated construction deposits of medieval and 18th-century date at depths of *c.* 500mm below ground level (*c.* 450mm below the ground floor level of the main school building).

17. *Bishop Wordsworth's School (SU 1447 2955); watching brief*

Michael Heaton monitored groundworks occasioned by construction of a new classroom block within the school grounds. A depth of *c.* 1m of culturally enhanced soils indicated prolonged proximity to human activity from the 17th century onwards, but no structural evidence or features were revealed.

18. *Bishopdown Farm (SU 1551 3260); excavation*

An evaluation excavation by Cotswold Archaeology revealed two prehistoric pits together with undated pits, postholes, ditches and a bank. One of the undated ditches contained two human burials. A metallised track, likely to be of modern date, was also present.

Shalbourne

19. *Great Botley Copse, Botley Down (SU 2950 5989 to SU 2997 6009); watching brief*

John Moore Heritage Services carried out a watching brief during the excavation of a trench for an electricity cable. A further section of an undated linear earthwork (HER SU26SE626) was located in the eastern part of the copse and was found to be double-ditched in parts, on the west side of the wood.

Shrewton

20. *Homanton Pumping Station and Rising Main (SU 0736 4262); watching brief*

Context One Archaeological Services carried out a watching brief at Homanton during work on a new water main pipeline. No archaeological features or deposits were identified and no artefacts were collected.

Stratton St Margaret

21. *Kingsdown Crematorium (SU 1733 8881); watching brief*

A watching brief carried out by Bernard Phillips and Mogs Boon during construction of a maintenance depot revealed a group of small pits, scoops and stakeholes. Their fills comprised ash mixed with 140.2g of cremated human bone. Slight wear on teeth crown fragments suggests that the cremation was of a young adult. An associated pottery sherd dates from the Late Bronze Age. Other finds recovered during the groundworks include an Upper Palaeolithic flint scraper, a late Mesolithic/early Neolithic utilised flint blade and a Romano-British pottery sherd. Following examination and recording the cremation was reburied on the site in accordance with the stipulations of the removal of human remains licence obtained from the Ministry of Justice.

Swindon

22. *Land at Moredon Bridge (SU 1220 8700); excavation*

An evaluation excavation by Cotswold Archaeology identified Late Bronze Age/Early Iron Age settlement remains comprising ditches, postholes and a pit.

23. *Land at Haydon Wick (SU 1364 8827); excavation*

Foundations Archaeology undertook a programme of archaeological monitoring during groundworks associated with a new compound. The work, comprising a topsoil strip and a single test pit, identified natural clay deposits directly overlain by a sequence of modern make-up layers. No

archaeological features were present within the monitored areas, although a small assemblage of medieval and post-medieval pottery was recovered as residual material from modern make-up deposits.

24. *Victoria Hospital, Okus Road (SU 1482 8368); excavation*

An evaluation excavation by Foundations Archaeology comprising seven trenches demonstrated that intact (although in places disturbed) natural subsoils survived in all of the open areas subject to trenching. All of the deposits above the natural subsoil were of Victorian or later date. Two features of archaeological significance were a substantial, possibly curvilinear, ditch and an adjacent pit-type feature, both cut into the natural limestone cornbrash. Interpretation of the features is difficult, due to the small areas available for investigation and the lack of dating evidence, but the ditch's location close to the edge of the ridge with good views to the north may be considered a likely position for a Bronze Age round barrow, particularly in light of other Bronze Age burials previously discovered in the area.

Trowbridge

25. *Brewery Quarter (ST 8556 5825); excavation*

A strip, map and sample programme undertaken by Cotswold Archaeology exposed medieval rubbish pits containing 12th- to 14th-century pottery. Post-medieval structures were also identified, including remains of the former Usher's Brewery bottling plant and the former Conigre House, a substantial post-medieval town house.

