
Proceedings of the Cambridge Antiquarian Society

(incorporating the Cambs and Hunts Archaeological Society)

Volume XCVIII
for 2009



Recent Publications of the Cambridge Antiquarian Society

Proceedings XCV, 2006: Price £12.50 for members, £14.50 for non-members

- Rebecca Casa Hatton and William Wall: *A late Roman cemetery at Durobrivae, Chesterton*
Phil Andrews: *Romano-British and medieval saltmaking and settlement in Parson Drove, Cambridgeshire*
David Baxter: *Roman tumuli or medieval industry? Moulton Hills, Bourn, reconsidered*
Kate Nicholson: *A late Roman Cemetery at Watersmeet, Mill Common, Huntingdon*
Tim Malim: *A Romano-British temple complex and Anglo-Saxon burials at Gallows Hill, Swaffham Prior*
James Wright: *An Anglo-Saxon settlement at Cherry Orton Road, Orton Waterville, Peterborough*
Christopher Taylor: *Landscape History, Observation and Explanation: the missing houses in Cambridgeshire villages*
Tobit Curteis: *Conservation of early 17th Century allegorical wall paintings in St John's College, Cambridge*
Robert Walker: *Huntingdonshire Bell Frames*
Philomena Guillebaud: *Changes in the landscape of west Cambridge after Enclosure 1805-1870*
Archaeological Notes: *Romano-British buildings at Tunbridge Lane, Bottisham TL 5453 6095; Medieval land reclamation and subsequent occupation on High Street, Ramsey TL 2870 8506; Animal carcasses in a Roman ditch, West End, Haddenham, TL 4613 7552*
Fieldwork in Cambridgeshire 2005; Obituaries; Anne Holton-Krayenbuhl, Tony Kirby, Alison Taylor: Reviews
Chris Jakes: *Recent Accessions to the Cambridgeshire Collection*

Proceedings XCVI, 2007: Price £12.50 for members, £14.50 for non-members

- Phil Weston, Andrew A. S. Newton and Kate Nicholson: *A Late Bronze Age enclosure at Lynton Way, Sawston, Cambridgeshire*
Christopher Taylor and Ashley Arbon: *The Chronicle Hills, Whittlesford, Cambridgeshire*
Christopher Evans, Mark Knight and Leo Webley: *Iron Age settlement and Romanisation on the Isle of Ely: the Hurst Lane Reservoir site*
Leo Webley: *Prehistoric, Roman and Saxon activity on the Fen hinterland at Parnwell, Peterborough*
Thomas Woolhouse: *Anglo-Saxon and medieval boundaries and burials at the former Oblic Engineering site, Church Street, Litlington*
Andrew A. S. Newton: *Mid-Saxon burials at Barnwell Road, Cambridge*
Paul Spoerry and Mark Hinman: *Early Saxon and medieval remains adjacent to the round moat, Fowlmery*
Mary Hesse: *The East Fields of Cambridge*
Craig Cessford with Alison Dickens: *Ely Cathedral and environs: recent investigations*
Michael Chisholm: *Re-assessing the navigation impact of draining the Fens in the seventeenth century*
Philomena Guillebaud: *West Cambridge 1870-1914: building the bicycle suburb*
Elizabeth Shepherd Popescu and Sarah Poppy: *Fieldwork in Cambridgeshire 2006*
Obituary: David Wilson; Malcolm Underwood, Paul Spoerry, Debby Banham: Reviews
Chris Jakes: *Recent Accessions to the Cambridgeshire Collection*

Proceedings XCVII, 2008: Price £12.50 for members, £14.50 for non-members

- Christopher Evans and Mark Knight: *Further Investigations at Arbury Camp, Cambridge: The Eastern Entrance—A Monumental Architecture*
David Ingham: *Iron Age settlement by the Dam Brook at Scotland Farm, Dry Drayton*
Daniel Stansbie: *Excavation of a Middle Iron Age enclosure at Bushmead Road, Eaton Socon, Cambridgeshire*
Steven Willis, Alice Lyons, Elizabeth Shepherd Popescu and Judith Roberts: *Late Iron Age/Early Roman Pottery Kilns at Blackhorse Lane, Swavesey, 1998-99*
Tom Phillips: *Iron Age Ditches and an Anglo-Saxon Building near the Mile Ditches, Bassingbourn, TL 3294 4335*
Nina Crummy and Tom Phillips: *A Zoomorphic Roman Handle from New Street, Godmanchester, TL 5246 2704*
Tom Lane, Elaine L Morris and Mark Peachey: *Excavations on a Roman Saltmaking Site at Cedar Close, March, Cambridgeshire*
Aileen Connor: *A Romano-Saxon Farmstead and possible 12th-century Dovecote or Windmill: Community excavations at Spring Close, Boxworth, TL 350 645*
Christopher Taylor: *New work on old sites: Somersham and Pampisford revisited*
Craig Cessford: *Excavation of the Civil War bastion ditch of Cambridge Castle*
Michael Chisholm: *The Old Plough: a neglected property of Ely Porta Manor*
Robert Liddiard: *Living on the Edge: Commons, Castles and Regional Settlement Patterns in Medieval East Anglia*
Philomena Guillebaud: *West Cambridge: the two World Wars and the inter-war lull*
Elizabeth Shepherd Popescu and Sarah Poppy: *Fieldwork in Cambridgeshire 2007*
Tim Malim and Sue Oosthuizen: *Reviews*
Chris Jakes: *Recent Accessions to the Cambridgeshire Collection*

Officers & Council, 2008–2009

President

Carenza Lewis MA, ScD, FSA

Vice-Presidents

Nicholas James DipEA, MA, PhD

Alison Taylor BA, MIFA, FSA

Susan Oosthuizen MA, PhD, PGCE

Disney Professor of Archaeology

Professor Graeme Barker MA, PhD, FBA, FSA, MIFA

Curator of the University Museum of Archaeology and Anthropology

Professor Nicholas Thomas BA, PhD, FAHA, FBA

County Archaeologist

Adrian Tindall MA MIFA

Ordinary Members of Council

Alan Akeroyd BA, MArAd

(*Hunts Loc Hist Soc*)

Martin Allan PhD, FSA

Sarah Bendall MA, PhD, FSA, MCLIP

Derek Booth BSc, PhD, CBiol, MIBiol

Brian Bridgland PhD

Michelle Bullivant, Dip Archae, PIFA

Alison Dickens BA, MIFA

Anthony Legge MA

Janet Morris BA

Shirley Wittering, M St

Secretary

Chris Michaelides BA, PGCE, MCLIP

86 Harvey Goodwin Court,

French's Road, Cambridge CB4 3JR

Tel: 01223 524225

email: secretary@camantsoc.org

Editors

David Barrowclough MA PhD

Mary Chester-Kadwell MA PhD

Email: editor@camantsoc.org

Hon. Librarian and Assistant Editor

John Pickles MA, PhD, FSA

c/o Haddon Library

Faculty of Archaeology and Anthropology

Downing Street, Cambridge CB2 3DZ

Treasurer

Cyril Pritchett MA

66 Gough Way

Cambridge CB3 9LN

email: treasurer@camantsoc.org

Registrar

Valory Hurst

43 South End, Bassingbourn

Royston, Hertfordshire SG8 5NL

email: registrar@camantsoc.org

Conference Secretary

Mark Hinman BA

26 Newton Road, Whittlesford

Cambridgeshire CB2 4PF

email: conferences@camantsoc.org

Representative of the Cambridgeshire Association for Local History

Tom Doig PGCE

Hon. Auditor

R E Seaton CIPFA, IIA

**Proceedings of the
Cambridge Antiquarian Society**

(incorporating the Cambs and Hunts Archaeological Society)

**Volume XCVIII
for 2009**

Editors

David A Barrowclough
Mary Chester-Kadwell

Associate Editor (Archaeology) Professor Stephen Upex

Published by the Cambridge Antiquarian Society 2009

ISSN 0309-3606

Cambridge Antiquarian Society

Report for the Year 2008

Membership: 10 members and 4 associates joined during the year. 6 members died. 8 members and 1 associate resigned. 1 new affiliated society and 2 new subscribing institutions joined. 1 affiliated society resigned, 1 affiliated society let their subscription lapse and 3 institutions cancelled their subscriptions. There are now 395 members and 58 associates, 52 affiliated societies and 64 subscribing institutions.

Meetings: There were 4 Council meetings and 9 Ordinary meetings, at which the following lectures were given:

Martin Millet	<i>The Archaeology of Portus: the port of Imperial Rome</i>
Peter Topping	<i>Grimes Graves & the Neolithic flint mines of England</i>
Phillip Howell	<i>A vortex of dissipation? Prostitution & the University of Cambridge in the 19th century</i>
Steve Boreham	<i>Unseen Cambridge: the geology beneath our feet</i>
Martin Jones	<i>Why humans share food</i>
Geoff Egan	<i>The Old World in the New World: recent finds from the colony of Jamestown, Virginia</i>
Gilly Carr	<i>The Archaeology of Occupation: a case study from the Channel Islands</i>
Iain Morley	<i>Archaeology & the origins of music</i>
David Mattingly	<i>Green Gold: the olive in the Roman world</i>

In addition a one day conference "Not just old bones! The archaeology of past lives" was held on 8 March, attended by 120 people. 150 people attended "Recent archaeological work in Cambridgeshire" on 22 November.

Excursions: As in 2007, the Society's Excursions programme was arranged by a small Sub-Committee, consisting of Janice Adams, Tony Kirby and Andrew Westwood-Bate. Despite inclement spring and summer weather, the excursions were greatly enjoyed by those who took part. On Sat 17 May Dedham and Harwich (Tony Kirby), 20 people; Wed 2 July Deene Park, Northants (Andrew Westwood-Bate), 34 people; Sat 12 July Southwell Minster and Workhouse (Janice Adams): 25 people. Additionally, Liz Stazicker led 26 people on a walking tour of the village of Mepal on Wed 15 October. Regrettably, the Wed 10 Sept excursion to Sheringham and Cromer had to be cancelled due to insufficient support. Escalating fuel costs in early 2008 meant that the Sub-Committee was forced to raise the price of excursions, with a consequent slight reduction in the number of members taking part.

Publications: Volume 97 of the *Proceedings* was published in September 2008. Generous support from the Cambridgeshire Association for Local History and the Huntingdonshire Local History Society enabled copies of *The Conduit* to be sent to members of all three societies and to be made available in libraries, record offices, archaeological units and continuing education institutions. The Society administers a journal exchange programme with just under 100 institutions, primarily other archaeological societies and university departments in Britain and abroad. There was a reduction in the grant from the Haddon Library Committee from £900 to £800 with suggestions for cancellation of several titles. The Society accepted cancellation of exchange publication titles that had not been received for some time, but Council did not wish to cancel several other titles and has therefore agreed that the Society will subsidise these. Journals received continue to be deposited in the Haddon Library.

Representatives: The Society was represented by Mrs Holton Krayenbuhl succeeded by Mrs Morris on the Cambridgeshire Advisory Group on Archives and Local Studies; Mrs Morris on the Cambridgeshire Association for Local History; Mr Goldsmith on the Cambridge University Museum of Archaeology and Anthropology; Dr Oosthuizen on the Cambridge University Board Faculty Board of Archaeology and Anthropology; Dr Allen on the Cambridgeshire Records Society; Mr Pritchett on the Council for British Archaeology; Dr Pickles on the Haddon Library Committee; and Miss Taylor on The Cambridgeshire Curators' Panel.

Finance: The financial state of the Society at the end of 2008 continued to be sound. There was a surplus of £3,811 from the normal activities during the year. £6,000 was invested in Government Stock. After allowing for known commitments, the reserves on 31 December 2008 were £16,176; this was within the permitted range set in 2005, and was considered satisfactory.

Other Matters: The Society continued to seek grant aid for a scheme to provide an opportunity for Cambridgeshire school pupils to participate in a practical archaeology/local history project. The grant for small projects continued in 2008 with a single maximum grant of £500 being awarded to the Ely and District Archaeological Society to support the publication of the 'Stone Walls Project'. The final two reports of the four recipients of grants in 2007 were received from Active 8 Archaeology for their project to transcribe, repair, duplicate and digitise the Burial Map of St Andrew's Church, Cherry Hinton, and from the Cambridge Archaeology Field Group which included producing digital maps of field walked areas for printing as posters for exhibitions. The details of finds resulting from field walking are to be made available for the Historic Environment Record computer files as a continuation of this work. Throughout the year, the Society has continued to be represented at archaeological, local history and other events in the county and has continued to act as a source of information, not only on its own work, collections and publications but also for enquiries relating to local heritage generally.

Governance: The conduct of the Society is governed by Laws dated 1988 (amended 2003 and 2008). Management is vested in an elected Council whose members' names are published annually on the membership card/ lecture programme.

Cambridge Antiquarian Society Accounts for the Year Ended 31/12/2008

Registered Charity 299211 • Founded 1840

PAYMENTS		
2007		2008
323.13	Lectures: Publishing Programme	332.53
406.83	Expenses	255.44
7851.01	Proceedings Vol XCVI Publication	
1018.75	Delivery	1418.33 (h)
	Vol XCVII Publication	6399.28
	Delivery	911.14
977.77	Conduit	1050.36
1021.56	Conference: March	944.69 (a)
296.79	: November	437.67 (a)
1390.50	Excursions	2147.09 (a)
530.43	Mailings: Delivery Charges	504.65
102.00	Subscriptions (CBA, Rescue, CRSoc)	102.00
100.00	Haddon Library: Conservation	100.00
364.45	Office Expenses, Web Site, Misc	376.17
250.00	Emolument: Registrar	250.00
188.00	Publicity	
209.10	Insurance	221.60
600.00 (e)	From capital, Postage 2009	894.83 (b)
<u>500.00</u>	Small Grants Scheme	<u>500.00</u>
15111.57	Sub-Total	16895.78
	Purchase of Investments	<u>6000.00 (c)</u>
15111.57	Total Payments	<u>22895.78</u>

RECEIPTS		
2007		2008
6984.41	Subscriptions: Members & Societies	7110.00
759.28	Tax Reclaimed	720.71
900.00	C.U. Archaeology Dept.	800.00
1280.00	Proceedings Vol XCVI: Grants	2369.00 (h)
	VolXCVII: Grants	3370.00
453.84	Conduit	486.96
1737.30	Conference: March	1197.10
369.00	: November	386.00
1416.00	Excursions	1924.25
167.10	Sales of Publications	173.48
512.40 (b)	Royalties, Misc	416.00
849.47	Investment Income (gross)	997.59
<u>1218.07</u>	Interest: NSB (gross)	<u>812.02</u>
16646.87	Sub-Total	20763.11
16646.87	Total Receipts	<u>20763.11</u>
<u>15111.57</u>	less Payments	22895.78
1535.30	Surplus/Deficit	<u>-2132.67 (d)</u>
26473.66	Cash Funds Last Year End	28008.96
28008.96	Cash Funds This Year End	25876.29 (e)

Statement of Assets & Liabilities 31/12/2008

Cash Funds: Current A/C	2611.26
: Deposit A/C	<u>23265.03</u>
Total	<u>25876.29 (g)</u>
Investments: Treasury Stock 2009 4%	3277.54
Treasury Stock 2009 5¾%	2495.84
Treasury Stock 2010 4¾%	5148.41
Treasury Stock 6¼%	913.06
Treasury Stock 2011 4¼%	2257.24
Conversion Stock 2011 9%	4271.75
Liabilities - Planned Expenditure	9700.00 (f)

Notes

The presentation of the accounts conforms to guidance provided by the Charity Commission. Comment on some of the entries is given in the following notes:

- a. The cost of mailing details to members has been attributed to the event.
- b. Credit with Mailing Distributor.
- c. Treasury Stock listed in Statement of Assets and Liabilities.
- d. This figure includes the purchase of investments (c), two transactions relating to PCAS 2007 (h) and a credit with the mailing distributor (b); excluding these amounts the surplus from the normal activities of the Society in the year 2008 is £3,811.49.
- e. In 2005 the Council reviewed the policy for the reserves held by the Society and concluded that the cash funds less liabilities (f) should be maintained in the range £10,000 to £20,000: on 31 December 2008 the reserves were £16,176.
- f. Planned expenditure; PCAS Vol XCVIII £8000, Ladd's Bequest (g) £900, Small Grants £500 and the cost of redesigning the Web site £300; total £9,700.
- g. Includes Ladd's bequest earmarked for events associated with Huntingdon; with interest the sum is now £900.
- h. Relates to PCAS 2007.

Contents

Mary Desborough Cra'ster, 1928–2008 John Pickles, Peter Gathercole, and Alison Taylor	7
A fen island in the Neolithic and Bronze Age: excavations at North Fen, Sutton, Cambridgeshire Leo Webley and Jonathan Hiller	11
A fen island burial: excavation of an Early Bronze Age round barrow at North Fen, Sutton Aileen Connor	37
The Bartlow Hills in context Hella Eckardt with Amanda Clarke, Sophie Hay, Stephen Macaulay, Pat Ryan, David Thornley and Jane Timby	47
Senuna, goddess of the river Rhee or Henney Stephen Yeates	65
A reappraisal of the evidence for the 'northern arm' of the Fleam Dyke at Fen Ditton Scott Kenney	69
An excavation at Station Quarry, Steeple Morden, Cambridgeshire Laura Piper and Andrew Norton	73
Excavations at Scotland Road/Union Lane, Chesterton Duncan Mackay	77
A curious object from Firs Farm, Caxton Aileen Connor	89
A morphological analysis of Ickleton, Cambridgeshire: an admission of defeat Christopher Taylor	91
Funerals, the final consumer choice? Ken Sneath	105
The 'Age of the Windmill' in the Haddenham Level N James	113
Upware and Bottisham sluices K S G Hinde	121
Changes in the landscape of west Cambridge, Part V: 1945 to 2000 Philomena Guillebaud	127
The CAS Collection of Cambridgeshire 'Sketches' John Pickles	143
Fieldwork in Cambridgeshire 2008 Tom Lyons, Elizabeth Shepherd Popescu and Sarah Poppy	147
Reviews Christopher Taylor, Christopher Brookes, Evelyn Lord and Sam Lucy	163
<i>Index</i>	167
<i>Abbreviations</i>	173
Recent Accessions to the Cambridgeshire Collection Chris Jakes	175

Editorial Acknowledgements

Our thanks and best wishes go to Evelyn Lord who retired as the Editor of these *Proceedings* at the end of 2008. Taking on the mantle, as the first joint Editors, has been both a thrilling prospect, and also a rather humbling one given those that have gone before. This has been a year for reflection while witnessing the joint anniversary celebrations of the University of Cambridge's 800th year and the Diocese of Ely's 900th. The latter was marked by the Society's Spring Conference, which was devoted to the many new and exciting discoveries that have been made in the City of Ely in the last decade or so. Speakers drawn from academia, the archaeological profession and amateur circles shared their knowledge with a near-capacity audience, demonstrating that enthusiasm for archaeology is stronger than ever. Congratulations go to Mark Hinman and Andrew Westwood-Bate for organising such a popular event.

We would like to thank the Cambridge Antiquarian Society Committee for their support, which has helped ease us into the editorial chair. In particular our thanks go to Sue Oosthuizen, Chris Michaelides, Alison Taylor, Nicholas James, John Pickles, Cyril Pritchett, Martin Allen, Douglas de Lacey and most of all our President Carena Lewis. Special thanks go to Stephen Upex who has continued in his sterling work as Associate Editor and to Sarah Wroot, who not only ensured continuity through the change of editors but, as in previous years, went above and beyond the call of duty, for which we are especially grateful. Finally, thanks must also go to our contributors and their anonymous reviewers who gave freely of their time and without whose contributions these *Proceedings* would not have been possible.

David A Barrowclough and Mary Chester-Kadwell *Editors*

Cover: Richard Relhan, view of the Bartlow Hills from the northwest. Photograph copyright Kim Osborne 2006

Mary Desborough Cra'ster, 1928–2008

Editor of the *Proceedings of the Cambridge Antiquarian Society*,
1961–1990

John Pickles, Peter Gathercole, and Alison Taylor

With thanks to Colonel J M Craster, Professor D W Phillipson, Professor J M Coles,
Professor Dame M Strathern, Mr G Owen, Mrs M Caroe, and Dr J Moon.



Mary Cra'ster's long association with our Society and with the Cambridge Faculty and Museum of Archaeology & Anthropology won her many friends who were saddened to learn of her death in Northumberland in November 2008 at the age of eighty. She became a member of the Cambridge Antiquarian Society (CAS) in 1957 and served on its Council as editor of the *Proceedings* for thirty years and then for a further four years as Vice-President. No one who has experienced the arduous task of guiding contributors, making their texts presentable, and dealing with printers from copy through proofs to final publication year after year with only modest help will underestimate her importance in the Society's recent history. It was fitting that she was later made one of our very few Honorary Members. But she did much more—for the Museum and Faculty, and for many outside bodies, and all with characteristic good humour and disciplined application.

Mary Desborough Cra'ster was born on 28 June 1928 at Coonoor in the Nilgiri Hills of South India, the only child of a career soldier George Craster (see *Who Was Who 1951-1960*) and his wife Christian. The Crasters of Craster in Northumberland are one of the longest settled families in that county yet many of them have made their mark in the wider world. Her maternal grandfather W D Caroe (1857-1938) was a distinguished ecclesiastical architect of Danish descent of whom an account will be found in the *Oxford Dictionary of National Biography*. He had been a member of the Cambridge Antiquarian Society and wrote *King's Hostel, Trinity College* (CAS, new quarto series, II, 1909). The Crasters returned from India by way of Cyprus where they spent a couple of years, and settled in Northumberland at Ilderton Glebe in the late 1930s. Mary was educated at North Foreland Lodge school which was evacuated to Gloucestershire for the duration, and entered St Anne's, Oxford, in

1947. She read Greats and took her BA in 1951 before studying for the Oxford diploma in Anthropology in which she attained distinction in 1952. The Oxford University Archaeological Association made her its excavation secretary in the same year.

Mary dug with Sir Mortimer Wheeler for two seasons at Stanwick in Yorkshire and with Professor Christopher Hawkes at the Lexden dykes at Colchester. Impressed by her commonsense—‘she is completely methodical (without pedantry)’—Wheeler soon promoted her ‘supervisor’; Hawkes found her a ‘most apt pupil’, steady and responsible, who was besides popular with others of all ages. ‘She is not’ he wrote prophetically, ‘one who would selfishly pursue individual research for the sake of purely personal advancement; she would take her own part in teamwork, but take it loyally’. For a year she did voluntary work at Norwich Castle museum, then one of the best regional museums for archaeology under Rainbird Clarke, and so began a long interest in the archaeology of East Anglia. She was appointed from a large field of applicants as Assistant Curator at the city of Gloucester museum at the beginning of 1954, and Hawkes who visited several times described her reorganisation of its exhibitions as ‘tasteful, popular in the best sense, and accurately yet pleasingly informative’.

In January 1957 she was appointed (the only) Assistant to Dr Geoffrey Bushnell, Curator of the Cambridge University Museum of Archaeology & Ethnology, as it was then called. There she remained under his two successors, Peter Gathercole (1970–81) and David Phillipson. She became Senior Assistant Curator in 1980. Her curatorial and archaeological work are noticed below, and she also contributed to teaching within the Faculty. For many years Professor Coles collaborated with Mary on a course for first-year students on the ‘Archaeology of Southern Britain’ when her main contribution was to provide artefacts for them to examine and handle. ‘Mary was efficient and purposeful, ensuring that the objects were well-maintained and returned to their respective drawers after use, and she was a mine of information about provenances and discoveries of many pieces that deserved more detailed publication or archiving ... She was always someone who would provide assistance to other members of the Department during the rather hectic terms with a wide variety of teaching approaches and equally wide variety of students’. Students have other memories—of the determined way she brought country life into the building, chiefly in the form of a succession of black Labradors who spent the day in her office (a set of spoof exam papers in the seventies included an invitation to ‘Discuss the relationships of archaeologists to their dogs’), and of inconclusive discussions about how she might be involved with the famous Craster kippers. When the Museum coffee room needed decorating ‘a bunch of us volunteered to teeter on the Maori canoe and other handy footholds to spend a Saturday slapping paint about. You wouldn’t get away with that now. The reward was a magnificent meal at Mary’s won-

derful country house, with unlimited alcohol, and concluding with sloe gin in Chinese horsehair tea-cups’ (Jane Moon). Few would have guessed that the chatelaine of the Museum—literally so since she wore her keys—had once been a *débutante*.

Mary retired from the University in 1988, an occasion marked by a memorable and well attended party. She finally left Harston for Craster Tower, which she shared with cousins, in 1994. In the early years of retirement, when she was travelling all over the world, she was usually able to find a former pupil to host her at her chosen destination. Religion was very important to her; for a long time she served as Churchwarden of All Saints, Harston and in 1994 received a letter of thanks from the Bishop of Ely. At St Peter’s, Craster, she did not impose her views but was not shy of expressing them. She joined the Alnwick Choral Society and her activity with the Art Club was enshrined in her clear presence in the picture in the Memorial Hall. Mary also contributed much to the Millennium History project for the book *We Can Mind the Time*. As Colonel Michael Craster recalled at her funeral, whether it was plants and gardens, music, art, embroidery, knitting, local history, birds, make do and mend—his father christened her ‘Araldite’—her encyclopaedic knowledge and ability to turn her hand to anything were extraordinary. ‘She could be dogmatic, difficult, thoroughly eccentric ... but she was also wise, kind, generous, compassionate and pragmatic. She was a grand listener, thoughtful and non-judgemental. If you went to her with a problem you always got a fair hearing and a considered response. Above all she was in her element with the young, as her pupils and her god-children can testify’.

The Museum

On becoming Curator of the University Museum in 1970 my first task was to learn the collections. Here Mary Craster’s comprehensive knowledge of the archaeological collections was invaluable. She had then been an Assistant Curator for thirteen years (for the first nine of which the *only* one), during which time she had not only learnt the collections in detail, but also how they contributed to Faculty teaching, particularly in classes for first-year students, when artefacts were handled, which involved her careful choice of the relevant material. She was on good terms with the teaching staff, and her knowledge was vital in helping more advanced students who required access to particular collections.

Mary was effective and to the point on committees. This was important, for example, when she represented the Museum or the University on outside bodies, such as the South Midlands Museum Federation and the Area Museums Service for South-Eastern England. She served for some time on the Council of the Society of Antiquaries, of which she had been elected a Fellow in 1963. And when we had to organise a committee to oversee the rescue archaeology relating to the building of the M11 motorway,

her knowledge of the sites likely to be affected was crucial.

She was very aware of the importance of the Museum within the University as a centre for teaching and research, but she was conscious that the significance of its collections was often insufficiently appreciated by many members of staff. So when we decided that, if this was to be changed, a complete overhaul of the collections (some of which had never been properly accessioned) was required, involving radically improved storage and the reworking of certain well-known displays, she worked tirelessly to that end.

With the late Pat Carter, Assistant Curator, she planned a new archaeological gallery to take up all the ground floor with significant collections from world archaeology; it was unique in Britain, a teaching aid for students and visiting schools of remarkable scope and richness, unparalleled at the time at any other museum in the country. It was opened by the Prince of Wales (who had been a student in the Faculty) at the centenary celebration of the Museum's founding in 1984. Shortly afterwards Mary's role was recognised by a Fellowship of the Museum Association, when the citation referred to her 'self-effacing service over thirty years to her museum, her students and to the profession generally through her academic work and cheerful and efficient help whenever called upon by colleagues.'

Mary was easy to work with. She knew her own mind, and expressed her views clearly, sometimes forcibly. She helped new curatorial staff to settle in. Marilyn Strathern, a junior colleague in the 1960s, has written of Mary's 'immense kindness that made it self apparent without fuss or self-advertisement', yet tempered by a 'sort of brusque minimalism. We were good allies and she allowed me a great deal of elbow room'. Mary later welcomed the recognition within the University of the movement towards equal status for curators and lecturers, including entitlement to sabbatical leave, as an expression of the Museum's increased importance, to which she greatly contributed. Her promotion to the new grade of Senior Assistant Curator was richly deserved. I much valued her as both colleague and friend.

Local Archaeology

Mary was not only responsible for all aspects of the Museum's superb British archaeological collections, she was also effectively the county archaeologist for a lengthy period until I was appointed in 1974. She compiled a prototype sites and monuments record by recording all reported finds (on maps that predated the National Grid but which were invaluable when we created the new SMR), gave advice to planners through the Cambridgeshire Archaeological Committee, opposed the worst threats to sites and historic buildings, and represented archaeological interests on many committees. It was she too who would be called out whenever something 'looking old' was

found by the public, police (for human remains), or builders. Some of these calls led to significant finds and larger excavations which she sometimes directed herself, and many more were noted and described for the benefit of the Ordnance Survey Archaeological Record and for the Museum. Such single-handed rescue work on building sites was an underestimated feature of British archaeology in those years, and Cambridgeshire was lucky to have Mary to take it on. Much would have been lost without such work. She also of course published the results of significant work (see Bibliography), not an easy call when she was also editing each CAS volume.

Mary was also a prototype Portable Antiquities Scheme. She warmly welcomed the public who brought in objects they had found, and her identifications, often with help from colleagues such as Joan Liversidge and Charles McBurney, were of course reliable and enlightening. Finders were made to feel so special that many of the artefacts were cheerfully given to the Museum. Mary herself made the Early Anglo-Saxon period her speciality, perhaps because she was responsible for such outstanding collections of this period as well as being involved in cemetery excavations, and her support for scholars who came to study this material, as well as for students who were inspired by it, helped make the Museum collections of this period the best known in Britain. Once I was appointed as first County Archaeologist for Cambridgeshire Mary gave huge amounts of support and advice whenever needed, also making Museum resources available so that it was possible to set up a new archaeological service from scratch. She was always a fund of local as well as archaeological knowledge, and her moral support was available too, the famous teas held in her room each day being a welcome refuge from a county council environment.

Publications

- 1954 Two stone axes in Gloucester Museum. *Transactions of the Bristol & Gloucestershire Archaeological Society* 73: 228–9
- 1955 Map (fig. 3 on page 68) to accompany E M Clifford, Stamped tiles found in Gloucestershire. *Journal of Roman Studies* 45
- 1958 Excavations at Whiteley Hill, Barley, Herts. *PCAS* LII: 2–5. With J C Wilkerson
- 1959 Note: Pagan Saxon burials at Ely. *PCAS* LIII: 57 (With G H S Bushnell)
- 1960 The Aldwick Iron Age settlement, Barley, Hertfordshire. *PCAS* LIV: 22–46
- 1960 Note: A Bronze Age spear from Mildenhall. *PCAS* LIV: 127
- 1961 Remains from the Bon Marché 1955. *Transactions of the Bristol & Gloucestershire Archaeological Society* 80, 50–8.
- 1961 St Michael's, Gloucester. *Transactions of the Bristol & Gloucestershire Archaeological Society* 80: 59–74
- 1961 Note: An Iron Age bridle cheek-piece from Ashwell, Herts. *PCAS* LV: 65
- 1965 Aldwick, Barley: recent work at the Iron Age site. *PCAS* LVIII: 1–11

- 1965 Notes: Neolithic axes & Bronze Age implements. PCAS LVIII: 141-4
- 1966 Waterbeach Abbey. PCAS LIX: 75-87
- 1966 Review of M. Spufford, A Cambridgeshire community: Chippenham from settlement to enclosure. PCAS LIX: 133
- 1967 Notes: Human remains from Wandlebury. PCAS LX: 108-9. With C B Denston
- 1967 A possible hoard of decorated flat axes from Littleport, Cambs. PCAS LX: 109
- 1967 Wandlebury and Stretham pumping station, Report of the RAI Summer Meeting at Cambridge, July 1967. *Archaeological Journal* 124: 226 & fig. 5, 234-5
- 1968 Review of R.C.H.M *County of Cambridge, vol. 1, West Cambridgeshire*. PCAS LXI: 96
- 1969 New Addenbrooke's Iron Age site, Long Road, Cambridge. PCAS, LXII: 21-8
- 1970 A hoard of Romano-British bronze bowls from Burwell, Cambridgeshire. *Ant. J.* 50: 344.
- 1973 Notes: Iron Age grave group from Newnham Croft, Cambridge & Jadeite axe from Bottisham. PCAS LXIV: 25-8
- 1984 *The Cambridge region and British archaeology*. Cambridge University Museum of Archaeology & Anthropology, p44. ith P L Carter & D W Phillipson
- 1984 Joan Liversidge, Honorary Secretary of the Cambridge Antiquarian Society 1955-1981. [obituary] PCAS LXXIII: 1-2. With others
- 1984 Note. [on bridle cheek-pieces from Edmundsoles, Haslingfield] PCAS LXXIII: 6. With C A Shell
- 1986 C. F. Tebbutt, H. K. Cameron. [obituaries] PCAS. LXXV: 1-2
- 2005 Medieval Craster, Craster Tower & the Craster family. 152-6 of *We can mind the time: memories of Craster people*. edited by Colin Biott (Craster Community Development Trust)

A fen island in the Neolithic and Bronze Age: excavations at North Fen, Sutton, Cambridgeshire

Leo Webley and Jonathan Hiller

With contributions by Ceridwen Boston, Lisa Brown, Dana Challinor,
Damian Goodburn, Hugo Lamdin-Whymark, Richard I Macphail,
David Smith, Wendy Smith, Lena Strid and Lucy Verrill

Excavations at North Fen, Sutton, revealed prehistoric activity on a small gravel island within the fen. A buried soil horizon survived across most of the site, which produced pottery and large quantities of worked flint of later Neolithic/early Bronze Age date. Associated features included shallow pits and hollows and two large waterholes, one of which contained a timber-revetted platform securely dated to the early Bronze Age. Environmental evidence from this feature shows that it was situated within an area of pasture. It is argued that the site was probably occupied discontinuously through the course of the later Neolithic and early Bronze Age. Patterning in the spatial distributions of different flint tool types across the site suggests discrete episodes of activity focused on differing tasks. The occupation horizon was subsequently buried by an alluvial soil layer, representing abandonment of the site under conditions of increased wetness and flooding, before the island was engulfed by the fen during the later Bronze Age or Iron Age.

Introduction

The apparent poverty of the settlement record of the later Neolithic and early Bronze Age across much of southern Britain has long been a cause of frustration. Due to plough damage, most occupation sites survive only as small clusters of truncated pits, or as scatters of flint and pottery in the topsoil. The Fenland is one of the few areas where *in situ* occupation horizons can be preserved, thanks to the protection afforded by later fen deposits. Excavations by Oxford Archaeology (OA) at North Fen, Sutton, provided a valuable opportunity to investigate a site of this kind.

The site lies in the western part of Sutton parish, immediately to the north of Long North Fen Drove (centred TL 4046 8137; Fig. 1a). It is situated at c. 0.5m OD on a small 'island' of 1st/2nd terrace river gravels and sand, 1.4 km across, overlying Upper Jurassic clays. The gravel island is capped by a thin layer of peaty soil and is surrounded by deeper Nordelph Peat deposits interleaved with 'fen clay'. The fieldwork was carried out between October 2004 and February 2005

on behalf of Woolpit Business Parks Ltd, in advance of construction of an irrigation reservoir.

Current understanding of the environmental history of the area suggests that the North Fen terrace had become an island surrounded by the fen by the later Neolithic/early Bronze Age, separated from the much larger Chatteris island a short distance to the north (Fig. 1b and c; Hall 1992; 1996; Waller 1994). A major palaeochannel of the River Ouse probably active during the Neolithic/Bronze Age lies 300–400m to the south of the island; its course is approximately followed by the post-medieval drainage work known as Hammond's Eau. Deposits of 'fen clay' to the south and west of the island represent brackish marsh conditions resulting from a marine incursion along the Ouse corridor. Brackish conditions had reached Haddenham (4 km upstream of the site) by 2870–2410 cal BC and attained their maximum extent in the early or middle Bronze Age (Evans and Hodder 2006). Freshwater fen lay to the east of the island.

Fieldwalking carried out as part of the Fenland Survey found several prehistoric sites on the North Fen gravel island (Fig. 1c; Hall 1996). Two Neolithic flint and pottery scatters were found, one lying 100m to the south of the site (SUT1) and the other 500m to the west. The pottery from the SUT1 site is of plain bowl type, suggesting an early Neolithic date (Last 1996). Soilmarks representing five round barrows, presumed to date to the early Bronze Age, were also found scattered across the island to the north, east and west of the site (Hall 1996; van Velzen 2003). Further Neolithic flint scatter sites and clusters of round barrows and ring ditches were identified during the Survey on the larger Chatteris gravel island to the north (Hall 1992). Subsequent test pit evaluation of one of the scatters at Stocking Drove Farm (CHA37), 700m north-west of the site, revealed a buried soil deposit that produced flintwork of late Neolithic/'Beaker period' date and a few sherds of Impressed Ware and Grooved Ware pottery (Crowson *et al.* 2000).

Further evidence for prehistoric activity on the North Fen island was revealed in 1996 by an 18.8 ha

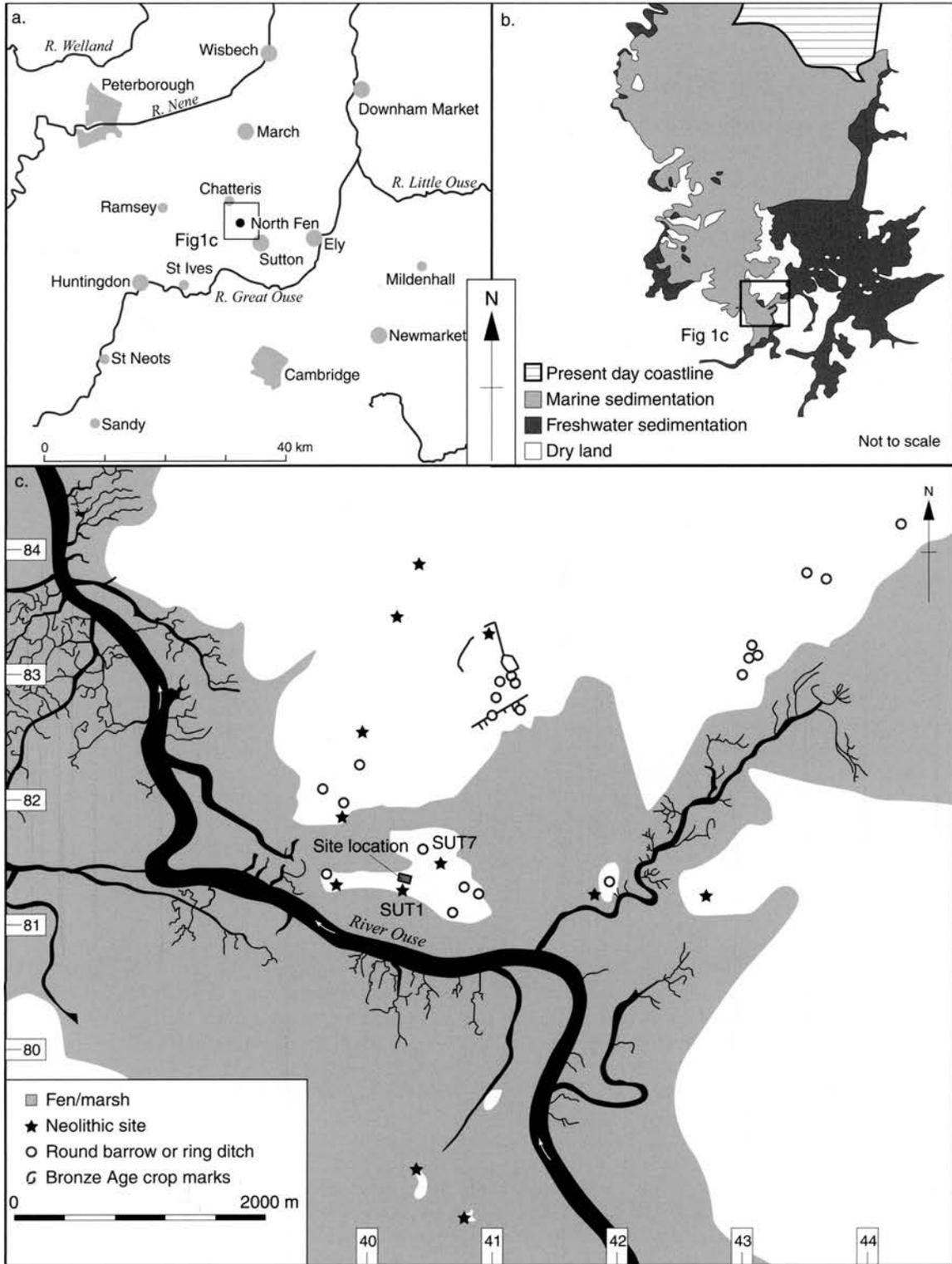


Figure 1. Site location.

evaluation carried out by the Cambridgeshire County Council Archaeological Field Unit (now OA East). Excavation of a trial trench immediately to the south of the present site revealed a series of shallow hollows containing vestiges of a buried soil, although it was uncertain whether the hollows were of natural

or anthropogenic origin. Finds included flintwork ascribed to the Neolithic. In a second trench, 300m to the north-east of the present site, further shallow, irregular features produced pieces of pottery and worked flint, again suggested to be of Neolithic date (Last 1996).

More recently, excavations have been carried out by the Sutton Conservation Society at the SUT7 round barrow, 300m to the north-east of the site (Fig. 1c). The barrow was plough damaged but contained a primary cremation burial within an inverted Collared Urn, radiocarbon dated to 1870–1690 cal BC (3440±30 BP). Further fragments of Collared Urns and Food Vessels may derive from ploughed-out secondary burials.

During the later Bronze Age or Iron Age, North Fen island became uninhabitable due to the rising water table, and was engulfed by fen peat (Waller 1994; Hall 1996, 54–8; Last 1996). No later prehistoric, Romano-British, Saxon or medieval sites are known on the island or nearby. Large-scale reclamation of this part of the Fens began in the mid 17th century with the construction of Hammond's Eau and the Old and New Bedford Rivers (Darby 1983). From the late 19th century onwards, the site was in agricultural use.

The first phase of the fieldwork reported on here comprised a test pit survey. Twenty-four 1m² test pits were excavated by hand on a 20m grid (Fig. 2). The test pits showed that a consistent sequence of deposits existed across most of the site. The modern plough-soil sealed a layer of peat, which in turn sealed a silty sand soil deposit, overlying the natural sand and gravel. A 15-litre sample of each deposit within each test pit was sieved for artefacts through a 5mm mesh. Worked flint was recovered from the buried soil in 9 of the 24 pits, at densities of up to four flints per pit.

An area measuring 100 x 60m was then stripped using a mechanical excavator under archaeological supervision (Fig. 3), revealing that buried soil de-

posits survived across much of the site, particularly its southern, eastern and western parts. Four of the best-preserved areas of buried soil (Areas 1–4) were sample-excavated using a 1m grid. Within Area 1, alternate grid squares were hand-excavated to give a 50% sample; in Area 2 a 20% sample was excavated, and in Areas 3 and 4 a 10% sample. In total 200 squares were excavated. A 15-litre sample from each square was dry-sieved for artefacts through a 5mm mesh. A further 12 grid squares from Areas 1–3 were bulk sampled for wet sieving. Artefacts were also systematically collected from the exposed surface of the buried soil and natural gravels across the site, and their locations plotted. The few archaeological features uncovered were excavated by hand. Later stages in the excavation four large slots were mechanically excavated to ensure that no further archaeological deposits were sealed beneath the buried soil.

Archaeological sequence

Palaeochannel

A former stream channel (1233) running across the site on a NW-SE alignment was cut into the natural sand and gravel and sealed by the buried soil. Two machine-excavated sections showed that the channel was 1.4m deep and contained a series of sterile clay, silt and sand fills. The channel clearly predates the archaeological activity at the site, and probably dates to the late Pleistocene or early Holocene.

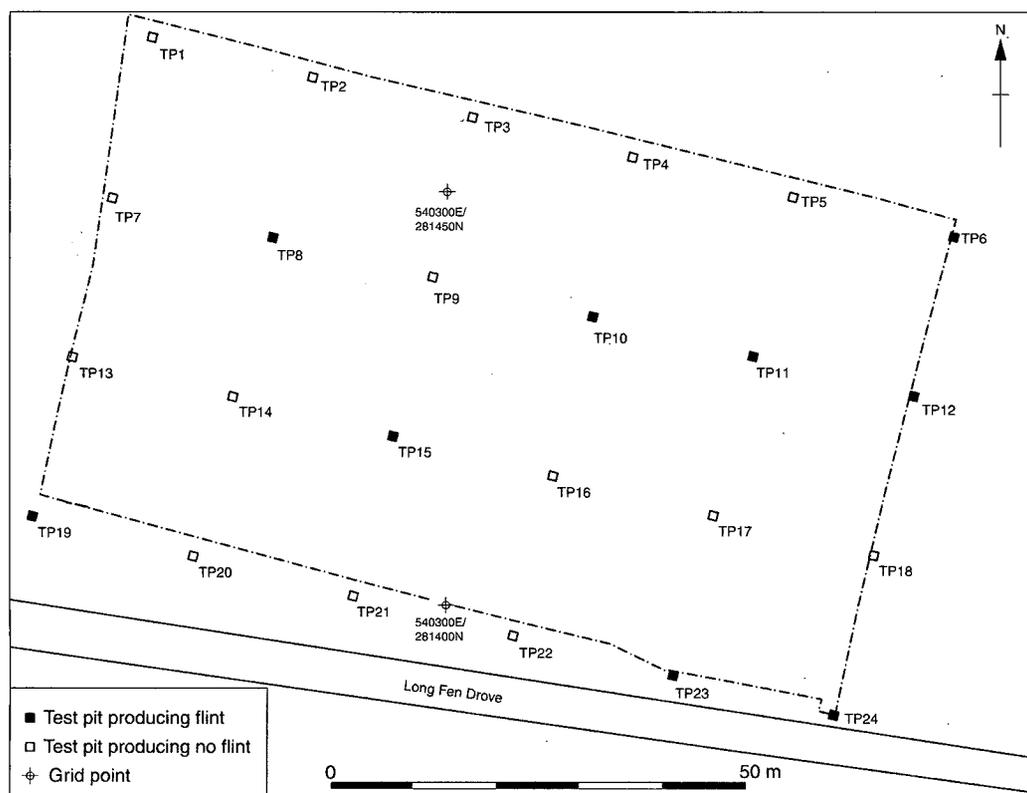


Figure 2. Test pit survey.

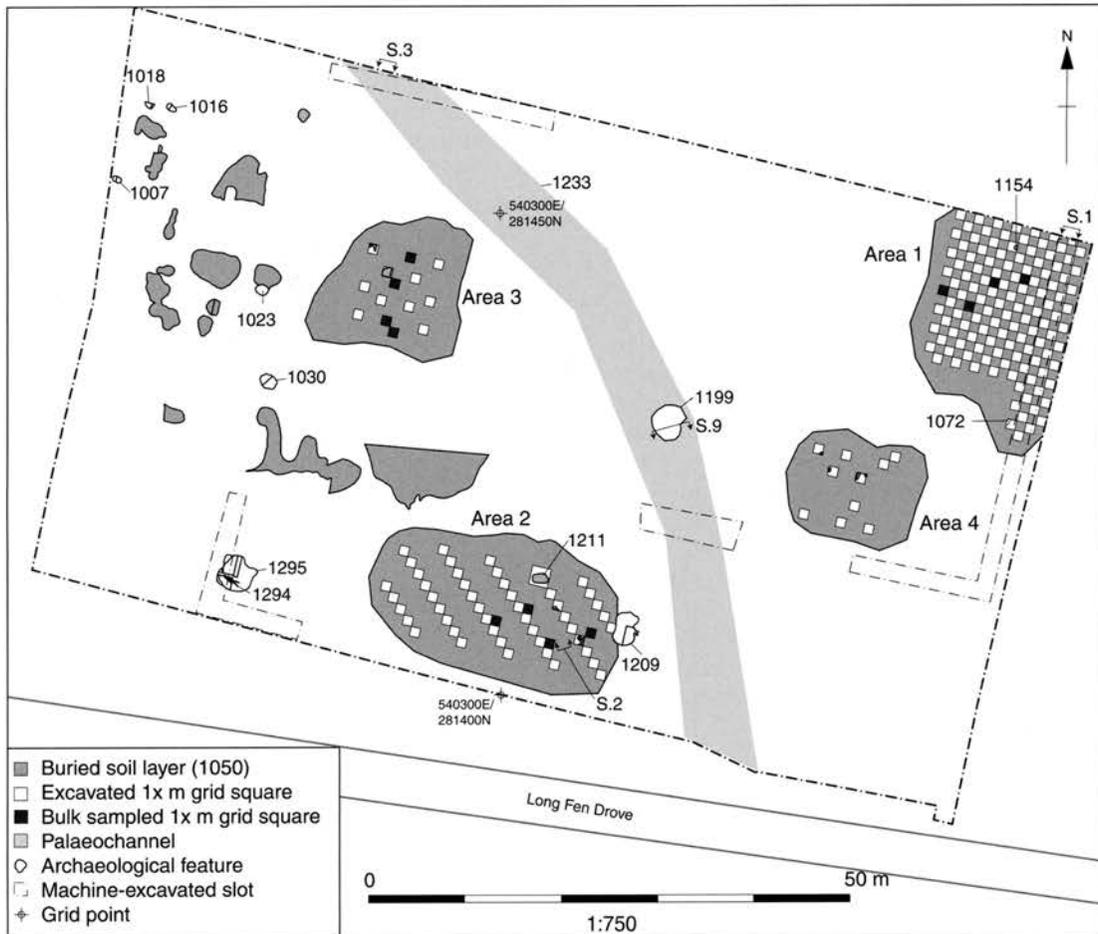


Figure 3. Site plan.

The buried soil sequence

A sequence of two buried soil layers was identified overlying the natural sand and gravel (Fig. 4). The lower layer (1060) was a grey-brown to yellow-brown silty sand up to 0.25m thick that extended across almost the whole site. This deposit was overlain in parts of the southern, eastern and western areas of the site (Areas 1–4) by a distinctive layer of more humic grey-brown silty sand that typically survived to a thickness of 0.05–0.10m (1050). The upper surface of this deposit lay at c. 0m OD. While a few modern plough scars could be seen cutting down into the buried soil layers, the degree of disturbance was limited. Both layers produced worked flint, small sherds of later Neolithic/early Bronze Age pottery, and occasional fragments of animal bone. The ceramics largely belong to the Grooved Ware (c. 3000–2000 BC) and Beaker (c. 2500–1700 BC) traditions. Fragments from a single Impressed Ware vessel (c. 3400–2500 BC) and possible Food Vessel sherds (c. 2100–1500 BC) were also present. Two radiocarbon dates of 2397–2139 cal BC (95.4% probability; OxA-19133: 3806±31 BP) and 2132–1921 cal BC (95.4% probability; OxA-19050: 3640±29 BP) were obtained on charred material from layer 1050 (Table 1).

Thin section analysis was carried out on three mon-

olith samples taken through the buried soil sequence (see Macphail below). Layer 1060 can be characterised as the Neolithic/early Bronze Age 'subsoil', containing occasional fine charcoal and burnt flint. It is likely that many artefacts from this 'subsoil' layer have been transported down from the original ground surface by biological action. The lower part of layer 1050 can be characterised as the Neolithic/early Bronze Age 'topsoil', a humic layer containing very abundant fine charred matter. The upper part of layer 1050 (0.05m thick) contains little charred material and represents a humic soil that formed out of alluvium, burying the occupation horizon. This represents a period of abandonment probably due to increased wetness and flooding before fen peat formation commenced.

The buried soil was sealed by a layer of clayey peat (1070), around 0.10m thick, which extended across the whole of the site. This represents freshwater inundation of the site and clayey sedimentation under 'backswamp' conditions (Macphail, below), probably commencing in the later Bronze Age (Hall 1996; Waller 1994). The peat was directly overlain by the modern topsoil (1000).

Hollows, pits and postholes

A small number of shallow hollows, pits and post-

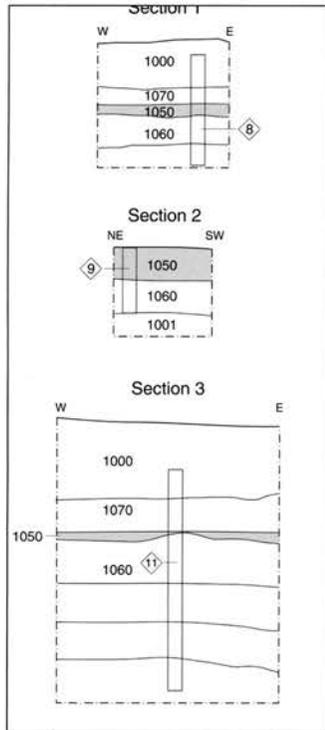


Figure 4. Sections through the buried soil sequence.

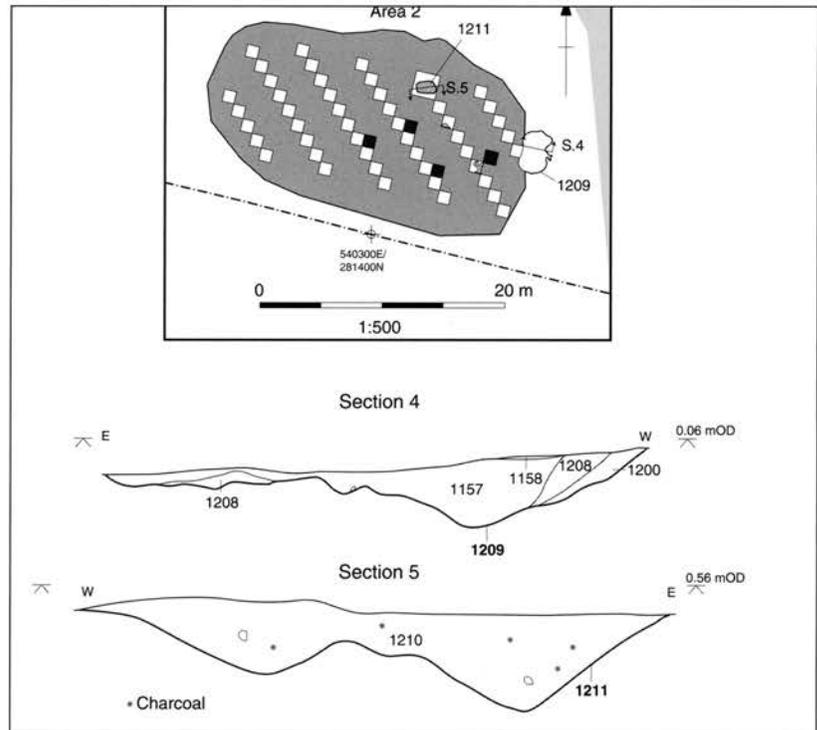


Figure 5. Hollow 1209 and pit 1211.

holes were found in association with the buried soil. All of these were recorded as being cut into 'subsoil' layer 1060, and either sealed by or showing no relationship to 'topsoil' layer 1050. They had silty sand fills similar in character to the upper buried soil layer. With one possible exception, they can all probably be regarded as broadly contemporary with the later Neolithic/early Bronze Age occupation horizon.

Irregular hollow 1209 was found at the eastern edge of buried soil Area 2 (Fig. 5). It measured 5m by 3m in size and up to 0.25m deep. A lower deposit of sterile silty sand was overlain by a darker layer (1157) which contained 72 pieces of worked flint and six small fragments of late Neolithic/early Bronze Age pottery, including two Beaker sherds. The high density of flint from this feature, and from the buried soil deposits immediately to its west, suggests that the hollow was a significant focus for activity.

Three possible irregular pits, up to 0.29m deep, were revealed during excavation of the 1m sample squares in Areas 1 and 2 (1072, 1155 and 1211; Fig. 3). Pit 1211 contained three flint flakes, two scrapers, a few sherds of late Neolithic/early Bronze Age pottery and fragments of animal bone. Pit 1155 produced a single flint flake.

Three small features in the western part of the site may have been shallow pits, up to 0.25m deep, although they could equally well represent natural hollows (1007, 1023 and 1030, Fig. 3). Feature 1023 contained three flint flakes, a flint knife and sherds of Impressed Ware pottery. Feature 1007 produced a few sherds of late Neolithic/early Bronze Age pottery.

Feature 1030 contained two flint flakes, a few Beaker sherds and a single fragment of probable late Bronze Age/early Iron Age pottery. It may therefore post-date the main period of activity on the site, although plough disturbance to this feature raises the possibility that the late Bronze Age/early Iron Age sherd is intrusive.

A pair of possible postholes (1016 and 1018) in the north-west corner of the site produced no finds. These were up to 0.25m deep, and in one case (1018) contained abundant charcoal.

Waterholes

Two waterholes—one certain and one possible—were located at the margins of the areas of well-preserved buried soils. Waterhole 1295 lay in the south-western corner of the site, cutting through buried soil layer 1060 into the natural gravel, and was 3.5m in diameter and 0.7m deep (Figs 6 and 7). A wooden revetment structure (1294) at the southern edge of the feature had been preserved due to the waterlogged conditions. This consisted of a group of horizontal alder poles, stacked one on top of the other (1305–9 and 1311–13), retained by two vertical hazel stakes driven into the base of the waterhole (1304 and 1310). Tool marks on the wood are characteristic of the metal axes of the early Bronze Age (see Goodburn below), and a radiocarbon date of 2014–1776 cal BC (95.4% probability; OxA-19051: 3559±29 BP) was obtained from alder pole 1308 (Table 1). The void behind the revetment had been back-filled with sand and gravel (1302), to create a platform to stand on while drawing

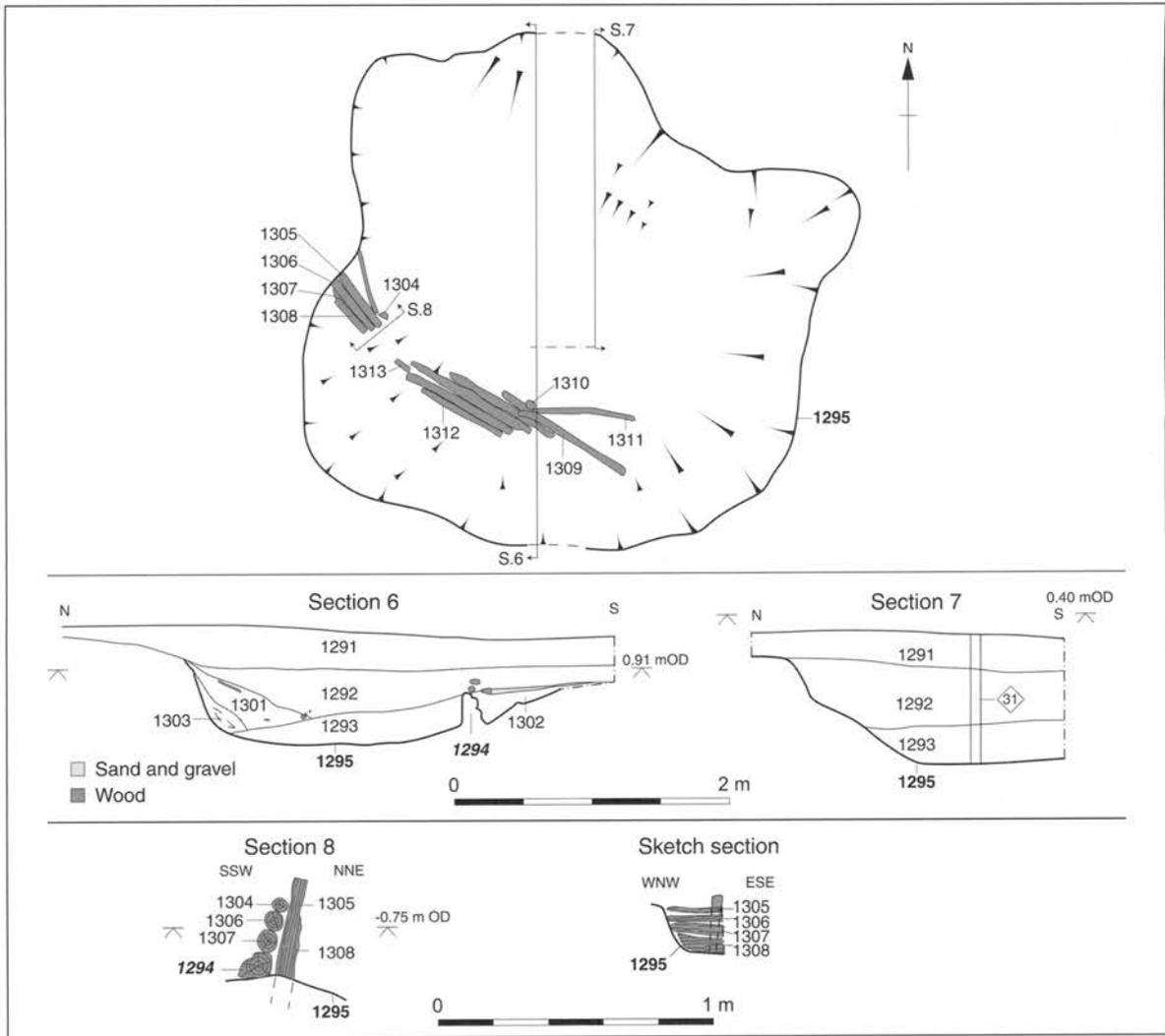


Figure 6. Waterhole 1295.

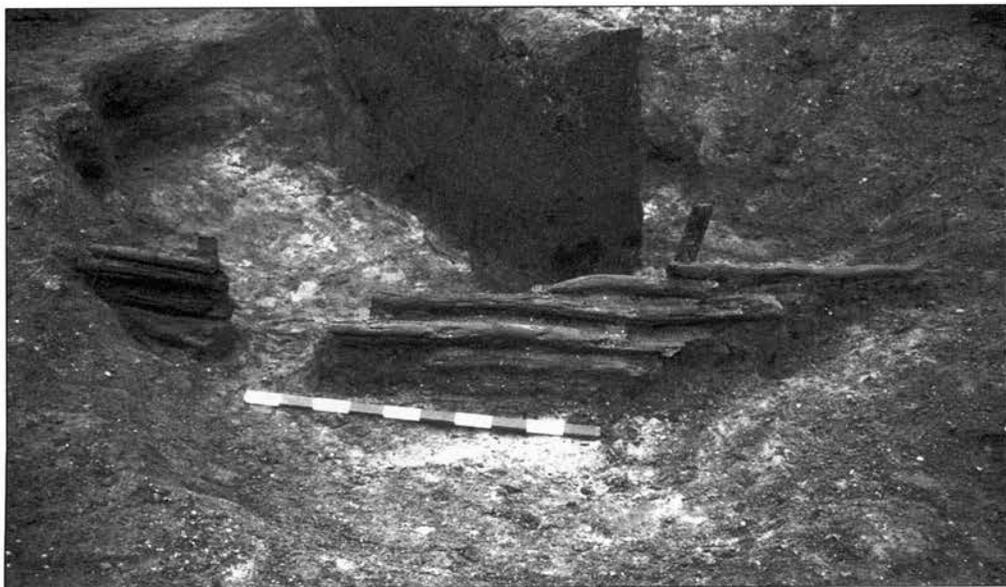


Figure 7. Revetment structure 1294 within waterhole 1295, looking north-east. Scale: 1m

water. The waterhole itself contained a sequence of naturally-deposited fills. The lower fill (1293) consisted of clay containing large amounts of waterlogged organic material. This was followed by two erosion deposits of sand and gravel (1303 and 1301), and a final layer of clay containing organic material (1292). Seven pieces of worked flint were recovered from the waterhole, along with a few sherds of late Neolithic/early Bronze Age pottery from upper fills 1292 and 1301. The waterhole was subsequently sealed by peat (1291), which filled a shallow hollow left at the top of the feature.

Possible waterhole 1199 overlay the palaeochannel, cutting through both 'subsoil' layer 1060 and the upper channel deposits. The waterhole was 2.8m in diameter and 0.8m deep, with an irregular profile. It contained a series of naturally-deposited, waterlogged clay, silt and sand layers. The only finds came from the uppermost fill (1009), consisting of an incomplete human cranium, a fragment of a human longbone, and a few pieces of animal bone. The cranium has been radiocarbon dated to 2194–1979 cal BC (95.4% probability; OxA-19107: 3690±27 BP; Table 1).

Artefacts and economic evidence

Flint

Hugo Lamdin-Whymark

A total of 513 worked flints and 42 pieces (275g) of burnt unworked flint was recovered (Table 2). The majority of the flint was recovered as a scatter preserved within buried soil layers 1050 and 1060. The scatter may have undergone some vertical displacement after deposition on the original land surface, but the presence of localised concentrations suggests the scatter had undergone little horizontal movement. The flint was generally in fresh condition, exhibiting only occasional nicks and edge-damage consistent with light disturbance such as trampling. Several flints exhibited an orange-brown mineralised surface deposit.

The raw material exploited was predominately a mid to dark brown flint, but some pieces of a distinctive light to mid grey mottled flint were also observed. The cortical surface, where present, was abraded to differing degrees, with some pieces retaining several

millimetres of white chalky cortex, whilst the cortex on other pieces was worn away to a smooth or pitted surface. Thermal fractures were frequently observed in all the raw materials utilised. The condition of the cortex and presence of thermal fractures indicate the flint derives from secondary sources, such as glacial or river gravels. The local gravels contain a limited number of flint nodules, but some flint is likely to have been imported from further afield. A few flints exhibited a relatively fresh white cortex and may originate from a chalk region. A single flint flake exhibited a dark green cortex with an underlying orange band. This flint is characteristic of the Bullhead Bed at the base of the Reading Beds; this flint is likely to originate from a source to the south around the Thames Valley (Dewey and Bromehead 1915; Ellison and Williamson 1999).

Thirteen white corticated flints from earlier industries were also exploited as a raw material. A single- and a multi-platform flake core each exhibited two episodes of knapping and two flakes had clearly been struck from corticated cores. Nine tools were also manufactured from corticated flakes including four scrapers (Fig. 8.3 and 8.7–8), a serrated flake, a knife, a retouched flake, a fabricator (Fig. 8.14) and a tanged arrowhead (Fig. 8.9). The fabricator was manufactured on a fine parallel-sided blade that after retouching still measures 95mm long by 21mm wide and 10mm thick. This blade probably dates from the early Mesolithic. It is not possible to date the other corticated flakes, but it is notable that a small number of Mesolithic or early Neolithic flints were identified in this excavation and that other Neolithic activity has been identified elsewhere on the gravel island (Hall 1996; Last 1996). These flints may, therefore, represent local discoveries, although it is also possible that they were collected further afield.

The reworking of earlier flints may simply reflect the opportunistic exploitation of chance discoveries. However, the transformed colours and unfamiliar artefact forms, for example Mesolithic blade technology, may have been considered to be of significance in the early Bronze Age. These occasional discoveries were both familiar, as struck flints, but alien due to their unusual colour and form. As such, these artefacts may have been associated with the past, ancestors or other more mysterious origins. The working of corticated flints may, therefore, have been of more

Table 1. Radiocarbon dates. Calibrated dates have been generated with Oxcal v4.0 (Bronk Ramsey), using the INTCAL04 dataset (Radiocarbon 46, 2004).

Lab. no.	Context	Radiocarbon age	$\delta^{13}\text{C}$ (‰)	Material	Calibrated date (68.2% probability)	Calibrated date (95.4% probability)
OxA-19050	1122 (buried soil 1050, Area 1)	3640 ± 29	-24.63	Charcoal (Maloideae)	2108–1951 cal BC	2132–1921 cal BC
OxA-19051	1308 (waterhole 1295)	3559 ± 29	-25.19	Wooden stake (<i>Alnus glutinosa</i>)	1951–1880 cal BC	2014–1776 cal BC
OxA-19107	1009 (waterhole 1199)	3690 ± 27	-21.03	Human cranium fragment	2134–2033 cal BC	2194–1979 cal BC
OxA-19133	1289 (buried soil 1050, Area 3)	3806 ± 31	-25.22	Charred hazel nutshell	2291–2200 cal BC	2397–2139 cal BC

Category type	Zone					Total
	A	B	C	D	Unlocated	
Flake	78	57	6	102	22	265
Blade	2	2	1	8	1	14
Bladelet	1	7		3	1	12
Blade-like flake	3	1		13	2	19
Irregular waste	5	8	1	7	3	24
Chip	1	6				7
Rejuvenation flake core face/edge					1	1
Rejuvenation flake tablet				1		1
Janus flake (thinning)				1		1
Flake from ground implement	2	1		1		4
Tested nodule/bashed lump				2		2
Single platform flake core	2	1		2		5
Multiplatform flake core	3	2	2	2		9
Core on a flake		1				1
Unclassifiable/fragmentary core		2		1		3
Barbed and tanged arrowhead		1				1
Triangular arrowhead		2				2
End scraper	7	1				8
Side scraper	10	1		1		12
End and side scraper	6	1		3	1	11
Disc scraper	2			1		3
Thumbnail scraper	5	1				6
Scraper on a non-flake blank	1			1		2
Other scraper	9	2	1	2		14
Piercer	4		1	1		6
Serrated flake	1	3	5	7		16
Notch	5		1	2	1	9
Backed knife	1			1		2
Other knife	4	1		1		6
Retouched flake	18	5	2	9	2	36
Fabricator	2			1		3
Dagger				1		1
Pick					1	1
Misc. retouch	1			3	1	5
Hammerstone					2	2
Total	173	106	20	177	38	514
Burnt unworked flint (g)					42/ 275	42/ 275
No. of burnt worked flints (%)*	5 (2.9)	5 (5)		11 (6.2)	1 (2.6)	22 (4.3)
No. of broken worked flints (%)*	36 (20.9)	26 (26)	8 (40)	55 (31.1)	14 (36.8)	139 (27.4)
No. of retouched flints (%)*	76 (44.2)	18 (18)	10 (50)	34 (19.2)	6 (15.8)	144 (28.4)
No. of flakes per core	16.8	11.2	3.5	18	26+	15.5
% of blades and bladelets in the flake assemblage *	3.6	13.4	14.3	8.7	7.7	8.4

Table 2. The flint assemblage by category type and zone. * Percentage excludes chips.

significance than simply exploiting raw materials and perhaps involved the creation of implements imbued with attributes of these earlier artefacts.

A small number of flakes and tools derive from a Mesolithic and/or early Neolithic blade-orientated industry. These flints, including the majority of the blades and bladelets, reflect a careful reduction strategy and frequently exhibit platform preparation and

the scars of earlier blade removals on their dorsal surface. The latter indicates that the blade was struck from a core specifically orientated to blade production. The majority of serrated flakes were manufactured on blades, but the dating of these tools is problematic as several of these early flints have been reworked and used in the early Bronze Age, including at least one of the serrated blades. When cortication is not present it

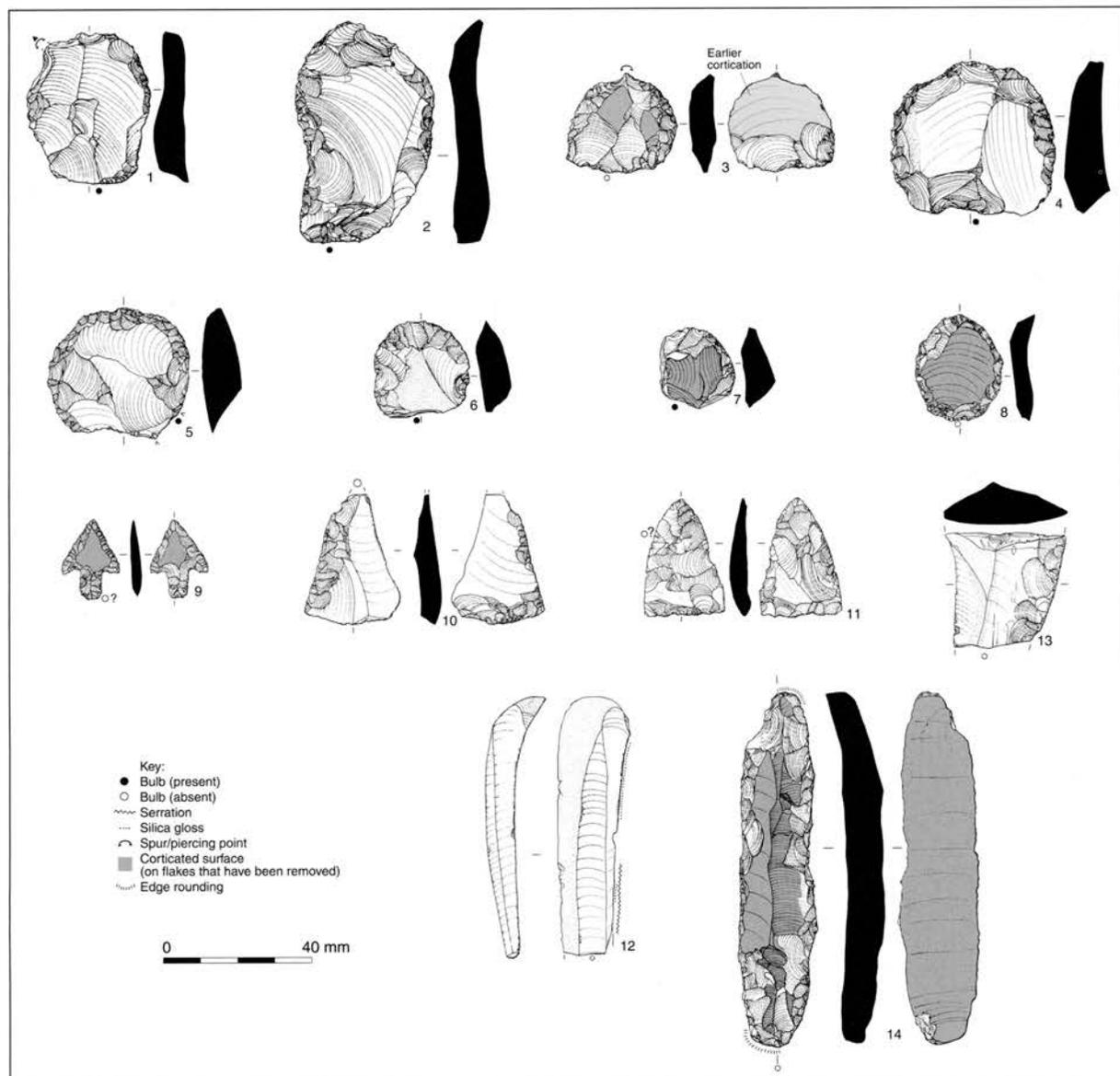


Figure 8. Worked flint, nos 1–14.

may not be possible to determine whether the tool is genuinely early, or the product of later reuse.

The majority of the flint forms a coherent assemblage that dates from the late Neolithic/early Bronze Age. The flint assemblage is dominated by small non-specialised flakes that appear to have been detached using both hard and soft hammer percussors, such as antler and stone, possibly including the two flint hammerstones recovered. Few flakes exhibit platform-edge abrasion and only two rejuvenation flakes are present, suggesting little care was taken to maintain core forms or regulate the morphology of flakes. In total, twenty cores were present with single- and multi- platform flake cores most frequently encountered. The cores showed little evidence for the preparation of the platform or the platform-edge prior to flake removal. The negative flake scars on the cores reflect the removal of unspecialised flakes and

it is notable that no blade scars were observed. Cores were relatively frequently encountered with one core per 15.5 flakes recovered. The cores varied in weight from 14g to 130g with one exceptionally large flake core weighing 1499g. Excluding the latter core, the cores averaged 38g weight and appeared to have been abandoned when exhausted. The high frequency of cores is indicative of knapping, but no refits were identified and other debitage commonly associated with knapping, such as irregular waste and chips, is relatively scarce. The scatters therefore do not appear to represent *in situ* knapping, but contain some knapping debitage redeposited from another location.

Retouched artefacts are exceptionally common and represent 28.4% of the total assemblage. Scrapers are the most common tool type. The scrapers include a wide variety of forms and sub-forms, but no form clearly dominates the assemblage (Table 3).

Table 3. Scrapers by form and sub-form.

Scraper type	Sub-Form	Total
End scraper	Double end	1
	Horseshoe <180° retouch	2
	Kite-shaped	3
	Parallel sided	6
	Irregular	1
Sub total		13
End and side scraper	'D'- shaped 180°-270° retouch	6
	Parallel sided	2
	Unclassifiable	1
Sub total		9
Side scraper	Double side	2
	On a flake	8
	Unclassifiable	1
Sub total		11
Thumbnail scraper	'D'- shaped 180°-270° retouch	4
	Oval 270°-359° retouch	1
	Oval 360° retouch	1
Sub total		6
Disc scraper	Circular - 360° retouch	2
	Oval 270°-359° retouch	1
Sub total		3
Other scraper	Irregular	9
	Denticulate	1
	Unclassifiable	2
	Scraper on a non-flake blank	2
Sub total		14
Total		56

The assemblage includes both irregular and regularly worked forms with variable standards of retouch including relatively irregular edges and finely retouched forms; a thumbnail scraper and an end scraper exhibited scale flaking (Fig. 8.1-8). The scrapers are quite small with average dimensions of 32mm long by 31mm wide and 9mm thick (Fig. 9). The size of the scrapers and the presence of thumbnail forms suggest a Beaker date. In this respect the absence of

scrapers on blades is also notable as these typically found in Mesolithic and early Neolithic assemblages (Riley 1990). Hide preparation and woodworking represent the most probable tasks for which scrapers were used, but considering the limited size of the scrapers, especially the thumbnail forms, they may have been used for a very specific activity.

The working of plant materials is attested by the presence of 16 serrated flakes, many of which bore a thin band of silica gloss behind the teeth. This band of gloss develops from a transverse motion that separates plant fibres, presumably for cordage or weaving. Use-wear studies have yet to determine the species of plant that generates this gloss (Juel Jensen 1994). The majority of the serrated flakes are manufactured on blades and in two cases these blades appear to be Mesolithic (Fig. 8.12). However, one of these blades is corticated white, whilst the serration is not corticated, indicating that the blade has been re-used.

The three arrowheads include a tanged form (Sutton type A, Green 1980; Fig. 8.9) and two triangular forms (Fig. 8.10-11). It is possible the triangular forms are unfinished barbed and tanged arrowheads, as neither have been extensively worked and both exhibit hinged removals that would hinder further pressure flaking, but they may simply represent a relatively crude arrowhead form. The four small flakes from polished implements originate from a minimum of two artefacts; two flakes were of a light brown flint with a high polish and the other two were mid grey. The fabricators include a fine example reworking a Mesolithic blade (Fig. 8.14), a broader rod-shaped form (SF 133), and a minimally worked flake with characteristic wear on the bulb (SF 419). The presence of three fabricators is perhaps surprisingly considering the limited evidence for fire as attested by the small quantity of burnt stone and low proportion of burnt artefacts in the assemblage as a whole (4.3%). The eight knives include two backed forms and six more irregular forms on flakes. The latter forms exhibit invasive low angle to semi-abrupt retouch along straight to slightly curving blade edges, with little modification to the original form of the flake blank. Two of the knives have been inten-

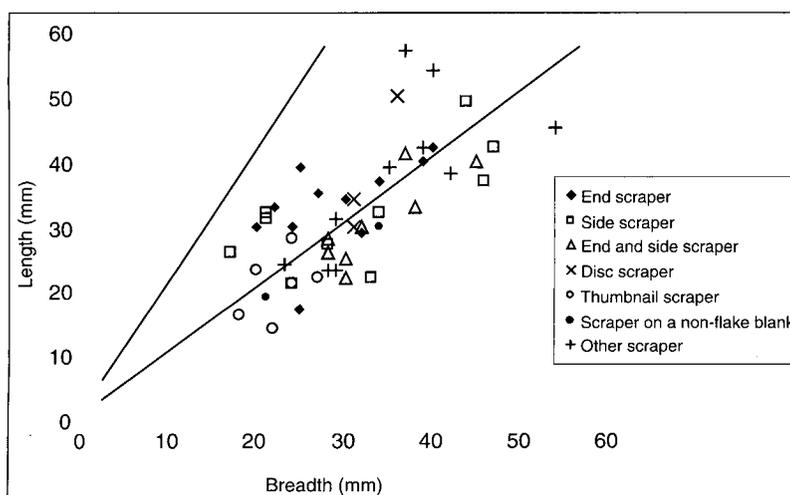


Figure 9. Length to breadth scatter diagram of all complete scrapers by form.

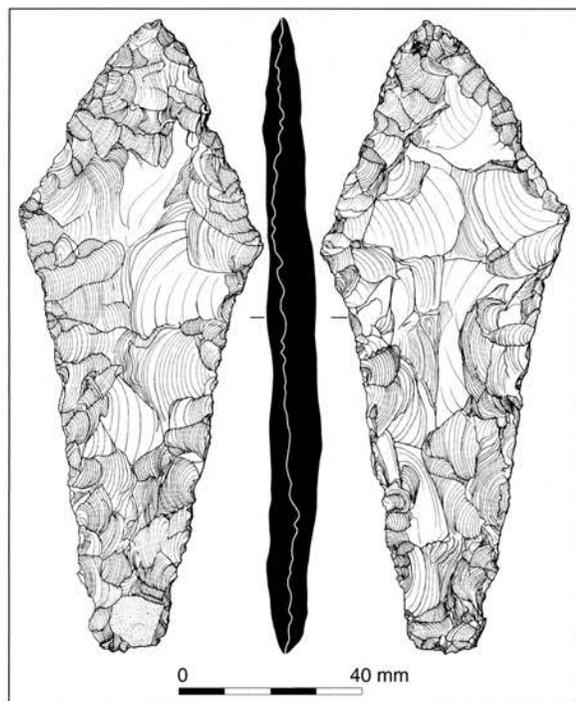


Figure 10. Flint dagger (no. 15).

tionally broken, with one exhibiting two snaps forming a wedge-shaped element (Fig. 8.13).

An artefact of particular note is the flint dagger (Fig. 10). The dagger is a simple tanged form measuring 137 x 54mm and a maximum of 13mm thick. The implement was manufactured from a mid grey mottled flint, with a small dark grey translucent area and patch of abraded cortex at the base of the tang. The colour of the flint and characteristics of the cortex suggest the raw material originates from a gravel source. The blade-edge of the dagger measures

c. 47mm in length and has been finished with fine invasive flaking, which was probably produced by delicate soft hammer percussion and pressure flaking. The blade edge exhibits several nicks which may result from use or edge-damage. The tang has straight sides measuring 85–90mm in length by 50mm wide that taper to 18mm wide at the distal end. The tang exhibits relatively coarse flaking, with occasional step fractures, and lacks the refined finish of the blade. The dagger is unlikely to have been hafted in a wooden or horn handle as it lacks notches to facilitate attachment. The tang forms a good handle, although given the crude flaking it may be presumed that the handle was finished by binding, perhaps with raw hide or plant cord. Flint daggers are relatively uncommon finds with a limited distribution pattern across the British Isles (Grimes 1931). This discovery falls within one of the most distinctive concentrations in the East Anglian Fens (*ibid.*, fig. 2).

For the purpose of spatial analysis, the site can be sub-divided into four 'flint zones' on the basis of distinctions in the density and composition of the flint assemblages (Figs. 11–15). Flint zone A comprises a dense spread of flint centred on hollow 1209 and the eastern part of buried soil 1050 (Area 2). The assemblage contains a limited number of flake cores, but does not represent an *in situ* knapping scatter as chips and pieces of irregular waste were scarce and no refits were identified. Moreover, the zone is dominated by retouched artefacts that account for 44.2% of the total assemblage. Scrapers are the most common retouched tool, although piercers, notches, knives, retouched flakes and fabricators are also well represented in comparison to the other zones. In contrast, serrated flakes are underrepresented with a single example present. Blades only form a small component of the assemblage.

Flint zone B equates to buried soil Area 1. The scatter in zone B is more diffuse than zone A, and

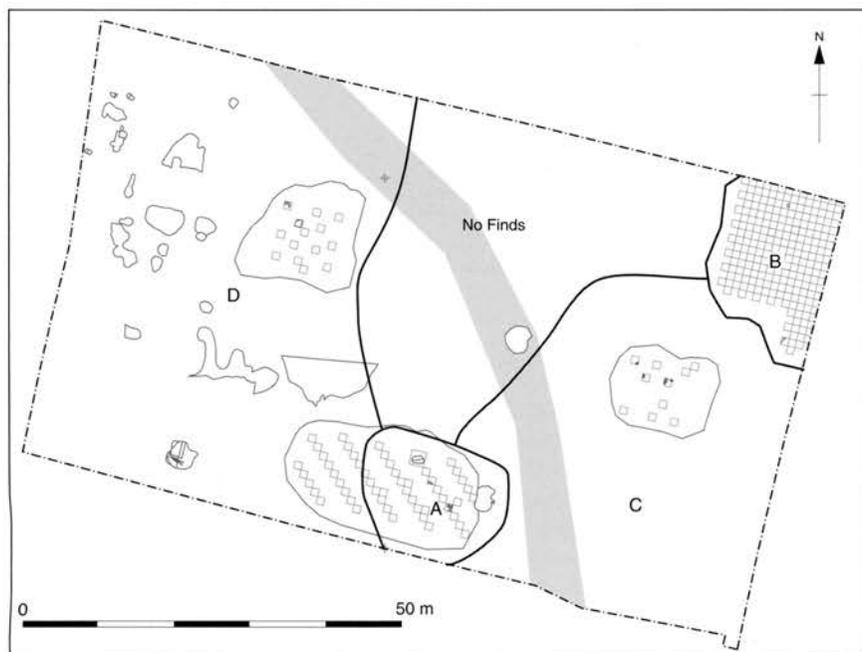
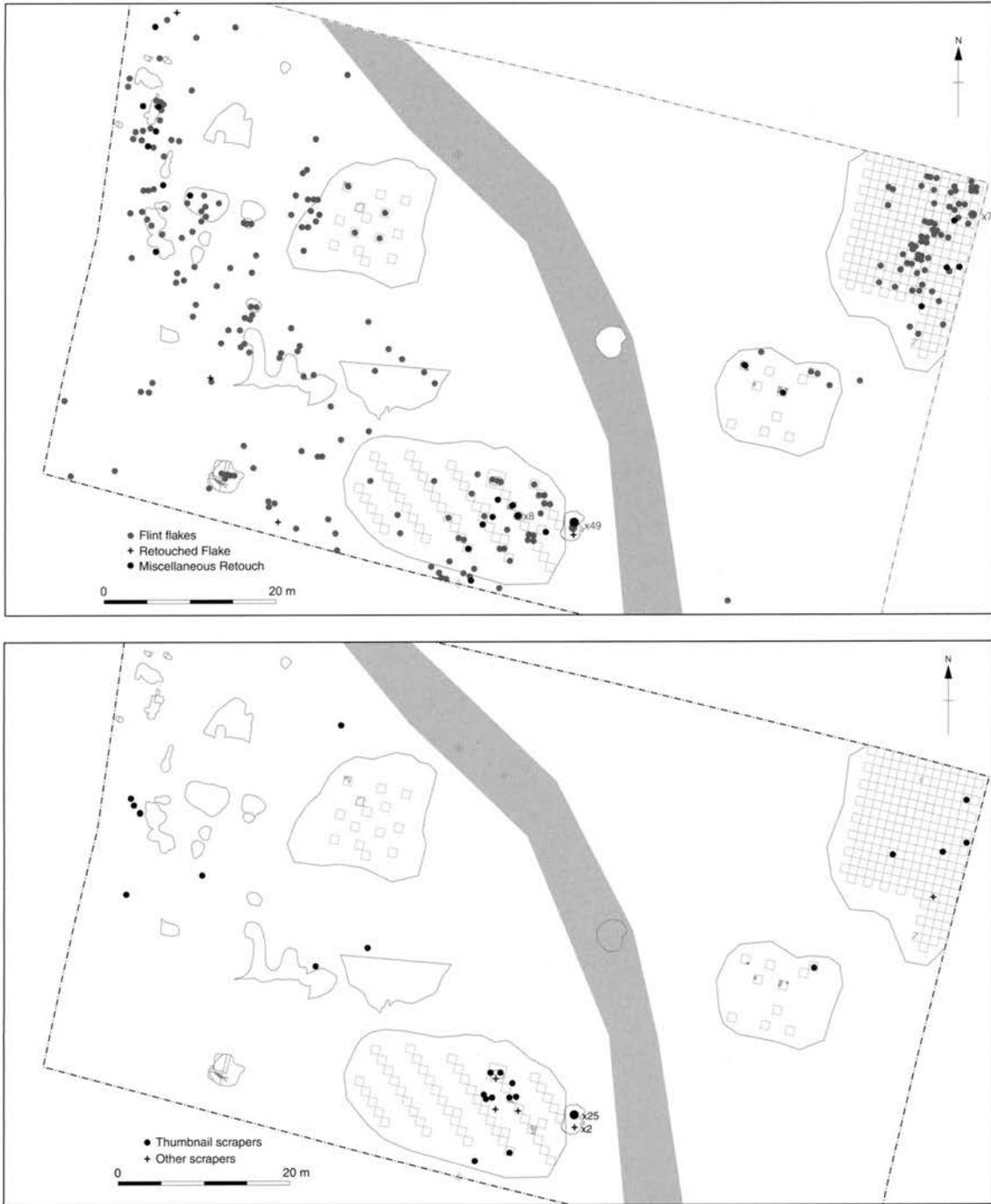


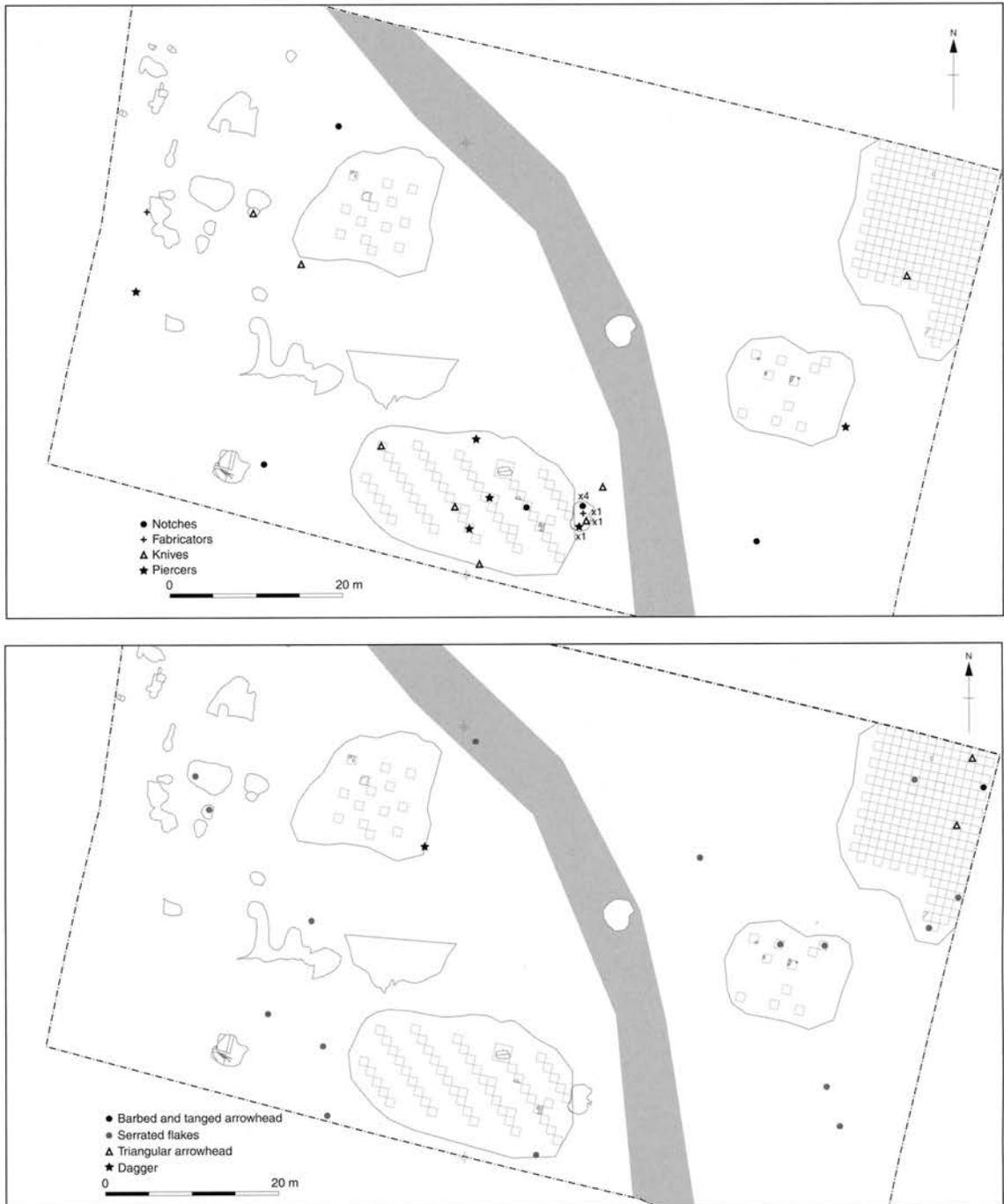
Figure 11. Zones used for analysis of flint distributions.



Top Figure 12. Flint distributions: flakes, retouched flakes and miscellaneous retouch;
below Figure 13. Flint distributions: scrapers.

whilst no distinct clusters were present some variation exists in the density of flints across the area. The scatter contains fewer flints than zone A, but cores, chips and pieces of irregular waste are more numerous. Retouched pieces form 18% of the assemblage and whilst scrapers remain the most common tool type they are less dominant than in zone A. The presence of three serrated flakes and all three of the arrowheads from the excavation further suggests an emphasis on different activities. The arrowheads and

the thumbnail scraper date from the early Bronze Age and most of the flake debitage is probably contemporary, but eight blades and bladelets, representing 13.4% of the flake debitage, may indicate the presence of some Mesolithic and/or early Neolithic flintwork. Flint zone C covers an extensive area in the southeastern part of the site, including buried soil Area 4, but yielded only 20 flints. The scatter is very diffuse and despite the presence of two cores, the emphasis is on retouched artefacts with ten implements,



Top **Figure 14.** Flint distributions: notches, fabricators, knives and piercers; below **Figure 15.** Flint distributions: arrowheads, serrated flakes and dagger.

including five serrated flakes and blades.

Flint zone D covers the western half of the excavation area, including buried soil Area 3. The flint recovered represented a low density spread with no distinct concentrations. The assemblage includes a number of exhausted flake cores and a larger partly worked core weighting 1499g, but these cores were distributed across the area and provide no indication of a distinct knapping area. Retouched tools represent 19.2% of the assemblage and notably scrapers

are outnumbered by edge retouched flakes; serrated flakes are also relatively common. The flint dagger was found at the edge of this zone and represents the only diagnostic early Bronze Age artefact from the area. The flake debitage is broadly comparable to the other areas and is probably broadly contemporary with the dagger, but it is notable that blades and bladelets represent 8.7% of the flake debitage and that 13 flakes exhibited blade-like attributes. This may indicate the presence of some flint from an earlier

blade-orientated industry.

The fresh condition and distribution of the flintwork across the excavation area indicates the flint scatter is *in situ*. Moreover, the zones that have been defined appear to reflect different activities. Flint zone A represents a relatively dense scatter and includes a high proportion of retouched artefacts with a particular emphasis on scrapers. In contrast, the scatter in flint zone B is more diffuse and includes a higher proportion of knapping debris. The range of retouch tools present is, however, broadly similar to zone A, but forms a lower proportion of the assemblage. Flint zones C and D represent comparatively low density scatters, but notably have an emphasis on serrated flakes rather than scrapers. Zone D also produced a number of cores. These patterns may be interpreted as different activity areas, with intensive hide or woodworking in zones A and B, some plant working in zones C and D and flint knapping around zones B and D. However, this activity may not all be contemporary. The distribution of serrated flakes and elevated proportions of blades coincide in zones B, C and D. These artefacts may date from the Mesolithic and/or early Neolithic and reflect a diffuse scatter of early flintwork with an emphasis on plant working. Early Neolithic flintwork has been recovered south of the excavation area (the SUT1 flint scatter site: Hall 1996; Last 1996) and it is possible that some of this early flintwork relates to this activity. Alternatively, it is possible that some of these flints have been imported to this area and reused as earlier flints were being reworked in the early Bronze Age. The thumb-nail scrapers, tanged arrowhead and general flake morphology in zones A and B and the dagger in zone D can confidently be assigned to the Beaker period, indicating that at least some of the activity in zones A, B and D is broadly contemporary.

The densest area of the scatter in zone A is particularly notable as it forms a discrete group associated with hollow 1209. Recent research has emphasised that deposits in pits are frequently drawn from surface contexts, although these deposits are very rarely preserved (Garrow 2006; Lamdin-Whymark 2007). In general, the flint assemblages from Beaker pits elsewhere in East Anglia are broadly comparable in composition to the surface scatters at North Fen, although some differences exist in the retouched assemblages (Table 4). Garrow (2006, 128–9) suggests that scrap-

ers are overrepresented in pit deposits and that they may have been specially selected for deposition. The assemblage from North Fen, however, contains a comparable proportion of scrapers to the average from pit deposits. It is notable that with the exception of serrated flakes and scrapers, other retouched artefacts are poorly represented in pits, but represent common occurrences in the surface deposits at North Fen. It therefore appears that the dominance of scrapers in pit deposits reflects the frequent exclusion of other tools, such as piercers, knives, daggers, and arrowheads, rather than the intentional selection of scrapers.

Pottery and fired clay (Figure 16)

Lisa Brown

The prehistoric pottery (241 sherds / 576g) spans the later middle Neolithic (c. 3300 BC) to late Bronze Age/early Iron Age (c. 1000–800 BC), but most is late Neolithic/early Bronze Age (c. 2000–1800 BC) in date. Seventy-eight percent of the assemblage came from buried soils, the remainder from features (Table 5). Preservation was very poor and sherds from cut features and buried soils were equally abraded, indicating that both soil conditions and exposure affected preservation.

Recording followed Prehistoric Ceramics Research Group guidelines (PCRG 1997). Details of the small assemblage of amorphous fired clay (Table 5) are available in archive.