26. *Shires House, Bythesea Road (ST 8531 5776); standing buildings assessment and watching brief*

A standing buildings assessment carried out by Museum of London Archaeology at Shires House found evidence for its construction, use and development from c. 1825, with the site expanding in its use and capacity as a foundry before being reused as a butter factory and, finally, as the financial headquarters of Wincanton PLC.

A watching brief was maintained on geotechnical trial pits and a borehole, during which a series of 19th-century masonry structures was recorded. These formed part of the Haden and Woodfin's Foundry, later known as St George's Foundry. An L-shaped wall was observed 0.46m below the modern ground

surface, being the north-east corner of a much larger, and very deeply founded, brick structure interpreted as part of the early 19th-century foundry. A series of ancillary structures, including brick tanks and a chimney, was also recorded.

Warminster

27. *Rear of No. 3 Station Road (ST 8768 4509); watching brief*

Groundworks monitored by Michael Heaton ahead of construction of an office block revealed shallow, homogenous sandy soils consistent with the natural soil profile and the site's historical land-use, disturbed only by modern soakaways and rubbish pits. No material evidence pre-dating the 20th century was recovered.

West Lavington

28. *Chirton Critical Source (ST 9963 5278 to SU 0234 5397); excavation*

Context One Archaeological Services carried out a programme of archaeological work during construction of a new water supply main between Strawberry Hill, West Lavington, and land south of Market Lavington. The work recovered evidence of medieval, post-medieval and modern occupation on the outskirts of West Lavington. Prehistoric ditches, 19th-century field boundaries and the remains of a post-medieval or modern chalk quarry were also recorded along the pipeline route. The earliest activity was represented by two parallel, possibly Bronze Age, ditches located to the south-west of West Lavington; these may have formed the boundaries of a broad trackway along a similar alignment to the existing Strawberry Hill road.

Undated earthworks had previously been identified in fields on the south-eastern edge of West Lavington, which had been thought to represent a part of the village abandoned after a major fire in 1689. Whilst confirming that the area was occupied in the medieval period, the work also revealed that most of the features visible as extant earthworks are associated with more recent post-medieval and modern occupation. The most substantial evidence of medieval occupation was recorded to the south-west of Rutts Lane, where a number of ditches, pits and postholes containing pottery dated to the 12th and 13th centuries were identified. Medieval occupation in that area was probably focused along a lane that formerly ran from Rutts Lane to Church Street. To the east of Stibb Hill, a significant quantity of similarly-dated pottery was also recovered,

although most of it was residual in later features. The scarcity of medieval features in the Stibb Hill area may, at least in part, be due to disturbance caused by later activity.

Both the areas where medieval finds and features were identified also had significant remains of post-medieval and modern occupation. These comprised a number of stone-built walls, a house platform, ditches, pits and postholes. Many of these features could be identified on historic maps of the area and were associated with two rows of cottages adjacent to Rutts Lane and a property known as 'Pitts Farm' located on the east side of Stibb Hill. Cartographic evidence suggests that the cottages on Rutts Lane were built in the late 18th or early 19th century, whilst 'Pitts Farm' was probably in existence before 1773. The main dwelling at 'Pitts Farm' was demolished at some point between 1887 and 1900, whilst the majority of the outbuildings and the cottages on Rutts Lane survived until they too were demolished between 1937 and 1982.

Whilst the discovery of medieval activity on the south-eastern edge of West Lavington could be interpreted as evidence that the area was abandoned following the fire of 1689, the lack of significant quantities of finds or features of later medieval or early post-medieval date does not support this interpretation. Perhaps a more plausible explanation is that West Lavington, in common with many rural settlements at the time, contracted in the 14th century. The evidence of later activity suggests that this part of the village was not re-occupied until the later post-medieval period.

Wilton

29. *Grovely Hill (SU 0860 3284); watching brief*

Oxford Archaeology South undertook a watching brief in advance of the renewal of overhead power cable poles within the region of the earthwork known as Grim's Ditch. The watching brief revealed modern pasture overlying colluvium. No deposits or features associated with Grim's Ditch were encountered.