Table 5. Pottery

Fabric	No. sherds	Weight (g)	% no. / weight
<i>unidentified</i>	7	1	3 / 2
C1	1	20	0.4 / 3.5
F1	27	171	11 / 30
F2	34	103	14 / 18
G1	108	173	45 / 30
G2	19	59	8 / 10
Q1	22	5	9 / 1
Q2	23	44	6 / 7
Total	241	576	
Fired clay	141	189	

The predominant fabrics were grog-tempered and flint-tempered wares. Grooved Wares and Beakers

Table 4. The proportions of broad artefact/debitage types in relation to Beaker pit deposits from elsewhere in East Anglia.

Area	Cores	Blades/ flakes	Hammerstones	Serrated flakes	Scrapers	Arrowheads	Other tools
East Anglian Beaker pits (Garrow 2006, 129)	5.8%	78.1%	0	3.8%	11.2%	0.1%	1.1%
North Fen combined	3.9%	67.7%	0.4%	3.1%	10.9%	0.6%	13.4%
Zone A	2.9%	53.2%	0	0.6%	23.1%	0	20.2%
Zone B	5.7%	77.4%	0	2.8%	5.7%	2.8%	5.7%
Zone C	10%	40%	0	50%	5%	0	20%
Zone D	4%	76.8%	0	4%	4.5%	0	10.7%

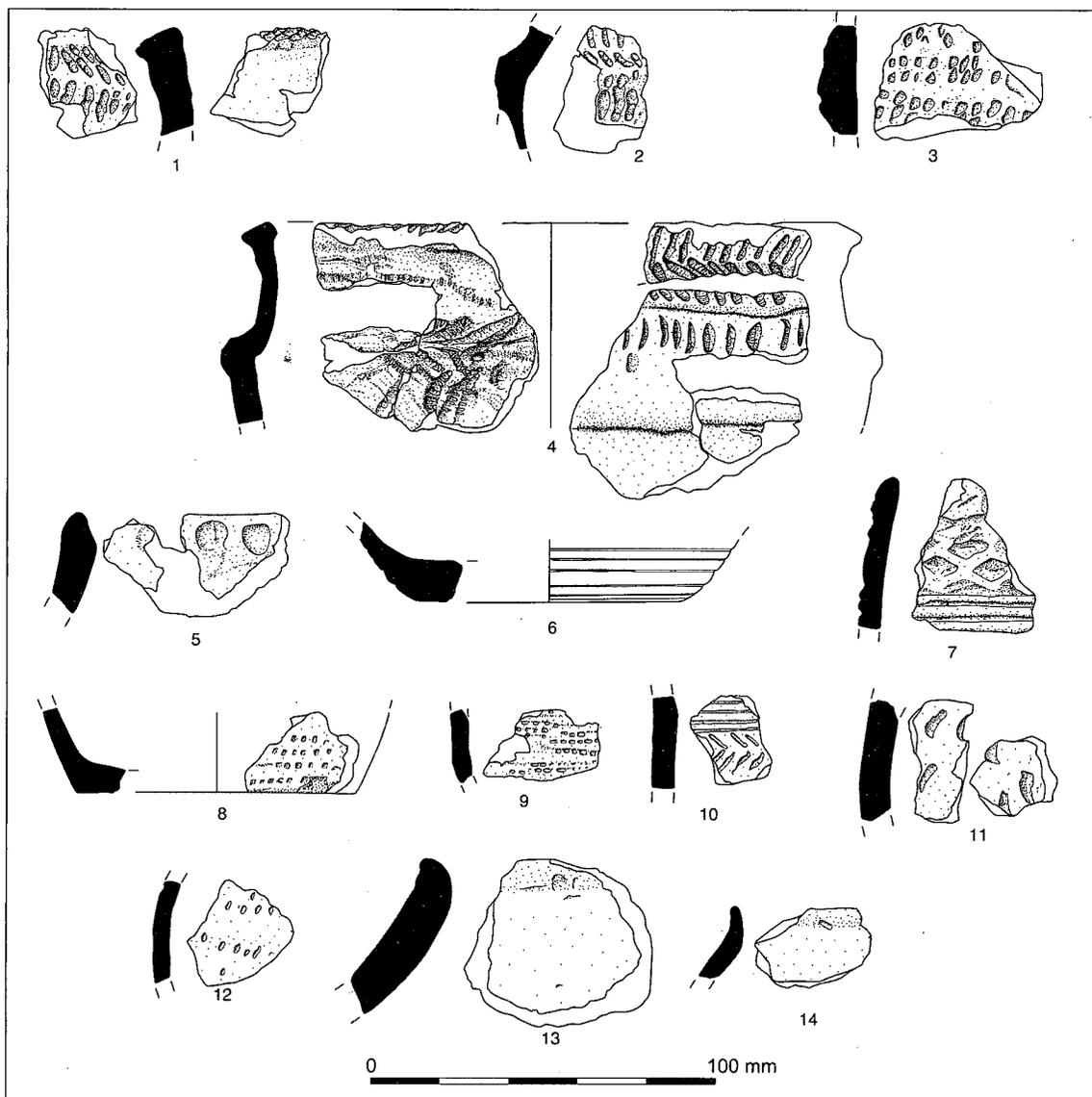


Figure 16. Prehistoric pottery.

were generally manufactured in fabric G1 and large jar forms in the more friable G2. A late Bronze Age/early Iron Age bowl was made in sandy ware (Q2).

- C1: Fine glauconitic sand with sparse shell and rare calcined flint
- F1: Fine glauconitic clay with coarse rounded quartz sand and ill-assorted calcined flint
- F2: Fine slightly micaceous clay with sparse to moderate ill-assorted calcined flint
- G1: Smooth 'soapy' fabric with red or grey grog
- G2: Friable lightly sanded ware with red grog.
- Q1: Fine to medium quartz with glauconite .
- Q2: As Q1 but with sparse angular, calcined flint

The earliest of the 23 individual vessels identified were Peterborough Wares. Fengate bowls in flint-tempered ware came from pit 1023 (Fig. 16.1–3) and a whipped-cord and linear incised grog-tempered carinated bowl from buried soil 1050 may also be Peterborough Ware (Fig. 16.4).

Three of five Grooved Ware sherds came from buried soils, including a decorated sherd in G1 from (1125), a whipped-cord decorated sherd in F2 from (1186), and a finger-tipped rim from (1019) (Fig. 16.5). Waterhole 1295 produced two cord-impressed Grooved Ware fragment in F2 and another with parallel horizontal grooves in G1. Two sherds with incised decoration from buried soil 1050 could be either Grooved Ware or Beaker (Fig. 16.6–7).

Two twisted-cord impressed Beaker sherds came from hollow 1209 (Fig. 16.8–9), and five grog-tempered Beaker sherds from the buried soils. Decoration included incised horizontal lines and herringbone pattern (Fig. 16.10). A fingernail impressed Beaker sherd (Fig. 16.11) is paralleled at Bury St Edmunds, Suffolk (Clark 1970; Gibson and Woods 1997, 154) and Haddenham, Cambridgeshire (Pollard and Johnston 2006, fig. 2.22.6). A thick-walled vessel with fingertip impressions from buried soil 1060 was probably a Food Vessel. A possible beaker sherd was recovered from pit 1211 (Fig. 16.12). Figure 16.13 is

a flint-tempered jar from deposit 1003. A similar range of pottery in flint-tempered and grog-tempered fabrics has been noted at fen edge sites elsewhere in the local area, including Colne Fen (Knight 2004). The latest vessel in the assemblage was a late Bronze Age/early Iron Age bowl in Q2 from pit 1030 (Fig. 16.14).

The worked wood

Damian Goodburn

Structure 1294 comprised 10 pieces of worked wood, as found: alder poles (*Alnus glutinosa*, species identified by Dana Challinor) stacked one on top of another retained by two hazel (*Corylus avellana*) stakes on one side and backfill on the other (Figs 6-7 and 17). The stacked poles stood c. 0.6m high, pushed over slightly by the weight of the backfill. The revetment was truncated in antiquity, breaking horizontal poles that

originally ran full length between the two stakes. At any one point between four to six poles lay one upon another. All the material was worked roundwood c. 40–95mm diameter;).

In the last few years a considerable number of later prehistoric 'waterholes' have been excavated in southern Britain. Some of these features contained structures of roundwood or timber of many forms, though most appear to have been revetted platforms (Masefield *et al.* 2003). In some deeper examples notched log ladders have also been found (eg Framework Archaeology 2006). The main purpose for these structures appears to have been to provide a secure place to stand or crouch whilst filling up water containers, which would appear to have been the function of structure 1294.

There are clear datable trends in the size and form

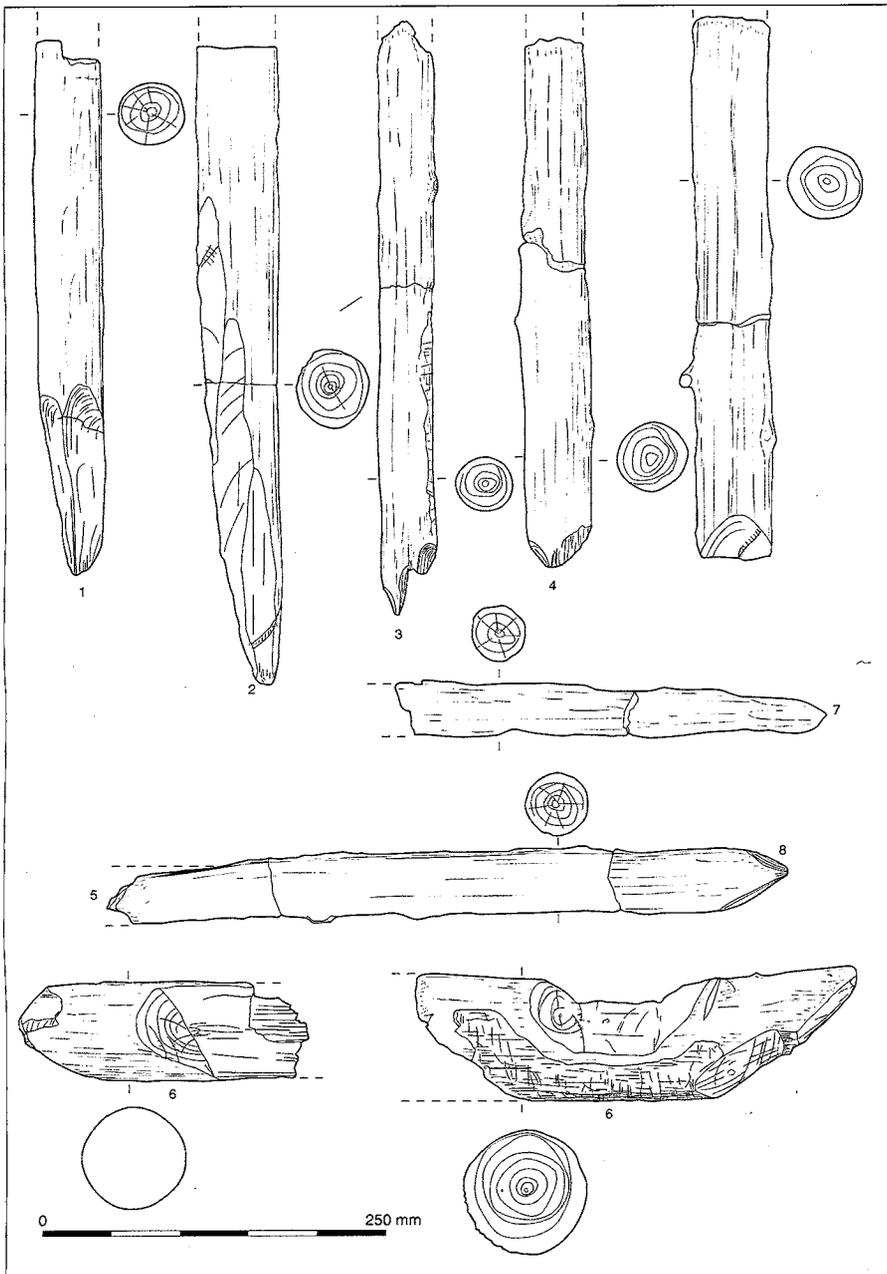


Figure 17. Worked wood from structure 1294 within waterhole 1295. 1: 1304; 2: 1310; 3: 1305; 4: 1306; 5: 1307; 6: 1308; 7: 1312; 8: 1316

of axe marks from the Neolithic to Roman periods (O'Sullivan 1997; Sands 1997; Brunning *et al.* 2000; Goodburn 2003a; 2004). Of key interest here is whether the worked roundwood was cut with stone or early metal tools or a combination of the two. The marks on the ends and sides of the poles are clearly from axes as is evident from their orientation, even though pre-historic 'axe heads' were sometimes hafted as adze heads for specialised woodwork such as boatbuilding (Goodburn 2004, 129).

The most complete axe marks were found on the ends of the basal pole (1308). Here the marks were up to 75mm wide with a curve of *c.* 13mm. They were the result of the use of a keen, thin metal blade (bronze or possibly hard copper), as typical British ground stone axe blades rarely produce axe stop marks over 35mm in width due to the thickness of the blade edge (O'Sullivan 1997, 300). Experimental work and archaeological evidence also shows that ground stone axe marks from typical British axe forms are also much rougher than those created with early metal tool edges (Orme *et al.* 1983).

During the Bronze Age, the sizes of the axes used for heavy and rough work varied in blade width from period to period. Typical maximum widths for early Bronze Age axe marks are *c.* 70–100mm (Goodburn 2003b). The width declined a little in the middle Bronze Age to *c.* 65–70mm wide (Goodburn 2004, 131) and was smaller still in the late Bronze Age at *c.* 45–50mm wide (Goodburn 2003a, 104).

The very curved axe marks found may have been produced by the use of a large, crescent-bladed, flanged axe (Megaw and Simpson 1979, 220). These tools are apparently typical of the secondary phases of the early Bronze Age in southern Britain. Thus, on technological grounds an early Bronze Age date can be proposed for structure 1294, perhaps *c.* 2300–1800 BC. This agrees with the radiocarbon date from timber 1308 of 2014–1776 cal BC (Table 1).

The material was all similar: pole sections taken from small whole stems. Indeed, it is likely that the alder poles derive from perhaps two stems. Alder is a wetland deciduous species with a fairly straight growth habit and softwood easily cut with bronze tools. The felling and cutting of the top and side branches was clearly done with metal axes. The stems were axe cross cut into pole lengths of *c.* 1.75m and ranged from *c.* 43–95mm diameter.

The poles had two fairly pointed ends, and so were initially thought to have been reused stakes, but this is an artefact of cross cutting a pole with an axe when a pole is cross-cut quickly with an axe a blunt 'wedge point' is normally left on both ends so they may be easily mistaken for a stake by modern observers. The poles survived stacked four or five high, lightest to the top, with those higher being less well preserved. Some survived as amorphous fragments such as 1312, but most were much better preserved.

The best preserved horizontal pole was basal pole 1308, which was recorded as 1.73m long *in situ*, and was 95mm in diameter at the largest end (Fig. 17.6). Both ends were roughly axe-cut and had also

been carefully axe notched. These notches retained clear, very curved, axe stop marks up to 75mm wide and were cut to fit snugly round the bases of vertical stakes 1304 and 1310, almost in the manner of a notched 'laft' or housing joint. The other smaller poles had one blunt axe cut end with the other being broken.

Two poles 60–65mm in diameter were cut out of straight hazel stems. Each stake was lifted in at least four sections, but it could be seen that stake 1310 survived 0.94m long. Stake 1304 had an elongated axe-cut point formed of two adjacent concave facets while stake 1310 was hewn to a 'pencil'-form point with many small facets (Fig. 17.1–2).

Animal bone

Lena Strid

The animal bone assemblage comprised 136 fragments (1.3 kg), mostly in a very poor condition. Cattle was the only identified species, represented by two fragments from waterhole 1199.

Human bone

Ceridwen Boston

Two fragments of human bone were recovered from the upper fill of waterhole 1199. The anterior part of an adult cranial vault included most of the frontal bone, the orbits, part of the nasal and parietal bones. The large supra-orbital ridges suggest that the individual was male, as do the marked temporal lines. Complete fusion of the coronal suture on both the ectocranial and endocranial aspects indicated that the individual was greater than the age of 40 years when he died. The anterior sagittal suture was incomplete but also was fully fused, suggesting an age greater than 43 years. The cranium has been radiocarbon dated to 2194–1979 cal BC (Table 1). One fragment of long bone shaft was also recovered. It appeared to be either humerus or femur, the latter being more probable. Pathology was not noted on any of the bone fragments.

Charred plant remains and charcoal

Dana Challinor

Ten taxa were positively identified: yew (*Taxus baccata*), elm (*Ulmus* sp.), oak (*Quercus* sp.), alder (*Alnus glutinosa*), hazel (*Corylus avellana*), lime (*Tilia* sp.), poplar/willow (*Populus/Salix*), blackthorn (*Prunus spinosa*), hawthorn/apple/pear/service (Maloideae) and ash (*Fraxinus excelsior*). Much of the hazel and all of the yew came from small diameter roundwood stems. The samples produced, on the whole, quite mixed assemblages with an average of four taxa per sample. Nonetheless oak was present in all of the samples, and clearly dominated several including context 1029 from pit/hollow 1030. The use of shrubs/trees for fuel wood such as blackthorn, hawthorn group and hazel (which are typical of hedgerow/scrub) is consistent with the picture of open landscape of pasture/grassland gained from the environmental analyses from waterhole 1295 (see below). Trees such as alder, lime and willow or poplar prefer wet or damp soils, and

would have flourished in the fenland environment. However, the yew, elm, oak and lime suggest that woodland resources were also exploited.

Non-charcoal charred plant remains were rare. A few small fragments of hazel nutshell were noted in the buried soil and pits/hollows 1030 and 1211. Pit/hollow 1211 was also the only context to produce any cereal remains, although these were limited to a single whole grain (*cf. Hordeum*, barley) and a few unidentifiable grain fragments.

The waterlogged fills of waterhole 1295 contained well-preserved organic material, and were targeted for environmental sampling. Bulk samples of 40L in volume (samples 32–3) were collected from the two main fills of the waterhole (contexts 1292 and 1293), and 2L incremental samples were collected at 10cm intervals through these two fills and overlying peat layer 1291 (samples 34–40; Fig. 6). The two bulk samples were richest in plant and insect remains, and these were therefore selected for further analysis. A monolith sample was also taken for pollen analysis alongside the incremental samples.

Waterlogged plant macrofossils

Wendy Smith

The plant remains recovered are typical of a range of habitat types, all of which are likely to occur in and around a waterhole set within grassland/pasture (Table 6). The taphonomy of these deposits probably represents the gradual infilling of the waterhole with detritus from surrounding vegetation.

A range of grassland/meadow plants such as buttercups (*Ranunculus acris* L./*repens* L./*bulbosus* L.), mouse-ear (*Cerastium* spp.), self-heal (*Prunella vulgaris* L.) and greater plantain (*Plantago major* L.) were recovered. Parsley-piert (*Aphanes arvensis* L.), a plant typical of cultivated and/or open ground conditions, was also recovered. Several plants typical of waste places were identified, but common nettle (*Urtica dioica* L.) was most frequently recovered. A number of taxa typical of damp to wet conditions were recovered, including celery-leaved buttercup (*Ranunculus sceleratus* L.), crowfoot (*Ranunculus* subgenus *BATRACHIUM* (DC) A. Gray), water-starwort (*Callitriche* spp.), rushes (*Juncus* spp.) and sedges (*Carex* spp.). Those taxa most indicative of standing water (e.g. crowfoot and water-starwort) were recovered from the upper deposit (context 1292). Several taxa indicative of scrub, hedges and/or woodland also were recovered, but typically in small quantities. These taxa included bramble (*Rubus* spp.), campion (*Silene* spp.), dogwood (*Cornus sanguinea* L.), hazel (*Corylus avellana* L.) and sloe/blackthorn (*Prunus spinosa* L.). Bramble/blackberry seeds are frequently super-abundant in waterlogged deposits, but their low density here (<20 items) and only small quantities (<5 items) of other scrub/woodland taxa suggests that although some shrubs/trees were in the vicinity, they are unlikely to have been a dominant part of the overall vegetation.

Common nettle (*Urtica dioica* L.) and elder (*Sambucus nigra* L.) are often associated with high nitrogen input, such as cattle manure. There is lim-

ited indication for trampled ground in this flora. Both knotgrass (*Polygonum aviculare* L.) and greater plantain (*Plantago major* L.) can occur in heavily trampled areas (e.g. Robinson 1989, 89). Certainly many of the damp to wetland plants can also occur in muddy places, which may be the situation on heavily trampled ground around a water source.

The fills of waterhole 1295 contain a flora that probably represents plants growing in the immediate vicinity of the waterhole (*cf.* Peglar and Wilson 1978, 147). It is, of course, plausible that manure from livestock visiting the waterhole may also have entered the feature adding to the seed assemblage, possibly with the inclusion of browsed vegetation, given that dung beetles were recovered from the waterhole (D Smith, this report). However, it is more likely that this water feature acted as a pitfall trap accumulating insects and plant remains which accidentally fell or were blown into this feature, which was clearly placed within grassland with limited amounts of trees/scrub.

The waterlogged plant assemblages are dominated by native plants typical of grassland/meadow, wood/scrub and damp to wet ground. A small quantity of plants typical of high nitrogen input (eg elder and common nettle) were identified in the plant macrofossil assemblage, and the insect remains recovered from the deposit include a small proportion of dung beetles. Together, these limited results suggest domesticated livestock were grazing grassland in the vicinity of the waterhole, though clearly not intensively.

Waterlogged roundwood

Dana Challinor

Contexts 1292 and 1293 both contained well-preserved waterlogged roundwood. A selection of 15 pieces from each context were identified in full. There was a marked difference between the two deposits, with the lower deposit (1293) containing only hazel (*Corylus avellana*) and blackthorn (*Prunus spinosa*), while the upper fill (1292) produced oak (*Quercus* sp.), alder (*Alnus glutinosa*), blackthorn, hawthorn/apple/pear/service (Maloideae) and wild privet (*Ligustrum vulgare*). The stems ranged in size from 6–38mm, although the maturity was more consistent with most being 6–8 years old. It is possible that some of the wood was related to the revetment structure 1294, which was composed of alder and hazel, although the diameter of the poles and stakes of 1294 were larger than the stems which were loose in the fill. None of the pieces appeared to be worked. The wood assemblage is characteristic of hedgerow or scrub, which is consistent with the other environmental evidence from the waterhole.

Pollen

Lucy Verrill

A monolith sample was taken through the fills of waterhole 1295 (contexts 1291–3; Fig. 6), and six subsamples prepared for pollen analysis. Pollen was preserved in all the samples assessed and the frequencies were high in all levels (Table 7). In general,

Sample Number	32	33	34	35	36	37	38	39	40	Habitat(s)	Common Name
Context Number	1292	1293	1293	1293	1292	1292	1292	1291	1291		
Depth from top of feature (cm)			80-90	70-80	50-60	40-50	30-40	20-10	10-0		
<i>Ranunculus acris</i> L./ <i>repens</i> L./ <i>bulbosus</i> L.	++	++			+	+		+		G to Gw and/or M	meadow/creeping bulbous buttercup
<i>Ranunculus</i> subgenus RANUNCULUS							+			G to Gw and/or M	buttercup
<i>Ranunculus</i> subgenus BATRACHIUM (DC) A. Gray	+++	++	++	+	+++	+++	++++	+	+	Gw to Ws and/or W	crowfoot
<i>cf. Aquilegia vulgaris</i> L.				+						Gw, F & Wo	columbine
<i>Urtica dioica</i> L.	++	+	+	+	++	+	+++	+		V esp. Wo, F and Cu	common nettle
<i>Chenopodium</i> spp.	+	++	+	+	+	+	+	+			goosefoot
<i>Chenopodium</i> spp./ <i>Atriplex</i> spp.	+										goosefoot/orache
<i>Atriplex</i> spp.	+						+				orache
<i>Stellaria media</i> s.l.	++	+	+	+	+	+	+			Cu and O	common chickweed
<i>Cerastium</i> spp.		+		+	+					typ G	mouse-ear
<i>Lychnis flos-cuculi</i> L.	+									Gw and/or M	ragged-robin
<i>Silene</i> spp.	+										campion
CARYOPHYLLACEAE											Pink Family
<i>Persicaria lapathifolia</i> (L.) Gray		+	+	+			++			Wa, Cu and O esp Dg	pale persicaria
<i>Persicaria</i> spp.	+	+	+	+	+	+	++	+			knotweed
<i>Polygonum aviculare</i> L.	+			+		+	+			O	knotgrass
<i>Polygonum</i> spp.	+			+					+		knotgrass
<i>Rumex</i> spp.	++	++	++	++	+++	+++	+++	+		typ G	dock
<i>cf. Rorippa nasturtium-aquaticum</i> (L.) Hayek	+			+						Ws and/or W	water-cress
<i>Rubus</i> spp.	++	+	+	+	+	++	+++	+		typ of Wa	bramble
<i>Prunus avium</i> (L.) L./ <i>cerasus</i> L.			+							He, Wb and/or Co	wild/dwarf cherry
<i>Chaerophyllum temulum</i> L.	+									G, He and/or Wb	rough chervil
<i>Torilis japonica</i> (Houtt.) DC		+								G, He and/or Wb	upright hedge-parsley
<i>cf. Stachys</i> spp.										V esp. G, He and Wo	woundwort
<i>Galeopsis</i> spp.		+	+	+					+	typ Dg	hemp-nettle
<i>cf. Prunella vulgaris</i> L.					+						possible selfheal
<i>Lycopus europaeus</i> L.		+									gypsywort
LAMIACEAE – <i>Mentha</i> spp. type	+		+								Mint Family seed type
LAMIACEAE – unidentified			+								Mint Family
<i>Callitriche</i> spp.	+	+					+++			typ W, but also Ws	water-starwort
<i>Plantago major</i> L.	+			+	+					O, G or Cu	greater plantain
<i>Sambucus nigra</i> L.	+	+			+	+				He, Wo & Wa	elder
<i>Carduus</i> spp./ <i>Cirsium</i> spp./ <i>Centaurea</i> spp. – seed head			+							typ G	thistle/knapweed
<i>Cirsium</i> spp.		++				+	++			typ G	thistle
<i>Lapsana communis</i> L.	+				+					Wo, He and Wa	nipplewort
<i>Sonchus</i> spp.		+								typ of Wa and Cu	rough-thistle
<i>Juncus</i> spp.	+++	+++	+	++	+++	++++	+++++	++	+++	typ of Gw, Gw	rush
<i>Schoenoplectus lacustris</i> (L.) Palla/ <i>tabernaemontani</i> (C.C. Gmel.) Palla						+	+		+	W and/or M	common/grey club-rush
<i>Carex</i> spp. – 2-sided		+			+	+	+			typ Dg, Gw or M	sedge
<i>Carex</i> spp. – 3-sided	+		+		+	++	+	++	+	typ Dg, Gw or M	sedge
<i>Glyceria</i> spp.		+				+				Ws	sweet-grass
POACEAE – indeterminate large grass caryopsis			+								Grass Family Indet..
POACEAE – indeterminate medium grass caryopsis			+				+				Grass Family Indet..
POACEAE – indeterminate small grass caryopsis					+						Grass Family Indet..
Unidentified bud	+	+	+	+		+		+			Unidentified large buds
Unidentified bud scars	++	++	+								Unidentified bud scars
Unidentified vegetative material (grass/ plant stalks)	++++	+++++									

Table 6. Waterlogged plant remains (excluding wood) from waterhole 1295. Key for semi-quantitative scores: + 1-3; ++ 4-9; +++ 10-20; ++++ 21-40; +++++ > 40. Habitat Codes: Co Cope; Cu cultivated ground; Dg Damp ground; F Fen; G grassland; Gw wet grassland; He Hedges; M marsh; O open ground; W water plant; Wa waste ground; Wb Woodland border; Wo Woodland; Ws waterside. typ typically and V variable habitats.

Depth m		0.14	0.30	0.55	0.80	0.86	0.96
Tree pollen %		16.4	14.9	21.6	13.6	9.7	20.6
Shrub pollen %		13.6	12.3	8.4	27.7	2.1	4.2
Herb pollen % (incl. Cereal type)		69.9	73.4	70.1	58.6	88.5	74.8
Spores %		2.1	2.5	2.4	1.4	0.7	8.3
Total Land Pollen (minus spores and aquatics)		140	285	167	213	145	96
Trees							
<i>Alnus glutinosa</i>	Alder	5.7	3.2	6.6	5.6	2.8	3.1
<i>Betula</i>	Birch	5	5.6	6	3.8	1.4	8.3
<i>Fagus</i>	Beech		0.4				1
<i>Fraxinus excelsior</i>	Ash	0.7	0.4	1.2		0.7	
<i>Pinus sylvestris</i>	Pine		0.4	1.2		0.7	1
<i>Quercus</i>	Oak	3.6	4.2	6	2.8	3.4	5.2
<i>Tilia</i>	Lime	1.4	0.7	0.6	0.5		1
<i>Ulmus</i>	Elm				0.9	0.7	1
Shrubs							
<i>Corylus avellana</i> type	Hazel	13.6	11.2	7.8	27.2	2.1	4.2
<i>Hedera</i>	Ivy				0.5		
<i>Ilex</i>	Holly		0.7	0.6			
<i>Salix</i>	Willow		0.4				
Crops							
Cereal type			0.7	0.6		0.7	1
Herbs							
Apiaceae	Cow parsley family	2.1	1.8	1.2			
<i>Artemisia</i>	Mugwort	0.7					
Caryophyllaceae	Pink family		3.9	0.6	0.9	0.7	3.1
Chenopodiaceae	Goosefoot family	1.4	2.5			2.1	
Cardueae (Asteroideae)	Daisy family	0.7	0.4			2.1	1
Cyperaceae	Sedge family	1.4	1.4	3.6	0.9	2.1	1
<i>Filipendula</i>	Meadowsweet					1.4	
<i>Hypericum</i>	St John's Wort				0.5	0.7	
Lactuceae	Dandelion type	2.9	1.8	3	2.8		2.1
<i>Melampyrum</i>	Cow-wheat	1.4	0.4	0.6	0.5		
<i>Persicaria maculosa</i>	Redshank		0.4				
<i>Plantago lanceolata</i>	Ribwort plantain	23.6	11.6	16.2	9.4	11	12.5
<i>Plantago</i> und.	Plantain	5	4.9	3	6.1	3.4	5.2
Poaceae	Grass family	22.9	34.7	32.3	27.2	54.5	36.5
<i>Potentilla</i> type	Cinquefoil type			1.2	0.5		
<i>Ranunculus</i> sp	Buttercup	2.1	3.5	1.2	4.2	2.1	3.1
Rosaceae und.	Rose family	2.9	2.8	1.8	2.3	2.1	1
Rubiaceae	Bedstraw family		0.4			2.1	
<i>Rumex</i> type	Dock	1.4	0.4	1.2		1.4	1
<i>Saxifraga</i> und.	Saxifrage		0.7	1.8	1.4		
<i>Succisa pratensis</i>	Devil's-bit Scabious			1.2	1.4	0.7	3.1
<i>Teucrium</i>	Germanders					0.7	
<i>Trifolium</i>	Clover		1.1		0.5	0.7	2.1
<i>Urtica</i>	Nettle	1.4		0.6			2.1
Pteridophytes							
<i>Sphagnum</i>							1
<i>Polypodium</i>	Polypody fern						1
<i>Pteridium aquilinum</i>	Bracken		1.1	0.6		0.7	2.1
Pteropsida (monolete) indet.	Ferns	2.1	1.4	1.8	1.4		4.2
Aquatics							
<i>Lemna</i>	Duckweed				0.5		
Indeterminates		3.6	14.4	10.8	10.3	11	7.3
Microscopic charcoal		110	110.9	98.8	98.1	113.1	285.4

Table 7. Pollen data from waterhole 1295. All numbers are percentages of total land pollen.

preservation was good or fair and the percentages of indeterminate pollen were less than 20% of total land pollen (TLP).

0.96–0.66m (context 1293)

In the basal context, values of arboreal pollen decline from 20% to c. 10% of the total land pollen sum, before recovering at 0.8m to c. 14% TLP. The main tree pollen types represented are alder (*Alnus glutinosa*), birch (*Betula*) and oak (*Quercus*). Percentages of shrub pol-

len are negligible until 0.8m, where hazel-type (*Corylus avellana*-type) pollen reaches 27% TLP. Herbaceous pollen, dominated by Poaceae throughout, forms 75% of the pollen sum initially, peaking at c. 88% TLP at 0.86m and declining to 58% TLP at 0.8m. A relatively wide suite of open-ground herbs was recorded, dominated by ribwort plantain (*Plantago lanceolata*) (stable at c. 11% TLP), with lesser percentages of pink family (Caryophyllaceae), dandelion family (Lactuceae), buttercups (*Ranunculus*) and devil's-bit scabious (*Succisa pratensis*). Two cereal-type grains were recorded. Values

of microscopic charcoal are initially extremely high at nearly 300% TLP, but declined to c. 100% TLP at 0.86m, remaining stable throughout the profile.

0.66–0.14m (contexts 1291 and 1292)

Very few changes in the pollen assemblage are recorded within this section of the monolith. The arboreal pollen suite is almost identical to that in the underlying context, with the exception of the disappearance of elm (*Ulmus*) pollen above 0.66m. Shrub pollen percentages increase gently from c. 8 to c. 14% TLP. Whilst the total percentage representation of herbaceous pollen remains more or less stable at c. 70% TLP, fluctuations are evident in the constituents of this group. Grass family (Poaceae) pollen percentages initially recover from the slight depression at 0.8 m, reaching c. 33% TLP at 0.55m and 0.3m, before declining to 22% TLP at 0.14m. This pattern is mirrored by the increase in ribwort plantain pollen percentages from c. 16% to c. 23% TLP. The suite of minor herbaceous plants is much the same as that in the lowermost context. Two cereal type pollen grains were recorded, in the lowermost two spectra of the context.

Discussion

The low quantity of arboreal pollen indicates an open landscape prior to the formation of the feature, and the relative stability of the assemblages in the lowermost spectra suggests that the local and regional vegetation patterns were well-established. The sporadic presence of elm pollen indicates that the sediments post-date the primary (Neolithic) elm decline of c. 5800 cal BP. Interestingly, the very low values of lime pollen could indicate the sequence post-dates the 'lime decline' which, though asynchronous, is generally of late Neolithic to middle Bronze Age date and associated with human activity (Turner 1962). Lime declines predating the early Bronze Age are also seen in pollen sequences from the Ouse palaeochannel 3.5km to the south and Foulmire Fen Terrace 5km to the south (Cloutman 2006a, 41; Peglar 2006, 28) although at both sites, rising water tables may have made some areas previously occupied by lime unsuitable for its growth (Evans and Hodder 2006, 26).

There are few significant changes in the pollen profile. Herbaceous pollen taxa dominate throughout the sequence, demonstrating maintenance of an open landscape. The predominance of grass pollen accompanied by a range of grassland herbaceous plant taxa indicates pastoral agriculture was occurring in the vicinity. The occasional presence of cereal-type pollen grains and weeds associated with agriculture, such as mugwort (*Artemisia*) and goosefoots (Chenopodiaceae) suggest that arable agriculture was occurring on dry-land areas in the vicinity of the site. The peak in hazel pollen at 0.8m can perhaps be interpreted as the expansion of a copse or an area of hazel scrub, although this does not appear to represent the cessation of agricultural activity. This scrubland persisted in the landscape for the duration of the time represented by the profile, although it was evidently reduced in area. Agriculture continued throughout the profile, albeit perhaps at reduced levels during the time represented by the peat (0.14m spectrum).

Whilst the nearby Ouse channel pollen profile from the fen proper shows much higher arboreal pollen percentages in Neolithic and post-Neolithic levels than that from this site (Evans and Hodder 2006, 26), the Bronze Age profile from the Delphs Terrace, a gravel fen island more directly comparable to the North Fen island, evidences a very similar pollen sequence, with grass and grassland herbs dominating, and tree and shrub pollen persisting at very low levels throughout the profile (Cloutman 2006b, 206). The profile from Foulmire Fen Terrace, another gravel fen island, is also dominated by non-arboreal pollen, but trees, principally alder, are better represented in Bronze Age levels than in either the Delphs Terrace or the North Fen profiles.

Insects

David Smith

Sub-samples for insect analysis were taken from the two bulk samples from waterhole 1295 (contexts 1292 and 1293). The two insect faunas are very similar in nature, and will thus be discussed together (Table 8).

The dominant feature of these faunas, perhaps not surprisingly, is the clear evidence for slow-flowing, still or even stagnant waters. The very abundant Hydraenidae *Ochthebius minimus* is commonly associated with slow-flowing shallow water and clogged with vegetation (Hansen 1986). *Hydreana britteni* is also particularly associated with shallow, shaded 'peaty' pools also clogged with vegetation (Hansen 1986). A similar environment is also favoured by the *Limnebius* and *Hydrochus* species along with the hydrophiliids *Enochrus* spp. *Cercyon convexiusculus*, *C. tristis* and *Coelostoma orbiculare* (Hansen 1986). Other areas of the waterhole may have had a more open surface, as suggested by the presence of a range of 'diving beetles' which are normally associated with such water bodies. Species typical of this environment are *Agabus bipustulatus*, *Agabus* spp., *Hydroporus* spp. and *Acilus* spp. (Nilsson and Holmen 1995). Two species of 'reed beetle', *Donacia marginata* and *Plateumaris braccata* indicate the presence of waterside vegetation. The former is associated with branched burr-reed (*Sparganium erectum* L.) and the later with water reed (*Phragmites australis* (Cav.) Trin. ex Steud.) (Koch 1992). *Noterus acridulus* is similarly associated with reed sweet grass (*Glyceria maxima* (Hartm.) Holmb) (Koch 1992). There is also evidence to suggest duckweed on the surface of the water, indicated by the presence of the small weevil *Tanysphyrus lemnae* which feeds on this plant (Koch 1992).

There are hints in the insect faunas that the waterhole may have been surrounded by rough grassland or pasture. This is primarily suggested by the small proportion of the terrestrial fauna (c. 8–9%) which are associated with the dung pats of herbivores such as cattle and sheep. This includes the *Geotrupes* or 'dor' beetle and *Aphodius sphacelatus* and *A. fimentarius* 'dung beetles' (Jessop 1986) and the 'rove beetle' *Platystethus arenarius* (Tottenham 1972). Grassland is also suggested by the presence of the two 'chafers' *Phyllopertha horticola* and *Hoplia philanthis* which

	Ecological codes	Context 1292 Sample 32 8L, 9kg	Context 1293 Sample 33 16L, 18.5kg		Ecological codes	Context 1292 Sample 32 8L, 9kg	Context 1293 Sample 33 16L, 18.5kg
DERMAPTERA Forficulidae							
<i>Forficula auricularia</i> (L.)		-	2			-	2
HEMIPTERA Indet.						-	12
COLEOPTERA Carabidae							
<i>Nebria brevicollis</i> (F.)		1	-			5	6
<i>Loricera pilicornis</i> (F.)		1	1				
<i>Clivina fossor</i> (L.)		1	1				
<i>Dyschirius globosus</i> (Hbst.)		1	1				
<i>B. guttula</i> (F.)		-	1				
<i>Bembidion</i> spp.		1	1				
<i>Stenolophus mixtus</i> (Hbst.)	ws	1	-				
<i>Pterostichus minor</i> (Gyll.)	ws	-	1				
<i>Dromius longiceps</i> Dej.		-	1				
COLEOPTERA Halididae							
<i>Halipus</i> spp.	a	-	1				
COLEOPTERA Dytiscidae							
<i>Hydroporus</i> spp.	a	-	1				
<i>Agabus bipustulatus</i> (L.)	a	1	-				
<i>Agabus</i> spp.	a	-	3				
<i>Acilius</i> spp.	a	-	1				
COLEOPTERA Gyrinidae							
<i>Gyrinus</i> spp.	a	-	1				
COLEOPTERA Hydraenidae							
<i>Hydreana britteni</i> Joy	a	1	-				
<i>Hydreana</i> spp.	a	-	2				
<i>Ochthebius bicolon</i> Germ.	a	-	1				
<i>Ochthebius minimus</i> (F.)	a	24	83				
<i>Ochthebius</i> spp.	a	30	120				
<i>Limnebius</i> spp.	a	1	6				
<i>Hydrochus</i> spp.	a	-	1				
<i>Helophorus</i> spp.	a	5	16				
COLEOPTERA Hydrophilidae							
<i>Coelostoma orbiculare</i> (F.)	a	1	1				
<i>C. impressus</i> (Sturm)	df	1	-				
<i>Cercyon tristis</i> (Ill.)	ws	-	1				
<i>Cercyon convexiusculus</i> Steph.	ws	1	-				
<i>Megasternum boletophagum</i> (Marsh.)	df	2	2				
<i>Hydrobius fuscipes</i> (L.)	a	-	2				
<i>Enochrus</i> spp.	a	3	5				
COLEOPTERA Silphidae							
<i>Phosphuga atrata</i> (L.)	df	-	1				
<i>Silpha tristis</i> Ill.		-	1				
COLEOPTERA Orthoperidae							
<i>Corylophus cassidoides</i> (Marsh.)		-	1				
COLEOPTERA Staphylinidae							
<i>Micropeplus staphylinoides</i> (Marsh.)		1	2				
<i>Lesteva</i> spp.	ws	1	2				
<i>Trogophloeus bilineatus</i> (Steph.)		-	3				
<i>Trogophloeus corticinus</i> (Grav.)	ws	7	-				
<i>Trogophloeus</i> spp.		-	2				
<i>Oxytelus sculptus</i> Grav.		-	1				
<i>Oxytelus rugosus</i> (F.)		-	1				
<i>Oxytelus nitidulus</i> Grav.		2	1				
<i>Oxytelus tetracaratus</i> (Block)		-	1				
<i>Platystethus arenarius</i> (Fourc.)	df	-	2				
<i>Platystethus cornutus</i> (Grav.)	ws	4	-				
<i>Bledius</i> spp.	ws	-	1				
<i>Stenus</i> spp.		5	4				
<i>Paederus</i> spp.		-	1				
<i>Lathrobium</i> spp.		-	1				
<i>Xantholinus</i> spp.		2	2				
COLEOPTERA Psephenidae							
<i>Rybraxis</i> sp.		1	-				
<i>Brachygluta</i> spp.		1	3				
COLEOPTERA Cantharidae							
<i>Cantharis</i> sp.		-	1				
<i>Rhagonycha fulva</i> (Scop.)		-	1				
COLEOPTERA Elateridae							
<i>Agrotius</i> spp.	p	1	1				
COLEOPTERA Helodidae							
<i>Helodidae</i> Indet.	a	-	1				
COLEOPTERA Dryopidae							
<i>Dryops</i> spp.	a	-	2				
COLEOPTERA Byrrhidae							
<i>Byrrhus pilula</i> (L.)		-	1				
COLEOPTERA Nitidulidae							
<i>Brachypterus urticae</i> (F.) ¹	p	1	1				
COLEOPTERA Cryptophagidae							
<i>Atomaria</i> spp.		-	1				
COLEOPTERA Lathridiidae							
<i>Corticaria/Corticarina</i> spp.		-	2				
COLEOPTERA Coccinellidae							
<i>Adalia bipunctata</i> (L.)		-	1				
<i>Platynaspis luteorubra</i> (Goeze)		-	1				
COLEOPTERA Mordellidae							
<i>Anaspis</i> spp.		1	-				
COLEOPTERA Scarabaeidae							
<i>Geotrypes</i> spp.	df	-	1				
<i>Aphodius sphaelatus</i> (Panz.)	df	2	4				
<i>Aphodius fimentarius</i> (L.)	df	2	-				
<i>Phyllopertha horticola</i> (L.)	p	-	1				
<i>Hoplia philanthus</i> (Fuessl.)	p	-	1				
COLEOPTERA Chrysomelidae							
<i>Donacia marginata</i> Hopp ²	ws	1	-				
<i>Plateumaris braccata</i> (Scop.) ³	ws	1	-				
<i>Hydrophassa marginella</i> (L.) ⁴	ws	-	1				
<i>Phyllotreta</i> spp.		1	2				
<i>Chaetocnema concinna</i> (Marsh.)		1	-				
<i>Psylliodes</i> sp.		-	1				
COLEOPTERA Scolytidae							
<i>Scolytus rugulosus</i> (Müll.)	l	1	4				
COLEOPTERA Cuculionidae							
<i>Apion</i> spp.	p	-	2				
<i>Barypeithes</i> spp.		1	1				
<i>Strophosoma melanogrammum</i> (Forst.)	p	-	1				
<i>Sitona humeralis</i> Steph. ⁵	p	-	1				
<i>Sitona</i> spp.		1	-				
<i>Bagous</i> spp.	ws	1	-				
<i>Tanysphyrus lemnae</i> (Payk.) ⁶	a	2	1				
<i>Notaris acridulus</i> (L.) ⁷	ws	-	1				
<i>Trachodes hispidus</i> (L.) ⁸	l	-	1				
<i>Hypera</i> spp. ⁹	p	-	1				
<i>Ceutorhynchus</i> spp.	p	-	1				
SUBORDER CYCLORRHAPHA							
family, genus & spp. Indet.			9				30
HYMENOPTERA							
Formicoidea Indet.			5				15

Table 8. Insect remains from waterhole 1295. a aquatic species; aff aquatic species normally associated with fast flowing water; ws waterside species either from muddy banksides or from waterside vegetation; m species normally associated with moorland; df species associated with dung and foul matter; g species associated with grassland and pasture; l species either associated with trees or with woodland in general. Phytophage host plants (Koch 1989; 1992):

are associated with old rough pasture (Jessop 1986). *Sitona humeralis* and the *Hypera* species of weevil are normally associated with medicks (*Medicago* spp.) and clover (*Trifolium* spp.) (Koch 1992). Both of these plants are particularly common in grassland. Rough disturbed areas are also suggested by the recovery of *Brachypertus urticae* which feeds on stinging nettle (*Urtica dioica* L.).

There are very few indicators of trees or woodlands in the area. The two taxa recovered consist of a small number of individuals of the scolytid 'bark beetle' *Scolytus rugulosus* which is associated with a range of rosaceous shrubs and trees and a single individual of the weevil *Trachodes hispidus* which is associated with a range of dead wood (Koch 1992). It would therefore seem that the area around the waterhole was essentially clear of dense woodland, except perhaps for scrub.

It is clear from the ecology of the species recovered that this early Bronze Age waterhole was set in a cleared landscape, possibly used for grazing. While few other insect analyses have been carried out on comparable early Bronze Age features, analyses of faunas from waterholes within later Bronze Age field systems have been conducted at sites such as Hillfarrance, Somerset (Smith and Tetlow in press) and Perry Oaks, Heathrow (Framework Archaeology 2006). At both of these locations the later Bronze Age landscape is dominated by indicators for grassland and grazing animals. As at North Fen there is also a lack of species associated with deadwood or trees, suggesting a cleared landscape. The landscape associated with these sites is the forerunner of what appears to be pasture, most commonly identified in lowland landscapes during the Iron Age.

Soil micromorphology summary

Richard I Macphail

Five thin sections through palaeosol deposits were analysed from monolith samples 8, 9 and 11 (Fig. 4). The palaeosol can be considered as a humic sandy alluvial gley soil. This soil was bioactive, with artefacts being worked down-profile, although high water tables and the coarse parent material probably led to an acidophyle small invertebrate mesofauna being normally dominant (cf. "grey alluvial soil": Duchaufour, 1982, 187). The soil also continued to accrete; the Neolithic/Bronze Age occupation topsoil which is rich in coarse and fine artefacts, and has a microfabric rich in fine charcoal, was buried by some 55mm of coarse alluvium in monolith 8. This upper palaeosol developed a humic Ah horizon that is poor in charcoal indicating that the site had been 'abandoned', probably because of increased flooding and site wetness, but before full blown fen peat formation commenced. Increased soil wetness resulted in the preservation of much amorphous organic matter and tissue fragments in the upper part of layer 1050 in monolith 8.

The Bronze Age occupation soil (1050 lower) shows no microfeatures indicative of trampling, although there is ubiquitous evidence of burning (very fine charred organic matter, fine and coarse charcoal, and burned flints); no hearth material or strongly burned soil are present, however. Lastly, the site was eventually affected by 'permanent' high water tables, leading to fen peat and backswamp sediment formation. There is only trace evidence of later possible marine inundation, affecting the sediments, although minerals like gypsum found in the sediments overlying the palaeosol testify to the probable influence of marine inundation of the area at times.

Discussion

Leo Webley

The discovery of significant later Neolithic/early Bronze Age activity was unexpected. The failure to identify the later Neolithic/early Bronze Age occupation in earlier fieldwork prior to stripping of the site is sobering, and might hint that the paucity of settlement of this period identified in the wider Sutton/Chatteris area during the Fenland Survey (Hall 1992; 1996) does not reflect the true situation.

A buried soil 'occupation horizon' survived across most of the site. Though a minor element of late Mesolithic/early Neolithic flintwork was present, finds from the buried soil were dominated by flint and pottery of later Neolithic/early Bronze Age date. The fragmented and abraded condition of the pottery suggests that it had been discarded on the ground surface and exposed to trampling and weathering, rather than being deposited within midden heaps. The buried soil was rich in fine charcoal, suggesting that hearths had existed on the ground surface, but the scant quantities of charred cereals and hazelnut shell recovered from the bulk samples provide little indication that large-scale food processing took place on the site. A few shallow pits and hollows were associated with the buried soil, typical of the amorphous features generally found on settlements of this date (Bamford 1982; Healy 1988; 1996; French and Pryor 2005). More unusual for a site of this period were two large waterholes, one with an *in situ* wooden revetment structure. Pollen, macroscopic plant remains and insects from this latter feature provide a picture of an open, grassland-dominated landscape, with dung beetles and nitrogen-loving plants suggesting the presence of livestock.

The later Neolithic/early Bronze Age activity clearly spans a significant time period. The ceramics from the buried soil include Impressed Ware (c. 3400–2500 BC), Grooved Ware (c. 3000–2000 BC), Beaker (c. 2500–1700 BC) and possible Food Vessel (c. 2100–1500 BC), suggesting that occupation took place over a minimum period of c. 400 years (Garwood

1: *Urtica dioica* L. (stinging nettle)

2: *On Sparganium erectum* L. (branched burr-reed)

3: *Phragmites australis* (Cav.) Trin. ex Steud. (water reed)

4: Often *Caltha palustris* L. (Marsh marigold)

5: Often on medicks (*Medicago*) and clover (*Trifolium*)

6: *Lemna* spp. (Duckweed)

7: Often on *Glyceria* (sweet-grasses) including *Glyceria maxima* (Hartm.) Holmb. (reed sweet-grass)

8: Deadwood of range of hardwood trees

9: Mainly *Trifolium* spp. (Clover)

1999; Gibson and Kinnes 1997; Healy 1995). Prolonged or repeated occupation of the site is supported by the radiocarbon evidence. Two samples of charred material from the buried soil produced non-overlapping date ranges of 2397–2139 cal BC and 2132–1921 cal BC at 95% probability (Table 1). The infilling of waterhole 1199 is dated to 2194–1979 cal BC by a radiocarbon sample from its upper fill, and the timber revetment structure of waterhole 1295 is dated to 2014–1776 cal BC. Both waterholes could therefore have been contemporary with the period of occupation of the site implied by the radiocarbon dates from the buried soil. There is a strong possibility, however, that waterhole 1295 was late in the sequence, or perhaps even constructed after the main period of occupation had ended. At the 68% probability level, the radiocarbon date range from this feature is later than the other three radiocarbon determinations from the site, with no overlap (Table 1).

The most reasonable interpretation of the site is that it saw a number of separate episodes of occupation through the later Neolithic and early Bronze Age. There is a general acceptance that this period was characterised by shifting patterns of settlement, though the rhythm of this movement through the landscape is a matter of debate. Brück (1999) argues for fairly mobile settlement, with people moving through the landscape on a seasonal basis, coming together and dispersing at different times of the year. Discussing the evidence from the Lower Welland Valley, French and Pryor (2005, 166) similarly suggest a 'mobile and' transitory' occupation pattern, with seasonal movements between the higher ground and the floodplain. A slightly different view is taken by Healy (1996, 180), who argues that the evidence from around the Wissey Embayment on the south-eastern fen edge implies shifts of settlement location "at intervals of years or decades".

There may have been a complex pattern of movement through the landscape, with periodic shifts in place of residence (whether over intervals of a few weeks or several years) accompanied by daily cycles of routine offsite 'tasking', for purposes such as taking livestock to pasture, hunting, food gathering and collecting raw materials. This perspective allows us to see North Fen less as a discrete 'settlement site', and more as a window into part of a palimpsest landscape created by numerous episodes of settlement and brief task-specific visits (Edmonds *et al.* 1999). The fact that the site seems to have been returned to on several occasions suggests that it was to some extent a favoured location. However, intrusive investigation elsewhere on the North Fen island would be required to gauge the degree to which the site really was a local focus for activity. Comparison can be made with the late Neolithic/'Beaker period' site on the southern edge of the Chatteris island at Stocking Drove Farm (CHA37), 700m to the north-west. Test pit evaluation here produced worked flint at a density of 1.8 per m², compared with only 0.7 flints per m² for the test pitting at North Fen, or 0.4 per m² for the gridded excavation of the buried soil. This could suggest

that the Stocking Drove Farm site saw more repetitive or intense occupation than North Fen. The densities of finds from North Fen also seem unspectacular in comparison with many broadly contemporary sites elsewhere in the wider Fenland region, particularly the very rich later Neolithic/early Bronze Age sites known along the south-eastern fen edge (Healy 1996; Edmonds *et al.* 1999).

The character of the flint assemblage provides some insight into the activities carried out at the site. Overall, the assemblage contains a low proportion of debitage and shows a lack of refits, suggesting relatively little *in situ* flint knapping. The proportion of formal tools—particularly scrapers—is high, as is often the case at later Neolithic/early Bronze Age sites (Cleal 1984; Garrow 2006). The distributions of the various flint types show some spatial patterning (Figs 11–15). Particularly notable is the compact spread of flint in and around hollow 1209 ('flint zone A'), which included high concentrations of scrapers and other finished tools, and low quantities of cores and knapping waste. Despite comprising only 36% of the flint from the site, this small area produced 73% of the scrapers and the clear majority of the knives, notches, piercers, fabricators and retouched flakes. This cluster of material may relate to a specific episode of activity centred on the hollow, perhaps with an emphasis on hide, bone and/or wood working. The 'Beaker-type' character of the flint assemblage from this area and presence of Beaker sherds from hollow 1209 provide chronological indicators for this episode. Meanwhile, serrated flakes show a quite different distribution, being widely dispersed across the site, with only a single example from flint zone A. This suggests episodes of plant harvesting or processing unrelated to the activity around hollow 1209. Also of note is the fact that all three of the arrowheads from the site were found close together in the north-east corner of the site (Fig. 15). These could derive from a single event, perhaps a visit by a hunting party.

Clearly, though, there are dangers in interpreting the artefact distributions from the site in such a straightforward manner. Simply because most of the finds were recovered from a buried soil does not necessarily mean that they form an unaltered record of *in situ* activity; routine site maintenance and practices of selective deposition are likely to influence artefact distributions. The possibility that some of the artefacts from the site represent deliberate, 'placed' or ritualised deposits should be acknowledged, even though such deposits are more normally associated with pit contexts (eg Garrow 2006). The complete flint dagger (Fig. 10) could fall into this category, given that these objects are very rare from occupation sites and more usually found in mortuary contexts, implying that they were highly valued (Myers 2005). The human cranium and long bone fragments from the upper fill of waterhole 1199 could also have been deliberately deposited, perhaps to mark the decommissioning of this feature. Human bone fragments have been found at a number of other late Neolithic/early Bronze Age occupation sites around the fen edge

(Healy and Housley 1992, 953), suggesting that the curation of such relics was a fairly common practice.

The role of the two waterholes is important to understanding the inhabitation of this site. Clearly, these features show a desire to control and manage the supply of water, though whether this was for the use of people, livestock or both is a moot point. It is difficult to demonstrate a direct association between the waterholes and the 'occupation' activity at the site; both waterholes were peripheral to the artefact scatters in the buried soil, and themselves produced very few finds. Given the environmental evidence for pasture from waterhole 1295, it would be tempting to assume that the waterholes were associated with livestock, and could therefore have been in use during periods when the site was not settled *per se* but used as grazing land. Arguing against this is that fact that the timber-revetted platform within waterhole 1295 seems unsuited for use by livestock, suggesting that the feature is in fact more likely to have provided water for human use. However one views the function of these waterholes, the key point is that they imply an investment by a community or family group in a particular place which they had (or claimed) long-term rights to, and either used continuously or returned to regularly over a period of several years.

The secure early Bronze Age date of waterhole 1295 appears to make it the earliest certain feature of this kind yet identified in the region. The one possible early Bronze Age parallel is a timber-revetted waterhole from the Glinton-Northborough Bypass excavations in the Lower Welland Valley; this produced a radiocarbon date of 1920–1650 cal BC, but its dating is confused by the large fragments of later Bronze Age pottery also recovered from the feature (French and Pryor 2005). It has previously been argued that waterholes were a later Bronze Age innovation, closely related to the adoption of more permanent modes of settled farming at that time (Evans 1999). The waterholes at North Fen raise questions of the extent to which this later Bronze Age 'settling down' had its roots in developments during the early Bronze Age.

A puzzle thrown up by the Fenland Survey was the contrast between the numerous clusters of early Bronze Age round barrows in the Chatteris/Sutton area—including five barrows on the North Fen island itself—and the apparent paucity of contemporary settlement evidence (Hall 1992; 1996). The excavations reported here may help to redress this balance, though a connection between the people who occupied this site and those buried in the barrows is difficult to prove at present. The one barrow in the area excavated to date—SUT7, 300m to the north—produced a primary burial associated with Collared Urn pottery and radiocarbon dated to 1880–1670 cal BC. The burial therefore probably post-dates most of the activity at North Fen, though it could possibly have been contemporary with the use of waterhole 1295. Frustratingly, a 'domestic' context for the barrow builders remains elusive.

Occupation of this low-lying gravel island is likely to have become increasingly difficult by the mid 2nd

millennium BC. The occupation horizon was overlain by an alluvial layer containing little evidence of human activity, indicating abandonment of the site under conditions of increased wetness and flooding. This was followed by peat formation as the island was lost to the fen, probably during the later Bronze Age and Iron Age (Hall 1996; Waller 1994).

Acknowledgements

OA would like to thank Woolpit Business Parks Ltd for funding the project, and Jim Hunter and Steve Weaver at CgMs for acting as archaeological consultants. Andy Thomas and Kasia Gdaniec at Cambridgeshire County Council monitored the project and provided valuable advice. The fieldwork was managed for OA by Jonathan Hiller and supervised by Gerry Thacker and Emily Glass. Members of the Geography Department at the University of Lancaster are thanked for use of their laboratory facilities for the pollen analysis. The pollen preparations were carried out by Sandra Bonsall, and Elizabeth Huckerby assisted in the preparation of the pollen report. The illustrations are by Ros Lorimer, except for Figs 8 and 10 which are by Sarah Lucas. Full versions of the artefact and environmental studies will be made available on the OA website (www.thehuman-journey.net). The archive will be deposited with the Cambridgeshire County Archaeological Store under site code SUGAR04.

Bibliography

- Bamford, H 1982 *Beaker domestic sites in the Fen Edge and East Anglia*. EAA 16
- Bamford, H 1985 Briar Hill: excavation 1974–1978, Northampton
- Bradley, P 1999 Worked flint. In A Barclay & C Halpin (eds) *Excavations at Barrow Hills, Radley, Oxfordshire. Volume 1: The Neolithic and Bronze Age monument complex*, Oxford: 211–27
- Brück, J 1999 What's in a settlement? Domestic practice and residential mobility in early Bronze Age southern England. In J Brück and M Goodman (eds) *Making places in the prehistoric world*, London: 52–75
- Brunning, R, S Johnson & R Morgan 2000 Wood and woodworking at Goldcliffe 400–1 BC. In M Bell, A Caseldine and H Neumann (eds) *Prehistoric internal archaeology in the Welsh Severn Estuary*: 169–207
- Clark, D L 1970 *Beaker pottery of Great Britain and Ireland*, Cambridge
- Cleal, R 1984 The later Neolithic in eastern England. In R Bradley & J Gardiner (eds) *Neolithic studies: a review of recent research*, BAR, British Series 133: 135–58
- Cloutman, E 2006a Pollen analysis. In Evans & Hodder 2006, 41–2
- Cloutman, E 2006b Stratigraphy and pollen. In Evans & Hodder 2006, 203–6
- Crowson, A, T Lane and J Reeve 2000 *Fenland Management Project excavations 1991–1995*, Sleaford
- Darby, H C 1983 *The changing Fenland*, Cambridge

- Dewey, H and C E N Bromehead 1915 *The geology of the country around Windsor and Chertsey*, London
- Duchaufour, P 1982 *Pedology*, London
- Edmonds, M, C Evans and D Gibson 1999 Assembly and collection – lithic complexes in the Cambridgeshire fenlands. *PPS* 65: 47–82
- Ellison, R A and I T Williamson 1999 Geology of the Windsor and Bracknell district: a brief explanation of the geological map Sheet 269 Windsor, Nottingham
- Evans, C 1999 The Lingwood wells: waterlogged remains from a first millennium BC settlement at Cottenham, Cambridgeshire. *PCAS* 87: 11–30
- Evans, C & I Hodder 2006 *A woodland archaeology. Neolithic sites at Haddenham*, Cambridge
- Framework Archaeology 2006 Landscape evolution in the Middle Thames Valley: Heathrow Terminal 5 Excavations Volume 1, Perry Oaks, Framework Archaeology Monograph 1, Oxford and Salisbury
- French, C & F Pryor 2005 *Archaeology and environment of the Etton landscape*, EAA 109
- Garrow, D 2006 *Pits, settlement and deposition during the Neolithic and early Bronze Age in East Anglia*, BAR, British Series 414
- Garwood, P 1999 Grooved Ware in southern Britain. Chronology and interpretation. In R Cleal and A MacSween (eds) *Grooved Ware in Britain and Ireland*, Oxford: 145–76
- Gibson, A & I Kinnes 1997 On the urns of a dilemma: radiocarbon and the Peterborough problem. *Oxford J Archaeol* 16: 65–72
- Gibson, A & A Woods 1997 *Prehistoric pottery for the archaeologist*, 2 edn, London
- Goodburn, D 2003a Prehistoric woodwork. In Masefield *et al.*, 47–121
- Goodburn, D 2003b Wood technology. In S Timberlake *Excavations on the Copa Hill, Cwmystwyth (1986–1999): an early Bronze Age copper mine within the uplands of Central Wales*, BAR, British Series 348: 81–3
- Goodburn, D 2004 *Assembly and construction techniques*. In P Clark (ed.) *The Dover Bronze Age boat*, English Heritage, 124–61
- Green, H S 1980 *The flint arrowheads of the British Isles: a detailed study of material from England and Wales with comparanda from Scotland and Ireland*, BAR, British Series 75
- Grimes, W F 1931 The early Bronze Age flint dagger in England and Wales. *Proc Prehist Soc East Anglia* 6: 340–55
- Hall, D 1992 *The Fenland Project, Number 6: The south-western Cambridgeshire Fenlands*, EAA 56
- Hall, D 1996 *The Fenland Project, Number 10: Cambridgeshire survey, the Isle of Ely and Wisbech*, EAA 79
- Hansen, M 1986 The Hydrophilidae (Coleoptera) of Fennoscandia and Denmark, *Fauna Entomologica Scandinavica* 18, Leiden
- Healy, F 1988 *The Anglo-Saxon cemetery at Spong Hill, North Elmham. Part VI: Occupation in the seventh to second millennia BC*, EAA 39
- Healy, F 1995 Pots, pits and peat: ceramics and settlement in East Anglia. In I Kinnes & G Varndell (eds) 'Unbaked Urns of Rudely Shape'. *Essays on British and Irish Pottery for Ian Longworth*, Oxbow Monograph 55: 173–84
- Healy, F 1996 *The Fenland Project number 11: the Wissey Embayment: evidence for pre-Iron Age occupation accumulated prior to the Fenland Project*, EAA 78
- Healy, F & R A Housley 1992 Nancy was not alone: human skeletons of the early Bronze Age from the Norfolk peat fen. *Ant.* 66: 948–55
- Jessop, L 1986 *Coleoptera: Scarabaeidae*, Handbooks for the Identification of British Insects 5/11, Royal Entomological Society of London
- Juel Jensen, H 1994 *Flint tools and plant working: hidden traces of Stone Age technology: a use wear study of some Danish Mesolithic and TRB implements*, Aarhus
- Knight, M 2004 Prehistoric pottery. In R Regan, C Evans & L Webley *The Camp Ground Excavations, Colne Fen, Earith*, unpubl., CAU
- Koch, K 1989 *Die Kafer Mitteleuropas* (Ökologie Band 2), Krefeld: Goecke and Evers
- Koch, K 1992 *Die Kafer Mitteleuropas* (Ökologie Band 3), Krefeld: Goecke and Evers
- Lamdin-Whymark, H 2007 *The residue of ritualised action: Neolithic deposition practices in the Middle Thames Valley*, unpublished PhD thesis, University of Reading
- Last, J 1996 *Neolithic activity near Blaby's Drove, North Fen, Sutton: an archaeological evaluation*, unpubl., Cambridgeshire County Council Archaeological Field Unit Report 131
- Masefield, R, N Branch, P Couldrey, D Goodburn & I Tyers 2003 A late Bronze Age well complex at Swalecliffe, Kent. *Antiq J* 83: 47–121
- Megaw, J & D Simpson 1979 *Introduction to British prehistory*, Leicester University Press
- Myers, A 2005 *Some preliminary observations on the Mellor flint dagger* (www.mellorheritage.org.uk/Archaeology/Finds)
- Nilsson, A N & M Holmen 1995 *The aquatic Adephaga (Coleoptera) of Fennoscandia and Denmark II. Dytiscidae*, *Fauna Entomologica Scandinavica* 35, Leiden
- Orme, B, J Coles & S Rouillard 1983 Prehistoric woodworking from the Somerset levels. 1: Timber. *Somerset Levels Papers* 9: 19–43
- O'Sullivan, A 1997 Neolithic, Bronze Age and Iron Age woodworking techniques. In B Rafferty 'Trackway excavations at Mount Dillon, County Longford 1985–91', *Irish Archaeological Wetland Unit Trans* 3: 291–342.
- PCRG 1997 *The study of later prehistoric pottery: general policies and guidelines for analysis and publication*, Prehistoric Ceramics Research Group occasional papers 1 and 2, Oxford.
- Peglar, S 2006 *The Ouse Channel Flandrian sequence*. In Evans & Hodder 2006: 26–9
- Pollard, J, & R Johnston 2006 Prehistoric pottery. In Evans & Hodder 2006: 61–3
- Riley, H 1990 The scraper assemblages and petit tranchet derivative arrowheads. In J C Richards *The Stonehenge environs project*, London: 225–8
- Sands, R 1997 *Prehistoric woodworking: the analysis and interpretation of Bronze and Iron Age toolmarks*, Institute of Archaeology London.
- Saville, A 1980 On the measurement of struck flakes and flake tools. *Lithics* 1: 16–20
- Smith, D N & E P Tetlow in press The insect remains, in T Gent & S Reed 'A Bronze Age field and figure at Hillfarrence'. *Somerset Archaeology and Natural History*
- Tottenham, C E 1954 *Coleoptera. Staphylinidae, Section (a) Piestinae to Euaesthetinae*, Handbooks for the Identification of British Insects, IV, 8a, London: Royal Entomological Society.
- Turner, J 1962 The *Tilia* decline: an anthropogenic explanation. *New Phytologist* 61: 328–41
- van Velzen, D T 2003 *Monuments Protection Programme Additional Scheduling Project: the prehistoric funerary monuments of Cambridgeshire and Peterborough*, English Heritage/Cambridgeshire County Council
- Waller, M, 1994 *The Fenland Project, Number 9: Flandrian environmental change in Fenland*, EAA 70

A fen island burial: excavation of an Early Bronze Age round barrow at North Fen, Sutton

Aileen Connor

with contributions by Barry Bishop, Steve Boreham,
Natasha Dodwell, Rachel Fosberry and Sarah Percival

A round barrow in North Fen, Sutton proved to conceal two central pits, one of which contained the cremated remains of a sub-adult accompanied by a plano-convex flint knife held within an inverted Collared Urn. A radiocarbon date places the burial in the early second millennium BC. The second pit produced evidence for one or more organic containers placed within which were ashy deposits, possibly representing pyre debris associated with the burial.

Introduction

The round barrow (SUT 7) lies in North Fen at the western edge of the parish of Sutton (TL 4049 8164, Fig. 1). It is one of six possible round barrows (SUT 2–7) identified on the North Fen island (Hall 1996, 57; Last 1997; for the wider setting, see Webley and Hiller, this volume). SUT 7 was one of the least well preserved earthworks and was identified as an eroded Bronze Age barrow which appeared in the landscape as ‘a bright orange circular patch’ (Hall 1996, 58). It was visible on aerial photographs with an encircling ditch.

The barrow lies at c. 1.00m OD on a small island of river gravel terraces surrounded by deep Nordelph peat deposits interleaved with Fen Clay. At the time of the excavation, the site lay within an active gravel quarry which has altered the landscape dramatically; a reservoir now lies only 20m to the south of the barrow and the area immediately surrounding it has been stripped completely to reveal underlying sand and gravel deposits, effectively leaving the barrow as a small ‘island’ (Fig. 2).

Blaby’s Drove lies approximately 100m to the north of SUT 7, whilst Long North Fen Drove is approximately 500m to the south and Horsley Fen Middle Drove about 400m west. Evaluation in 1996 of 18.8ha of land south of Blaby’s Drove identified that the remnants of the barrow, although already compromised by severe erosion caused by natural weathering, arable cultivation and drainage, could be preserved between the two arms of the then proposed reservoir (Last 1997). The earthwork was consequently fenced in order to protect it during preparation for the

reservoir, although it subsequently became clear that the site was coming increasingly under indirect threat from the quarry operations. Subsequent monitoring of the barrow by Cambridgeshire County Council identified increasing erosion and potential loss of the site, with particular damage having already occurred on its north-eastern side. As a result the former County Archaeologist (Dr Tim Reynolds) enlisted the help of the Sutton Conservation Society who set up the Sutton Archaeological Dig Project to excavate the barrow. The group were awarded a grant from the Local Heritage Initiative (LHI) and undertook the excavation under the supervision of Cambridgeshire County Council’s Archaeological Field Unit (CAM ARC), now Oxford Archaeology East. The excavation took place at weekends between April and October from 2004 to 2007.

The barrow was excavated in quadrants. The south-western quadrant was dug entirely by hand, although mechanical assistance was used in the other three quadrants to remove the plough soil. Following extensive hand excavation of trenches across both the northern quadrants, mechanical assistance was also used to strip the remainder of the mound deposits. Finds in the south-west quadrant were located using 1m square x 0.10m deep collection units; finds in the other three quadrants were located in three dimensions to their precise location. All mechanical excavation was carried out under the supervision of an experienced CAM ARC archaeologist.

Recording followed CAM ARC’s standard procedures. All site records and artefacts are currently held at Oxford Archaeology East’s offices under the site code SUT COD 04. Survey was carried out using a Leica GPS 1200.

Archaeological Background

The round barrow sits towards the north-western edge of a gravel island in North Fen. This island is one of a series lying in the south-western Fen along the prehistoric course of the River Great Ouse. It lies

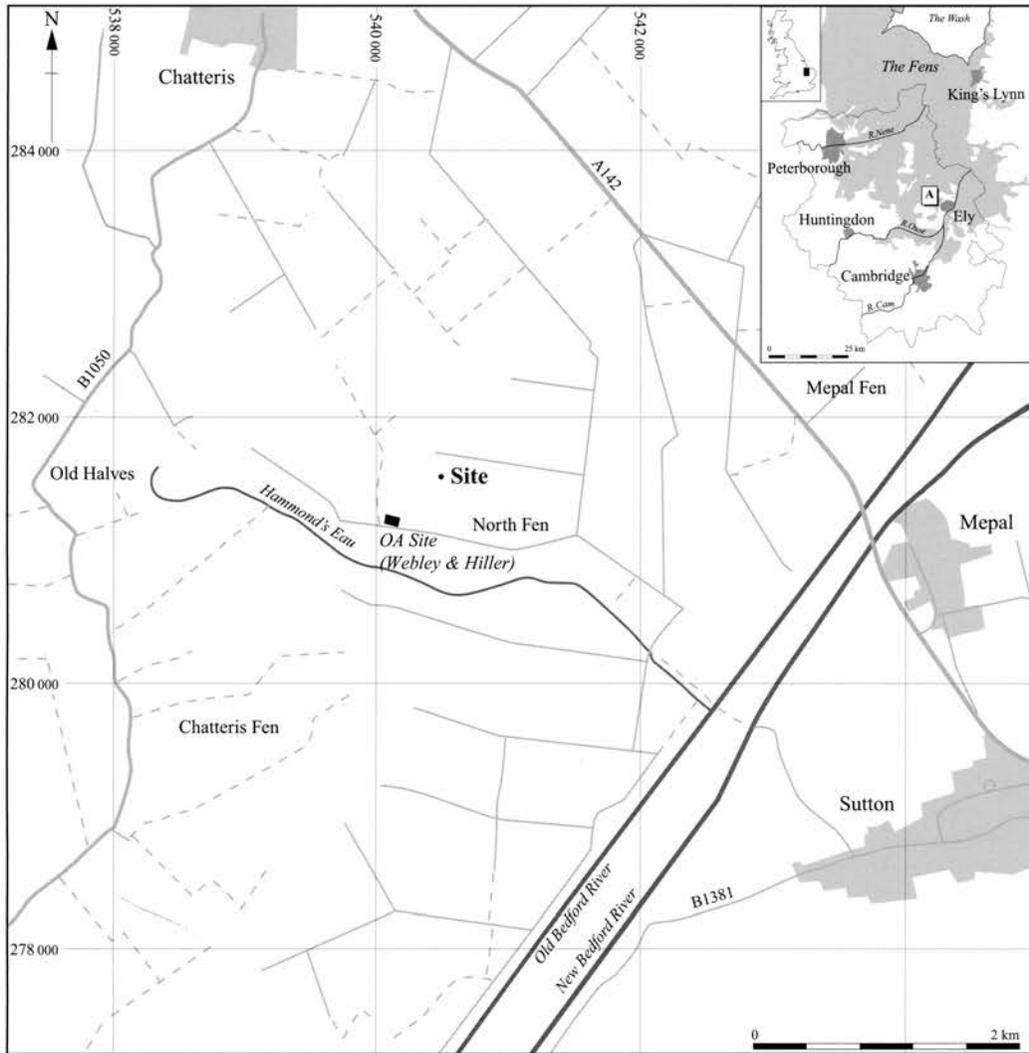


Figure 1. Site location.

between 300 and 400m to the north of a major palaeo-channel of the River Ouse which was probably active during the Neolithic/Bronze Age. Its course here is approximately followed by the post-medieval drainage work known as Hammond's Eau.

The surrounding area is a rich prehistoric landscape: Haddenham to the south boasts two Neolithic long barrows and a causewayed enclosure as well as numerous round barrows in a cemetery that straddles the parish border with Over. Many round barrows and ring-ditches lie nearby to the north on the southern edge of the much larger Chatteris island.

Recent excavations by Oxford Archaeology South on the southern edge of the island revealed prehistoric activity of mainly Neolithic and Early Bronze Age date. Features included a buried soil horizon containing pottery and large quantities of worked flint of later Neolithic/Early Bronze Age date. Shallow pits and hollows and two large waterholes were also found, one of which contained an Early Bronze Age timber-revetted platform (Webley and Hillier, this volume).

The Excavation

Overlying natural gravel and sealed by the mound was a 0.20m thick layer of pale grey moderately compact slightly clayey silt with frequent lenses of iron staining throughout (Fig. 3; layer 275/1219) perhaps indicating a buried soil. Pollen analysis of this deposit proved unproductive but did show that it had been elluviated, oxidized and stripped of most of its nutrients (Boreham below). The presence of considerable amounts of micro-charcoal, however, suggests that burning of the area around the mound must have taken place.

Beneath the mound, were two centrally-placed pits (805, 807; Figs 3 and 4). Although positioned closely together, it was not clear whether one cut into the other: effectively, the two pits appear to have been contemporary, one dug to contain cremated human remains and the second presumably as a receptacle for deposits associated with the burial.

The smaller pit (805; 0.45m in diameter and 0.45m deep) contained a complete inverted Collared Urn



Figure 2. The barrow during excavation. © Kim Osborne 2006

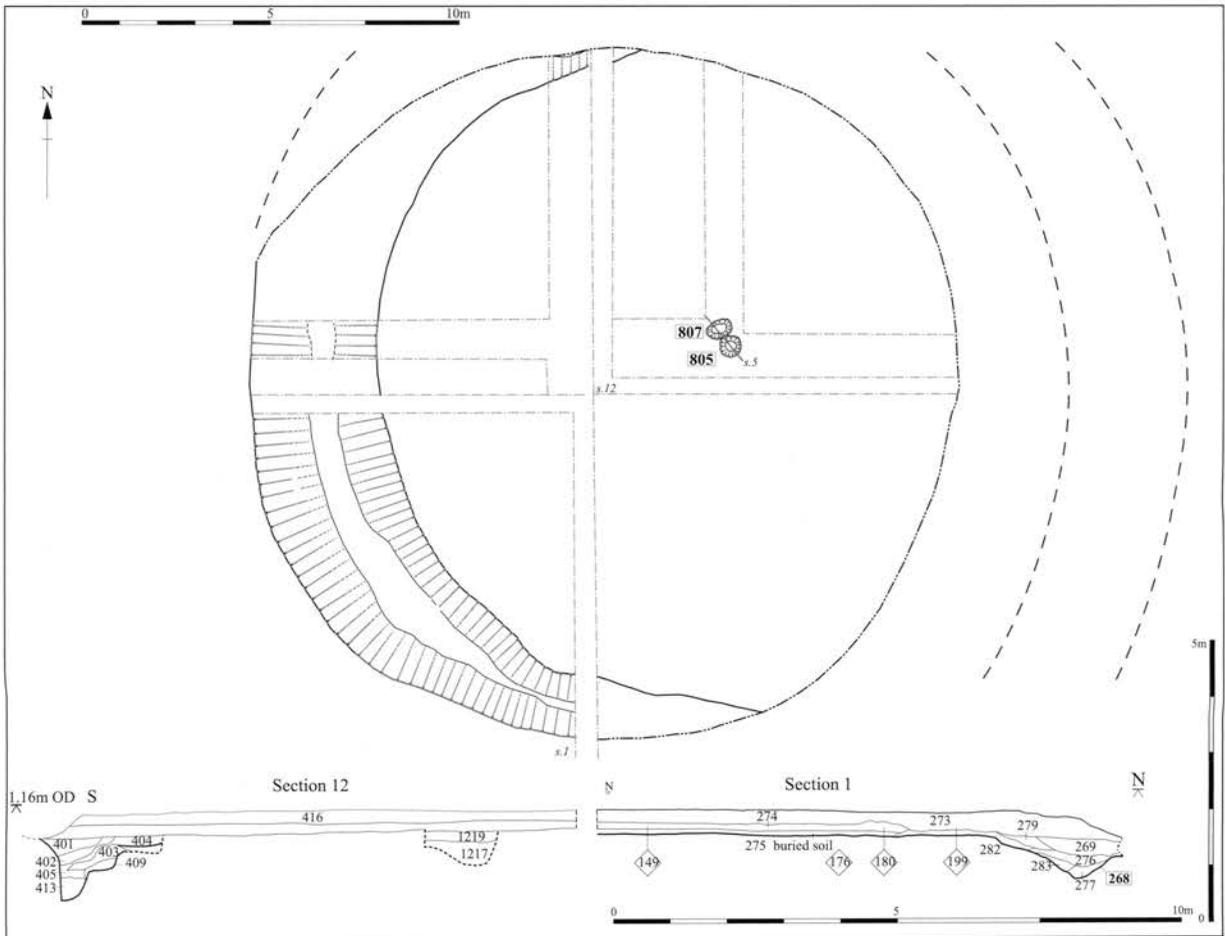


Figure 3. Plan and section of the barrow mound and ditches.

with what appeared to be a deliberate hole placed centrally in its base (Fig. 4). The urn is approximately 30cm tall and the collar is decorated with cord impressions (Percival below; Fig. 6). A total of 1113g of burnt bone with a radiocarbon date of 1880–1670 cal BC (SUERC-19125: 3440±30 BP) was found inside the pot and appears to have belonged to a single sub-adult between the ages of 12 and 18 years (Dodwell below). A plano-convex flint knife (Bishop below; SF 96, Fig. 5) had been placed in the urn with the cremation. Although in good condition, the knife had clearly been used before deposition but must have been added after the cremation process as a grave good, since it showed no signs of having been burnt. The pit itself was backfilled with a fairly clean mid grey silty clay containing occasional charcoal flecks; a sample from this fill produced some charcoal but little else.

Immediately adjacent to the central cremation was a larger pit (807; 0.56m diameter and 0.57m deep) with near vertical sides and flat base (Fig. 4). A thin layer

of clay covered its base and a narrow vertical void was noted around at least two thirds of its circumference and to approximately half of its height. The interleaving layers of black 'ashy' silt and clean dark grey silt that filled about half of the pit's depth were laid horizontally. There is evidence for at least two and possibly three episodes of structured deposition; the earliest (after the lining had been put in place) was slightly dish shaped in profile, hinting that the ashy deposit (816) had perhaps been contained within a vessel that has since decayed (a basket or wooden bowl). Lying immediately above it was another ashy deposit (814) forming a flat-based, vertical-sided interface with deposit 817 (suggesting another decayed container). A horizontal layer of black ash (809) sealed fill 814 and was in turn sealed by a final layer of ashy organic silt (808). A pollen sample (24) taken through these deposits showed that the clay lining had been subjected to severe oxidation, but the remainder of the sample was in good condition and provided

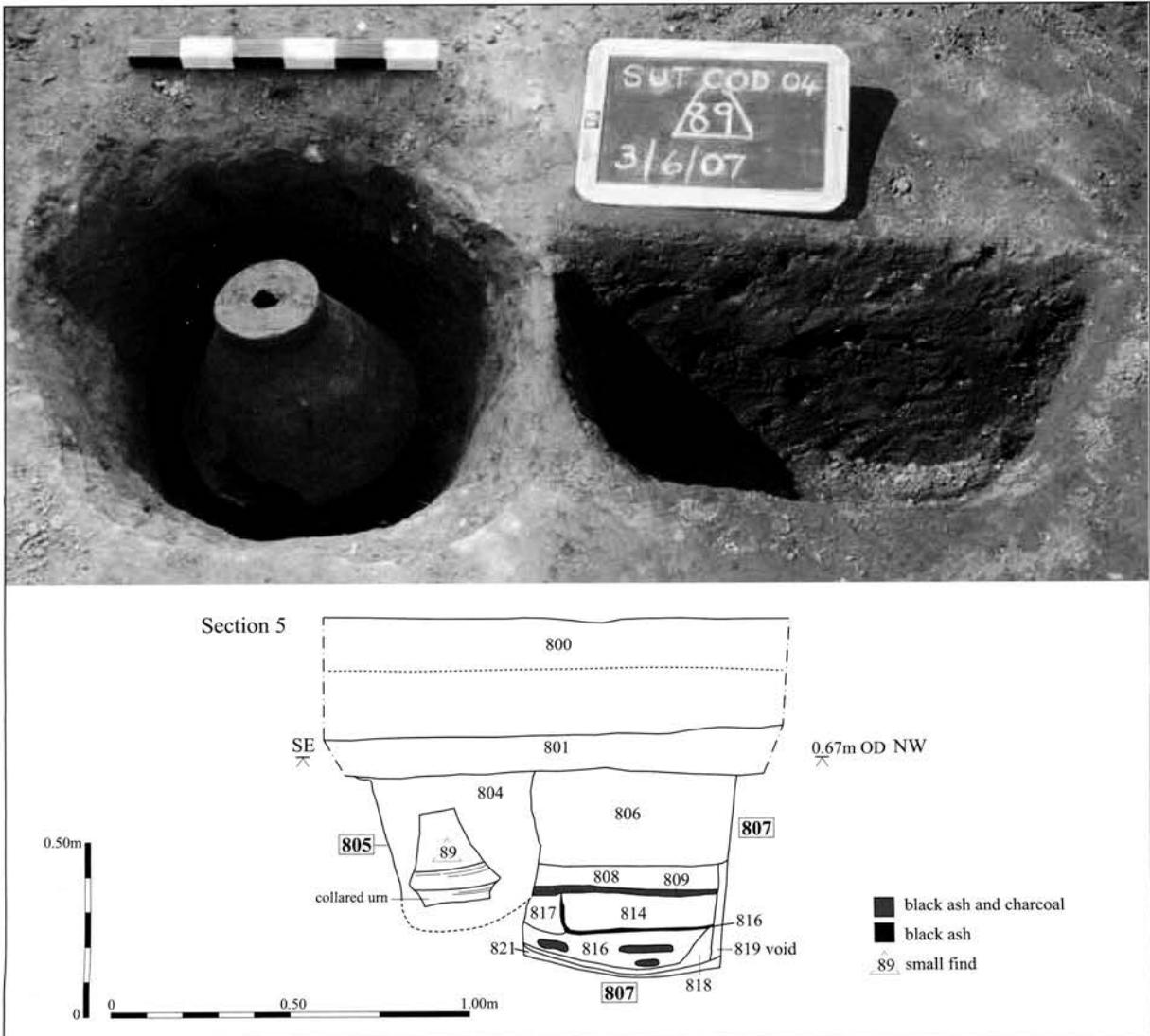


Figure 4. Top, photograph of the collared urn in situ; below, section of pit 805 showing collared urn in situ.

evidence for a 'patchwork' landscape of field systems interspersed with areas of wet and dry woodland (Boreham below).

The upper half of the pit was filled with an homogeneous mid grey silty clay (806) that was indistinguishable from that filling the cremation pit (805).

Encircling these pits, the ring-ditch (268) was cut through the subsoil. It survived for approximately half of its circumference, the eastern part having been destroyed by quarry-related activity. The surviving ditch was 2.10m wide at its narrowest point to the south broadening to 3.60m at its widest point to the west, varying in depth from 0.50m to 0.80m. Its original diameter is calculated to have been approximately 18m, based on the surviving segment of ditch and the location of the cremation which is assumed to have been central to the ring-ditch. The ditch profile varied from a broad shallow U or V shape on its south and west sides to a much narrower steeper V shape on its north side where it was at its deepest. Its basal fills were generally dark grey in colour, with a fine sandy silt texture probably derived from natural weathering over a very long period of time. This weathering material apparently derived from the outer rim of the ditch rather than the mound. The ditch appears to have been largely filled in before the paler more gravelly soil from the mound began to wash into it.

The two central pits were sealed by a much denuded mound (274) that survived up to 0.30m high in the centre (to 1.14m at its highest point, excluding the overlying plough soil). The surviving mound deposits were a mixture of pale buff sandy silt and gravel up-cast material with occasional evidence of iron staining and rare darker grey lenses that may indicate much decayed grass turves. A column sample (27) taken through the mound for pollen analysis showed that burning had taken place nearby but was otherwise uninformative. The mound had obviously been subject to ploughing and soil improvement over a considerable length of time since the scars of mole drains were observed cutting through the mound and into the buried soil beneath. It is impossible to estimate what the original height of the mound would have been although material deriving from it was found filling the top of the ring-ditch to the extent that it had finally obscured much of it. The mound and ditch were covered by a (0.30m thick) layer of plough soil (273).

The Flints

Barry Bishop

Eighty-five struck flints were identified: 20 came from the mound, 24 from ditch fills, the remainder from topsoil or unstratified. They comprise a mix of flakes and blades, and represent a variety of technological traditions. The material was clearly manufactured over a considerable period, from at least the Mesolithic to the Bronze Age. All of the struck pieces were separately examined, classified and, where possible, assigned a date. The full report on which this

summary is based is retained in archive.

The earliest pieces consist of the broken tip of an obliquely blunted microlith and a burin. These are typically found within Mesolithic industries although the latter occasionally occur in Early Neolithic contexts. Only one piece, a blade-like flake, was recovered from the buried soils sealed beneath the barrow. This is likely to be of Mesolithic or Early Neolithic date and together with other blades and blade-like flakes indicates at least some pre-barrow flintworking. No pieces solely diagnostic of Early Neolithic industries were identified but as Mesolithic and Early Neolithic implements and occupation sites are often found in close association within the fens (Reynolds and Kaner 2000), it is quite possible, although not conclusively demonstrable, that both periods were represented amongst the material here.

Later Neolithic activity is suggested by a probable chisel-type transverse arrowhead (SF 16; Green 1980) that had broken, apparently during manufacture. Two large scrapers comparable to some of the scrapers recovered from the later Neolithic flint scatter at Fordham (Mortimer and Connor forthcoming) may hint at possible pre-barrow activities although as the dating of such implements is imprecise the two here could have been contemporary with the construction of the mound. These are both noticeably larger than the other scrapers recovered and are very finely worked, having symmetrical convex scraping edges. They are made of very similar raw materials, a dense black flint with a thick creamy cortex comparable to that from the mines at Grime's Graves. Made with more care than is usually seen on scrapers from other periods, both have faceted striking platforms and notches on their sides, which may have enabled them to be hafted. Although they both appear to have been used to a limited degree, the choice of raw materials and the care taken in their manufacture may have resulted in them being seen as prestigious implements. If so, they may relate to ceremonial practices surrounding the initial construction or use of the mound or perhaps indicate that the site was significant before it was chosen for its funerary use. Interestingly, comparable examples were recovered from one of the barrows excavated at Chippenham, where they were thought to represent an earlier, Neolithic, settlement (Leaf 1936, 149–150, fig 10–11).

The most notable piece that could be directly related to the primary use of the barrow is a plano-convex knife (SF 96, Fig. 5), found with the cremated body inside the Collared Urn. This is unburnt and must therefore have been added after the cremation process as a grave good. It was made on a large hard-hammer struck flake of a slightly vesicular translucent mid brown flint. It has been pressure flaked all the way around its perimeter with the exception of its bulbar end and over most of its dorsal surface, resulting in a slightly asymmetrical leaf-shaped implement. It is in good condition but has clearly been used, with some microscopic edge rounding evident, both on its cutting edges and further inwards towards its centre. Plano-convex knives are character-

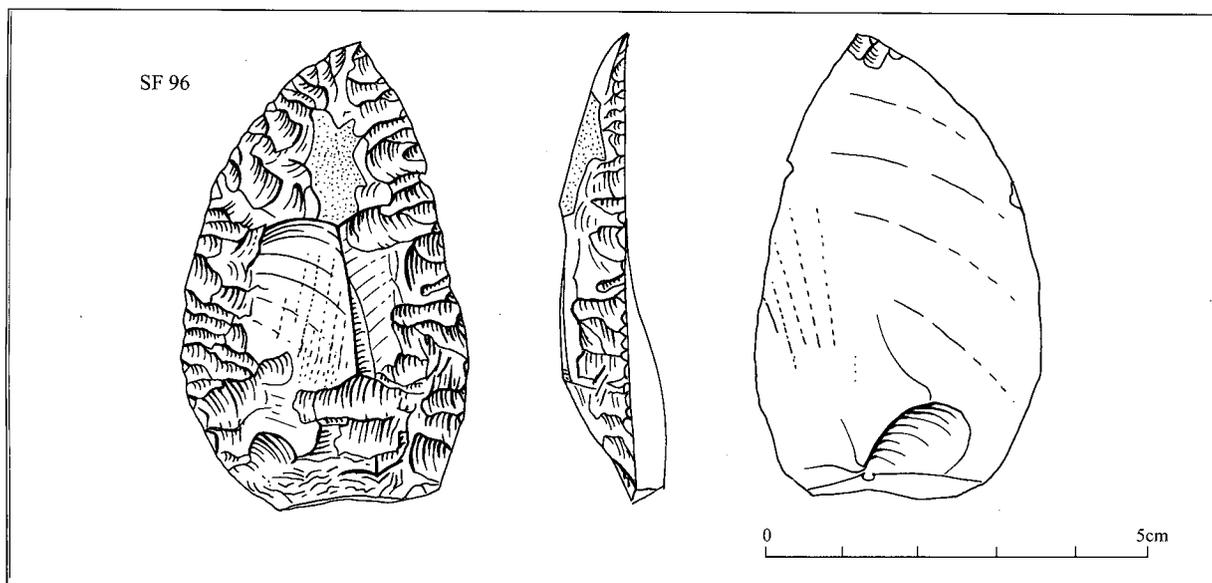


Figure 5. Flint knife.

istic of Late Neolithic, Beaker and Early Bronze Age industries, including those associated with Collared Urns (e.g. Webley 2007) and are frequently found within funerary contexts, particularly as grave goods (e.g. Clark 1932; Leaf 1936; Saville 1985; Garton 1994; Healey 1998). This example has been used and may have been a personal possession of the cremated individual. A small burnt flake fragment (SF 90) was also recovered from the fill of the cremation, this possibly having been incidentally burnt within the pyre although it could have been a tool that accompanied the burial: it is unfortunately too fragmentary to identify more closely.

Scattered across the barrow and in the barrow ditches was a small quantity of opportunistically struck flakes typical of Bronze Age industries, particularly those of the mid and later second millennium. The presence of four sequentially refitting flakes demonstrate that the barrow remained a focus of flint-using activity subsequent to its primary use as a burial mound. The use of barrows and similar mounds for working substantial quantities of flint, possibly for ceremonial or ritual purposes and often long after their funerary use, has been documented at several sites in Cambridgeshire (Trump 1956; Evans 1993; Evans and Knight 1996; Pollard 1998) as well as further afield (e.g. Fasham and Ross 1978; Smith 1987; Greatorex 2001; Ballin 2002). The small quantities recorded here may represent *ad hoc* requirements for sharp edges. Nevertheless, the significance of the monument, as an ancient point in the landscape, possibly associated with ancestral concerns, was probably not lost on the flint knapper.

The Collared Urn and other pottery

Sarah Percival

The complete Collared Urn (SF 89, Fig. 6) formed the primary burial within the barrow and was found inverted over a substantial quantity of cremated human remains associated with the Early Bronze Age flint knife noted above. The vessel has a straight, narrow collar 45mm deep with a shallow overhanging lip. The diameter at the rim is 220mm broadening to 250mm at the shoulder before tapering to 105mm at the base. The total height of the urn is c. 301mm with the shoulder sitting approximately 56mm below the collar which is decorated with alternating panels or hurdling filled with ten to eleven bands of horizontal and vertical twisted cord impressions. Below the rim diagonal cord impressions form a double band of herringbone motif. There is no decoration beneath the shoulder. The interior of the rim is decorated with a single row of short cord impressions around 7mm long. Vessel wall thickness is fairly even being around 8mm below the collar. The base of the vessel has a small post-firing perforation that appears to have been created in antiquity.

Both the exterior and interior of the urn are heavily stained with an orange ferruginous substance probably leached from the surrounding iron rich gravels. The urn is made of a coarse grog tempered fabric with a laminated texture. Some areas of the vessel display a light grey colouring perhaps suggesting that the pot had been partially burnt.

Collared Urns first appeared in southern Britain from around 2200 BC and continued in use until approximately 1200 BC (Gibson 2002, 96). Burgess, writing in 1986, suggested that within this continuum certain earlier, middle and late traits could be identified. The Sutton urn has several stylistically early traits, including the narrow straight collar and use

of decoration featuring whipped cord impressions in short repetitive lines. The presence of these traits suggests that the vessel dates to an earlier phase of the Collared Urn tradition. Recent work on the Cambridgeshire Collared Urns with radiocarbon dates questions whether stylistic traits can be used to date such vessels in this way (Rob Law pers. comm.). A radiocarbon date of between 1880 BC and 1670 BC puts the Sutton Collared Urn into the beginning of the middle period.

Six further sherds weighing 54g were recovered from five contexts, along with 21 unidentifiable scraps weighing 3g that are not closely datable. Two small sherds, from contexts 116 and 120 (SF 17) were decorated with cord-impressed maggots in

grog- and sand-tempered fabric which may be from a Food Vessel and a grog-tempered sherd with cord impressions which may also be from a Food Vessel or perhaps an urn. One large sherd in quartz sand tempered fabric, from context 269 (SF 36) is from the collar of a Collared Urn with twisted cord impressed hurdling similar to the decoration on the complete urn also found at Sutton (SF 89). Two sherds weighing 7g (SF 98) are heavily abraded and are not closely datable.

The small assemblage may be the remains of up to six further vessels perhaps associated with secondary burials from within or around the barrow dispersed when the mound was ploughed out. Food vessels, which often feature cord-impressed maggots, were frequently used as accessory vessels with cremations or inhumations and were also in use in the earlier Bronze Age.

The Human Bone

Natasha Dodwell

The contents of the Collared Urn were excavated in the laboratory and the material wet-sieved and then passed through 10mm, 5mm and 2mm sieves. All extraneous material was removed from the >5mm fraction. Osteological analysis followed procedures for cremated human bone outlined by McKinley (2002 and 2004). All bone >10mm was examined and sorted and weighed by body part (*e.g.* skull, limbs and axial skeleton). The residues from the 2mm and 5mm fractions were scanned and identifiable elements separated. A fragment of bone was selected for radiocarbon dating and returned a date of 1880–1670 cal BC (SUERC-19125: 3440±30 BP).

Neither obvious duplication of skeletal elements nor contradictions in age were noted, suggesting that the cremated bone derived from a single individual.

Age was determined by the stages of dental development and epiphyseal fusion (Brown 1985; Scheuer and Black 2000). Many small fragments of bone showing unfused epiphyseal surfaces were observed but they were predominantly too fragmented to identify to skeletal element. However, loose epiphyses from the hands and feet and a maxillary premolar with fused roots age this individual as a sub-adult, dying between the ages of 12 and 18 years.

The bone fragments were predominantly buff white in colour, indicative of efficient cremation although they had been stained a rusty orange colour by iron panning. Several of the phalanges and a metatarsal were dark blue-grey (less well oxidised), perhaps indicating proximity to the edge of the pyre.