Winterbourne Stoke

30. *Airman's Corner, Winterbourne Stoke Down (SU 099 427); geophysical survey*

English Heritage carried out a geophysical survey of c. 3 ha following an urgent request to assist with the development of plans for new visitor facilities for Stonehenge. There was little prior evidence for any known archaeological activity, beyond agricultural

buildings recorded by historic mapping and a scatter of mainly pit-type anomalies found during two previous geophysical surveys that partially covered the area in question. The present survey was conducted with an array of high sensitivity caesium magnetometers more capable of detecting relatively weak magnetic responses from features below colluvial deposits in the bottom of the dry valley traversing the site. The survey confirmed the

location of the activity suggested by the historic mapping and suggested a wider scatter of possibly much earlier pit-type anomalies across the down. A targeted area of earth resistance survey (1 ha) was then conducted to corroborate the magnetic data, which successfully enhanced the interpretation of probable 19th- or 20th-century built structures at the site.

Highlights from the Portable Antiquities Scheme (PAS) in Wiltshire in 2009

recorded by Katie Hinds (Wiltshire Finds Liaison Officer)



Prehistoric

1. WILT-FCE913 (Sutton Mandeville): A Neolithic flint, possibly a sickle (length 138.0mm; width 41.7mm; thickness 15.4mm; weight 83.8g). It has one long straight edge and a curved edge. The latter has low-angle retouch with pressure flaking and is polished on both faces at the edge. Both faces have retouch, especially towards the curved edge, although one has been worked more than the other.

The straight edge has no retouch. Mike Trevarthen comments: 'this could be classed as a Neolithic sickle. There is a similar unpublished example from a pit at the western end of the Poundbury development, Dorset (Wessex Archaeology 2007), where it was associated with Early Neolithic pottery forms'.



Roman

2. WILT-DACB90 (Melksham area): A complete copper-alloy P-shaped brooch with returned foot and intact iron pin (length 93.4mm; weight 27.9g). The wingspan is 44.2mm and tubular, housing an intact axis bar c. 3.5mm in diameter. The bow is

possibly now damaged as it does not sit around the axis bar, but slightly higher up, and has some iron corrosion within its curve at the front. The bow has two grooves flanking its long edges which are decorated with tiny punched triangles. A central line of punched triangles continues the length of the bow, to the foot which has been bent longitudinally into a V-shaped cross-section to hold the pin in place.

The P-shaped brooch is a Continental development of the late 2nd and 3rd century of the much earlier La Tène II brooch, where the foot is turned behind the brooch instead of in front of it. Examples are rarely found in Britain. Only two others are recorded on the PAS database, both from West Sussex (SUSS-2115B6 and SUSS-44DFD3). Comparable examples in Hattatt (1989) are no. 1247 (from central Europe), which has the same extended, decorated wings to simulate coils, and no. 1245 (from the former Yugoslavia), with a similar head.



3. WILT-AEC221 (Pewsey area): A 2nd- or 3rd-century silver finger ring of Henig (2004) Type VIII, inscribed 'ToT' on the bezel (length 22.7mm; width 20.4mm; weight 6.3g). The letters 'T' have serifed terminals and the letter 'o' is shown in the lower case. 'ToT' is thought to be an abbreviation of the Celtic god Toutatis (or Totatis), a deity often conflated with the Roman god Mars. This is the 41st 'ToT' finger ring recorded on the PAS database, but is the most southern and western outlier. The majority are concentrated in the East Midlands (the tribal region of the Corieltauvi) and especially in Lincolnshire, and are probably indicative of a local cult there. This example was discovered on a Roman site in the Pewsey area and will hopefully be acquired by the Wiltshire Heritage Museum.