A total of 1113g of burnt bone (>5mm) was recovered from the urn. The unsorted 2–5mm fraction is almost entirely bone and weighs an additional 294g. Studies of modern western cremation practices have determined that the weight range of collectable (>2mm) cremated bone one might expect from an adult cremation ranges from 1000g to 2400g (McKinley 1993). No figures are available for

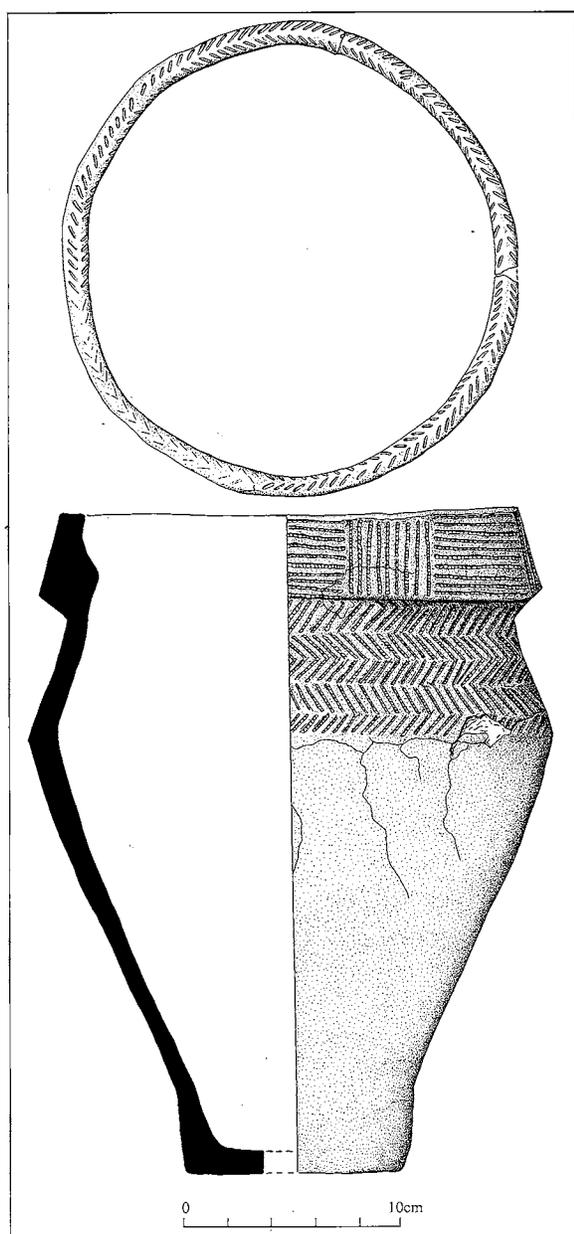


Figure 6. Collared Urn.

immature cremated remains but the bone weight from this context suggests that all of the cremated bone from the pyre was collected for burial.

There is no evidence of deliberate fragmentation of the cremated bone; the maximum recorded bone length was 94mm and the majority of the bone was recovered from the 10mm fraction (c. 64%).

Lumps of a light-weight charcoal/iron panned material were identified which may be pyre debris or 'cremation slag'. Other than this substance no pyre debris was identified in the fill surrounding the vessel or in the vessel itself, suggesting careful collection from the pyre, and perhaps that its inclusion in the burial was not deemed significant.

The Charred Plant Remains

Rachel Fosberry

The entire fills from the two central pits (805 and 807) were processed by bucket flotation. The charred plant remains consisted predominantly of wood charcoal with occasional cereal grains that were all poorly preserved, either because of taphonomic factors or because they had been charred at a high temperature. The poor preservation did not allow detailed identifications and the grains have been identified simply as cereals. The volumes of charcoal found in the fills of pit 807 indicate substantial burning of wood, possibly from a pyre. No artefacts or small bones were recovered.

Pollen

Steve Boreham

Introduction

Four spot samples (spot samples 149, 176, 180 & 199; Fig. 3) and two monolith samples (samples 24 and 27) were submitted for analysis. Three spot samples were taken from the upper layer (274) of the barrow mound and the fourth (199) from the base of topsoil (273) all in the southwest quadrant. Sample 24 came from pit 807, adjacent to the cremation pit. It is believed that the deposits in this pit may have come from the pyre associated with the cremation. Sample 27 was taken from the buried soil (275/1219) and deposits thought to represent the construction of the barrow mound (274).

All the samples were prepared using the standard hydrofluoric acid technique, and counted for pollen using a high-power stereo microscope. In addition, the micro-charcoal concentration in sub-sample 24 (15cm) was assessed using the point-count method. The full reports including the percentage pollen and charcoal data are retained in archive.

The Barrow Mound

Other than a large quantity of micro-charcoal, sample 27 (50cm) was barren and no further analysis was undertaken. It appears that this buff sandy silt up-cast

material has been elluviated, oxidised and stripped of most nutrients, clays and organic materials. The presence of considerable amounts of micro-charcoal suggests burning of the area around the mound. The pollen concentrations in the four spot samples (149, 176, 180, 199) varied widely between 2,848 and 42,716 grains per ml. Preservation was generally good, but corroded grains were particularly noted in spot sample 176, which also had the lowest pollen concentration. Large amounts of finely divided organic debris diluted the pollen and hampered counting. Thus, total counts from the slides yielded less than the statistically desirable minimum of 300 pollen grains.

Other than 176 all of the spot samples produced a grass-dominated assemblage with cereals, herbs and small amounts of arboreal pollen. This is interpreted as an open grassland environment with arable activity and occasional stands of hazel scrub. The herb assemblages give no strong indications of disturbed ground or riparian habitats, but are typical of tall-herb meadow communities. The abundant fern spores suggest a damp and partly shaded environment close by. With the exception of the lime-elm pollen signal, this type of pollen assemblage is found in archaeological sites in southern England from the Bronze Age through to Late Roman times.

Pit 807

Sample 24 (4cm) pollen spectrum has been severely modified by post-depositional oxidation, showing that the basal organic material was subjected to considerable oxidation above the water table.

The upper organic silt of sub-sample 24 (15cm) appears not to have suffered dessication to the same degree and showed clear evidence of grassland and meadow environments, arable activity, mixed oak woodland including lime, the possibility of hazel coppice and areas of wet alder carr. This composite pollen signal must represent a 'patchwork' landscape of field systems interspersed with areas of wet and dry woodland. The relatively low abundance of arable 'weeds' and disturbed ground indicators may suggest that arable cultivation was taking place some distance from the site. This pollen spectrum fits well into the expected assemblage for the Late Neolithic or Early Bronze Age. The micro-charcoal analysis confirms that although there may have been burning nearby, the micro-charcoal signal has been diluted by other material washed into the pit.

Discussion and Conclusions

Primary interment of Collared Urns is relatively rare in Cambridgeshire (Rob Law pers. comm.) and the only other known Collared Urn burial with a plano-convex flint knife came from an urn from Snailwell (which had three). The Snailwell burial was one of four urned (three of them were inverted) cremations associated with Barrow A which formed part of a barrow cemetery: none of the other barrows contained urned cremations. The richly furnished Snailwell

cremation was thought to be the primary burial and is described as having been centrally placed, although the accompanying plan shows it as off-centre (Lethbridge 1950, 33–34, fig.2). Another of the urns (III) bore greater similarities in decoration with its basketweave pattern around the collar above herringbone to the shoulder (Lethbridge 1950, plate VII). Longworth records only 21 cases of such flint knives being found in association with a Collared Urn, most of them in the north and west of Britain. Of these, eight had been burnt and the others were placed with the remains on interment (Longworth 1984, 67). Examples of inverted cremations include one from Swaffham Prior (HER 8003).

Longworth also mentions one instance of cremated remains being poured in through the base of an inverted urn whose base had been deliberately broken (*ibid*, 48), and it is possible that cremated bone was put into the Sutton urn in the same way. Law has divided the Cambridgeshire Collared Urns into three groups based on their height and base to mouth ratio. The Sutton urn fits into his Group C and two other Cambridgeshire vessels have very similar proportions, one from Soham and the other from Water Newton. Both have a similar internal moulding to the Sutton vessel which most of his other Group C urns lack.

Group C vessels are characterised by vase-shaped profiles: wide mouths, well-defined collars, broad shoulders, and a body that narrows towards a small base. Twisted cord is the most popular decorative technique and horizontal lines and herringbone are the most popular decorative motifs. The vessels tend to be decorated on more than one zone and most Group C vessels were from barrow contexts, two of which formed 'primary' interments.

A similar configuration of two closely adjacent pits, one of which contained an inverted Collared Urn was found at Upton near Northampton (Foard-Colby 2008). In this case the pot had suffered considerable damage giving the opportunity to excavate a cross-section through the vessel and its contents, which showed that the pot appeared to have been filled with deliberate care. The urn itself was slightly squatter and shorter and its herringbone motif was executed with incised lines rather than impressed cord. Charcoal from within the urn returned a calibrated date of 1980–1750 BC making the Sutton cremation (1880–1670 BC) slightly later in date. The adjacent pit in the Upton example was interpreted as a posthole and there was no evidence that the cremation had ever been covered by a mound or encircled by a ditch.

There is good evidence for structured deposition within the ancillary pit at Sutton, but it is not possible to ascertain the exact nature of the deposits. It is likely that the pit held a series of vessels made from organic material (such as wood, wicker or leather) and that each of these contained organic remains that have not survived. The origin and identification of these organic remains is less easy to determine. There is a high percentage of charcoal in the bulk sample residues and yet the evidence for micro-charcoal in the

monolith samples is fairly limited leading Boreham (above) to suggest that it is unlikely that the deposits within the pit came from the pyre. By contrast the few heavily distorted charred seeds that have survived are interpreted as evidence in favour of a pyre. The absence of cremated bone may suggest that the pyre material was very carefully separated into its constituent parts (perhaps by careful placing of the cremated bone into the upturned urn through the hole in its base) as suggested by Longworth (1984, 48). Alternatively the deposits may have been indirectly associated with the cremation, perhaps the remains of food offerings.

Excavation of the SUT 7 round-barrow has added to the growing corpus of these significant monuments in the Cambridgeshire fens. Very recent excavations of a large number of different types of barrows at Over by the Cambridge Archaeology Unit will no doubt make further significant advances to this field of study.

Acknowledgements

Excavations were carried out by the Sutton Conservation Society Dig Group volunteers under the direction of Aileen Connor. The volunteers were Rob Atkins, Tony Baker, David Batten, Joan Batten, Denise Chappell, Jenny Cowser, Norman Freeman, David Goodman, Liz Hawkin, Alexandra Hook (née Tinker), David Hook, Clive Hughes, Ellie Hughes, Cecilia Lawson, Vanessa Lewis, Jane Logan, Gae Mathews, Colin Meechan, Pete Michina, Peter Nicholls, Kim Osborne, Joy Owen, Terry Scarffe, Irene Scarffe, Gill Shapland, Peter Smith, Tim Smith, Rob Soffe, Diura Van Thoden, Bernice Thornton, Sarah Tickle, Amanda Walsock and Laura Wood. Taleyna Fletcher carried out the GPS Survey. Dr Tim Reynolds and Gill Shapland initiated the project. Dr Quinton Carrol advised on behalf of Cambridgeshire County Council. Rob Law commented on the Collared Urn. The illustrations are by Gillian Greer. Thanks are also extended to PJ Lee and Sons, the land owner and Richard Bull, the land agent for permission to access the site. This article was prepared for publication by Elizabeth Shepherd Popescu.

Cambridge Antiquarian Society is grateful to the Sutton Conservation Society and the Heritage Lottery Fund for a grant towards the publication of this paper.

Bibliography

- Ballin, T B 2002 Later Bronze Age Flint Technology: a presentation and discussion of post-barrow debitage from monuments in the Raunds Area, Northamptonshire. *Lithics* 23: 3–28
- Brown, W A B 1985 *Identification of Human Teeth* Dorking: Adlard & Son Ltd, Bartholomew Press
- Burgess, C 1986 'Urnes of no small variety', Collared Urns Revisited. *PPS* 52: 339–51

- Clark, J G D 1932 The Date of the Plano-Convex Knife in England and Wales, *Antiq J* 12 (2): 158–162
- Evans, C 1993 *Archaeological Excavations at Hinxton Quarry Cambridgeshire*. Unpublished CAU Report
- Evans, C & M Knight 1996 *The Butcher's Rise Ring-ditches: excavations at Barleycroft Farm, Cambridge*. Unpublished CAU Report 283
- Fasham, P J & J M Ross 1978 A Bronze Age Flint Industry from a Barrow in Micheldever Wood, Hampshire. *PPS* 44: 47–67
- Foard-Colby, A 2008 A Collared Urn burial from Upton, Northampton. *Northamptonshire Archaeol* 35: 15–26
- Garton, D 1994 Flintwork. In: J. Barnatt, Excavation of a Bronze Age Unenclosed Cemetery, Cairns, and Field Boundaries at Eaglestone Flat, Curbar, Derbyshire, 1984, 1989–1990. *PPS* 60: 324–332
- Gibson, A 2002 *Prehistoric Pottery in Britain and Ireland*. Oxford: Tempus
- Greatorex, C 2001 Evidence of Sussex Prehistoric Ritual Traditions. The Archaeological Investigation of a Bronze Age Funerary Monument Situated on Bailly's Hill, near Crowlink, Eastbourne. *Sussex Archaeological Collections* 139: 27–73
- Green, H S 1980 *The Flint Arrowheads of the British Isles: a detailed study of material from England and Wales with comparanda from Scotland and Ireland: Part I*. Brit Archaeol Rep Brit Ser 75
- Hall, D 1996 *The Fenland Project Number 10: Cambridgeshire Survey, The Isle of Ely and Wisbech*. EAA 79
- Healey, E 1998 The Lithic Material. In P. Clay, Neolithic/early Bronze Age Pit Circles and their Environs at Oakham, Rutland. *PPS* 62: 309–317
- Last, J 1997 *Neolithic Activity near Blaby's Drove, North Fen, Sutton: An Archaeological Evaluation, 1996*. Unpublished AFU Report No. 131
- Leaf, C S 1936 Two Bronze Age Barrows at Chippenham, Cambridgeshire. *PCAS* 36: 134–155
- Lethbridge, T C 1950 Excavations of the Snailwell Group of Bronze Age Barrows. *PCAS* 43: 30–49
- Longworth, I H 1984 *Collared Urns of the Bronze Age in Great Britain and Ireland*. Cambridge: CUP
- McKinley, J I 1993 Bone Fragment Size and Weights of Bone from Modern British Cremations and the Implications for the Interpretation of Archaeological Cremations. *International J Osteoarchaeology*, Vol. 3: 283–287 Longworth
- McKinley, J I 2002 in Cox, M & Mays, S (eds.) *Human Osteology in Archaeology and Forensic Science*. London: Greenwich Medical Media Ltd, 403–421
- McKinley, J I 2004 in Brickley, M & McKinley, J I (eds.) *Guidelines to the Standards for Recording Human Remains* IFA Paper No. 7, 9–13
- Mortimer, R & A Connor (forthcoming) *Prehistoric and Roman occupation from Fordham Bypass, Cambridgeshire*. EAA
- Pollard, J 1998 Prehistoric Settlement and Non-Settlement in Two Southern Cambridgeshire River Valleys: the lithic dimension and interpretative dilemmas. *Lithics* 19: 61–71
- Reynolds, T & S Kaner 2000 The Mesolithic of Southern Fenland: a review of the data and some suggestions for the future. In: R. Young (Ed.) *Mesolithic Lifeways: current research from Britain and Ireland, 191–197*. Leicester Archaeology Monograph 7
- Saville, A 1985 The Flint Assemblage. In: N. Field, A Multi-phased Barrow and Possible Henge Monument at West Ashby, Lincolnshire. *PPS* 51: 127–131
- Scheuer, L & S Black 2000 *Developmental Juvenile Osteology*. London: Academic Press Ltd
- Smith, G H 1987 A Beaker (?) Burial Monument and a late Bronze Age Assemblage from East Northdown, Margate. *Archaeologia Cantiana* 104: 237–289
- Trump, D H 1956 The Bronze Age Barrow and Iron Age Settlement at Thriplow. *PCAS* 49: 1–12
- Webley, L 2007 Prehistoric, Roman and Saxon Activity on the Fen Hinterland at Parnwell, Peterborough. *PCAS* 96: 79–114

The Bartlow Hills in context

Hella Eckardt* with Amanda Clarke*, Sophie Hay⁺, Stephen Macaulay[^], Pat Ryan[#],
David Thornley* and Jane Timby[#]

From 2005 to 2007 geophysical surveys and selected excavation were carried out at Bartlow, Cambridgeshire, to explore the archaeological context of the famous Romano-British barrows. These have identified and dated an enclosing linear earthwork and associated settlement activity, which are discussed in conjunction with a summary of archive research and antiquarian sources. The results of an evaluation carried out in 2004 that identified part of an associated cemetery are also presented.

*University of Reading; ⁺Archaeological Propection Services, University of Southampton; [^]Oxford Archaeology East, formerly CAMARC; [#]freelance specialists.

Introduction

The burial mounds at Bartlow, Cambridgeshire, are the largest Roman barrows in Britain (Figs 1 & 2). The barrows contained a rich array of grave goods, all dated to the late first and second century AD. Imported vessels and organic remains such as flower petals and incense evoke the funerary feast and reflect the wealth and status of the people buried here. The dead were cremated and placed into large wooden chests or brick chambers, which appear to have been lit by lamps. However, following their excavation in the 1840s (Gage 1834, 1836, 1840, 1842), and the cursory exploration of an associated villa in 1852 (Neville 1853), little further archaeological work has been carried out on this famous site. In particular, the wider archaeological context of the mounds is still quite poorly understood, although antiquarian reports hint at further burials (Brocklebank 1913, 254) and a substantial enclosing earthwork (Gage 1834, 22; Brocklebank 1913, 255).

A lack of contextual information on associated burials and settlements hinders our understanding of Romano-British barrows generally, as most were dug by antiquarians focused solely on the recovery of gravegoods (Dunning & Jessup 1936; Jessup 1959; *cf.* Wigg 1993). This paper aims to remedy this situation

by presenting the results of some recent fieldwork at Bartlow, drawing on unpublished reports of an evaluation by CAMARC (Beauchamp & Macaulay 2004) and the results of a geophysical survey and excavation by Eckardt *et al.* (2006 and 2007). A topographical and geophysical survey of the four large mounds using Electrical Resistance Tomography, which examined both their ancient construction and antiquarian exploration, has already been published (Astin & Eckardt 2007). Ongoing research on the mounds aims to test these results through coring.

At Bartlow, there are four large and three small mounds arranged in two parallel lines and aligned roughly north-south (Fig. 1). The surrounding geography is mainly chalk, with a band of alluvium and gravels located near the three streams which join in the village to form the river Granta. The countryside slopes gently from the north-east to where the village is located in a valley, and then rises again to the south (Taylor 1998, 18). The Bartlow Hills (TL 586 449) are located on a minor ridge within the wider natural valley and on a slope rising from the Granta.

The two northerly large mounds were bisected by the Great Eastern Railway line from Cambridge to Mark's Tey in 1865 (Brocklebank 1913, 254), which also destroyed the northernmost of the small mounds. In addition to their antiquarian exploration and impact of the railway construction, the mounds were affected by use as World War II gun stations and subsequent landscaping (Astin & Eckardt 2007), as were the areas around the Bartlow Hills. While earlier views show the Bartlow Hills surrounded by open farmland (Fig 2; *cf.* Taylor 1998, cover), the immediate vicinity of the mounds is now wooded.

A magnetometry survey of the available fields and meadows to the south of the mounds and to the north of the river Granta was carried out using a Bartington 601 fluxgate gradiometer (Fig. 3); this identified a series of rectilinear features and enclosures of uncertain date, which will not be discussed here. The survey of the walled gardens to the north-west failed to reveal substantial features, probably as a result of its heavy cultivation during the nineteenth century.



Figure 1. Location and plan of the Bartlow Hills.

Instead, this paper will largely focus on the grounds of Bartlow Park House, in particular the area defined by the Granta and a recently constructed lake to the north, and by the abandoned railway line to the south. Both a magnetometry and a resistivity survey of this area was carried out (Eckardt *et al.* 2006; *cf.* Masters 2004), identifying a number of features in this area of Bartlow Park (Fig. 3). An old field boundary, probably still marked by the remnants of iron fence posts runs NS across the area, obscuring some of the magnetometry results. Perhaps the clearest ancient feature is a substantial EW linear structure assumed to be the earthwork described by antiquarian excavators, which runs between the barrows and the Granta and

appears to enclose the mounds. This feature was also identified and surveyed in the wooded area to the north of the walled gardens.

A group of rectangular features, some containing a central high magnetic feature, are located between the northernmost mound and the linear earthwork; they may represent further burials and funerary enclosures, or settlement evidence. Another result of the magnetometry survey in Bartlow Park was the discovery of a substantial (31m diameter) circular feature immediately to the north-east of the northernmost barrow. While only seven barrows are known today, early antiquarian sources mention additional mounds (VCH 1963, 39) and this feature may thus



Figure 2. Richard Relhan, view of the Bartlow Hills from the NW. By kind permission of the Cambridge Antiquarian Society. © Kim Osborne 2006. See also Plate 1.

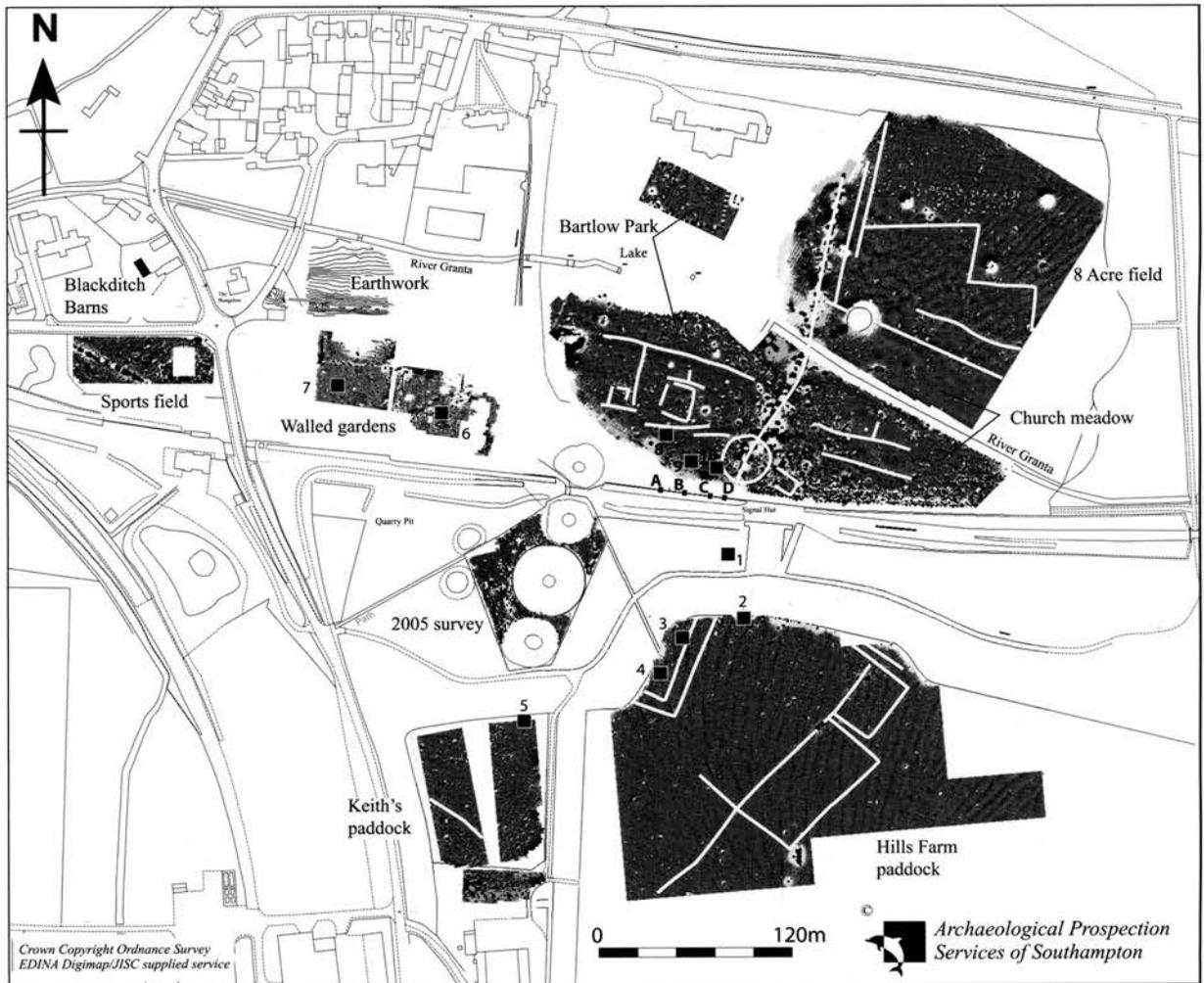


Figure 3. The results of the 2006 and 2007 magnetometry survey and location of test pits.

represent a 'lost barrow'. Finally, there are rectangular features to the east of the circular feature in a location identified by Brocklebank (1913, 254–5) and Haverfield (writing in the RCHM Essex 1916, 4) as that of Neville's villa (*cf.* VCH Essex 1963, 43).

Prior to the construction of the lake, CAMARC carried out an evaluation in 2004, and Eckardt excavated five trenches in 2007 (Eckardt *et al.* 2007). The results of the excavation will be presented in three parts: the linear earthwork, possible funerary structures and settlement evidence (Neville's villa). While the rediscovery, recording and excavation of the earthwork, and the discovery of a small cemetery, represent major steps forward in our understanding of the site, Neville's 'villa' remains elusive, and has presumably been completely destroyed.

The linear earthwork

Previous research

The earliest reference to an earthwork is by Gage (1834, 2–3 with plan), who describes its location as 'within 150 yards [137m] of the mounds to the NW in a little meadow by the brook side'. Gage (1834, 2–3) then goes on to describe an agger 317ft [96m] long from east to west, with the eastern end cut by a ditch which separates it from the Bartlow rectory garden. At its western end the agger is cut by the road and, set at an angle, it appears to end in a small rectangular enclosure measuring 120 x 63ft [36.5x19m]. This enclosure had two entrances at its eastern end and enclosed a further mound of 26ft [8m] diameter. Gage (1834, 22) investigated the agger 'in more than one part' and also opened the low barrow connected with it but made 'no discoveries deserving notice'.

The enclosure and possible barrow are described by Goddard (1899, 353) as 'overhanging the old river bank at the end near the road'; he also notes that the ditch is on the inside of the enclosure, suggesting that it is not of a defensive nature. Brocklebank (1913, 255) describes the feature as an 'ancient earthwork' that follows the south bank of a small stream for some 350 yards [320m]: running east and west and being at its nearest only about 100 yards [90m] from the most northerly of the large barrows. In its best-preserved part the ditch still measures 12ft [3.6m] across and the mound 4ft [1.2m] in height'. He also mentions that Roman pottery and coins are frequently found when gardening in this area. The 1916 RCHM plan is based on a sketch by Haverfield (Haverfield MSS in the Sackler Library: sketch plan with notes), and shows that the western edge of the linear earthwork is partially lost. Haverfield's sketch and Goddard (1899, 353) indicate that this is due to the digging of a gravel pit. Goddard (1899, 353) records that workers found Roman pottery, bones and a millstone in this quarry pit, which is marked on the 1903 OS map. The Cambridgeshire Collection in Cambridge Library also has a photo of this pit under excavation (YBartl. KO 6976).

Prior to the digging of the pit, the 1877 and 1891 OS maps clearly show a significant linear feature, running up to the road. This pre-dates the construction of the western walled garden, and is therefore unlikely to relate to a tunnel containing a miniature railway that transported coal from the road to the boiler room of the greenhouse in the western walled garden. In contrast to the antiquarian accounts and the 1916 RCHM plan, none of the OS maps shows the earthwork's continuation into Bartlow Park.

Finally, the *Victoria County History for Essex* (1963, 39) describes the same feature as an "earthwork running E-W between the hills and the Granta to the N. It cannot be traced west of the gravel pit, on the east side of the road running north from Bartlow station, but the mound and ditch can be seen intermittently, in a straight line from here to a point near the Granta, SE of Bartlow church, where it turns S and may be followed nearly to the railway. The mound was from 4 to 5ft [1.5m] high, and the ditch about as deep, the two measuring some 30ft [9m] wide overall. The present appearance is less impressive than these estimates imply. In the gravel pit the ditch was seen as V-shaped, cut some 5ft [1.5m] deep into the chalk".

Today, the earthwork is preserved as a substantial monument only in the wooded area north of the walled gardens, but it does clearly show on the magnetometry survey (Fig. 4). Within Bartlow Park, the earthwork is clearly much more denuded than to the north of the walled garden (Fig. 5), where it was recorded in 2006 for a length of 77m. But even here the maximum height difference between the bottom of the ditch and the top of the mound is only 0.7m (Fig. 5). The earthwork diminishes in height gradually towards the east, and virtually disappears at the point where the two walled gardens join and where it would have been crossed by a NS field boundary that carried on north of the Granta (Fig. 4). The topographical survey (Fig. 5) also poses the question as to the exact location of the ditch. Is it really, as Goddard (1899, 353) assumed, to the south of the bank suggesting that the enclosure is not of a defensive nature? Or is it to the north of the bank, but obscured by subsequent erosion and landscaping, in which case the dip between the garden walls and the bank may relate to the construction of, or access to, the walled gardens?

In 2007 two sections were cut through the earthwork (Trench 1 within Bartlow Park and Trench 5 north of the walled gardens: Fig. 4).

Trench 1

Today the earthwork in Bartlow Park only shows as a very slight rise but removal of the turf and topsoil very quickly began to reveal the remains of both the bank and the ditch (Fig. 6). Further excavation of a 1m wide slot on the east side of the trench revealed the earthwork in section (Fig. 7), but failed to yield conclusive dating evidence. The natural in this area consists of dark yellow river gravels, into which a substantial circular feature (1016), unfortunately containing no finds, was cut. The land surface (1017) is characterized by a distinctive reddish colour, and

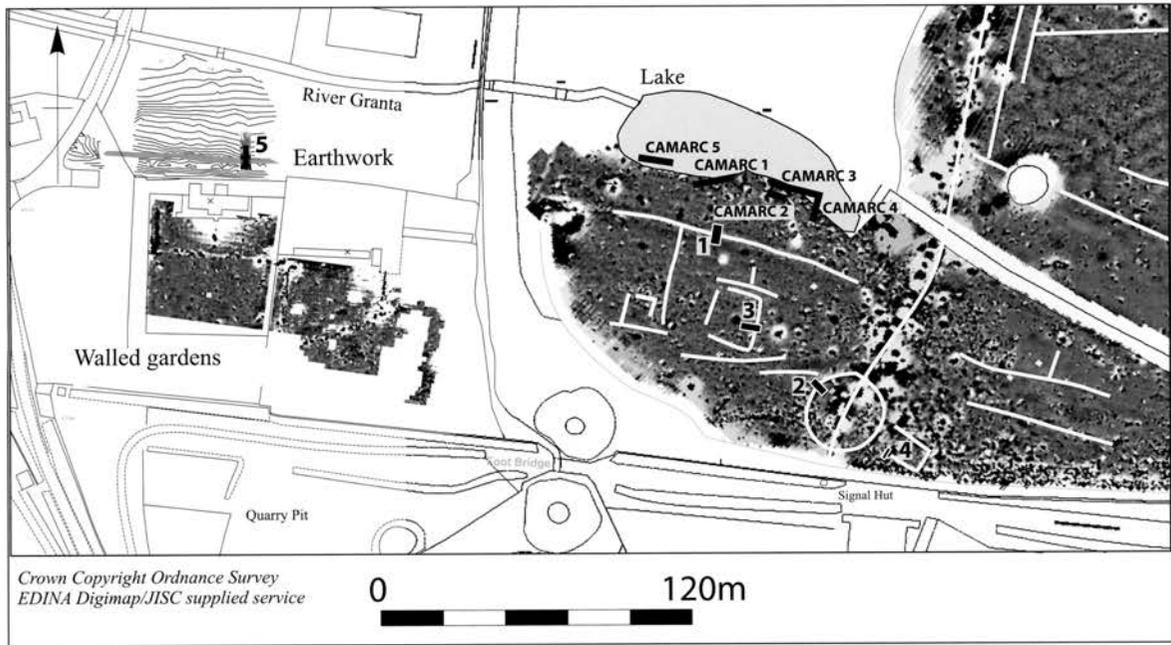


Figure 4. Excavation trenches by CAMARC 2004 and Eckardt 2007 in relation to the results of the 2006 and 2007 magnetometry surveys.

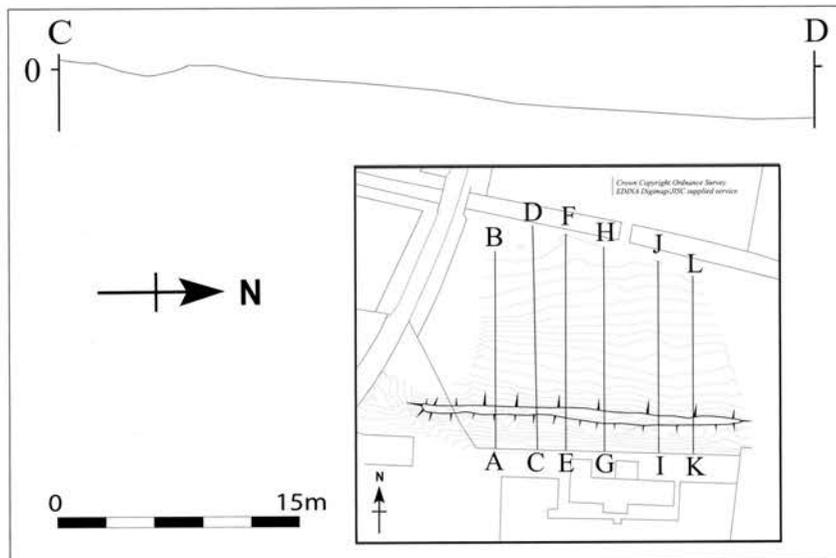


Figure 5. The topographical survey of the earthwork north of the walled gardens (Sophie Hay).

was observed at both the northern and southern end of the slot. The ditch cut (1022) is clearer at the southern end while it appears to be stepped at the much more disturbed northern side. The base of the ditch was filled with some re-deposited natural, into which two features (1019, 1020) were cut; these may well represent postholes but the features contained no datable material. The ditch appears to have been re-cut (1008), now measuring 2.30m in width and 0.5m in depth.

As observed in this section, the original ditch cut measured 0.80m in depth and 2.80 in width. The width measurement tallies well with antiquarian

observations, but they observed a V-shaped profile, which is not evident here. The overall monument was clearly much more impressive in the 1850s than it was in the early twentieth century, let alone today, and the effect of this landscaping is clearly visible in the section. While the sandy silty fill 1009 may represent natural erosion and the gradual infilling of the ditch, 1006 is clearly a deliberate and significant attempt at landscaping this area. This is a substantial deposit of yellow silty sand designed to level this area of Bartlow Park. There is some slip-off or leveling from the bank (1004, 1005), which is clearly much reduced



Figure 6. Trench 1. Top: view along the earthwork looking west; below, looking south.

in height now (0.60m) compared to the antiquarian observations. 1004 contained pottery dated to the nineteenth century. Context 1005 contained a half-penny of 1916, indicating that some of this landscaping took place during Brocklebank's time at Bartlow, but possibly after Haverfield's visit. The topsoil (1000, 1001) contained nineteenth century pottery and gun cartridges. A clay deposit (1002) at the much more disturbed northern end of the trench is interpreted as a possible garden path; this feature contained pottery dated to the seventeenth century.

It is interesting that the only context in Trench 1 that yielded only Roman pottery is 1010, a spit cut down to natural within the slot. As this was cutting through the bank and original land surface, it at least provides a possible *terminus post quem* of the fourth century for the construction of the earthwork (see pottery report below).

Trench 5

Trench 5 was located in the woodlands to the north of the walled gardens to offer a second section through

a better preserved part of the same linear earthwork. The trench (Fig. 4) was extended both N and S by 2m in a narrow slot to establish whether the ditch was on the outside or inside of the bank, and to explore the nature of the second 'bank' rising towards the brick wall of the walled garden at the southern end of the slot.

The section (Fig. 8) falls into two sharply divided parts. In the northern (*i.e.* extending towards the Granta) part of the trench, a substantial ditch was cut into natural (5009), which in this area consisted of yellowish silty sandy alluvial deposits. The ditch cut (5008) was 2.9m wide, and at least 0.7m deep. Its northern end is much less clearly defined, which may be the result of subsequent landscaping or of the original land surface sloping down towards the Granta. This ditch is filled by a deposit of clean re-deposited yellow river sands (5010), which is in turn overlain by a further leveling deposit (5007) containing a Roman and an undated sherd. The bank associated with this ditch (5002, 5003, 5004) was made of a grayish-brown silty sand with frequent large flints. Some material

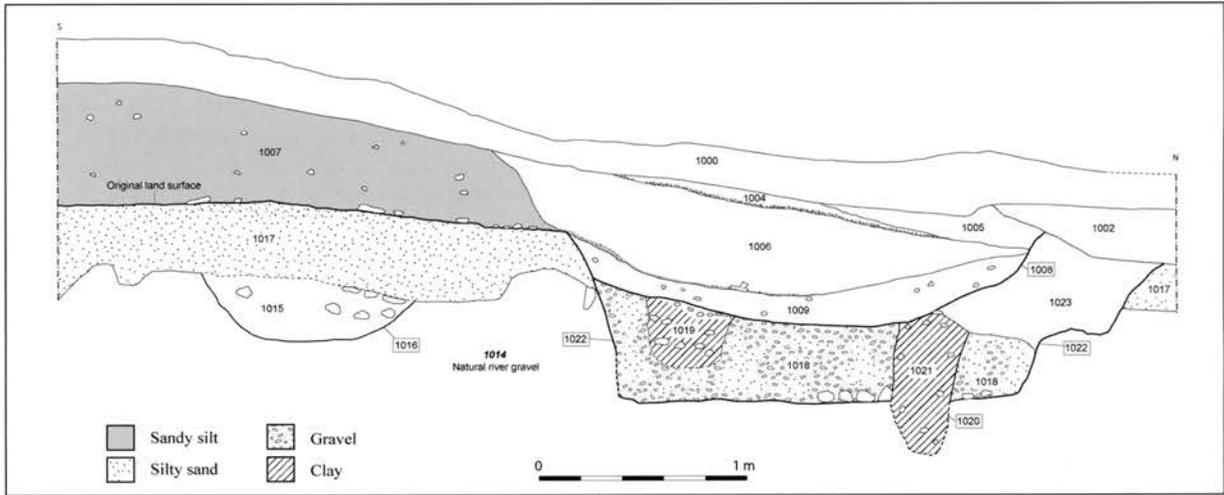


Figure 7. Section of Trench 1 (drawn by E. Aspeock).

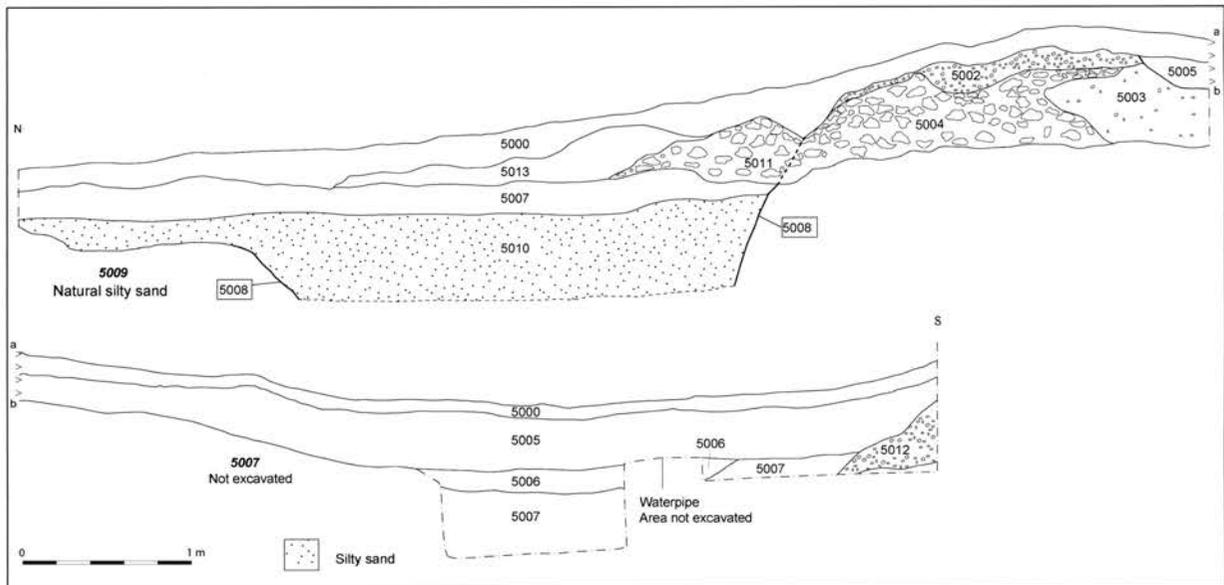


Figure 8. N-S Section of Trench 5 (drawn by E. Aspeock).

from this bank (5011) appears to have slipped onto the ditch fill. Pottery from the apparently undisturbed part of the bank (5004) is dated to the third to fourth century AD. In the slot cut through the bank and into natural at the highest preserved point of the bank (5001), pottery dated to the second century was found. This included a possibly already residual fragment of Samian dating to the second century, and two sherds of later second-century date (see pottery report below). In contrast to Trench 1, where there was a suggestion of a fourth-century date from the slot but no securely stratified material, the pottery from the slot in Trench 5 suggests a *terminus post quem* of the later second century, and the material from the bank in Trench 5 a third- to fourth-century date. Overall, it could therefore be argued that the linear earthwork is not contemporary with the barrows but, at the earli-

est, dates to the later Roman period.

The slot extended S towards the walled garden showed a much more disturbed picture, and high levels of post-Roman activity. The bank with its large flints is cut away, ending in a sharply defined line (Fig. 8), and exposing the dark brownish light woodland soil defined as 5005. This overlay an area of more compacted lighter brown soil containing concentrations of small stones and flints (5006), which we interpret as a droveway. 5006 contained a few fragments of tile, which are not Roman, but probably post-date the sixteenth century and could be as late as nineteenth century in date (pers. com. Pat Ryan). Cut into 5006 is a modern plastic water pipe. A trial slot dug into 5006 to test its depth reached natural (5009), and gave no indication of a ditch in this area. The only context with pottery (5007) contained one Roman and

one undated, possibly post-medieval sherd. The relationship between 5007 and 5005 to the bank (5004) is not clear as the relevant area (5003 and 5002) is badly disturbed. There is a further deposit containing substantial flints at the southern end of the slot (5012), and during excavation it was thought that this could be the original continuation of the main bank (5004). However, 5012 contained seventeenth-century and later pottery, thus indicating it relates to the possible droveway.

While it is possible that both 'banks' are post-medieval, we prefer to view the evidence as indicating a third to fourth century Roman ditch and bank, which is disturbed in the post-medieval period to create a wide access path (possibly to the walled gardens) with a central compacted area and a 'bank' adjacent to the walled garden.

Funerary structures

The Bartlow Hills were erected over individual burials, with only minimal evidence for later burials having been inserted directly into the mounds (VCH 1963, 42). It is likely, however, that the barrows were surrounded by an extensive cemetery for the lower-status inhabitants of the villa estate. This is supported by the discovery of fifteen skeletons during the construction of the railway (Brocklebank 1913, 254).

Trench 3 was located to target a rectangular feature with a central circular anomaly on the geophysical survey, thought to represent a possible funerary enclosure (Fig. 4). Excavation identified a small ditch and pit, both interpreted as settlement evidence associated with the villa and therefore discussed below.

There may also originally have been more than seven Romano-British barrows at Bartlow. As discussed in the Victoria County History (1963, 39), the earliest reference to the Bartlow Hills (Holinshed Chronicle 1586 edn, i.177) refers to the destruction of a barrow (bringing the original number up to eight). A passage in Camden's *Britannia* (Gibson 1988, 352) states that 'when two others in the same place were dug up and searched we are told that they found three stone coffins and an abundance of pieces of bone in them' (VCH 1963, 39). This may be a mistake and refer to discoveries elsewhere in the area, or it may indicate the presence of other mounds at Bartlow. The geophysical survey identified a circular feature with a diameter of 31m to the north-east of the mounds (Fig. 4). Given its size and location, this was thought to represent a possible 'lost' barrow, and Trench 2 was located across a relatively undisturbed section on its NW side.

In the location predicted by the geophysical survey, a substantial curving ridge was noted in the natural chalk (see Eckardt *et al.* 2007 for detailed discussion). It is possible that this was cut on its eastern side, but there was no return cut; there was also no surviving buried land surface, or other evidence for a substantive mound. Excavation identified levelling deposits, containing late third to fourth century pottery and a

coin (SF 5, see below) of later fourth century date. It is possible that the feature represents a natural knoll, a prehistoric or an early Roman barrow. For the main mounds at Bartlow, no substantial ditches were recorded, and the date of the leveling deposits could be interpreted as the destruction and covering of an earlier mound during the main (later Roman) phase of villa use. It was not possible to extend the trench towards the (assumed) centre of the mound due to a large tree growing there; in any case the geophysical survey demonstrated the presence of an iron fence line running through the center.

The cemetery by the Granta

In 2004 an evaluation was carried out prior to the construction of a lake in the grounds of Bartlow Park (Beauchamp & Macaulay 2004, Fig. 4). The two western trenches (CAMARC 1 and 5) were devoid of finds and structures; CAMARC Trenches 3 and 4 contained ditches, possible robbed walls and pits or postholes (Fig. 9). The burials were also concentrated in the two eastern trenches, with a single inhumation in CAMARC Trench 3 and four cremations and another inhumation in CAMARC Trench 2 to the south. All were preserved *in situ*, and therefore only partially excavated and recorded.

Cremation 1 was contained in a Horningsea greyware jar associated with a samian cup (Drag 33) stamped by DOCCIUS ii. This is a potter active in Lezoux between AD 150–160 (Ward in Beauchamp & Macaulay 2004, 16). Cremation 2 was placed within a large greyware jar which was positioned on top of a Drag. 31 dish stamped CNATI M. The potter GNATIUS ii was active from AD 130–155, with the form (probably Drag 31) suggesting a date of c. AD 145 or later (Ward in Beauchamp & Macaulay 2004, 15). Cremation 3 was contained within a very large Horningsea greyware bowl. A samian vessel was placed within it, but not excavated and therefore not identified. Visible within the soil matrix contained in the greyware bowl were burnt bones and the unburnt skull of an infant or child. The inclusion of an unburnt skull in a cremation urn represents a highly unusual burial rite. Cremation 4 was placed within a greyware jar; no associated finds were recorded.

The four cremations are arranged in a semicircle (Fig. 9) and the excavator suggests that the cremations were covered by a small mound (Beauchamp & Macaulay 2004, 7). A smaller mound containing multiple cremations would represent a different practice to the burial rites in the large barrows, where a single cremation was placed at the centre of the mound. However, given the nature of the antiquarian excavations, it is of course possible that secondary burials at the perimeter of the large mounds were missed by the antiquarian excavators.

Just to the south of these cremations was an extended sub-adult burial orientated EW, with only the femur and part of the skull exposed (Fig. 9). Iron nails were discovered near the feet (east), as was a small Nene Valley cup base of second to fourth century date. The stratigraphic relationship between

the cremations and this inhumation burial was not established, but it seems likely that the inhumation represents a later intrusion into an area containing multiple, roughly contemporary cremations.

A further inhumation burial was uncovered just to the N in Trench 3 (Fig. 9), but not excavated beyond exposing the skull. This also appears to be a sub-adult, but orientated NS; a single sherd of Roman pottery and an iron nail were found. The grave was located immediately next to a small ditch.

The burials excavated by CAMARC in 2004, together with the inhumations recorded during the cutting of the railway (Brocklebank 1913, 254) suggest that the Bartlow Hills were surrounded by an extensive cemetery, both during the period of barrow construction (cremations) and probably afterwards (inhumations). Our excavation suggests that the earthwork now separating the CAMARC 2004 cremations from the mounds was constructed after the small cremation cemetery by the Granta fell out

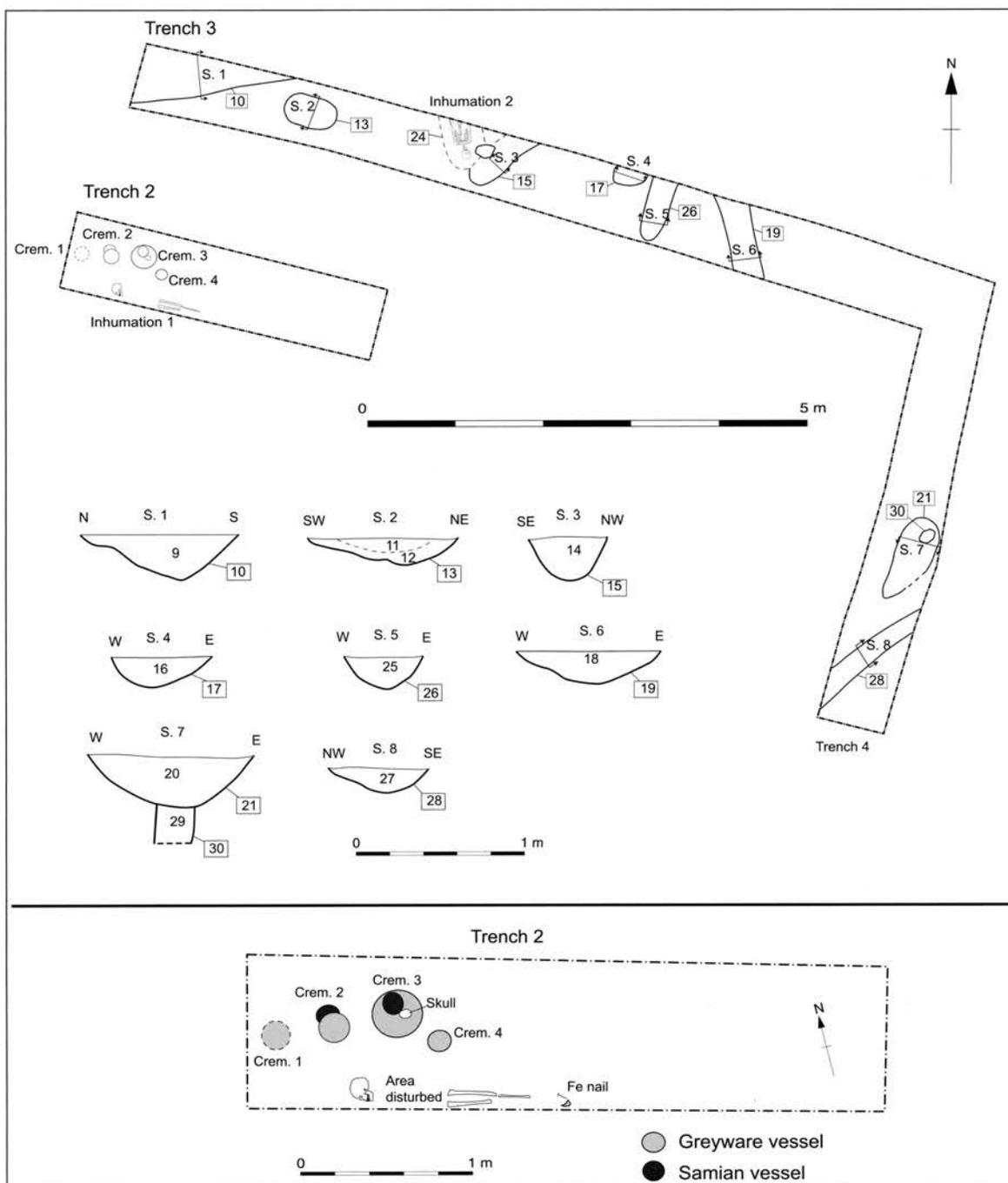


Figure 9. Plan of the 2004 CAMARC watching brief (re-drawn from Beauchamp and Macaulay 2004, fig. 2 by E. Aspoeck).

of use but that it may have functioned to demarcate an area of later Roman inhumation burials from the mounds and the elusive villa.

Settlement near the Bartlow Hills

There is extensive evidence for settlement near the mounds, consisting both of antiquarian accounts of stray finds (mainly coins) and of Neville's discovery of a bathhouse in 1852.

The villa

Richard Neville was a prominent and active local antiquarian, who had a long-standing interest in Bartlow, having been present in 1835 at the opening of the largest of the barrows (Neville 1847, 31). He had been given permission by the landowner, Viscount Maynard, to trench in the area of the Bartlow Hills but initially only found 'the bones of horses, fragments of pottery and a fine third brass coin of Urbs Roma' (Neville 1847, 30–33). Following the discovery of the bathhouse, Neville (1853, 17–21) published a very brief account of his excavation, but while the Museum of Archaeology & Anthropology in Cambridge does preserve many of his notebooks and drawings on other sites in the vicinity, none of his original notes on the Bartlow villa survive today. His findings were summarised by Fox (1923, 185), Rodwell (1978, 31; No 41), Scott (1993, 32–33, 60) and Taylor (1998, 19; see also Cambridge SMR 06164).

Neville first uncovered a substantial well, the top fill of which contained an infant skeleton, while lower fills consisted almost exclusively of building rubble (flint, tiles and wall plaster). The water table was reached at a depth of c. 10m. Just to the south were the remains of a substantial building. The building measured 48ft NS and 43ft EW, and had flint and tile walls, a lead pipe and two heated rooms. Neville was clearly confused by the NW side of the building, where an opening in the wall of the smaller hypocaust and a curved wall appear to suggest further structures, but where the chalk appeared undisturbed (Neville 1853, 19). Dating evidence comes in the form of coins (Domitian, Hadrian, Constantine & Decentius and a samian stamp (GIINI).

The exact location of Neville's villa is now lost. He describes the site as 'within 100 yards of the north-eastern base of the celebrated tumuli', in a field owned by the Rev. Mr. Dayrell; the site is labelled as 'Church Field' by Fox (1923, 185). The tithe apportionment maps of 1845 and 1869 (Cambridgeshire County Records Office, P9/27/3) show a 'Church Meadow Field' as extending either side of the Granta. Fox (1923, 189) suggests that 'the persistence of tradition or the unrecorded discovery of foundations accounts for many curious names locally attached to Roman sites; 'Church Field' or 'Sunken Church Field' are the sites of Roman houses at Ickleton, Bartlow and Hadstock (and Great Abington). These names probably date from pre-conquest times when churches only were built of stone, and it was assumed that

such foundations were ecclesiastic in character'. On the other hand, the field may simply have belonged to the nearby Church of St Mary's.

What was probably part of the same building was disturbed during the cutting of the railway line when workmen found foundations c. 100 yards east of the hills (Brocklebank 1913, 254); among the finds were a coin of Tacitus, a small bronze bell and a flint axe. Brocklebank (1913, 254) records that 'suggestive traces of buildings remain in an obviously untouched condition in the park of Bartlow House, just beside the railway', and abutting the linear earthwork. Finally, both on the original sketch and 1916 RCHM plan, Haverfield notes the remains of a Roman building near the railway. The 2006 geophysical survey failed to identify convincing evidence for the location of the villa, although possible rectangular features were identified immediately to the north of the mounds, and in the area indicated by Haverfield (Fig. 4).

In any case, the distance of 100 yards can hardly be taken to be an accurate measurement, not least because we do not know from which mound it was measured. Trenches 2 and 3 were located within a radius of 100 yards measured from the northernmost of the largest mounds while Trench 4 was positioned just outside it to target the geophysical anomalies identified in 2006.

Other settlement evidence

Large quantities of Roman finds continued to be uncovered in the vicinity of the mounds after the excavation of the bathhouse. In three weeks of further trenching, which presumably yielded no further structural remains, Neville (1853, 20) found 350 coins, mostly of late Roman date. The VCH (1963) records that Brocklebank had 305 coins ranging from Claudius to the House of Theodosius from near the Bartlow Hills and south of the stream. Brocklebank himself (1913, 255) records that gardening in the vicinity of the earthwork rarely failed to yield pottery and coins, with Constantinian coins again being among the most common. From oral histories collected by Gibson (1988, 279–299) it appears that Brocklebank paid his gardeners for the discovery of Roman coins. Brocklebank (1913, 255) also mentions rubbish pits containing abundant oyster shells, and the discovery of 18 coin moulds (for *denarii* of Severus, Julia Domna, Caracalla and Geta) in a rubbish pit on the western edge of the walled garden of Bartlow House (VCH 1963, 44; Boon 1974, 111; King 1996, 259; Robinson 1931/2, 181¹). The practice of using clay moulds impressed with the designs of official coins to produce alloyed silver or plated copper coins appears to have been common in the Severan period, perhaps triggered by the emergence of the *antoninianus* (Sutherland 1937, 42–48). Discoveries of

1 The moulds were then held in the British Museum, and are described 'per favour of the keeper and assistance of Dr Brookes, and Mr Mattingly (Coins and Medals Dept.) as one obverse of Severus, LSEPTSEV PER laureate right with blank on other side and one obverse of Severus SEVERUS PIUSAUG with other side blank'.

multiple moulds are not uncommon, with particularly large groups recorded from Lingwell Gate, York and Edington, Somerset and Ryton (Sutherland 1937, 44). Large-scale production at major centres such as York may indicate official sanction of these coins, but the discovery of multiple moulds from a rural site such as Bartlow remains puzzling.

Trench 3

Two main features were observed in Trench 3, both also identified on the geophysical survey (Fig. 4; Fig. 10). One is a shallow ditch cut (3003) running N-S, and measuring 0.2m in depth and 0.8m in width. The ditch fill (3004) contained late third century pottery. The subsoil and topsoil (3001, 3000) in this area contained nineteenth century and later pottery and a clay tobacco pipe fragment, again indicating subsequent activity within Bartlow Park.

The other feature uncovered within Trench 3 is a very substantial pit, with its cut (3015) reaching a depth of at least 1.3m; only approximately a quarter of its original diameter was excavated. The fill (3008) of black-brown silty soil contained frequent charcoal inclusions, and a large amount of finds, including pottery, ceramic building material, nails, slag, oyster shells and animal bone. This appears to be one of the few undisturbed contexts uncovered, containing pottery dated to c. AD 325–400.

While the geophysical survey may have been interpreted as a small funerary enclosure with a central burial pit, the finds clearly identify the feature as a late Roman rubbish pit.

Trench 4

Trench 4 was located to examine the geophysical anomalies identified in this area, the location of which corresponds to Haverfield's plan and which were thought to possibly represent part of the villa (Fig. 4). Trench 4 failed to yield evidence of Roman occupation or structures; a detailed discussion is provided in Eckardt *et al.* (2007). It did, however, reveal the extent of landscaping and dumping within Bartlow Park. The natural in this area is Chalk (Fig. 11), overlain by possible floor and levelling deposits containing some Roman material, including a fragment of a fourth century copper-alloy bracelet (see below). This is covered by a very substantial dumping deposit containing large quantities of modern brick and other building rubble, which in turn is covered by a per-

fectly preserved buried land surface (Fig. 11). If this is the land surface extant in 1916, it may be thought that Haverfield mistook the uneven surfaces created by these substantial dumps for the remains of a villa. However, the dating of the bricks to after 1923 (see report by P Ryan below) conclusively demonstrates this not to be the case. While this trench may have not located the villa, it does demonstrate the validity of Haverfield's observations as well as the extent of the subsequent landscaping. The post-1923 land surface is itself covered by a very substantial landscaping deposit of yellowish compacted clay, designed to level this area of Bartlow Park where the ground originally rose quite sharply towards the south. This levelling deposit contained third century pottery and a fourth century coin, and no modern material, so may have been removed from another part of the site.

Enough time elapsed between the brick dump and the clay dump for a grassy land surface to form. The dating of the bricks makes it certain that the dumping occurred after Haverfield's visit to the site in 1916, explaining why both he and Brocklebank saw substantial remains which are now completely obscured. The most likely dates for the dumping of building material in this area are wartime road building, dumping associated with the destruction of the old Bartlow Park House in the 1950s, construction of the new house in 1965, or with the dismantling of the railway in the 1960s. The extent of the dumping and landscaping in this area also has obvious implications for the interpretation of the geophysical survey.

Test pits

Given the extent of the landscaping in Bartlow Park, and the lack of modern archaeological work on the surrounding areas, ten 1 x 1m test pits were excavated to establish the depth of natural and the nature of the overlying deposits. Four sections were also dug into the sides of the railway embankment, as the railway line is thought to have cut the villa c. 100 yards [91m] east of the mounds (Fig. 3; Eckardt *et al.* 2007; 2008).

Test Pit 1 was located in the woodland to the east of the mounds and just to the south of the railway line, and thus in the vicinity of the possible villa. Beneath the topsoil a substantial (0.48m) deposit of yellowish sandy soil was observed, which appeared to continue but become more compacted at a depth of 0.8m from the surface.

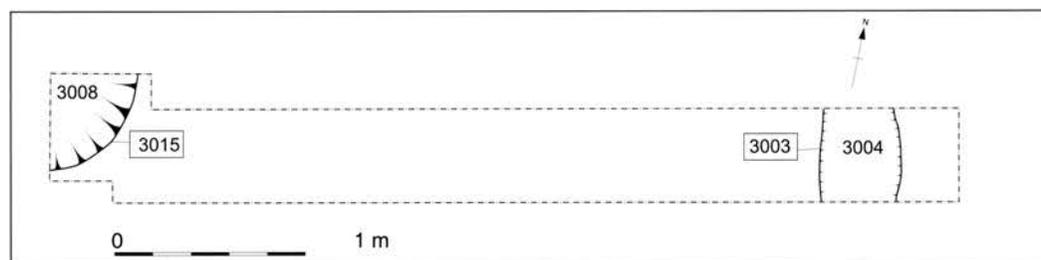


Figure 10. Plan of Trench 3 (drawn by E. Aspöck).

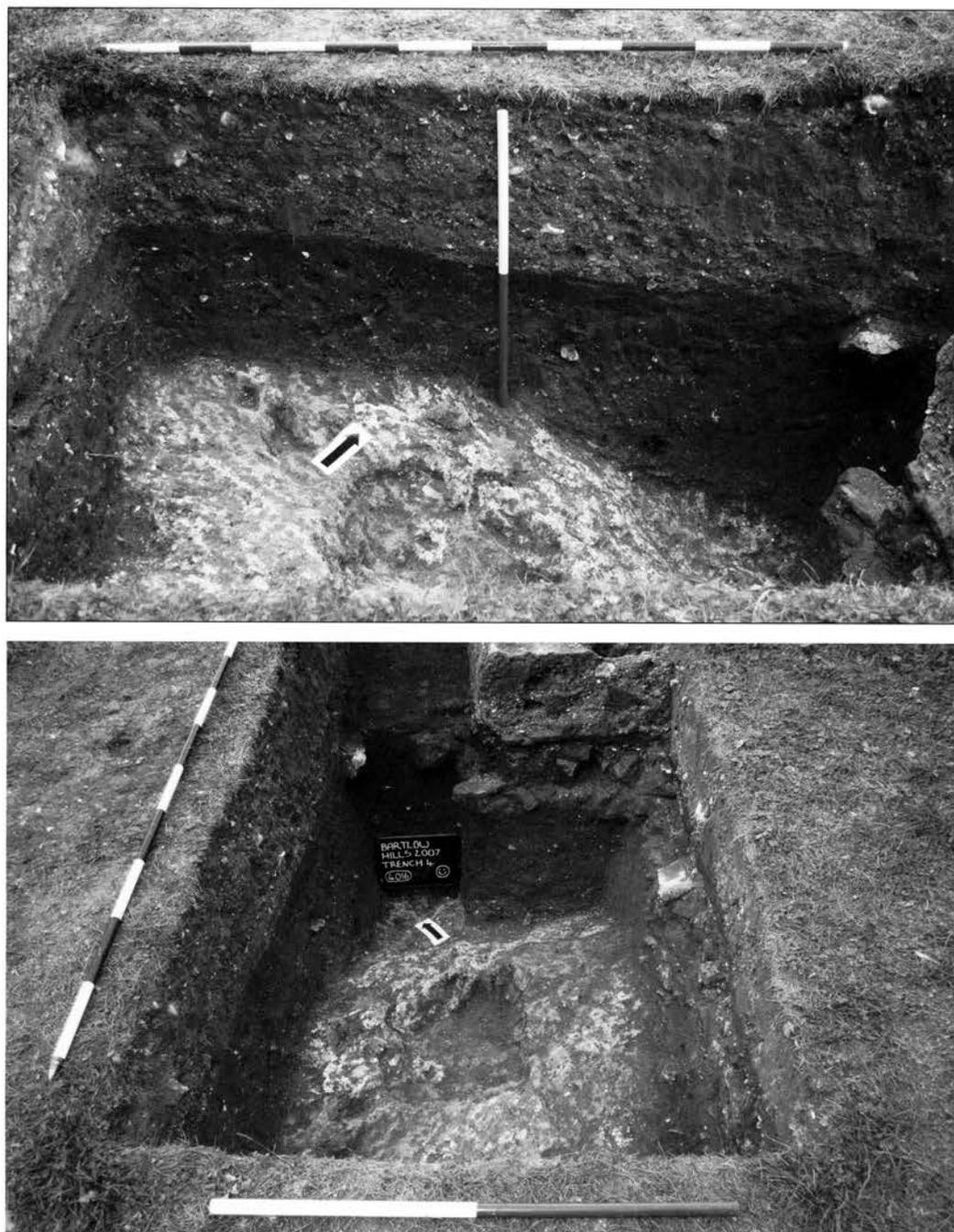


Figure 11. Top and below, views of Trench 4

Test Pit 2 was located at the northern edge of Hills Farm Paddock, the large field to the SE of the mounds. It is aligned with the substantial loading platform which may have obliterated all trace of the villa in the wooded area. This pit revealed a much more shallow overburden, with the natural Chalk reached at a depth of only 0.3m. Test Pits 3 and 4 were located on the western edge of the same field. The stratigraphic sequence in Test Pit 4 (located further away from the woodland edge) is similar to that in Test Pit 2, but the natural chalk was reached at a depth of 0.6m. Test Pit 3 was shallower, reaching natural at 0.3m. The differences in depth may relate to the effects of agriculture, or possibly the linear earthwork observed on the geophysical survey in this area.

Test Pit 5 was located in Keith's Paddock, immediately to the south of the large mounds. The topsoil and subsoil again proved to be relatively shallow in this area, with natural reached at a depth of 0.3m.

Test Pits 6 and 7 were within the walled gardens. Test Pit 6, in the older (eastern) of the two gardens, showed layers of well-worked rich garden soil, with a mid brown silty sandy deposit reached at ca. 0.7m interpreted as natural. Test Pit 7 showed similar, but slightly shallower, layers of topsoil and subsoil, with a light brown sandy natural reached at 0.5m.

Test pits 8, 9 and 10 are located in Bartlow Park, to the south of the excavation trenches near the top of the slope. While

all three yielded some Roman material, there was once again no undisturbed archaeology. The natural Chalk was reached at a depth of between 1.2m and 0.5m (Eckardt *et al.* 2008).

The railway sections were dug into the northern side of the railway embankment at a distance from the base of the northernmost mounds of 40m, 55m, 71m and 80m, taking account of railway and agricultural installations along the line. These sections were designed to examine the nature of stratigraphy in this area, and to test the antiquarian suggestion of further villa remains uncovered within a distance of 100 yards (91m) from the mounds. Only Section 2 and 3 (at a distance of 55m and 71m) yielded small quantities of Roman material, and section 3 (at 71m) contained some possible burnt occupation debris (Eckardt *et al.* 2008). However, there was no undisturbed archaeology and the natural Chalk was reached at a depth of between 0.3m and 0.6m.

Overall, the test pitting has demonstrated the elusive nature of Neville's villa, and the extent of subsequent landscaping and construction work; the railway embankment sections have confirmed possible occupation at roughly the distance recorded during railway construction. It seems most likely that the construction of the railway and loading platform have obliterated all trace of this building.

Finds

Coins

- SF 3, context 1005, Trench 1: Halfpenny of George V; 1916. Obverse: Portrait to l., GEORGIUS V DEI GRA: BRITT: OMN: REX FID: DEF: IND: IMP:. Reverse: seated Britannia to r., HALF PENNY, 1916.
- SF 4, Context 4006, Trench 4: Obverse: helmeted Roma to the l., URBS ROMA (illegible). Reverse: she-wolf with twins; mint mark in exergue: TR P (with dot between R and P)? AD 330-335 (LRBC 65).
- SF 5, context 2002, Trench 2: Very worn coin, with legend largely illegible. Obverse: Bust of emperor with diadem facing r.; reverse: emperor l. with standard and shield (GLORIA NOVI SAECULI). Mint mark not legible, but type limited to Gratian at Arles (Reece & James 1986, 40-41) and dated to AD 367-375 (*cf.* LRBC 498-529).
- Test pit 10: very worn 1st century AD Dupondius.

Roman Bracelets

- SF 15, context 4015, Trench 4 (Fig. 12): Copper-alloy bracelet with hook-and-eye clasp, with only the hook and part of the bracelet surviving. The decoration consists of alternating notches, creating a chip-carved effect. A similar example from a grave at Colchester Butt Road is dated to AD 320-450 (Crummy 1983, 38, fig. 43.1653), and another is known from topsoil at Richborough (Bushe-Fox 1928, 50, pl. XXII.61). Swift (2000, figs. 168-9) illustrates the distribution in Roman Britain of bracelets decorated in this way.
- SF 2, Context 1000, trench 1: copper-alloy bracelet with central groove and feathering. A similar example is known from a fifth-seventh century context at Uley

(Woodward & Leach 1993, fig. 128.13); Swift (2000, fig. 206) illustrates the type's distribution.

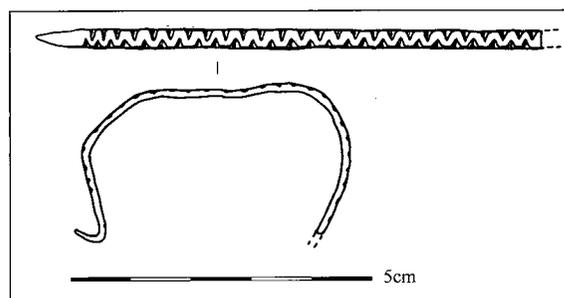


Figure 12. Bracelet (SF 15), drawn by R. Blackburn.

The Pottery from the 2007 excavation

Jane Timby

Introduction

The 2007 excavations at Bartlow resulted in the recovery of 485 sherds of pottery weighing 4,013g largely dating to the Roman and post-medieval periods. In general terms the assemblage was in very poor condition, reflected in the overall average sherd weight of just 8.2g, quite low for Roman and post-medieval material which is generally well-fired and quite robust. Following a comment on the methodology used, the assemblage is briefly described by broad period; pottery from two contexts, 5001 and 3008, the latter identified as undisturbed, is then discussed in more detail.

Methodology

The Roman assemblage was sorted into broad fabric groups based on the inclusions present, the frequency and grade of any inclusions and the firing colour. Known regional or traded wares were coded following the system advocated for the National Roman reference collection (Tomber & Dore 1998). The sorted assemblage was quantified by sherd count and weight for each recorded context. The resulting data was entered on to an Excel spreadsheet. Table 1 summarises the data for each recorded context. Dating in many cases has had to remain quite vague as many contexts produced unfeatured local wares or just single sherds, which could date to anytime after the earliest known production date. These are marked with + signs in Table 1. Some pieces could not be confidently dated to period and these remain undated.

Roman

At least 83.5% of the assemblage by sherd count dates to the Roman period, some 405 sherds, although most of this appears to be redeposited in later collections. There were at least 11 contexts exclusively with Roman material (see Table 1). The chronological bias of the assemblage is very much towards the later Roman period.

In terms of composition the assemblage is quite limited. The only continental import is Samian of which there are eight sherds. The main regional imports are from the Oxfordshire industry. Most of the remaining pieces derive from fairly local sources. A breakdown of the main wares can be found in Table 2. Reduced grey and black sandy wares account for 50.8% of the group. Some of these are Nene Valley grey wares, others are currently unsourced. The forms suggest that most of these date to the later Roman period, for example, flanged bowls and plain-rim dishes. The second commonest ware is Hadham ware (HAD OX), which accounts for 22% of the assemblage. This industry based in Hertfordshire starts around the mid third century but reaches its maximum distribution in the fourth century. Most of the vessels here are jars with at least one sherd with a pushed-out boss, and one mortarium.

Lower Nene Valley colour-coated ware (LNV CC) accounts for a further 7.6% with examples of jars, plain-rim dishes, beakers, a box and flanged bowls. Again the emphasis is on fourth century vessels. Four sherds of Lower Nene Valley whiteware (LNV WH) are also present including one mortarium piece. The other main fabrics are local shelly wares amongst which were triangular-rim jars and rilled bodysherds typical of the later fourth century. A small amount of Oxfordshire ware was present including a single whiteware mortarium (OXF WH: Young 1977, form M22) with a production date of AD 240–400 and 12 sherds of colour-coated ware (OXF RS). The latter includes Young (*ibid.*) forms C100, C75, C45 and C51, broadly dating to the same period, although the bowl C75 is considered to date to after AD 325.

The eight sherds of samian are mainly very small scraps but probably all Central Gaulish. Recognisable

Table 1. Pottery overview: dates.

Context	Roman	Med	Pmed	nd	Total no	Total wt	cbm	Date
1000	39	0	4	3	46	181	4	C19th+
1001	7	0	2	0	9	34		mid C19+
1002	0	0	1	1	2	18		C17+
1003	1	0	1	2	4	15		C18th+
1004	14	0	2	0	16	160	3	C19th+
1010	5	0	0	0	5	27	1	C4
2000	8	0	3	5	16	72	3	C16-17th
2001	11	0	0	0	11	85		C4
2002	45	0	0	0	45	303		late C3-C4
2003	13	0	0	0	13	73		late C3+
3000	2	0	7	1	10	51		C19th+
3001	130	0	7	0	137	1463	5	C19th+
3004	10	0	0	0	10	45		late C3+
3008	69	0	0	0	69	756		325-400
4000	7	0	2	0	9	60	1	C17+
4002	1	0	0	0	1	2	2	late C3+
4003	1	0	1	0	2	14		C17+
4006	4	0	0	0	4	11		C3-C4
4012	2	0	4	0	6	71	1	C19th+
4013	0	0	2	1	3	12		C18+
4015	3	0	1	1	5	34		Pmed
5000	0	0	13	0	13	51		C17+
5001	3	0	0	0	3	31		C3+
5004	5	0	0	0	5	37		C3-C4
5007	1	0	0	1	2	8	1	Pmed
5012	0	0	3	0	3	30		C17+
Test Pit 2	2	0	1	0	3	8		C19th+
Test Pit 6	0	0	2	0	2	2		mid C19th+
Test Pit 7	2	0	0	0	2	6		Roman
top earthwork	0	0	4	2	6	85	1	C20
wood/S field	17	1	0	1	19	164		Med/?Sx/Ro
Copt Hill	3	1	0	0	4	104		Med
TOTAL	402	1	60	18	481	3909	22	

forms include one decorated piece from a bowl Dr 30 (2003), one rim probably from a Dr 37 (5001) and a bodysherd from a cup Dr 33 (5004).

Most of the wares grouped under 'other' on Table 2 are anonymous oxidised wares. Of note are one sherd with spots of white painted decoration and one sherd with traces of a micaceous slip. Some may be colour-coated wares which have lost their surface.

Contexts 3008 and 5001

Context 3008, a rubbish pit, produced one of the larger assemblages with 69 sherds of Roman date. This is a good group of material with most of the typical later Roman fabrics present and several featured sherds. Amongst the wares present are six sherds of OXF RS with examples of Young (1977) forms C45, C51 and C75. The latter bowl is given a production date by Young (1977) of AD 325-400. Also present are 27 sherds of HAD OX, mainly jar, and one LNV CC jar again typically found in fourth century deposits. The shelly ware includes a triangular-rim jar and the large number of grey wares flanged bowls and plain-rim dishes. On balance a date in the mid to later fourth century would seem likely for this context.

Context 5001, the slot through the bank of the

earthwork, by contrast only produced three sherds, one rim of Central Gaulish samian probably from a bowl Dr 37 and two bodysherds, one LNV CC, the other a grey ware (LNV RE). The LNV CC sherd is from a dish, but without the rim the form cannot be determined although it is unlikely to date before the later second century, suggesting that the Samian may already be residual or curated.

Roman Quernstone

A complete upper quernstone (Fig. 13) was found by John Goodchild in the stream bed of the Granta some years ago. It is of Mayen lava (*cf.* Crawford & Röder 1955) and thus imported from the German Rhineland. Querns of this material occur on a range of sites in Britain (e.g. Shaffrey 2003, 154-156), but are perhaps especially important on first century military sites (e.g. Usk: Welfare 1995).

Roman flue tile fragments

It is clear from Neville's (1853) plan of the villa that he encountered substantial amounts of Romano-British brick and tile. Small fragments were present in most features excavated this year, with a few substantial but clearly re-deposited flue tile fragments also recov-

Table 2. Pottery overview: fabrics.

Context	Samian	LNV CC	LNV WH	HAD OX	OXF WH	OXF RS	Shell	Grey	Other	Total
1000	1	1	0	11	0	0	2	22	2	39
1001	1	1	0	0	0	0	0	5	0	7
1003	0	0	0	1	0	0	0	0	0	1
1004	0	1	0	3	0	0	0	9	1	14
1010	0	0	0	2	0	1	0	2	0	5
2000	0	2	0	2	0	0	0	4	0	8
2001	0	0	0	3	0	0	0	6	2	11
2002	0	2	0	18	0	2	3	15	5	45
2003	1	1	0	0	0	1	2	6	2	13
3000	0	0	0	0	0	0	0	2	0	2
3001	2	11	3	13	0	0	9	83	9	130
3004	0	1	0	4	0	0	0	2	3	10
3008	0	7	1	27	0	7	7	20	0	69
4000	0	2	0	0	0	0	0	4	1	7
4002	0	0	0	1	0	0	0	0	0	1
4003	0	0	0	0	0	0	0	1	0	1
4006	0	0	0	1	0	0	1	2	0	4
4012	0	0	0	0	0	0	0	2	0	2
4015	0	1	0	0	0	0	1	1	0	3
5001	1	1	0	0	0	0	0	1	0	3
5004	1	0	0	0	0	1	0	3	0	5
5007	0	0	0	0	0	0	0	1	0	1
Copt Hill	0	0	0	2	0	0	0	1	0	3
Test Pit 7	0	0	0	0	0	0	0	1	1	2
Test Pit 2	1	0	0	0	0	0	0	0	1	2
wood/S field	0	0	0	1	1	0	0	13	2	17
TOTAL	8	31	4	89	1	12	25	206	29	405

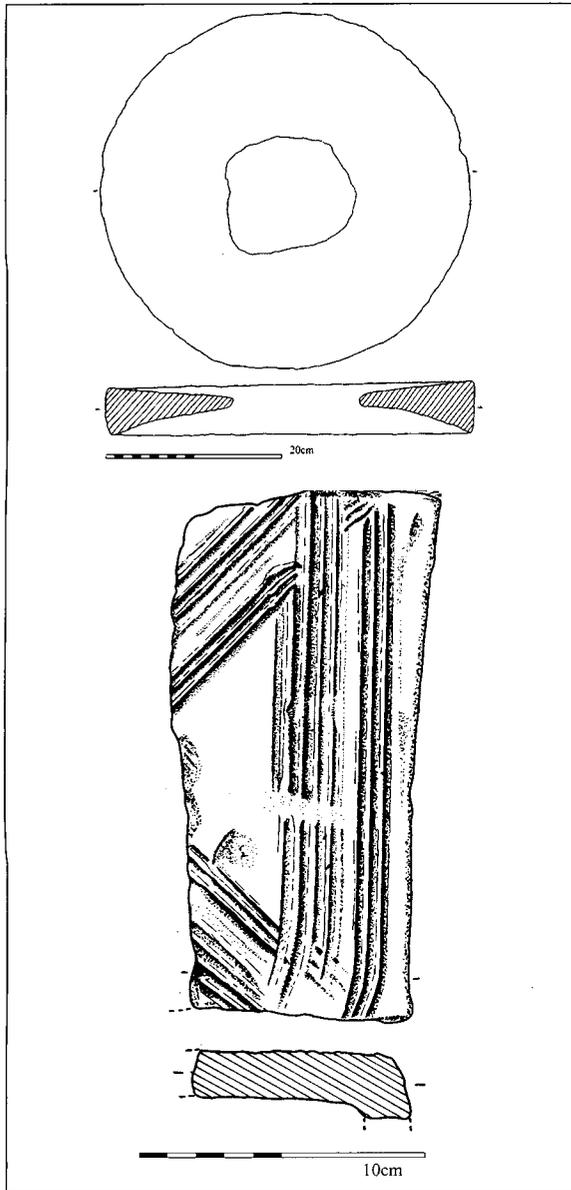


Figure 13. Quernstone and flue tile fragment (drawn by R Blackburn).

ered. The largest fragment decorated with a combed pattern (Fig. 13) was found in Trench 4, context 4014.

Both Rodwell (1982, fig. 1) and Couchman (1979, fig. 19) illustrate the distribution of tile (and pottery) kilns in Essex, with the production sites closest to Bartlow recorded at Ashdon, where two tile kilns are known. The one excavated by Neville (1853, 21–24) is thought to be located at TL 588 388 (McWhirr 1979, 123; VCH Essex, 45; Rodwell 1982, 73; Couchman 1979, 51). This was clearly a very substantial structure, with an internal size of 3.5 x 2.6m (McWhirr 1979, 104, 123–126, fig. 6.8), significantly larger than many Romano-British tile kilns (Rodwell 1982, 73; cf. McWhirr 1979, 123). On the basis of the design of the cross flues, this kiln belongs to McWhirr's Group 3, the most common Romano-British tile kiln type. While Constantinian

coins were found, their context and therefore the date of the kiln are not known. Couchman (1979, 51) also lists a possible tile kiln at TL 565 427 (ECC AR No: 54.78; Essex SMR 4843). This location is just south of Bowser's Farm, the site of another villa excavated by Neville (1853; cf. Essex SMR 4760; Scott 1993, 60, ES 4; Rodwell 1978, 31, No 40; VCH Essex, 44).

Modern bricks

Pat Ryan

The large brick dump (4012) found in Trench 4 contained a mixture of bricks, mainly of late nineteenth century date. Even where stamps are illegible or only partially preserved, such a date can be suggested for stamped bricks, as the practice of stamping the names or initials of brick-making firms in the 'frogs' of bricks is thought to have been introduced in the 1870s. Some of the bricks had a glazed white surface, suggesting they were used for bathrooms or kitchens. Several examples have travelled considerable distances, in particular those produced in the later nineteenth century in Wortley near Leeds, and stamped by Cliff & Sons (cf. Eckardt *et al.* 2008).

A number of bricks are products of the London Brick Company, founded in 1899. Of particular relevance for the dating of our feature are the bricks stamped 'LBC Phorpres'. B J Forder & Son introduced machines that gave each brick four pressings and patented the trademark Phorpres in 1901 (Woodforde 1976, 152–3). Forders was amalgamated with the London Brick Company in 1923, suggesting that the bricks showing a combination of both stamps were manufactured after 1923.

Conclusion

The excavation succeeded in testing the results of the geophysical survey, and in particular in defining the enclosing earthwork. While the earthwork has clearly been disturbed by antiquarian explorations and altered by subsequent landscaping, the excavation established its remaining profile, and suggested a likely *terminus post quem* for its construction in the later Roman (third to fourth century) period. Where evidence for occupation was encountered (Trenches 2, 4 and especially 3), a similar third to fourth century date is suggested by both pottery and coins. This is in contrast to the funerary remains, with the mounds themselves dating to the later first to early second century AD, and the cremations near the Granta dating to the mid-later second century. This contrast may suggest a change in use of the site, with an earlier ritual site gradually being replaced by settlement. On the other hand, it is almost certain that the barrow builders had a substantial home close-by, and the antiquarian reports do record first and second century coins from the site. The inhumation skeletons uncovered both by the railway cutting and by the Granta in 2004 can also be taken to suggest that even the later phases were not exclusively focused on domestic occupation. It should also be stressed that it is quite

likely that the large mounds were manipulated in the later Roman period, as indicated by finds of pottery and human remains (Taylor 1998, 19; VCH Essex 1963, 42). Perhaps their height was increased at the same time as the enclosing earthwork was constructed?

Questions remain about the exact function of the earthwork. It may have served to separate the villa from the cemetery by the river, but enclosed the barrows within this supposed settlement area. Its extension westward is especially curious, but may relate to Gage's lost barrow (Gage 1834, 2–3). It is also possible that the villa estate was located underneath the walled gardens, as indicated by the discovery of occupation debris, coins and coin moulds in that area. While we suggest a Roman date for the earthwork, it should be acknowledged that no securely stratified pottery was found on the buried land surface beneath the bank in either Trench 1 or 5, and we can therefore still not exclude the possibility that the linear earthwork is a medieval or post-medieval feature.

A major result of the excavation within Bartlow Park has been to demonstrate the extent of landscaping, and the effect this had both on the geophysical survey and the underlying archaeology. Beauchamp & Macaulay (2004, 12) already noted the 'surprising' lack of finds, which they attribute to the landscaping of the Bartlow Park gardens and the lack of recent soil disturbance. Equally, Jane Timby comments that the pottery assemblage was in poor condition, perhaps reflecting secondary deposition. Trench 4 in particular also illustrated that the depth of completely undocumented dumping is likely to obscure archaeological features on the geophysical survey.

Test pitting also failed to identify undisturbed archaeological features, suggesting that the villa is now completely destroyed, and may well have been located beneath the railway and loading platform. The apparent discrepancy between the largely third to fourth century settlement evidence and the late first to second century burials remains puzzling, as does the exact nature and function of Neville's villa. Antiquarian excavators like Neville would have struggled to recognise the timber remains of the main building, only recording the masonry remains of a bath house near the Granta. However, given the proximity of this bath building to the mounds, it is possible that the building also had a ritual function, a suggestion perhaps supported by the large numbers of coins found in the area. A similar interpretation has recently been offered for the equally poorly understood Chronicle Hills at Whittlesford, Cambridgeshire (Taylor & Arbon 2007), where a group of possibly Roman mounds is also located near the river, next to a possible bath or shrine and other settlement evidence. It is possible that the Bartlow Hills are on the site of earlier Bronze Age mounds, as significant quantities of worked flint were found, but the antiquarian excavations recorded no secure evidence for such a re-use or redevelopment of a pre-historic ritual site at Bartlow.

The Bartlow Hills are located on a minor ridge within the wider natural valley. If the villa and bath-

house/shrine were indeed located to the north-east and east, the smaller mounds would not have been visible, raising some interesting questions about their visual impact on the surrounding landscape. The wider landscape context of these striking monuments has been addressed through GIS analysis (Eckardt & Brewer forthcoming). This has plotted the distribution of all Romano-British roads, settlement and funerary evidence within a 10km radius of Bartlow, exploring whether the mounds were visible from surrounding roads and settlements. Results suggest a focus on a very local audience, with the mounds almost invisible from the major Roman roads crossing the area. Despite the difficulties of re-interpreting a site so strongly affected by antiquarian exploration and subsequent landscaping, we hope that this paper has served to put the Bartlow Hills into their local archaeological context.

Acknowledgements

We would like to thank the landowners, Sue Fitzpatrick and John Gunnell for permission to excavate within Bartlow Park, and for their support and interest in the project. Lee Avery was also always extremely helpful, despite the large holes we made in his lawn. We are also grateful to Major Breitmeyer for allowing excavation in the woodland, and for access to the walled gardens for the geophysical survey.

John Goodchild provided much advice and help, as well as some old finds and new information on the Copt Hill villa.

Archive research was funded by a grant from the Roman Research Trust; thanks also to Wendy Brown, who facilitated access to the Richard Neville paper archive held by Cambridge Museum of Archaeology & Anthropology.

Thanks are due to Rob Cole and Sophie Hay (Archaeological Prospection Services, University of Southampton) for their survey work, and to Dave Thornley and Rob Fry (both University of Reading) for the geophysical survey. We had a brilliant team of diggers, both from the University of Reading (James Aldous, Nat Anderson, Frank Bartlett, Rob Fry, Nicola Hall, Katie Inman, Alex Latham, Kevin Moon, Katie Ruffell) and from Cambridge (Sarah Poppy) and Bartlow (Helen Goodchild). Jon Tierney drove the minibus, dug like a demon and beat us all at darts. Special thanks to Mike Fulford for all his support, and to Simon James, David Mattingly and Martin Millett for their references. Sarah Poppy also was an enormous help with SMR records, and the final deposition of the archive.

We would also like to thank the specialists involved in post-excavation analysis and the preparation of this report. Pat Ryan kindly reported on the brick and tile, and Jane Timby on the pottery. Rebecca Blackburn (artefacts), Edeltraud Aspöck (sections) and Margaret Mathews (plans and graphics) provided the illustrations. Thanks to Alison Taylor for bringing the Richard Relhan painting to my attention.

We gratefully acknowledge the financial support of the British Academy, the Royal Archaeological Institute and the Society of Antiquaries of London.

Bibliography

- Astin, T & H Eckardt, with S Hay 2007 Resistivity Imaging Survey of the Roman barrows at Bartlow, Cambridgeshire, UK. *Archaeological Prospection* 14: 24–37
- Beauchamp, C & S Macaulay 2004 *Romano-British burials at Bartlow Park, Cambridgeshire: an archaeological evaluation*. Cambridgeshire County Council CAU Report No. 715.
- Boon, G C 1974 'Counterfeit coins in Roman Britain'. In J Casey & R Reece (eds) *Coins and the Archaeologist*. Oxford: BAR, 95–171
- Brocklebank, C G 1913 The Bartlow Hills. *Journal of the British Archaeological Association* 19: 249–254
- Bushe-Fox, J P 1928 *Second report on the excavation of the Roman fort at Richborough*. Oxford: Society of Antiquaries
- Couchman, C R 1979 Work of the Essex County Council Archaeology Section, 1978. *Essex Archaeology & History* 11: 32–77
- Crawford, O G S & J Röder 1955 The quern quarries of Mayen in the Eifel. *Ant.* 29: 68–76
- Crummy, N 1983 *The Roman small finds from excavations in Colchester 1971–9*. Colchester: Colchester Archaeological Trust
- Dunning, G C & R F Jessup 1936 Roman barrows. *Ant.* 10: 37–53
- Eckardt, H with S Hay, D Thornley, R Fry and K Bax 2006 *Contextualising the Roman Rural Cemetery at Bartlow, Cambridgeshire*. Reading: Unpublished interim report
- Eckardt, H with A Clarke, S Macaulay, P Ryan, C Speed & J Timby 2007 *Bartlow 2007 Excavation and geophysical survey*. Reading: Unpublished interim report
- Eckardt, H. with A Clarke, P Lock, C Speed, R Tegg & D Thornley 2008 *Fieldwork at Bartlow March 2008*. Reading: Unpublished interim report
- Eckardt, H & P Brewer forthcoming (2009) Roman barrows and their landscape context—a GIS case study at Bartlow, Cambridgeshire. *Britannia* 40
- Fox, C 1923 *The Archaeology of the Cambridge region*. Cambridge: CUP
- Gage, J 1834 A plan of the barrows called the Bartlow Hills, in the parish of Ashdon in Essex, with an account of Roman sepulchral relics recently discovered in the lesser barrows. *Archaeologia* 25: 1–23
- Gage, J 1836 The recent discovery of Roman sepulchral relics in one of the greater barrows at Bartlow, in the parish of Ashdon, Essex. *Archaeologia* 26: 300–317
- Gage, J 1840 An account of further discoveries of Roman sepulchral relics at the Bartlow Hills. *Archaeologia* 28: 1–6
- Gage, J 1842 An account of the final excavations made at the Bartlow Hills. *Archaeologia* 29: 1–4
- Gibson, A 1988 *Annals of Ashdon, no ordinary village*. Chelmsford: Essex Record Office
- Goddard, A R 1899 The Bartlow Hills. *Transactions of the Essex Archaeological Society* VII: 348–355
- King, C 1996 'Roman Copies'. In C King & D Wigg (eds) *Coin finds and Coin use in the Roman world*. Berlin: Gebr. Mann Verlag, 237–263
- Jessup, R F 1959 Barrows and walled cemeteries in Roman Britain. *Journal of the British Archaeological Association* 22: 1–32
- LRBC = Hill, P V & J P C Kent 1972 *Late Roman Bronze Coinage AD 324–498*. London: Spink & Son
- Masters, P 2004 *Fluxgate gradiometer survey: Bartlow Park, Bartlow, Cambridgeshire*. Lincoln: Unpublished Pre-construct geophysics report
- McWhirr, A D 1979 'Roman tile-kilns in Britain'. In A D McWhirr (ed) *Roman brick and tile*. Oxford: BAR, 97–189
- Neville, R C 1847 *Antiqua Explorata: being the results of excavations made by Hon. R.C. Neville, during 1845–1847 in and about the Roman station at Chesterford, and other spots in the vicinity of Audley End*. Saffron Walden: Youngman
- Neville, R C 1853 Investigations of Roman remains in the County of Essex. *Archaeological Journal* 10: 14–24
- RCHM Essex 1916 *The ancient monuments of north-west Essex: fourth interim report. The Royal Commission on the Ancient and Historical Monuments and Constructions of England*. London: HMSO
- Reece, R & S James 1986 *Identifying Roman coins*. London: Spink
- Robinson, A E 1931/2 False and imitation Roman coins. *Journal of the Antiquarian Association of the British Isles* II.1: 171–184
- Rodwell, W 1978 'Rivenhall and the emergence of first-century villas in northern Essex'. In M Todd (ed.) *Studies in the Romano-British villa*. Leicester: Leicester University Press, 11–32
- Rodwell, W 1982 The production and distribution of pottery and tiles in the territory of the Trinovantes. *Essex Archaeology and History* 14: 15–76
- Scott, E 1993 *A Gazetteer of Roman Villas in Britain*. Leicester: University of Leicester
- Shaffrey, R 2003 The rotary querns from the Society of Antiquaries' excavations at Silchester, 1890, 1909. *Britannia* 34: 143–174
- Sutherland, C H V 1937 *Coinage and currency in Roman Britain*. Oxford: OUP
- Swift, E 2000 *Regionality in dress accessories in the late Roman West*. Montagnac: Éditions Monique Mergoïl
- Taylor, A 1998 *Archaeology of Cambridgeshire. Vol. 1: South-west Cambridgeshire*. March: Cambridgeshire County Council
- Taylor, C & A Arbon 2007 The Chronicle Hills, Whittlesford, Cambridgeshire. *PCAS* XCVI: 21–40
- Tomber, R & J Dore 1998 *The National Roman fabric reference collection: a handbook*. London: Museum of London / English Heritage/ British Museum
- VCH Essex 3 1963 *A History of the County of Essex III. Roman Essex*. Ed. By W R Powell 1963. London: OUP
- Young, C J 1977 *The Roman pottery industry of the Oxford region*. Oxford: BAR
- Welfare, A 1995 'The milling-stones'. In W H Manning, J Price & J Webster *The Roman small finds. Report on the excavations at Usk 1965–1976*. Cardiff: University of Wales Press, 214–237
- Wigg, A 1993 'Barrows in northeastern Gallia Belgica: cultural and social aspects'. In M Struck (ed.) *Römerzeitliche Gräber als Quellen zu Religion, Bevölkerungsstruktur und Sozialgeschichte*. Mainz: Institut für Vor- und Frühgeschichte, 371–379
- Woodforde, J 1976 *Bricks to build a house*. London: Routledge.
- Woodward, A & P Leach 1993 *The Uley shrines. Excavation of a ritual complex on West Hill, Uley, Gloucestershire: 1977–9*. London: English Heritage & British Museum Press.



Plate 1. Richard Relhan, view of the Bartlow Hills from the northwest. By kind permission of the Cambridge Antiquarian Society. Photograph copyright Kim Osborne 2006.

Senuna, goddess of the river Rhee or Henney

Stephen Yeates

In 2002 the remains of a hoard were recovered comprising: gold jewellery, a silver figurine with an inscribed base, two silver model arms, and twenty votive plaques, seven of which were gold and thirteen silver (Figs 1 and 2, Plates 2 and 3) The find, first reported in *Britannia* in 2005 (Tomlin and Hassall 2005, 489), was described as being found near Baldock. The name of the goddess represented was given as *Senuna*, and the site was described as a location where springs rose. Because of this the name was associated with the south-British river *Senua*, as mentioned in the *Ravenna Cosmography* (Rivet & Smith 1979, 455). The site was discussed further in a recent article (Jackson & Burleigh 2007, 37–54). Here, more of the plaques were described and in more detail, including the appearance of the goddess's name on a number of different artefacts. The exact location of the religious complex is, at present, being kept secret but is now known to be some 80m from the bank of the River Rhee, which originates at Ashwell, and more than 1.3km from the large spring there. There is no direct association between *Senuna* and the river—her attributes are those of *Minerva*—but if any river could be considered to have a connection then it would have to be the Rhee. The goddess's association with the attributes of *Minerva* does not preclude her association with a river, as *Minerva* was associated with the goddess *Sulis* at the hot spring site at Bath (RIB(I) 1995, nos. 141, 143–4, 146–150).

The village of Ashwell, which takes its name from a spring, lies at the head of the River Rhee, which flows north into Cambridgeshire and is alternatively known by the names *Cam*, and *Granta* (see Fig. 3). These names were discussed in the place-name volume on Cambridgeshire and the Isle of Ely (Reaney 1943, 2–3). A medieval record gives the name of the river as *ripariam de Heneya*, in 1260. The name has been associated with the *Henney*, in Cambridge, but the name *Henney* appears twice along the length of this river, the other example being further up the course. *Henney Lane* was recorded as a lost Cambridge name, which used to be applied to the road running from the centre of Cambridge to the river. The name was re-



Figure 1. Gold plaque (no. 14) embossed with the image of Minerva, with dedication to Dea Senuna by Memorianus inscribed on the basal tab. Photo Trevor Springett, copyright British Museum. See also Plate 2.