4. WILT-FD7978 (West Lavington): An early 3rd-century copper-alloy finger ring of Henig (2004) Type Xb (length 24.5mm; width 21.0mm; weight 7.2g). The oval bezel is flat with detail cut into it, presumably to be used as a seal matrix. It depicts a human figure sitting on the back of a centaur, which is turning its head backwards to look at the figure, within a beaded oval flanking the outside edge.

Martin Henig comments: 'the ring type is approximately Severan in date. The subject is, I think, the centaur Cheiron teaching the child Achilles to play the lyre, as on a published cornelian gem (Maaskant-Kleibrink 1978, p.185 no. 396 pl.78). There is the same Cheiron and Achilles motif on a much earlier (1st-century BC) intaglio in the Getty Museum (Spier 1992, no. 412). It is the theme of a famous wall-painting from Herculaneum. If a British find, as it seems to be, this is the only representation of this scene from Britain'.



Early Medieval

5. WILT-17D6A3 (Swindon area): A 10th-century silver penny of King Edgar, pre-reform coinage

(AD 959–73), circumscription cross type (diameter 21mm; weight 1.3g). It has a die axis of 2. The coin is well centred, virtually unworn and, apparently, unique. Moneyer: Sigewold. Mint: Cricklade. Reference: North 749 variant.

This type has not previously been recorded from the Cricklade mint, which now joins Malmesbury and Wilton as having the earliest known coins of Wiltshire bearing the mint name. Sigewold is also a new moneyer for Cricklade. With thanks to Stewart Lyon, Martin Allen and Tony Abramson.

comments: ‘this trefoil is something special, and, as an imported Scandinavian brooch, is interesting. Its best parallels are in Maixner (2005), Table 49, nos. 6–8 (Type Z 1.2) and nos. 11–12 (Type Z 1.3). The closest parallels are Type Z 1.2, with a very similar example being Maixner’s Cat. No. 402, a grave-find from Grundby in Sweden. Type Z 1.2 has a distribution in Sweden and Norway and features decoration in Borre style.’ There is no parallel on the PAS database for a trefoil brooch in the Borre style. The object is currently on loan to Salisbury & South Wiltshire Museum.



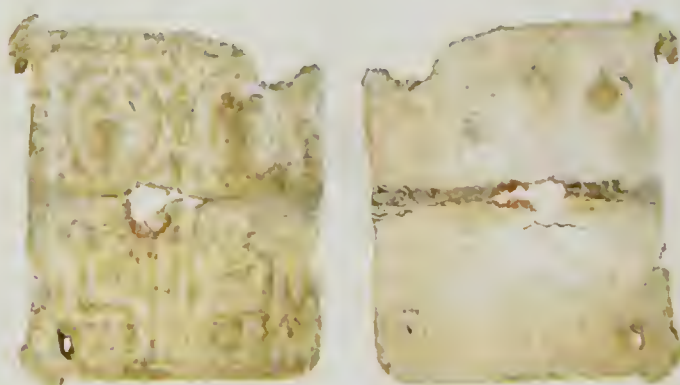
6. WILT-9A5AE7 (Longbridge Deverill): An incomplete copper-alloy Viking trefoil brooch, dating from c. 850–1050 and decorated with Borre interlace. It is missing its catchplate and lug/pin attachment on the reverse (length 59.1mm; width 53.6mm; thickness 6.7mm; weight 35.6g). The brooch has moulded decoration to the front within a double-strand border. The decoration consists of a central raised triangle ‘boss’, each corner of which appears to have a (worn) zoomorphic terminal. Surrounding the triangle is a triple-stranded raised ring. Equally spaced around the ring are three facing animal heads, cat-like in appearance and triangular in shape, but with identifiable features – a prominent snout, two circular eyes and large triangular ears. From these animal heads the interlace below extends into the three arms of the brooch. The snout of each animal rests on another ring, which is open at the bottom edge. Beyond, to either side, is a gripping limb. Further probable gripping limbs are apparent lower down around and across the ring, but wear has significantly obscured them towards the end of each brooch arm. The brooch is flat to the reverse with traces of solder towards the end of each arm. These would have carried a fixing for the catchplate and probably two alternative fixings for the pin on the two remaining arms. A third attachment point is characteristic of a non-Insular object, indicating that it was made in, and imported from, Scandinavia.