Figure 2. Detail of silver plaque (no. 17) showing elegantly-incised dedication to Dea Senuna by Herbonianus. Photo Trevor Springett, copyright British Museum. See also Plate 3.

corded as *Henneyestrete*, in 1329, and *Hemneye*, in 1362. This lane took its name from an area of Cambridge called *Heneye*, in c. 1227; *Henhaye*, in 1272; and *Heneneye*, in 1340. The land was also called *Henabbay*, in 1448, and *Henabbey*, in 1455. The interpretation of this name is given as *henn-ēg*; an island or low-lying land frequented by wildfowl. This, on the surface, is a reasonable interpretation; however, there is further evidence which complicates the issue.

The second name, which appeared at Henny Hill and Henny Farm, has a slightly different spelling and is found in the parish of Soham. The name was first recorded as *Haneia* or *Henney*, in 1086; as *Hen(n)ey(e)* or *Henneie*, in 1190 to 1490; and as *Henneye Hyll*, in 1557. In 1279 it was recorded as *Enneye*. The interpretation of the name has also been given *henn-ēg*, island. The island referred to is the most prominent raised land in the vicinity of the confluence of the rivers Rhee and Cam along the old course of the Great Ouse. The location is important and parallels can be drawn with the location of similar names ending in *ēg* or *ēa*, meaning island or stream. A notable number of examples can be advanced. These include the Gloucestershire names South Cerney on the confluence of the River Churn, Down Ampney, near the confluence of the Ampney Brook, and the Oxfordshire name Charney, which lies near the confluence of the Charn. Henny sits in a similar type of location. In all these other cases there is some evidence for the confusion of the two English words *ēg* and *ēa*, a confusion known to have occurred in Middle English.

The name of the goddess given on the plaques has survived in a number of forms. On the base of the statuette the name is recorded as *SENVNE* (Jackson

& Burleigh 2007, 37–54). On the gold plaques the name inscribed is *SENVN* and *SENVNE*. On the silver plaques the names in the inscriptions are *SENVNAE*, and the abbreviated form *SE*. There is also the form *SIINAIL*, where the name is abbreviated without the central <u>. There is no specific way of dating the artefacts, or determining which of the inscriptions came first. One of the plaques was dedicated by *Lucilia Sena*, and it has been suggested that the name of the dedicator resulted in the name of the goddess being ‘infected’ with that of the dedicator. An alternative suggestion, by Tomlin (2008, 305–315), is that there may have been two spellings of the goddess’s name: *Senuna* and *Sena*. This philological change cannot be explained properly as yet but could, perhaps, be seen as a truncation of the early Roman name. It is known that certain names were truncated quite radically; for example *Manduessedum* > *Manecestre* (Gover et al. 1936, 85–86). The Ravenna records the name twice: *Sena*, as a conflated name, and *Senua*, which is considered to be a copying error of *Senna* (Rivet & Smith 1979, 455). It is feasible, therefore, but not proven categorically, that by the end of the fourth century and into the fifth century, the name could have become *Sena* or *Senna*, predominantly. It could also be the case, as Tomlin suggested, that this was an alternative name for the goddess.

The Roman material which was recovered from Ashwell is considered to be from the shrine of a river-goddess called *Senuna*, later *Sena*, and possibly *Senna*. The river, which hypothetically would have shared her name, would have risen at Ashwell and flowed past Cambridge to its confluence with the Great Ouse, near Henny; or as it is now recorded on the Ordnance

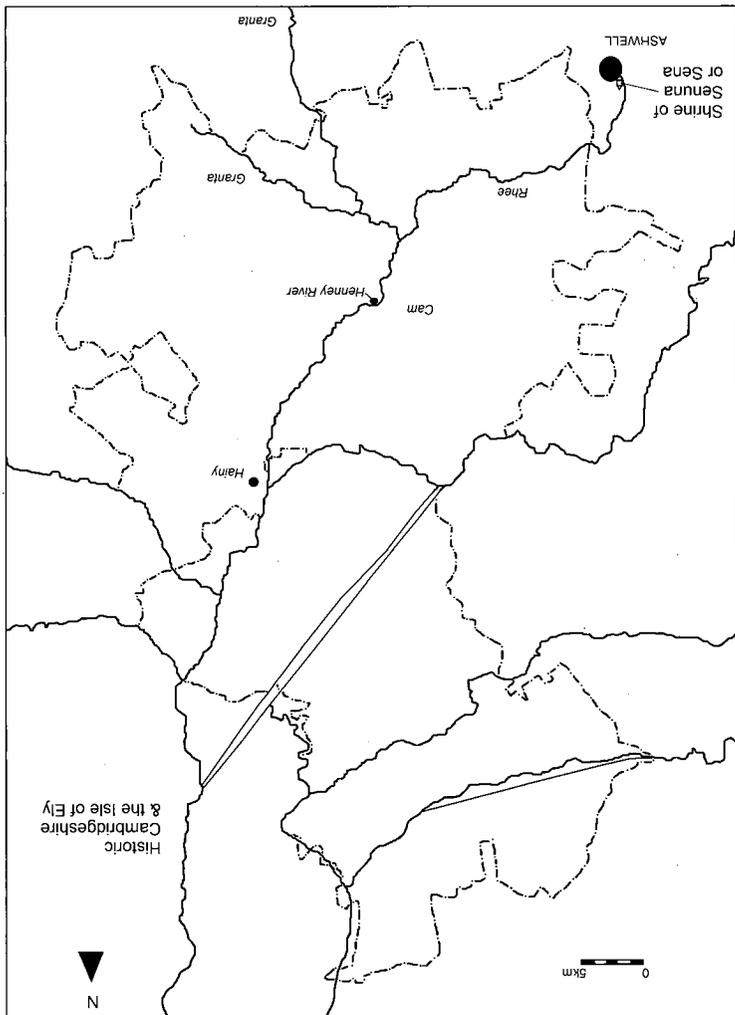


Figure 3. The location of the shrine to Senuna in relation to other places mentioned in the text.

the same process was suggested by Smith (1964, ii.15-16) for the Gloucestershire name Hailes. An important fact about the name *Sabrina* (Severn) is that it has suffered a number of changes depending on which language it was recorded in: Old Welsh, Latin, or Old English.

The paper which discussed the inscriptions to the goddess *Senuna* (Jackson & Burleigh 2007, 37-54) suggested that the name was associated with *seno-*, meaning old. Other Hen- river-names have already been recognised in Britain; these include the *Henunc*, recorded in AD 972, which was presumably an older name for the Worcestershire Piddle (Mawer & Stenton 1927, 222-223). Ekwall (1928, 148) associated the name with the Welsh *emnick*, initially given as Welsh 'hen' (old). It is possible that the -ic here is derived from a river-suffix.

A further and important implication is that the change of the initial letter from <s> to <h> occurred in the late sixth century. This change is known to have occurred in Welsh and, by inference, this means that the people in the Hertfordshire and Cambridge area must have still been speaking Welsh, a related language, or a mixed Anglo-Welsh language as late as c. AD 600. This agrees with what is known about the

Survey maps, Hairy. The philological changes which would have occurred to the name *Senuna* can be assessed from what we know from other linguistic alterations. At the end of the fourth century the plaque evidence indicates that there were already two different spellings, the central part of the name being truncated with the loss of a <un> to *Senā* or *Senna* in one form. Besides this the principle process which should be considered is the initial change of the consonant <s> to a <h>; this was a recognised process in the late sixth century (Jackson 1953, 517-521). There is an accepted corpus of Welsh words where this process occurs in place-names and in certain Welsh titles and everyday words, when they are compared to their Latin equivalents. One example was first recorded as *Sabrina* (the Severn) but later became the Welsh *Haften*. The name *Sucat* was used as a title in Ireland for Saint Patrick but the later Welsh recording of the word is *Hygud*. These, along with other names, including river-names, were recorded by Jackson; other examples include **Samosispa* > *Hanespa* (a Hampshire river), and the *Henunc* in Worcestershire. Some of these names were recognised to have developed this process at an earlier date. Ekwall (1928) used this measure for the Huntingdon river name Hailes and

historical development in the area of the Fens. The area of the Fens and the Chilterns around Ashwell would have lain on, or near, the boundaries of the Iron Age tribes of the *Iceni*, centred on later Norfolk and Suffolk, and the *Catuvellauni*, focused on the north Chilterns and probably extending north into Northamptonshire. These Iron Age tribal territories would have been transformed into Roman *civitates*. The political development of the area into the early medieval period has not been explained satisfactorily, but Morris (1973, 211, 314), in an assessment of the textual material, considered that Welsh was common as a spoken language well into the seventh century. This theory derived from evidence from a number of documented sources. In AD 571, the English are said to have defeated a British army near Bedford. A Welsh poet also mentioned that there was a Welsh kingdom called *Calchvynydd* (the hills of limestone and chalk) at this time. A later Welshman recorded that the kingdom of *Calchvynydd* contained the towns of Northampton and Dunstable, and that the kingdom was considered to have been the continuation of a Roman *civitas*. In 705 Saint Guthlac was troubled by a group of independent British, who retained their speech and hostility, in the Fen area. This would mean that, by the beginning of the seventh century, there is some evidence for the survival of an independent British kingdom in the Fenland area, and that some type of British language was still being spoken at the beginning of the eighth century.

Reaney (1943, xvii–xix) considered that the survival of Celtic river-names was slight in Cambridgeshire, but the interpretation described tends to dispute this; it maybe we are simply unaware of which names are Celtic. Confusion concerning the river-names in this area may have started at an early date; Cambridge was, in c. 730, referred to as *Grantacaestir*, the fort on the Grant. The Grant rose in a different place from the Henney, but below Grantchester at least two different names seem to have been used for the same river. Both names are considered to be of Celtic origin, if the present interpretation of Granta is correct. From this it is evident that river-names were still being confused in the eighth century AD.

The present name for the River Rhee is of Middle English origin and has been recognised for a number of rivers, notably the Warwickshire Rea (Demidowicz 1988, 81–4, Yeates 2006, 77). The name originated in textual sources as the Middle English **at ther ea*, interpreted as ‘at the river’. The name would have been established when ‘the’ was becoming the invariable definite article and the dative *ther* was becoming obsolete. This occurred in the fourteenth century at the latest. In the case of the Warwickshire river, the name replaced the British derived river-name Cole. It is apparent, therefore, that the name Rhee is much later than the names Henney and Cam, which must contain the relics of a possible earlier name.

Acknowledgements

I would like to thank Dr David Yeates and Professor Martin Henig, for reading through earlier versions of this paper, and the anonymous reviewer.

Cambridge Antiquarian Society and the author are grateful for the support and assistance of Dr Ralph Jackson of the British Museum.

Bibliography

- Demidowicz, G 1988 From river Cole to river Rea. *Transactions of the Birmingham and Warwickshire Archaeological Society* 95: 81–4
- Ekwall, E 1928. *English river-names*. Oxford: OUP
- Gover, J E B, A Mawer & F M Stenton 1936 *The place-names of Warwickshire*. Cambridge: CUP
- Jackson, K 1953 *Language and history in early Britain: a chronological survey of the Brittonic languages first to twelfth centuries AD*. Edinburgh: Edinburgh University Press
- Jackson, R & G Burleigh 2007 ‘The Senuna treasure and shrine at Ashwell (Herts)’. In *Continuity and innovation in religion in the Roman West, volume 1*. in R Haeussler & A C King (ed) 37–54. Portsmouth: Journal of Roman Archaeology Supplementary Series 67
- Mawer, A & F M Stenton 1927 *The place-names of Worcestershire*. Cambridge: CUP
- Morris, J 1973 *The age of Arthur: a history of the British Isles from 350 to 650*. London: Weidenfeld
- Reaney, P H 1943 *The place-names of Cambridgeshire and the Isle of Ely*. Cambridge: CUP
- RIB(I) 1995 *Roman Inscriptions in Britain I: inscriptions on stone*. Stroud: Alan Sutton
- Rivet, A L F & C Smith 1979 *The place-names of Roman Britain*. London: B. T. Batsford
- Smith, A. H. 1964 *The Place-names of Gloucestershire, part 2: The North and West Cotswolds*. Cambridge: CUP
- Tomlin, R S O 2008 ‘Dea Senuna: a new goddess from Britain’. In *Instrumenta Inscripta Latina II: aktendesz internationalen, kolloquiums klagenfurt, 5-8 Mai 2005* in M Hainzmann & R Wedenig (ed) 305–315. Klagenfurt: Verlag des Geschichtsvereines fur Karnten
- Tomlin, R S O & M W C Hassall 2005 Roman Britain in 2004: 3, inscriptions. *Britannia* 36: 473–497
- Yeates, S 2006 River-names, Celtic and Old English: their dual medieval and post-medieval personalities. *Journal of the English Place-Name Society* 38: 63–81



Left: Plate 2. Gold plaque (no. 14) embossed with the image of Minerva, with dedication to Dea Senuna by Memorianus inscribed on the basal tab. Photo Trevor Springett, copyright British Museum.

Below: Plate 3. Detail of silver plaque (no. 17) showing elegantly-incised dedication to Dea Senuna by Herbonianus. Photo Trevor Springett, copyright British Museum.



A reappraisal of the evidence for the 'northern arm' of the Fleam Dyke at Fen Ditton

Scott Kenney

Recent archaeological investigations to the north of High Ditch Road on the eastern edge of Fen Ditton (TL 4879 6019) have prompted a reappraisal of the evidence for the existence of the postulated northern arm of Fleam Dyke. Two evaluations were undertaken in 2006 and 2007 on land at Home Farm by Oxford Archaeology East (formerly CAM ARC). One of the core aims of the work was to determine the presence or absence of the putative element of Fleam Dyke, shown on Ordnance Survey maps as crossing the site. While ditches were observed during evaluation, they were eighteenth century in date and no archaeology earlier than the medieval period was uncovered.

Fen Ditton

Fen Ditton parish lies to the north-east of Cambridge within the old Flendish Hundred and is mentioned in land transactions before AD 991. The name itself is usually interpreted as meaning 'farm by the ditch' in Anglo-Saxon. The medieval village ran northwards, adjacent to the River Cam, with the church denoting its southern end and the manor house of the Bishops of Ely marking its northern extent. Only in the post-medieval period was the village extended eastwards along the road to Quy Mill (Wareham & Wright 2002, 118).

To the south-east of the village at Greenhouse Farm, excavations and other investigations revealed extensive Iron Age occupation and Roman kilns (Hinman, forthcoming; CHER 13023, CB14592). In the field to the north of the present site, abraded sherds of Roman pottery were found during fieldwalking prior to construction of the A45/A14 (CHER 11201A).

No finds of Anglo-Saxon date have yet come from the village, despite the name Fen Ditton having its origin in that period. The Church of St Mary the Virgin dates from the twelfth century, although no standing fabric of that period survives. While High Ditch Road is so named by 1821, the medieval field at the eastern end of the parish was already referred to by this name. High Ditch itself is indicated on an early eighteenth-century map (see below). Home Farm and

the dovecote that stands in the farmyard to the west of the site are both eighteenth century although the house may have earlier origins.

The site lies on the Cretaceous Lower Chalk (British Geological Survey 1975) and is divided by a scarp running east to west (Fig. 1). To the north of this the ground is at about 14.3m OD and to the south it is about 1m lower. The scarp becomes less pronounced to the east and west.

Fleam Dyke

The Cambridgeshire Dykes have rightly attracted much attention and debate over many years (Malim 1996, 27–122). Discussion has largely centred around their date and purpose. Three separate monuments are named Fleam Dyke and it has been suggested that they once formed part of a single boundary (Malim 1996, 58). The main part of the Dyke (also known as Balsham Ditch) runs from Dungate Farm, Balsham to Shardelow's Well at Fulbourn (Fig. 2). Here, the monument still exists as a major visible earthwork comprising a ditch and bank (Malim 1996, fig. 33).

To the north of Shardelow's Well is a putative extension which dog-legs towards Great Wilbraham Fen, but is now entirely filled in and can only be seen as a cropmark: little intrusive investigation has been carried out on this section of the Dyke. The third monument, and the subject of this article, is the High Ditch at Fen Ditton. When combined the three earthworks would have formed a lazy Z-shape across the landscape in contrast to the other dykes, which are all quite straight. High Ditch itself is indicated on a map of 1731/2 (CRO TR626/P1), lying south of the road to Quy that cut High Ditch Field in two. On later Ordnance Survey maps the ditch is shown on the north side of High Ditch Road, although there is nothing visible today.

The earliest known record of Fleam Dyke is *Flemesdich*, c. AD 1260 referring to a ditch in the parish of Teversham (Reaney 1943, 35). None of the recorded names appear to relate directly to the segment of ditch

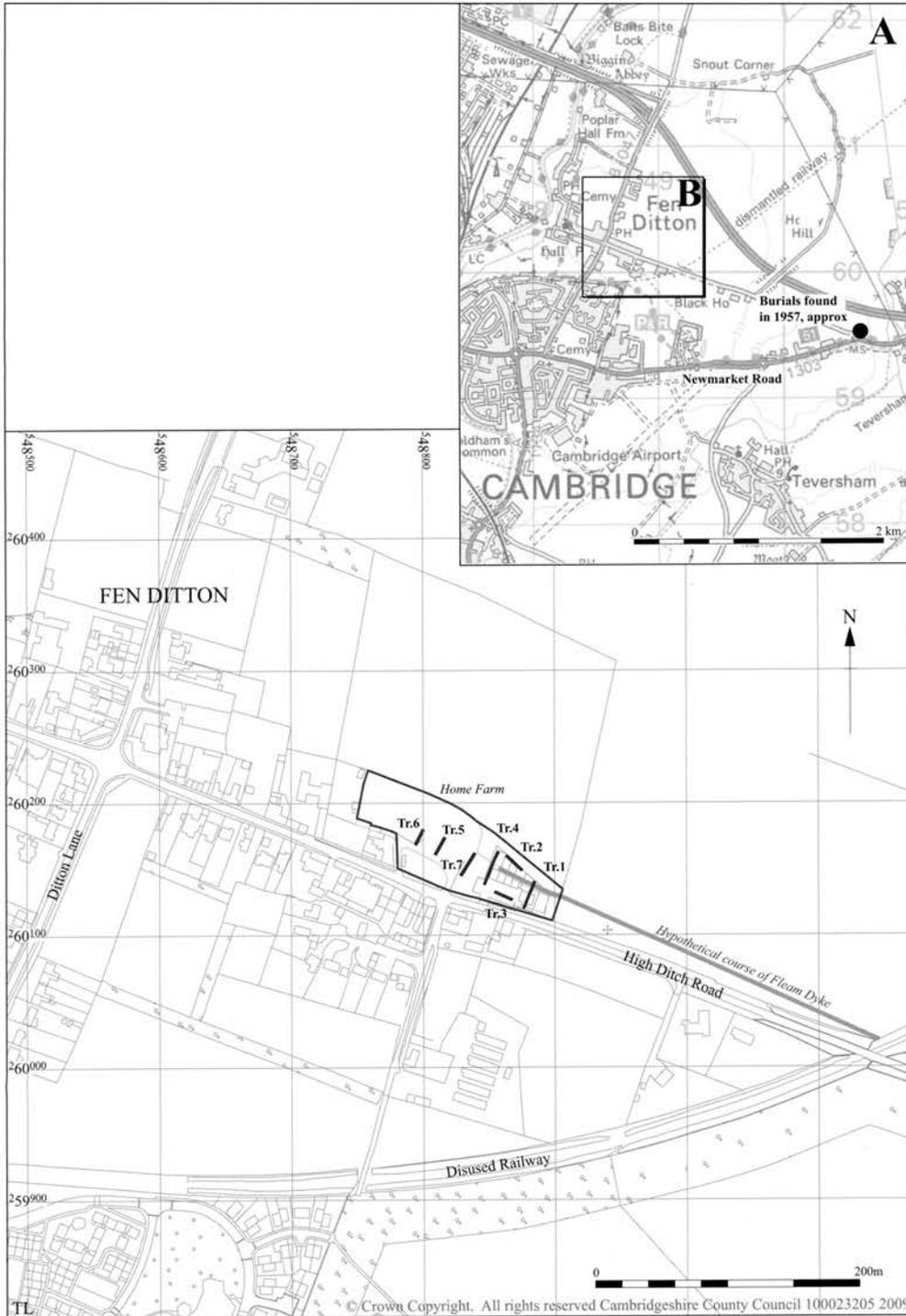


Figure 1. Location map with trenches in black.

found in Fen Ditton. By 1825 the ditch was variously known as Queens, Fleam Dyke or Balsham Ditch. It is believed that Flendish Hundred was named after Fleam Dyke which forms its north-eastern boundary where it passes between Fulbourn and Great Wilbraham. By the time it reaches Fen Ditton, however, the ditch does not form a boundary either for the Hundred or the parish.

Fox (1923, 34) proposed that the Fen Ditton sec-

tion of Fleam Dyke was probably a local defensive earthwork when it was first constructed, forming the southern boundary to the tongue of land on which Horningsea stands, with Quy Water forming its eastern boundary and the River Cam to the west. He suggested that the ditch was subsequently incorporated into the larger system that included the Fulbourn section of the Dyke, but that this may have been in name only. The hypothesis of a

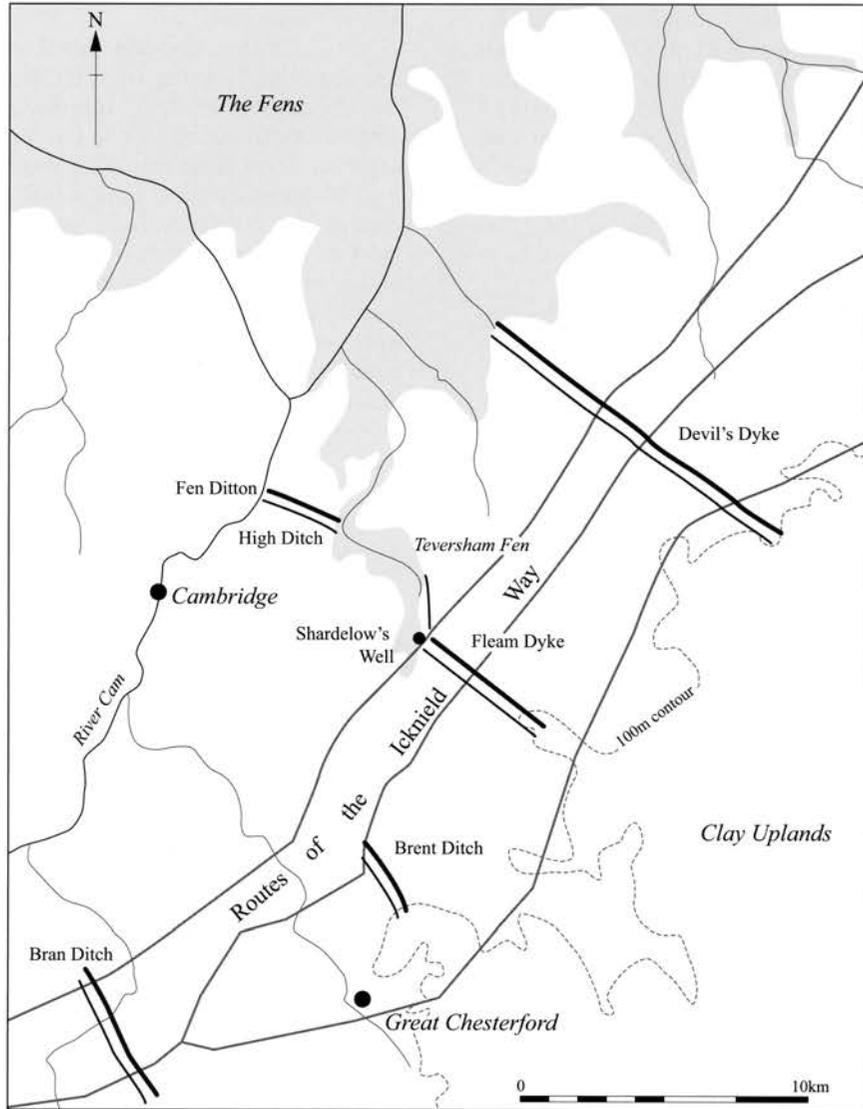


Figure 2. The Cambridgeshire Dykes.

northern arm to the Fleam Dyke (here called High Ditch), running eastwards from the River Cam at Fen Ditton to Teversham Fen is an idea that draws together several pieces of evidence, including the line and name of High Ditch Road, as well as the Anglo-Saxon name of the village. Woodditton is similarly thought to be named for its proximity to Devil's Dyke. The name High Ditch makes its first recorded appearance (as *Heyditch*) in a thirteenth-century document held at St John's College, Cambridge (Reaney 1943, 142).

Mrs V. Pritchard found and recovered human remains and associated artefacts during widening of Newmarket Road at the Bottisham Fen end of the putative northern section of Fleam Dyke in 1957 (Lethbridge 1958). The exact location is not published (the approximate position being indicated on Fig. 1), but Lethbridge was confident that the burials were Early Saxon in date and that they were buried in the top of a large ditch. This is the only archaeological investigation that has been carried out on the north-

ern arm of the proposed earthwork, although there have been several campaigns on the southern section (summarised in Malim 1996).

Discussion

Much that has been written about the supposed northern section of the Fleam Dyke simply assumes its presence which, until now, has not been tested. Cyril Fox cites the Fen Ditton segment as having been for the most part destroyed (Fox 1923, 126), but confidently claims that it continued into Teversham Fen to the east, its alignment having been preserved by the deflection of the Cambridge to Newmarket Road at this point. Recent texts continue to perpetuate the notion of a large earthwork here, referring erroneously to its survival 'in places' (Pestell 2004, 86–7). There can be no doubt from the descriptions and finds recovered in 1957 (Lethbridge 1958), that a backfilled

ditch containing Anglo-Saxon burials was indeed located close to the junction of High Ditch Road and Newmarket Road. This does not mean, however, that the ditch in question was related to the supposed northern Fleam Dyke. Interestingly Lethbridge suggested a Late Roman date for this segment of the ditch in contrast to the Fulbourn to Balsham section which is almost certainly Anglo-Saxon, and Fox (1923, 34) had already proposed that this ditch may have been an earlier local defensive earthwork.

One hypothesis is that High Ditch Road preserves the line of a sizeable defensive ditch, which was at some point backfilled, its own bank slighted and then the roadway constructed on top (Fox 1923). An alternative suggestion is that the ditch survives, probably to the south of the new road, which itself would run along the (somewhat eroded) bank. High Ditch Road does in fact stand higher than the surrounding fields, although only along the eastern end of its course to where it meets Newmarket Road. Fox does note this, although he also suggests that the scarp across the subject site preserves the line of both bank and ditch of the supposed dyke. This notion has been perpetuated unchallenged and persists even on the latest Ordnance Survey mapping.

Before the Enclosure Act of 1803 and award of 1807, the area of the lower part of the subject site was called Townsend Close Allotment, which might explain why it was evidently terraced in the late eighteenth century (as the recent archaeological work demonstrates), creating or enhancing the scarp across it (CRO R60/24/2/24). This terracing may well have necessitated a drainage channel along the break of slope between the upper field and the lower allotment in order to prevent runoff from the former flooding the latter. The eighteenth-century ditches recorded during the evaluations appear to have served just such a function.

The name Ditton is formed from two Saxon words *dic-tun*, and the meaning is usually given as 'farm by the ditch or dyke'. While the derivation of the modern name Ditton is not always identical, other examples found throughout England also attest to the fact that not all villages so named are adjacent to a ditch or dyke e.g. Ditton Priors in Shropshire (Currie 1998); Thames Ditton in Surrey (Malden 1911) and Ditton in Kent (Hasted 1797). It may be that the location of the ancient part of the village of Fen Ditton on the bank of the River Cam lent its name to the settlement.

Conclusions

The recent archaeological work recorded little archaeology earlier than eighteenth century within the development area. The scarp that runs across the site may have originally been natural and was later modified in this particular area. There is some evidence that a certain amount of landscaping has taken place to enhance and accentuate the scarp and the flat zone to the north of it. There is no evidence, however, to indicate that it was related to the putative northern

arm of Fleam Dyke.

In light of this new evidence, the concept of a continuous Dyke running from Balsham to Fen Ditton must be questioned. There is no longer a case for suggesting that the scarp seen to the east of Fen Ditton is anything other than natural in origin. At this point, the only remaining possibility is that the line of the northern arm of Fleam Dyke lies precisely below the modern road. It is rather more likely that there never was a major dyke across this landscape (notwithstanding the possible Late Roman or Anglo-Saxon ditch recorded in the 1950s), that the road takes its name from the medieval field, and that the features identified as part of the course of the 'dyke' were over-enthusiastically interpreted in the past.

Acknowledgements

The author would like to thank Hill Partnership and Richard Fison who commissioned and funded the archaeological work. The brief for archaeological works was written by Kasia Gdaniec, who visited the site and monitored the evaluation. The project was managed by Aileen Connor and this article was prepared for publication by Elizabeth Shepherd Popescu. Lucy Offord worked on the evaluation, Crane Begg, Séverine Bézie and Gillian Greer produced the illustrations and Chris Faine, Carole Fletcher and Rachel Fosberry supplied specialist analysis.

Cambridge Antiquarian Society is grateful to Oxford Archaeology East for a grant towards the publication of this article.

Bibliography

- Currie, C R J (ed) 1998 *A History of the County of Shropshire* 10, 300–320. Oxford: OUP
- Fox, C 1923 *Archaeology of the Cambridge Region*. Cambridge: CUP
- Hasted, E 1797 *The History and Topographical Survey of the County of Kent* 4, 455–463. Accessed on line at <http://www.british-history.ac.uk/source.aspx?pubid=415> February 2009
- Hinman, M forthcoming *Cambridge Park and Ride: Three places in a prehistoric landscape*. EAA
- Lethbridge, T C 1958 *The Riddle of the Dykes*. PCAS LI 1–5
- Malden, H E (ed) 1911 *A History of the County of Surrey* 3, 462–467. Oxford: OUP
- Malim, T 1996 *New Evidence on the Cambridgeshire Dykes and Worsted Street Roman Road*, PCAS LXXXV: 27–122
- Pestell, T 2004 *Landscapes of Monastic Foundation: The establishment of Religious Houses in East Anglia, c. 659–1200*, Woodbridge: Boydell
- Reaney, P 1943 *Place names of Cambridgeshire and the Isle of Ely*. English Place-Name Society 19. Cambridge: CUP
- Wareham, A F & A P M Wright (eds) 2002 *Fen Ditton*. In *Victoria History of the County of Cambridge and the Isle of Ely*, X, 118–130. Oxford: OUP

An excavation at Station Quarry, Steeple Morden, Cambridgeshire

Laura Piper and Andrew Norton

Oxford Archaeology carried out a field investigation at Station Quarry, Steeple Morden on behalf of OMYA UK Ltd. The investigation revealed a hollow way dated to the late Saxon or medieval period, and the foundations of two buildings of the same date. Post-medieval ditches and a modern posthole were also recorded.

The site

From September to November 2007 Oxford Archaeology carried out fieldwalking and a strip, map, and sample investigation at Station Quarry, Steeple Morden (NGR TL 307 393), on behalf of OMYA UK Ltd. The site lay to the east of Ashwell and Morden Station and was bounded by a chalk quarry to the west, the railway to the south and fields to the north and east. The site was 4.1ha in area (Fig. 1). An evaluation was subsequently undertaken in an adjacent field to the east (OA 2008a).

The site lay on a north-west facing slope with a knoll at the south-eastern end. The land sloped from c. 80m OD in the south to c. 71m OD in the north. The underlying geology is recorded as Cretaceous Middle Chalk. The overlying topsoil and subsoil deposits had a total depth of 0.3m to 0.5m.

Fieldwork

A total of eight transects were walked at 20m intervals, parallel to the areas western boundary, producing a few post-medieval finds. Excavation produced earlier material, the earliest of which was twenty sherds of Roman pottery recovered residually from post-Roman features. As might be expected the assemblage was in poor condition, but it was reasonably coherent, largely spanning the period AD 170/80 to 250. Hadham grey ware and Nene Valley white ware were present along with probable Colchester-sourced black-burnished ware dishes. Locally-produced sandy grey wares and black-surfaced wares were consistent with this dating. A South Gaulish Samian ware frag-

ment was exceptional, belonging to the early Roman period.

A NE-SW aligned hollow-way (179), already identified by aerial photography (CgMs 2002), was recorded towards the northern end of the site (Fig. 2). The hollow-way was up to 7.4m wide and 0.9m deep, and had a wide flat base and gently-sloping sides. It terminated near the western limit of the site, but extended beyond the site's eastern boundary. Pottery recovered from the hollow-way's base fills included two sherds of shelly ware dating to the tenth to thirteenth century. A fill from a later deposit contained similar pottery, as well as an iron whittle-tang knife blade, which was probably early medieval in date (Fig. 3). Modern finds were collected from a plough soil that had slumped into the top of the hollow-way, but overall a medieval date for the sequence of deposition is preferred. The terminal of a ditch linear feature (192) on the same alignment as 179 was recorded, and may be a continuation of the hollow-way. The terminal was 8.8m long, 3.9m wide and up to 0.05m deep. No dating evidence was recovered. An environmental sample from the feature contained a range of snails consistent with dry open grassland.

Two parallel trenches (124), orientated NE-SW and 3.7m apart, were uncovered immediately south of the hollow-way. Both were straight-sided and flat-bottomed, measuring up to 0.78m wide and 0.46m deep. The southernmost trench was 4.8m long; the northern trench was originally as long, but appears to have been extended by the same length again. Two sherds of tenth to thirteenth century shelly ware were recovered from the southern trench. Like those from the hollow-way, snails recovered from the trench pointed to an open environment, although a burrowing species was also represented. A smaller pair of trenches (155) was identified further south. These were orientated NW-SE and set 3m apart. The southern trench measured 3.3m long, 0.4m wide and up to 0.18m deep; the northern trench had been more heavily truncated by ploughing and measured 2.9m long, 0.38m wide and 0.09m deep. An environmental sample produced a similar range of snail species.

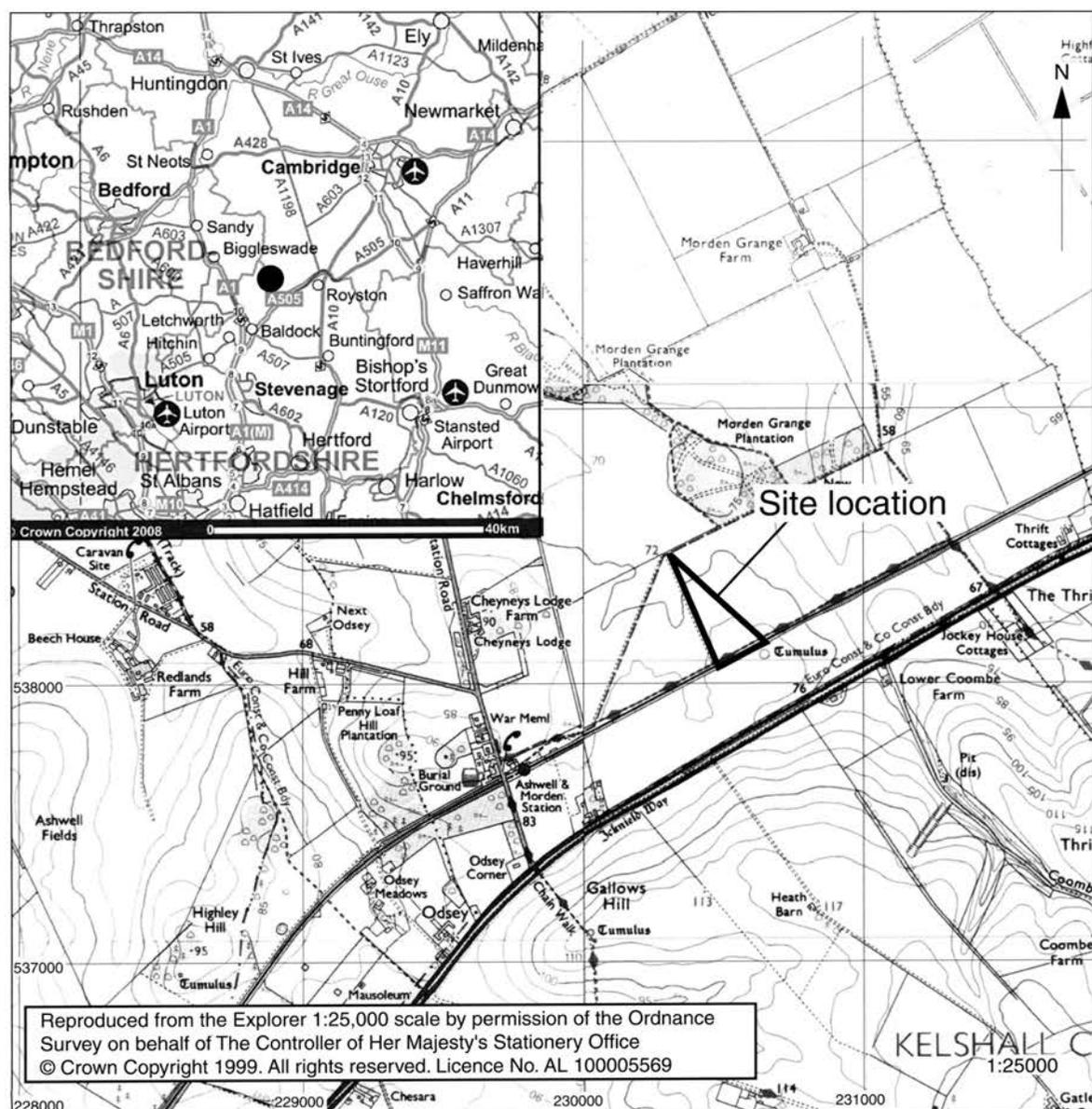


Figure 1. Site location.

A narrow NE–SW aligned ditch (193) extended 21m beyond the western limit of excavation, terminating within the investigation area. It was 0.9m wide and up to 0.1m deep. No dating was recovered from the ditch, but it was cut by the bedding trench for a modern hedge line. Foundation 194 was a shallow rectangular feature, c. 8m long, 1.7m wide and up to 0.22m deep. Some 65 sherds of post-medieval pottery were recovered from it, as well as animal bone, modern window and bottle glass, and metal. The feature was also cut by the hedge line and eight wooden stakes (not shown). The stakes were well preserved, indicative of a twentieth century date, but did not define an obvious structure. The hedge line (187) extended along the western boundary of the site. It was 410m long, 0.58m wide and up to 0.1m deep. Pit 137 was filled with a loose, dark reddish-brown clay-silt,

not dissimilar to the topsoil and probably of modern date.

Discussion

The finds collected during fieldwalking were all post-medieval in date and most likely a product of manuring. The excavation demonstrated that despite a number of nearby Bronze Age barrows there was no evidence for prehistoric activity on the site. The snails from the hollow-way and the tree holes indicate that the site was heavily wooded before the late Saxon and early medieval periods. The hollow-way is likely to have undergone its initial silting in the late Saxon/early medieval period, and it could have been maintained as a functioning trackway and land boundary

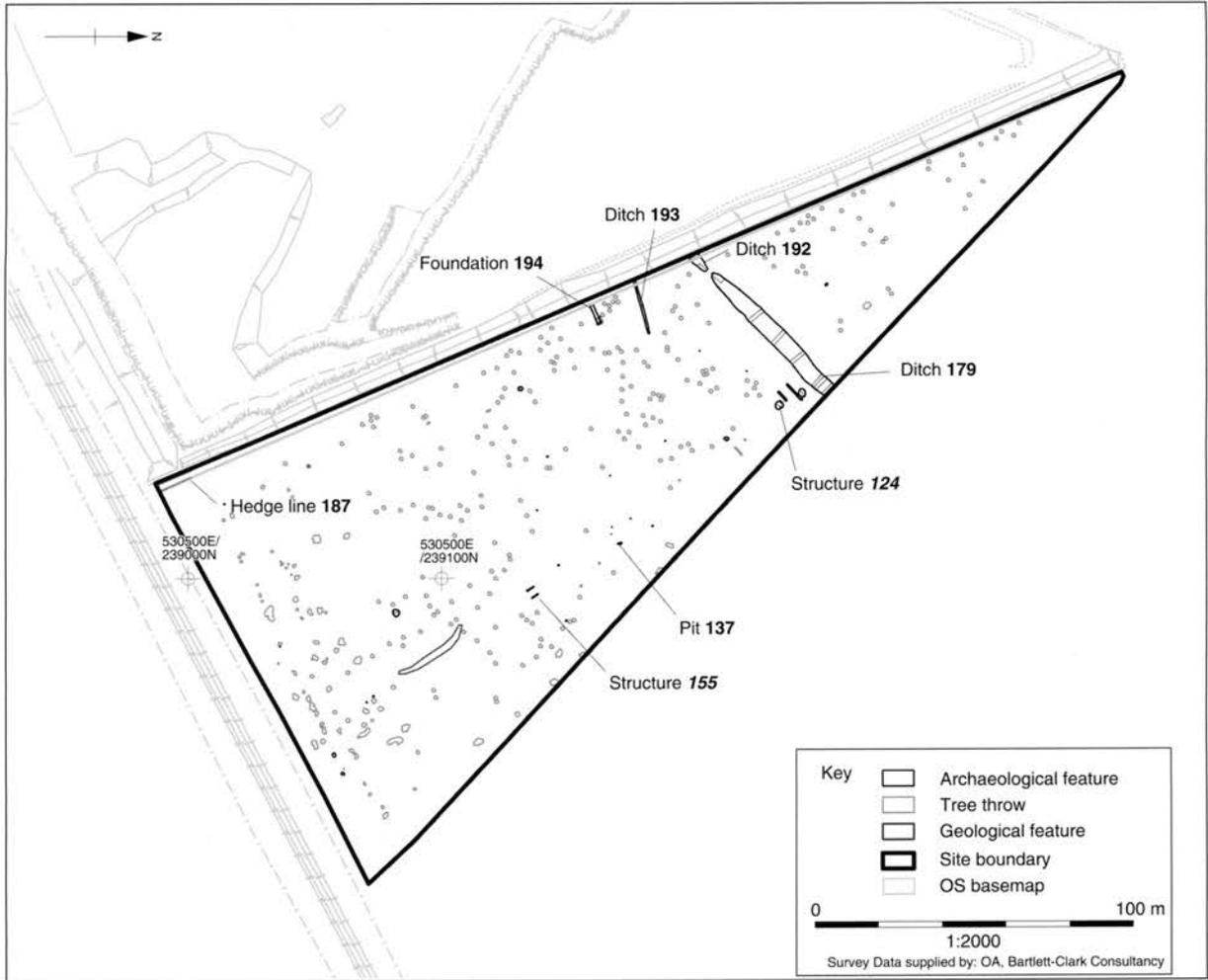


Figure 2. Site plan.



Figure 3. Medieval whittle tang knife blade.

over many centuries. In the subsequent evaluation (OA 2008a), wheel ruts c. 1.5m apart were recorded at the base of the feature. Early maps show that some prehistoric field boundaries, which underlie Roman roads, remained in use throughout the Anglo-Saxon, medieval and even early modern periods (Williamson 1993, fig. 2.1). The termini of ditches 179 and 192 (if associated) allowed access through the hollow-way. The two pairs of parallel trenches are likely to have contained building foundations. The snails recovered from the trenches support this view. Unlike the snails from the hollow-way, the list of species included those that favoured shade, including that provided by a building. A similar trench was also revealed in the 2008 evaluation (OA 2008a)

There is no further evidence for human activity until the post-medieval period. This is consistent with previous research (OA 2005), which shows that the area was kept as heathland up till the early nineteenth century. The modern foundation trench (194) is of uncertain function but may have been associated with World War II activity in the area.

Acknowledgements

The authors would like to thank Rob Nicholson of OMYA UK Ltd for his co-operation throughout the work. Thanks are also owed to Andy Thomas and Kasia Gdaniec who monitored the work on behalf of Cambridgeshire County Council. The drawings were produced by Julia Moxham. Artefactual and environmental information was provided by Edward Biddulph (Roman pottery), John Cotter (post-Roman pottery), Ian Scott (glass and metalwork), Rachel Scales (animal bone) and Marta Perez (snails). Marta Perez would like to thank Elizabeth Stafford for helping with the identification of the snails, and for the use of her snail reference collection. The fieldwork and post-excavation programme were managed by Andrew Norton. This report is edited from an unpublished client report (OA 2008b), available in the site archive at Cambridgeshire Museum, accession numbers ECB 2644 and 3043.

Bibliography

- CgMs, 2002 *Land at Station Quarry, Steeple Morden, Cambridgeshire: Aerial photographic assessment*. CgMs Consulting unpublished report
- OA, 2005 *Steeple Morden (Station) Quarry, Steeple Morden, Cambridgeshire: Environmental impact assessment*. Oxford Archaeology unpublished client report.
- OA, 2008a *Station Quarry, Steeple Morden, Cambridgeshire: Archaeological evaluation report*. Oxford Archaeology unpublished client report
- OA, 2008b *Station Quarry, Steeple Morden, Cambridgeshire: Archaeological investigation report*. Oxford Archaeology unpublished client report
- Williamson, T 1993 *The origins of Norfolk*. Manchester: Manchester University Press

Excavations at Scotland Road/Union Lane, Chesterton

Duncan Mackay

with contributions by Matt Brudenell, Craig Cressford, David Hall,
Chris Swaysland and Anne de Vareilles

The development of new housing on the corner of Scotland Road and Union Lane, Chesterton, provided the opportunity for an open-area excavation. Non-continuous activity dating from the Early Iron Age through to the sixteenth century was revealed, with probable domestic occupation of the site in the thirteenth and fourteenth centuries. In comparison to adjacent sites, and perhaps because it was on the periphery of medieval settlement, the site was relatively late to develop in the twelfth century, and quick to be abandoned in the fourteenth century.

Introduction

The Cambridge Archaeological Unit (CAU) carried out an open-area excavation ahead of building work at the junction of Union Lane and Scotland Road, Chesterton, in July 2005 (TL 4621 5996; Mackay 2006; Figs 1 & 2). Previous evaluation fieldwork had produced ambiguous results (Grant & Wilkins 2002), but adjacent sites showed medieval properties lining the street front (Hall 1999; Armour 2001b). Work to the west, on the Chesterton Workhouse/Hospital Site, revealed limited medieval activity further along the line of Union Lane (Armour 2001a; Hatherley 2001; Mackay 2000), and investigations at Oban Court immediately north-west revealed no medieval activity, although modern disturbance may have accounted for this (Fell 1999). In addition, a study on the origins of Chesterton based on recent archaeological work has been published in this journal (Cressford & Dickens 2004) and the reader is referred to this in the first instance. Cartographically, the excavation area has always been portrayed as vacant, although nineteenth century maps show buildings running right up to the edge of the excavation area. The site lies at an approximate height of 8m OD, on a geology of Second Terrace gravels, c. 0.5km north of the River Cam.

Excavation Results

Iron Age

Prehistoric material dating to the Early Iron Age was recovered from both primary and residual contexts. The residual material occurred in the greatest quantity, almost all from the same feature, and representing an impressive assemblage.

The single securely dated early Iron Age feature was pit F.44. This was a small pit that yielded twelve pieces of early Iron Age pot, eleven of them from the same burnished 'Darmsden-Linton' style bowl (see Brudenell below, and Fig. 5.3). The only other feature likely to be of Iron Age date was F.23, the butt-end of a partially surviving gully or elongated pit. A single small sherd of flint-tempered pottery was recovered from F.23, as well as a single residual Iron Age sherd from F.14, a medieval pit.

The largest quantity of early Iron Age pottery, all of it residual, was recovered from multiple-ditch system F.48, most from a single context. A contemporary fired clay spindle whorl was found with the pottery, as well as four pieces of worked flint. Of probable Saxon attribution, F.48 was largely devoid of finds except at the western end, where the Iron Age material was concentrated. Perhaps the result of a deliberate backfilling of the ditch, it is assumed that these finds derived from a truncated adjacent feature or from just beyond the northwestern edge of excavation.

The early Iron Age phase of this site was a chance encounter, the only other confirmed prehistoric feature recently exposed in Chesterton being on the former Yorkshire Grey Public House Site on the High Street (Mackay 2001).