Tim Pestell of Norwich Castle Museum



Late Medieval

7. WILT-7AE306 (Swindon area): A gold quarter noble of Edward III, second coinage, with the reverse struck off-centre, slightly double-struck and very slightly worn (diameter 20mm; weight 2.1g (33.6gn). Date: 1344–6. Reference: North 1109. This is a very rare coin, only four being known in 1963 (Potter 1963).



8. WILT-7D60E8 (West Lavington): An incomplete lead pilgrim badge, missing one corner and two stitching rings (length 33.7mm; width 27.8mm;

thickness 2.0mm; weight 11.5g). There is a hole at the centre where the badge appears to have been folded in half on itself. It depicts SS Peter and Paul, haloed. Between the figures is a staff, some of which has been lost towards the top, which would have terminated in a cross, the remains of which are five pellets in cross formation at the top of the badge. Two stitching rings survive, albeit squashed.

This object relates to medieval pilgrimage to Rome. It belongs to a group of badges that were in use during the 13th and into the 14th century, following Pope Innocent III's regulation of pilgrim badge production in 1199 (Spencer, 1998, 248). This confined production of badges bearing the images of SS Peter and Paul to Rome itself and, through the increase in pilgrimage in the 14th century in particular, depictions of the two saints became increasingly popular, with examples reported from numerous museum collections (Spencer, 1998, 248–9). The examples published by Spencer from medieval London provide good parallels, particularly nos. 252 and 252a, although these do not have haloes. This example is probably 13th-century in date (Spencer 1998, 251).

band decorated with a line of XXXX etc. To one side of the shield is foliate, curlicue decoration with a lys projecting from the centre. The legend reads: S[...]DEEVILLE:*

Clive Cheesman of the Royal College of Arms observes that there is an entry for Robert Deyvill (a fess between six fleurs-de-lys gules) in Woodcock and Flower (2009). The cited source is Cotgrave's Ordinary of c. 1340, no. 263, which would fit with the date of the seal matrix. Other records of medieval heraldry used by the Deyvill (D'Eiville, Dayville) family tend to have five, four or three fleurs-de-lys, though often with two or three on the fess as well. It is clear there was a high degree of variation.



Post-Medieval

10. WILT-677340 (Allington, near Salisbury): An incomplete two-part lead cloth seal, consisting of disc one (of two) and the broken connecting strip (length including connecting strip 31.2mm; diameter 25.0mm; weight 8.4g). The decoration on the disc comprises a crown over a shield with the arms of England and 'ER' to either side. The rivet bears the arms of London, a ridged cross with a sword in the first quarter. The legend S]VLII: PAO: VIALLE: LON around the edge of disc one is shortened from SIGILLUM ULNAGII PANNORUM VENALIUM LONDINI, i.e. 'seal of alnage (tax) of saleable cloths of London'. The stops consist of a dot (below) and X (above). The missing second disc, of which only the centre part survives, would originally have depicted the arms of London within an ornate shield, with the inscription LONDINI PRO PANNIC LANICIS ('for woollen cloths at London').

This type of seal is found all over England, but never in large numbers. The type seems to be the only English seal of any date to specify *woollen* cloths. Its date is between 1564 and 1573 (Egan 1994, p.41 no. 61).



9. WILT-3CC956 (Malmesbury): An incomplete copper-alloy circular seal matrix dating from the period c. 1200–1350 with hexagonal conical handle, missing just less than half of the circular face and the (probable) loop terminal of the handle (diameter 25.5mm; weight 11.4g). The matrix depicts a central shield decorated with 2½ (of 3) fleurs-de-lys above and below a central horizontal

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