Saxon Trackway

Dominating the northeastern half of the site was a west-north-west by east-south-east oriented multiple-ditch boundary, consisting of F.48 and F.49 (Fig. 3). This system had previously been uncovered on the Wheatsheaf Site on a similar alignment, and its presence was anticipated (Armour 2001b). Nearly all of the

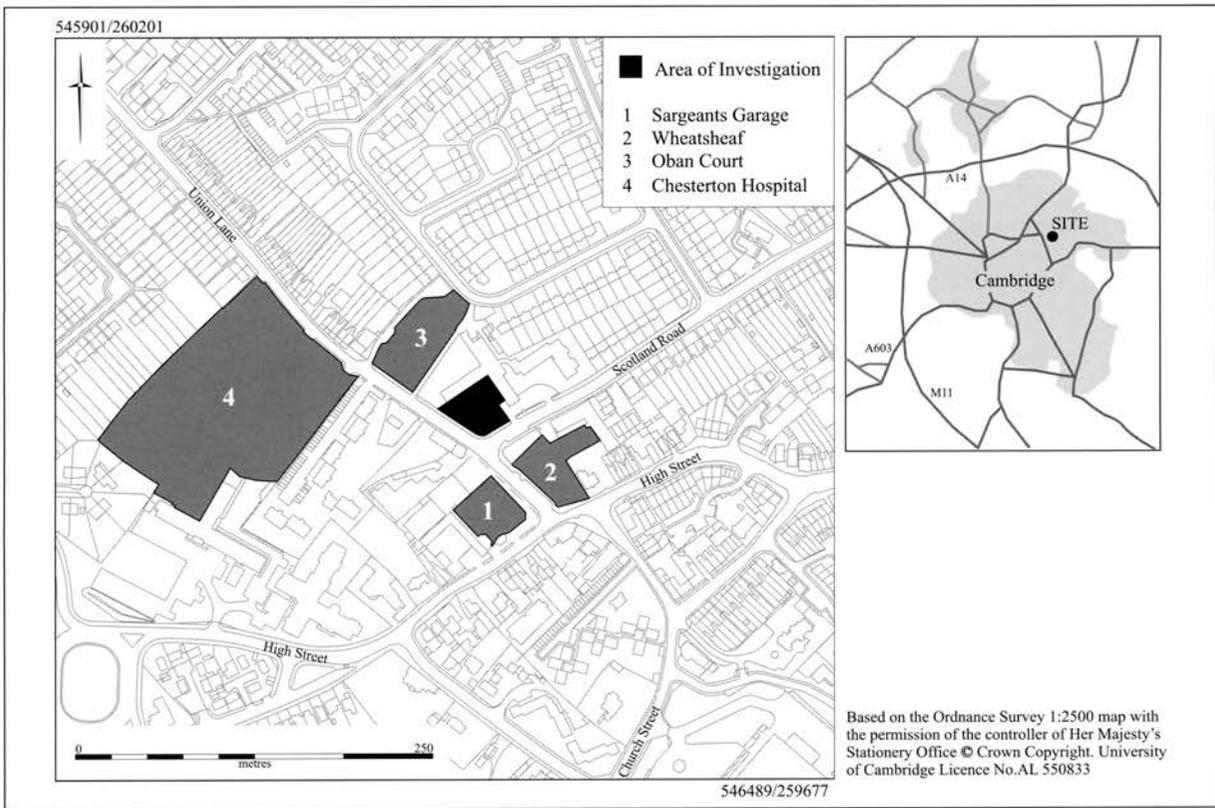


Figure 1. Location map.



Figure 2. Site base-plan.

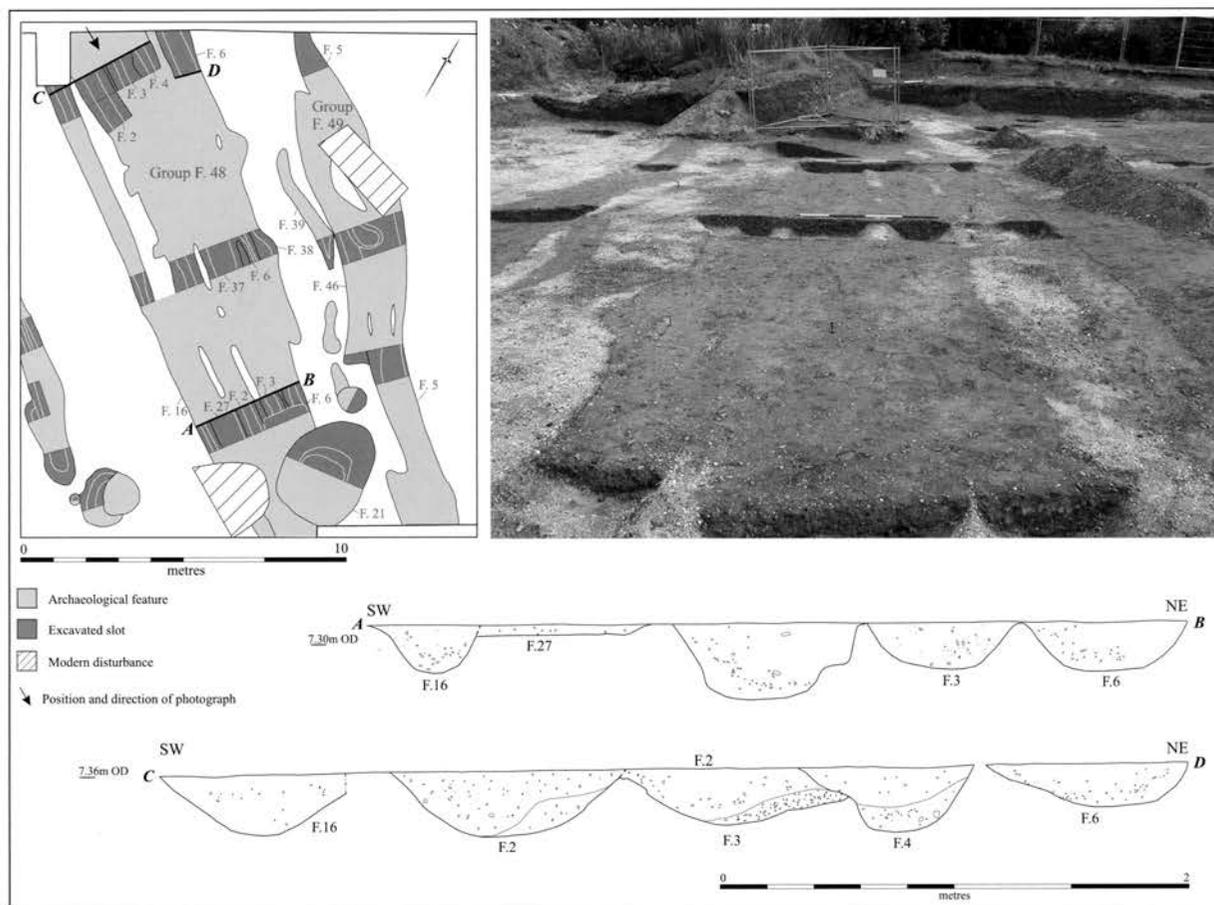


Figure 3. The trackway: base-plan (left), with photograph (looking southeast) right; below, sections.

finds (and all of the pottery) came from the north-western end, and were largely residual.

The boundary consisted of multiple intercutting and parallel ditches, all of small size, mostly less than 1m wide and 0.30m in depth. Visible relationships between the cuts were dubious, although at the Wheatsheaf Site it was suggested that they cut sequentially from northeast to southwest. Despite this, it seems that more than one ditch was open at a time, with a darker layer in F.48 spilling over into more than one cut. The greater part of the boundary was made up of F.48, with F.49 lying slightly apart, c. 2m to the northeast, with some suggestion of shallower truncated ditches between the two. Despite a soft, sandy natural, the edges were cleanly cut and well-defined. Also of note was the more fluid line of F.49, in contrast to the straightness of the southwestern edge of F.48; itself suggesting a spatially defining role, and perhaps the establishment (or re-establishment) of a line that subsequently meandered.

Although the boundary grouping was sterile of contemporary finds, comparison with the other features, including the adjacent Wheatsheaf Site, both point towards a Saxon date. This feature yielded no artefacts on the Wheatsheaf Site but it was clear that it pre-dated the main phases of medieval activity, whilst environmental evidence (the presence of rye

and free-threshing wheat) tentatively suggested a date no earlier than late Roman.

The presence of the trackway ditch system, if that is what it really represents, was fully anticipated, the line already having been observed on the Wheatsheaf Site. The simple fact of its presence on the Union Lane Site, giving the current end-to-end exposure now of c. 100m, supports the trackway theory, and a second chance to investigate this enigmatic feature was welcome, given the elusiveness of Saxon archaeology in Chesterton. An earlier date for this feature cannot be absolutely ruled out; certainly, features of similar character have been found locally of Roman date, most notably at Addenbrooke's (Evans *et al.* 2008), but the balance of evidence points towards a date at least later than the abraded early Roman pottery recovered. Whatever the ditches represent, they suggest the early establishment of an alignment which was followed long after their own existence, and is seemingly still echoed by the line of modern Union Lane, even down to the identical kink in alignment that both follow from northwest by southeast near the High Street, to west-northwest by east-southeast at this site.

Medieval Occupation

The first recognisable activity associated with this section of the Union Lane street frontage occurred in the twelfth century, consisting of a short recut ditch (F.12/42/43) on the west-northwest by east-southeast line already established by the Saxon trackway, and a north-east—south-west system, lying roughly parallel to the present line of Scotland Road. Although this could suggest the early establishment of the Scotland Road line, with plots running parallel to it, there was an erratic character to these features which were irregularly dug, and one, F.11, was curvilinear. This area, on the periphery of the settlement zone, was less regularly laid-out than the areas to the south exposed in other excavations. These ditches may have been more agricultural than domestic, being subsequently left open, and leaving hollows into which the relatively large number of finds could accumulate. Most of the pits or post-holes associated with this phase clustered around F.10, and although potentially forming the rear of a structure, ditch F.10 itself appeared to be the focus of at least some of the pits.

These ditches were neatly superseded by a rectangular property boundary along the Union Lane edge of excavation. Composed of F.17 and F.20, the enclosure was up to 6.5m across, and an unknown length, although 10.5m was exposed within the excavation

(Fig. 4). The longitudinal axis lay on a north-north-east by south-southwest line, and would presumably have fronted onto Union Lane. Assuming that the line of the lane has not shifted significantly, the plot could measure up to 18m in length. The southeastern face visibly slighted the already infilled F.12/42/43. Internally, only one related feature was found, F.33, a shallow gully. The remaining features of this date were two small pits.

This activity represents a clear change of use upon the site, with the creation of a property plot and putative associated structure, which clearly ignored the earlier plots. The general dating is based on the pottery recovered from F.17/20, as well as the obvious cut relationships. Although the small quantity of pot coupled with the relatively long time-span attached to it precludes a narrowing of the date range, similar features on adjacent sites have been dated to the eleventh and twelfth centuries (Armour 2001b); however, given the probable date of the stratigraphically earlier F.12, it would be difficult to account for F.17/20 being founded prior to the mid-thirteenth century.

Whether or not the enclosure ever contained a building is open to question. Similar enclosures in Chesterton have shown no definite structural evidence, but the numerous building traditions of the period need not have left structural evidence below

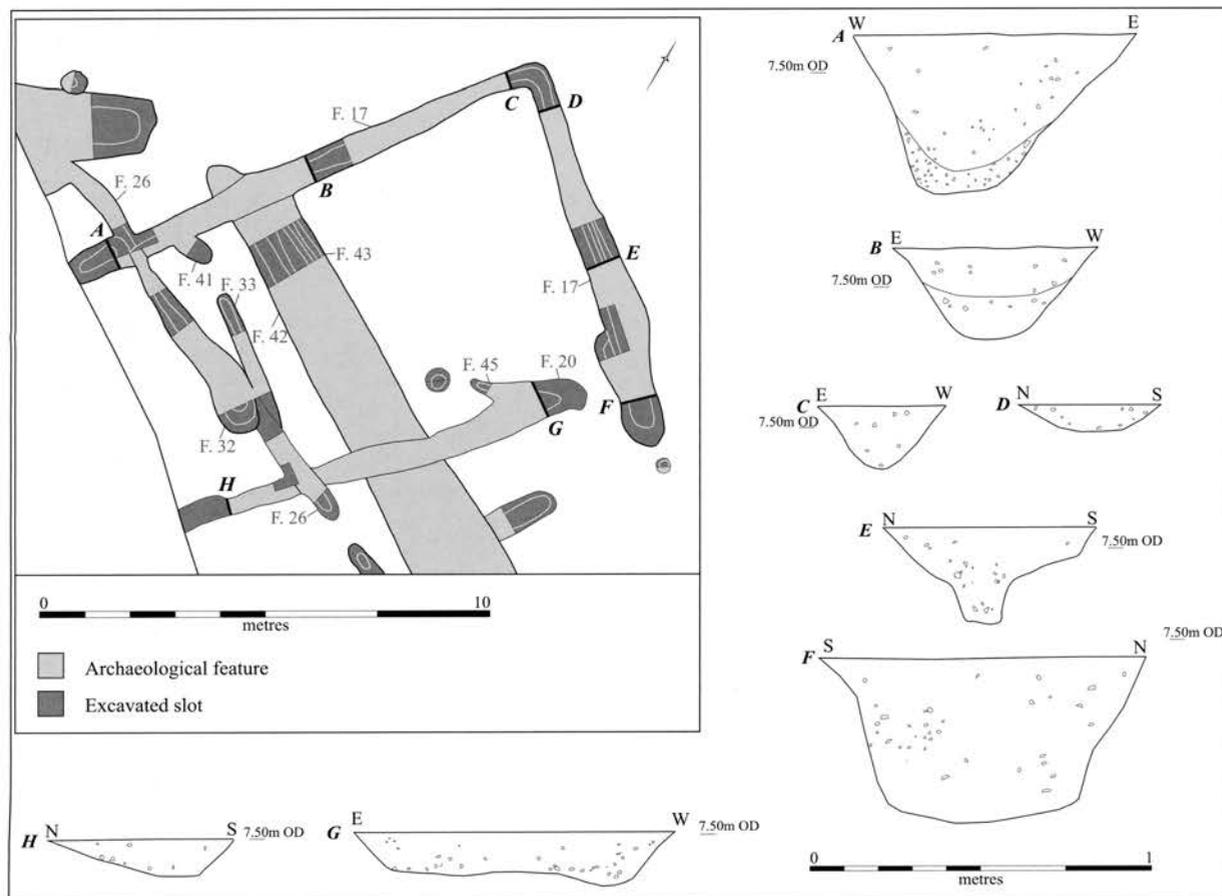


Figure 4. The medieval property plot.

ground level. What must raise a question over plot F.17/20 is the lack of associated pitting, backyard activity and material culture, as well as the apparent isolation of the plot.

Later Medieval activity on the site was limited to a few dispersed features, the most prominent being a probable well, F.21. This was cut into soft sandy gravel and no evidence of lining, revetting or recutting could be seen, suggesting that the feature would have been short-lived. Also, at 1.25m deep, this was a relatively shallow feature compared to wells on adjacent sites, although ground water was encountered at the base. All of the finds, including pottery spanning the thirteenth to fifteenth centuries, derived from the upper half of the feature. The environmental sample taken from near the base was poor in botanical remains, but did contain Cotton-thistle (*Onopordum acanthium*), thought to have been introduced into Britain around the sixteenth century (Stace 1997; see de Vareilles below). The only ditch occurring in this phase, F.26/32/40, was very shallow, narrow and segmented, containing pottery from the thirteenth to fifteenth centuries. The alignment was the same west-northwest by east-southeast line established in antiquity, and ran parallel with and close to Union Lane. This diminutive type of ditch is not untypical of the Middle Ages, particularly at the rear of properties, and may have been intended to define a boundary without greatly impeding the movement of humans or animals. The remaining features were a small number of dispersed pits. There was no significant post-medieval activity

Specialist Studies

Iron Age Pottery

Matt Brudenell

Sixty-two sherds (301g) of early Iron Age pottery were recovered from six features. With the exception of a single large sherd from pit F.44, the pottery is highly fragmented and moderately abraded, with a mean sherd weight of just 4.9g. Few diagnostic sherds are present in the assemblage, though judging by the limited number of rim forms and the decorated pieces, the assemblage is assigned to the early Iron Age (c. 800-400/350BC). With the exception of pottery from pit F.44, most sherds are likely to be residual.

Fabric Group F1: Moderate fine-coarse crushed flint inclusions, with moderate fine quartz sand. This is a hard coarseware fabric, abrasive to the touch. F1 is similar to the calcined flint-tempered sherds which characterise much of the late Bronze Age pottery in the region; however, this flint is not burnt. The size of the inclusion varies, the thinner, finer wares having smaller crushed pieces. By weight, F1 accounts for 45% of the assemblage (29 sherds). No sherds in F1 are burnished.

Fabric Group Q1: Sparse-moderate fine quartz sand, with rare medium grits. This is a hard fabric group, which is occasionally abrasive. By weight, Q1 accounts for 38%

of the assemblage (23 sherds). 11 sherds in Q1 are burnished, all belonging to the Darmsden-Linton Bowl in F.44.

Fabric Group S1: Moderate medium-coarse fossil shell, with moderate fine quartz sand. This is a moderate to hard fabric. The size of the fossil shell inclusion varies, the thinner, finer wares having smaller crushed pieces. By weight, S1 accounts for 17% of the assemblage (10 sherds). Two sherds in fabric S1 are burnished, probably from the same vessel.

The largest assemblage of pottery derived from ditch F.2, which yielded 43 sherds (201g). Sherds in all fabrics were represented, probably from numerous different vessels. All but two of the fragments were body sherds, the remaining pieces comprising a shoulder sherd and rim sherd. The former is a coarseware sherd in F1, displaying slashed decoration on the shoulder (Fig. 5.1). The flattened rim is in fabric S1, and is burnished. Two small diagonal-tooled impressions are visible on the interior rim edge.

Three small sherds, weighing 5g, were recovered from ditch F.16, with a further single sherd from F.23 (8g). All were in flint-tempered fabrics F1. Two more flint-tempered sherds were recovered from ditch F.3 (12g), one a 'T'-shaped rim characteristic of the early Iron Age (Fig. 5.2). These sherds, along with the single flint-tempered sherd in pit F.14 (2g), are residual, occurring alongside later material.

Pit F.44 yielded 12 sherds, weighing 73g. Eleven of the sherds belonged to a burnished 'Darmsden-Linton' style bowl (Cunliffe 1978, 42), c. 22cm in diameter (Fig. 5.3). The vessel is black, and produced in a dense sandy fabric Q1. Three incised grooves are present immediately above the shoulder. None of the 11 sherds refit, and only c. 8% of the rim remains intact. This is a classic early Iron Age fineware vessel. The remaining body sherd in the pit is a small coarseware fragment in F1 (2g).

Together the assemblage forms a small but intriguing collection of early Iron Age pottery. In the absence of fineware decorated bowls or angular vessels, distinguishing between/close dating of late Bronze Age and early Iron Age ceramics can be problematic. It is now recognised that pottery of the period in Eastern England forms a continuous sequence with that of the late Bronze Age, with only subtle changes to the angularity of vessel and the incidence of decoration over time. On a regional level, the details of ceramic development in the first half of the first millennium are not fully understood, in particular the transition around 800 BC from late Bronze Age 'plainware' Post-Deverel Rimbury (PDR) pottery to 'decorated' early Iron Age PDR pottery (Knight 2002; Brudenell 2008). Consequently, most assemblages are usually lumped as late Bronze Age/early Iron Age.

To date, few 'secure' large and well-dated early Iron Age assemblages have been published from the region. In fact, across East Anglia and Cambridgeshire our understanding of pottery of the period continues to rest on a relatively small number of old published type-sites (e.g. West Harling, Wandlebury, Fengate, Linton), and is identified, primarily, by the presence

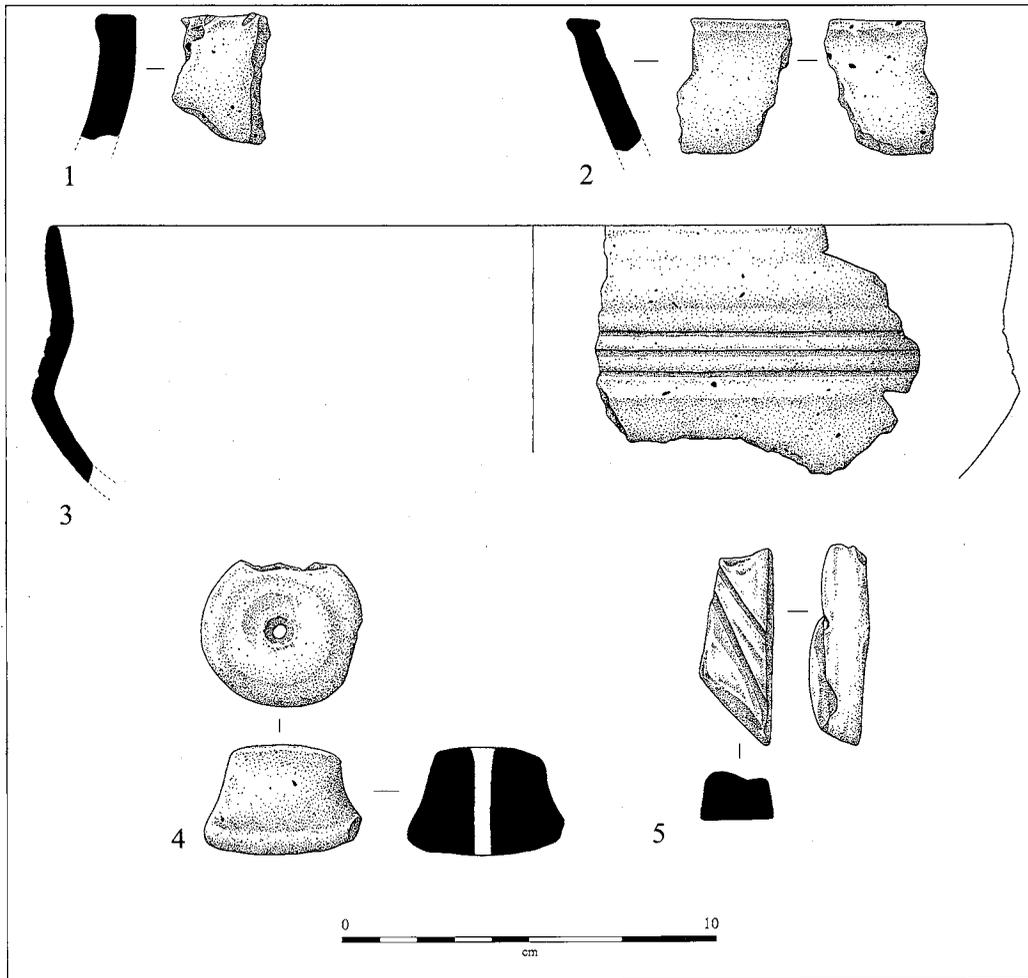


Figure 5. Select Finds: 1) Iron Age coarseware sherd (F.2); Early Iron Age rim (F.3); 3) 'Darmsden-Linton' style bowl (F.44); 4) Clay spindle whorl (F.2); 5) Hone stone (F.11).

of one particular class of vessel: namely the fineware decorated bowl. As such, the recovery of even a small fragmented assemblage of early Iron Age pottery is significant, for they are rarely encountered.

Stylistically, the fineware bowl from F.44 belongs to the early Iron Age 'Darmsden-Linton' group defined by Cunliffe (1968, 1974). This type of pottery has a widespread distribution across much of East Anglia, stretching from the Thames to the Wash. Recently, 'Darmsden' style pottery has been recovered from features at Clay Farm, Cambridge (Brudenell in Evans *et al.* 2008), Rook Hall (Adkins *et al.* 1985), Loft's Farm (Brown 1988), Beacon Green (Brown 1992), and Stansted (Brown 2004) in Essex, and Little Bealings and Barham in Suffolk (Martin 1993). These vessel forms, characterised by their sharp narrow shoulders and short upright or slightly flared rims, possibly appear sometime around the early eighth century BC, with a currency spanning the entire early Iron Age (Martin 1999, 80).

Medieval Pottery

Craig Cessford and David Hall

Excavations produced a small assemblage of 137 sherds (0.9kg) of tenth to sixteenth century pottery. It parallels the pottery found at other sites in Chesterton (Hall in Cessford & Dickens 2004). The low quantities of material indicate that the site is probably located some distance away from the main focus of domestic occupation.

Tenth to Twelfth Century Wares

The earliest material consisted of the three typical Saxo-Norman (tenth to twelfth centuries) fabrics found in southern Cambridgeshire. St Neots-type ware is the most common (25 definite plus one probable sherds), while Thetford-type ware (three sherds) and Stamford ware (two sherds) are minor elements. St Neots-type ware is generally dated c. 900 to 1100, although it probably begins in the ninth century and continues into the twelfth century. This is a wheel thrown shelly ware, often coloured dark purple and with a soapy feel. Thetford-type ware is also typically dated c. 900–1100, although it again probably begins

in the ninth century and continues into the twelfth century. It is wheel-thrown and manufactured at numerous kiln sites in Thetford, with similar wares from other sources within East Anglia. Although the kilns at Thetford itself probably operated between the tenth and twelfth centuries, the ware was probably being made at Ipswich by the mid to late ninth century. The fabric is usually reduced hard grey and tempered with sparse to dense sub-angular or sub-rounded quartzite. Stamford ware is dated c. 900–1200 and is slightly superior in quality to Thetford-type and St Neots-type ware. It is wheel thrown with white, pink, buff or grey fabric, usually with sparse to dense quartz and occasional black or red ironstone inclusions. It is often glazed with yellow, pale or sage green glaze. This was the most widely distributed pottery of the period and Cambridge appears to lie at the southeastern limit of one part of its distribution network down the Fenland rivers.

There is no identifiably early Pre-Conquest material present in the assemblage and the relatively low presence of Thetford-type ware also indicates a relatively late date within the Saxo-Norman period. Taken together this suggests that there is no reason that any of the Medieval activity at the site need be earlier than the twelfth century.

Thirteenth to Sixteenth Century Wares

The majority of the Medieval pottery of the thirteenth to sixteenth centuries (70 sherds) consists of a range of coarsewares with a variety of grey (24 sherds), brown (23 sherds), red (20 sherds) and buff (three sherds) fabrics. Unfortunately, the various fabrics are not particularly distinctive and merge into one another and only the forms are usually distinctive. These coarsewares do not occur further north in Cambridgeshire at sites such as Ely and are likely to be of local origin. It is possible that some of them were produced in Cambridge and others probably come from a variety of sources in southern Cambridgeshire, Hertfordshire, Essex and Suffolk.

The most common coarseware that can be attributed to a specific production centre is Medieval Ely ware (22 sherds), which was made at Potters Lane in Ely. Ely ware is generally dated to between the twelfth to fifteenth centuries, based primarily on the other pottery it has been found associated with (Sporrey 2008); however, the majority of the Medieval Ely ware in and around Cambridge probably dates to the fourteenth century. Some of the material from this site displays features characteristic of the fifteenth century. The significance of Medieval Ely ware in the assemblage is probably less than it appears, as two groups of ten and eight sherds respectively appear to represent parts of single vessels.

Other material only occurs in small quantities. There are six sherds of thirteenth or fourteenth century Lyveden/Stanton ware which has a pink shelly fabric and was produced in Northamptonshire; one sherd of thirteenth century Northamptonshire shelly ware; one sherd of thirteenth or fourteenth century devel-

oped St. Neots ware; three sherds of fifteenth century Essex redware and two sherds of fourteenth or fifteenth century Essex greyware.

Faunal Remains

Chris Swaysland

A small assemblage of 112 fragments (1.3kg) of animal bones was recovered. The condition of the material was variable but was, in general, fair. The vast majority of it has been dated to the medieval period. Although a small number of bones were dated to other periods, due to their limited potential they have not been considered in this study. Otherwise, identifiable animal bone was recovered from 12 features dated to the twelfth to sixteenth centuries. The assemblage was recovered from a mixture of ditches and pits, with no discernable differences in character between these respective feature-types. Cattle and sheep are the major species represented on the site; they are present in similar amounts (Table 1). Pig, horse and dog are only present in small quantities.

Table 1. Species proportion: medieval features by NISP (number of individual specimens present).

Species	NISP
Cattle	9
Sheep/goat	8
Pig	1
Horse	3
Dog	2
Large mammal	1

Other Finds

Although a wide variety of other artefact types occurred, these occurred in only very low numbers. Reported in detail elsewhere (Mackay 2006), these include six pieces of variously worked and/or burnt flints, three sherds of Roman pottery (residual; mid-second century AD Samian, a first to third century greyware jar rim and a undiagnostic greyware sherd), a fragment of Roman box-flue tile, an Iron Age fired clay spindle whorl (F.2; Fig. 5.4), fragments of lava quernstone (834g from F.11 & 21) and a hone stone. The latter, from F.11 and made of a red, fine micaceous sandstone (17g), was evidently part of a larger whole and has two deep grooves worn into it (Fig. 5.5). It could have had a variety of uses, although its form and deep grooves might suggest pin- or needle-sharpening; comparable examples are known from Coppergate (Gaunt 2000).

A small number of metal artefacts were also recovered, consisting of a broken iron nail (8g) from F.2, a small piece of iron strap or small blade (8g) from F.11, and a copper alloy coin (4g) from F.43. While ironwork is entirely undiagnostic, the coin (occurring intrusively in the top of ditch F.43, of twelfth/thirteenth century attribution), is a combined bust farthing of William and Mary dated 1694.

Environmental Samples

Anne de Vareilles

Eleven bulk soil samples were examined and the environmental remains are listed in full in Table 2 (see de Vareilles in Mackay 2006 for methodology and nomenclature). Although many wheat, barley and oat grains have survived, most of them are badly puffed and distorted. All except for Sample <1> contained pieces of vitrified charcoal, which indicate high firing temperatures and/or long burning fires. Both of these are conditions unfavourable to the preservation of botanical remains (Boardman & Jones, 1990). Various molluscs were present in all samples, but their environmental significance is not discussed here as they do not occur in meaningful quantities.

Saxon Ditches (F.2, 6 and 16)

The archaeobotanical samples from these features are very similar and not distinctive of any particular period: they could even date to the Iron Age (F.2 and F.16 had residual early Iron Age artefacts); however, each ditch contained a minimum of one free-threshing wheat grain (*Triticum aestivum* sl.), suggesting that some material is of at least late Roman date. A few oats (*Avena* sp.) were identified, though without any chaff one cannot say whether they were a cereal or a crop weed. The lack of chaff and the clear dominance of cereal grains over wild plant seeds suggests the assemblages are waste from cooking and eating activities. The hazel-nut shell in F.2 supports this interpretation.

Medieval

The eight medieval samples contained similar plant remains to the possible Saxon contexts: a mix of wheat, barley and oat with practically no cereal chaff and very few wild plant seeds. The composition of these assemblages points to cooking or eating waste/loss. Although free-threshing wheat appears to dominate, spelt or emmer (*T. spelta/dicocum*) is also present—albeit in very small quantities—and may represent a continuing trend of spelt cultivation within Cambridgeshire from the Romano-British period.

F.17 and F.12 contained some grass stems and higher quantities of crop weeds, suggesting that they contain waste from the final sieving and hand-sorting of crops. These two features also yielded two or three vetches or wild peas (*Vicia/Lathyrus*). Although these may simply have been a crop contaminant, celtic beans were intentionally grown at other British Medieval sites (cf. Greig 1991).

Stinking chamomile (*Anthemis cotula*), found in F.17, is evidence for heavy clay-rich soils. It indicates that agricultural crops were no longer restricted to the dryer gravel terraces, a trend that started in the Romano-British period (cf. Jones 1978).

Apart from a little charcoal, no charred plant remains were found within well F.21. There are, however, a few waterlogged seeds which attest to the drying-up of a once waterlogged environment. The most common surviving seeds are of ground-ivy (*Glechoma hederacea*), which often grows on heavy

clay-rich soils and complements the stinking chamomile found in the samples from F.17. Cotton-thistle (*Onopordum acanthium*), also quite common in this sample, is thought to have been introduced into Britain around the sixteenth century (Stace 1997). The few surviving seeds suggest F.21 was dug into heavy soils in a marginal area. This interpretation, however, can only be tentative as many seeds have obviously been lost.

The samples from the medieval period attest to, at least, five of the known food plants: a minimum of two wheat varieties, barley, oats and celtic bean. F.17 and F.12 suggest that the final stages of crop processing occurred at an individual household level for at least some of the cereals. No evidence was found to suggest whether this area was a producer or consumer site.

Discussion

The Union Lane Site was exceptional within Chesterton in containing significant Iron Age and Saxon archaeology in addition to the more widely spread medieval features (Fig. 6). By themselves, neither phase could be considered extraordinary, but both attest to a definite presence in the locale that has otherwise been consistently elusive.

There are obvious parallels in the archaeology on either side of Scotland Road, although activity dating to the eleventh and earlier twelfth centuries, prolific on the Wheatsheaf Site, is all but absent on this site. This could be coincidental, but the line of Scotland Road, potentially a division of some sort in the Middle Ages, separates the two sites. It is only in the twelfth, thirteenth and early fourteenth centuries, when the population of Chesterton would have been steadily increasing, that activity really picks up on the northern side of Scotland Road. It is uncertain what the first post-Norman Conquest (twelfth century) phase actually represents; presumably small enclosures running off Union lane in a rather piecemeal fashion, being superseded by a neatly planned property plot fronting onto the street. Probably in the fourteenth century, and certainly by the fifteenth, the plot seems to be largely uninhabited, with a relatively short-lived well, and a small boundary running roughly parallel to the road. Remarkably, not a single feature showed evidence of having continued in use between phases, which suggests a rather dynamic history, in which the use of the plot changed completely on numerous occasions. Only the west-northwest by east-southeast alignment of Union Lane remains constant, although it is uncertain for how long Union Lane itself (or a corresponding track) was the inspiration for this. Common to all of these phases, however, and in contrast to the Wheatsheaf and Sargeant's Garage Sites, was the relative paucity of artefacts—less than a kilogramme of medieval pottery was recovered in total from all features.

This phased sequence of events is slightly out of sync with the development of the Wheatsheaf and

Sample number		<2>	<3>	<4>	<6>	<7>	<5>	<10>	<9>	<11>	<8>	<1>
Context		[166]	[138]	[84]	[40]	[110]	[37]	[131]	[94]	[46]	[160]	[63]
Feature		2	16	6	14	11	12	34	17	17	26	21
Feature type		Ditch	Ditch	Ditch	Pit	Ditch	Ditch	Pit	Ditch	Ditch	Ditch	Well
Phase/Date		Possibly Saxon			12th-14th Century AD			13th-14th Century AD			14th-15th Century AD	
Sample volume litres		11	5	7	5	6	7	5	7	5	6	4
Flot fraction examined		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Cereals												
<i>Hordeum vulgare sensu lato</i>	Barley grain				1		2					
cf. <i>Hordeum vulgare sl.</i>	Possible Barley grain		1		1		7		1	3		
<i>Triticum spelta/dicoccum</i>	Spelt/Emmer wheat grain		1	1			1	1	7	2		
<i>Triticum aestivum sl.</i>	Free-threshing wheat	1	1	1	3		3		8	12	3	
<i>Triticum sp.</i>	Wheat grain	2	10	3	15	1	20	1	21	23	5	
<i>Triticum/Hordeum</i>	Wheat/Barley	1	7	10	19	3	64	3	19	36	6	
Indet Cereal grain fragment		6		3	5			2	5	11	1	
<i>Avena sp.</i>	Oat grain				1		2	1	1	6		
cf. <i>Avena sp.</i>	Possible oat grain	3					9			5	1	
Cereal/ <i>Avena</i> /large Poaceae	Cereal/oat/large grass	3	1	6	18	5	30		12	63	9	
<i>T. spelta</i> spikelet fork	Spelt spikelet fork						1					
Legumes												
<i>Vicia faba var. minor</i>	Horse or Celtic bean									3		
<i>Vicia/Lathyrus</i>	Vetches/Wild Pea						2					
Wild Plant Seeds												
<i>Corylus avellana</i>	Hazel-nut shell frag	1										
<i>Atriplex patula/prostrata</i>	Common/Spear-leaved Orache											++ WL
<i>Rumex acetosella</i>	Sheep's Sorrel									1		
<i>R. conglomeratus/sanguineus/obtusifolius</i>	Small-seeded Dock					1						
<i>Rubus sp.</i>	Brambles											- WL
<i>Hyoscyamus niger</i>	Henbane											++ WL
<i>Glechoma hederacea</i>	Ground-ivy											+++WL
cf. <i>Galium sp.</i>	possibly Bedstraw									1		
<i>Sambucus nigra</i>	Elder											++ WL
<i>Onopordum acanthium</i>	Cotton-Thistle											+ WL
<i>Centaurea nigra</i>	Common Knapweed									1		
<i>Anthemis cotula</i>	Stinking Chamomile								1	2		
Large Poaceae	Large grass seed						6					
Medium Poaceae	Medium grass seed			1		1	1		3	1		
Indet wild plant seed		1					1			2		
Poaceae internodes	Grass stem internodes						1			3		
Parenchyma tissue fragments	Undifferentiated storage plant tissue	++	++	++	++	++	++	+	++	+++	++	
Charcoal pieces >4mm		+					-	+	-	-		-
Charcoal pieces 2-4mm		-		-	-		+	+	+	+		-
Charcoal pieces <2mm		++	+	+	++	++	++	+++	+++	++	++	++
Vitrified		-	+	-	+	-	-	+	+	+	+	

Table 2. '- ' 1 or 2 items; '+' <10 items; '++' 10-50 items; '+++' >50 items. WL – waterlogged. Note: the cereal/oat/large grass column shows badly preserved fragments that could be of wheat, barley, oat or large grass seeds. The cereal category includes wheat, barley and rye. The large grass seeds are as long as the cereal grains and about half as wide.

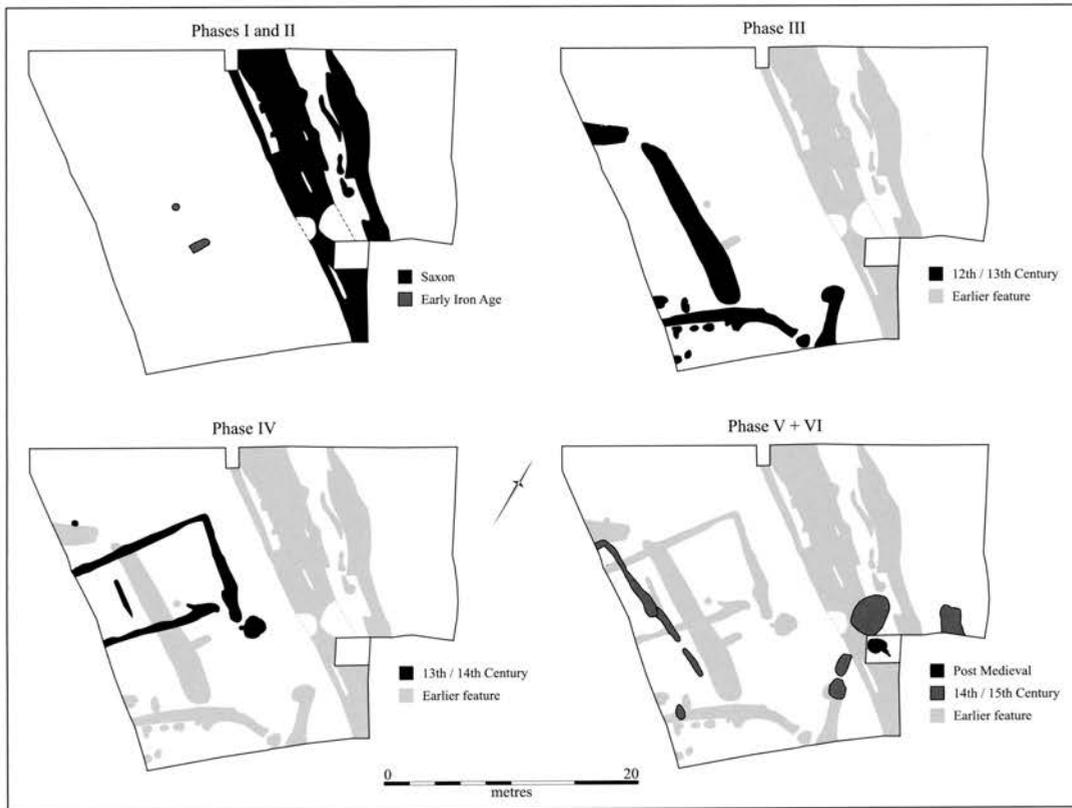
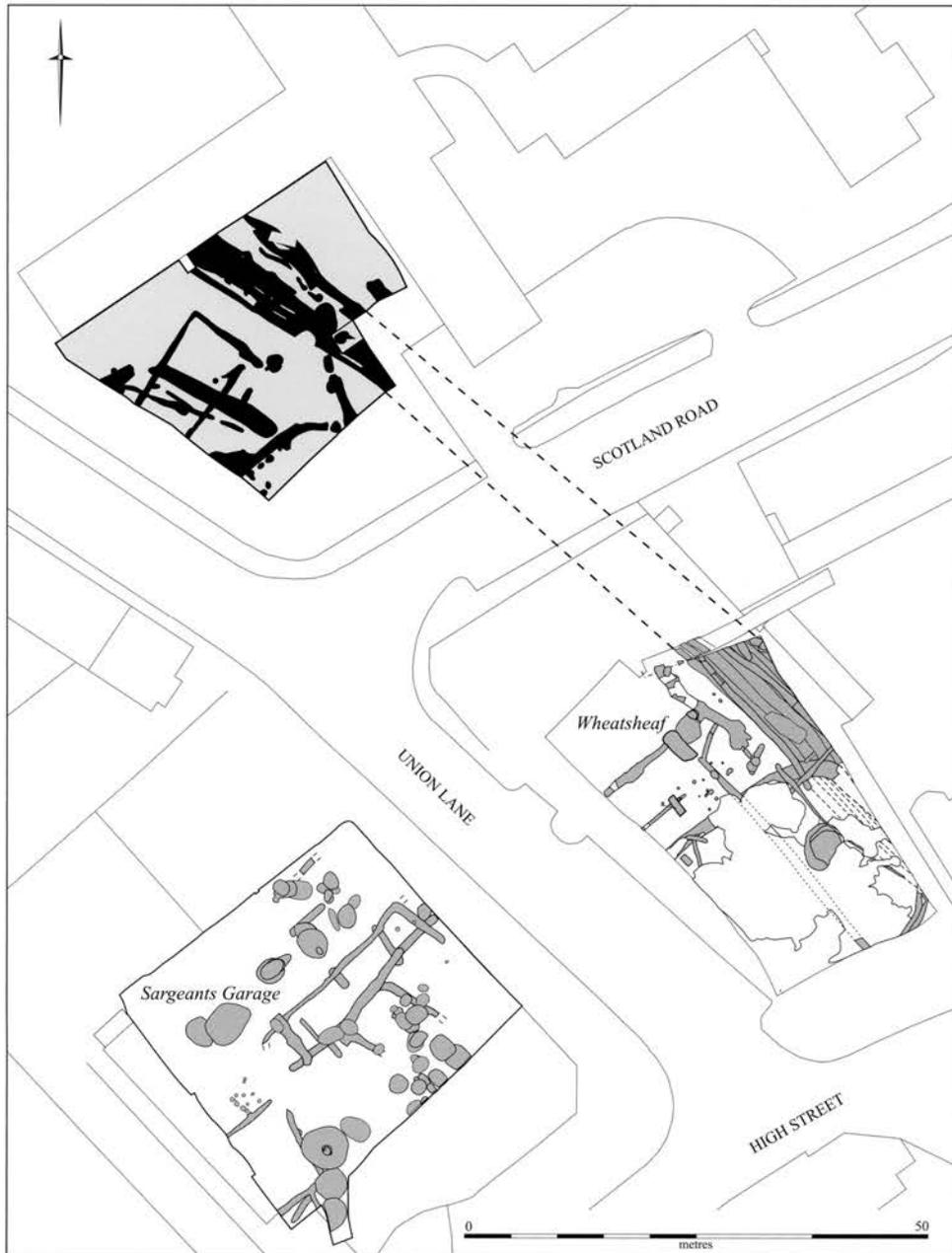


Figure 6. Site phase-plans.

Sargeant's Garage Sites, where the small-ditched rectangular plots fronting onto the street, comparable to F.17/20, began to occur in the late eleventh or early twelfth centuries (Fig. 7). This is a chronological phase entirely absent on the 2005 site, with not even a single residual sherd of medieval pottery pre-dating the twelfth century. Furthermore, the date of this plot coincides with periods of different types of activity on the other sites, particularly pit digging associated with properties already in existence. This does not represent a period of decline on the other sites, rather a continuation in use of established plots and a change in the method of demarcating property boundaries (Cessford & Dickens 2004). While this was happening, a steady increase in population was causing the focus of settlement to expand, encompassing the current site. It was, however, a shift that was to be short-lived. The limited recognisable activity thereafter attests to no more than fairly typical 'back yard' usage, possibly of a property fronting Scotland Road. The well and sparse pitting would fit well with this interpretation, and undoubtedly the later finds were deposited during allotment activity, possibly relating to the same property.

Acknowledgements

The site was managed by Robin Standing, and monitored by Kasia Gdaniec of Cambridgeshire County Council. The site excavation staff were Matt Brudenell, Martin Oates and Tim Vicars. The graphics were produced by Andrew Hall, Jane Matthews and Vicky Herring, and Gwladys Monteil supervised the finds processing; David Hall spot-dated the Medieval pottery. Craig Cessford and Christopher Evans were kind enough to read a draft copy of this report and offer suggestions. The CAU would like to thank Nick Jones of Ashwell Homes for his interest in this work, and Ashwell Homes (East Anglia) Ltd. for their funding of this excavation.



Based on the Ordnance Survey 1:2500 map With the permission of the controller of Her Majesty's Stationery Office © Crown Copyright.
University of Cambridge Licence No.AL 550833

Figure 7. 2005 Site features in relationship to other environs excavations (note continuation of trackway south to the Wheatsheaf Site).

Bibliography

- Adkins P, N Brown, P Murphy & P Priddy 1985 Rook Hall. *Essex Archaeology and History* 16: 94–99
- Armour N 2001(a) *An Archaeological Evaluation at the former Chesterton Workhouse, Now Chesterton Hospital, Union Lane, Chesterton Site 2*. CAU Report No. 438
- Armour N 2001(b) *An Archaeological Investigation on the Wheatsheaf Public House Site, Chesterton*. CAU Report No. 441
- Boardman S & G Jones 1990 Experiments on the effects of charring on cereal plant components. *Journal of Archaeological Science* 17: 1–11
- Brown N 1988 A Late Bronze Age enclosure at Lofts Farm, Essex. *PPS* 38: 249–302
- Brown N 1992 Early Iron Age settlement at Maldon and the Maldon 'burh': excavation at Beacon Green 1987. *Essex Archaeology and History* 23: 10–24
- Brown N 2004 'Late Bronze Age, Early and Middle Iron Age pottery'. In R Havis and H Brooks, *Excavations at Stansted Airport 1986–91*. EAA Vol. 107: 39–54
- Brudenell M 2008 'Reclaiming the earlier Iron Age in Eastern England'. In O Davis, N Sharples and K Waddington (eds.), *Changing perspectives on the 1st Millennium BC: Proceedings of the Iron Age Research Student Seminar 2006*. Oxford: Oxbow Books
- Cessford C & A Dickens 2004 The Origins and Early Development of Chesterton. *PCAS* 93: 125–142
- Cunliffe B 1968 Early pre-Roman Iron Age communities in eastern England. *Antiquaries Journal* 48: 175–91
- Cunliffe B 1974 *Iron Age Communities in Britain*. 1st edn, London: Routledge
- Cunliffe B 1978 *Iron Age Communities in Britain*. 2nd edn, London: Routledge
- Evans C with D Mackay & L Webley 2008 *Borderlands—The Archaeology of the Addenbrooke's Environs, South Cambridge*. (CAU Landscape Archives: New Archaeologies of the Cambridge Region Series) Cambridge/Oxford: CAU/Oxbow Books
- Fell D 1999 *Oban Court, Union Lane, Chesterton: Desk-based Assessment and Evaluation*. HAT Report No. 562
- Gaunt G D 2000 'A Contribution on the Geology of the Hones'. In A J Mainman & N S H Rogers (eds.), *Craft, Industry and Everyday Life: Finds from Anglo-Scandinavian York*. York: York Archaeological Trust
- Grant J & B Wilkins 2002 *Land at Scotland Road/Union Lane, Chesterton, Cambridge. An Archaeological Evaluation*. HAT Report No. 1149
- Greig J R 1991 The British Isles. In W van Zest, K Wasylikowa, & K-E Behre (eds.), *Progress in Old World Palaeoethnobotany*. Brookfield and Rotterdam: A A Balkema: 299–334
- Hall C 1999 *The former Sargeants Garage Site, High Street Chesterton: Post Excavation Assessment*. CAU Report No. 328
- Hatherley C 2001 *An Archaeological Evaluation at the Former Chesterton Hospital, Union Lane, Chesterton, Site 3*. CAU Report No. 460
- Jones M K 1978 The Plant Remains. In M Parrington (ed.), *The excavation of an Iron Age settlement, Bronze Age ring-ditches and Roman features at Ashville Trading Estate, Abingdon (Oxfordshire) 1974–76*. Oxfordshire Archaeological Unit: CBA Research Report 28. York: CBA: 93–110
- Knight D 2002 A regional ceramic sequence: Pottery of the first millennium BC between the Humber and the Nene. In A Woodward & J D Hill (eds.), *Prehistoric Britain: The Ceramic Basis*. Oxford: Oxbow: 119–42
- Mackay D 2000 *The Former Chesterton Hospital Site, Chesterton, Cambridgeshire*. CAU Report No. 408
- Mackay D 2001 *Archaeological Investigations on the Site of the Former Yorkshire Grey Public House, High Street, Chesterton, Cambridge*. CAU Report No. 457
- Mackay D 2006 *Archaeological Investigation at The Ashwell Site, Union Lane/Scotland Road, Chesterton, Cambridge*. CAU Report No. 714
- Martin E 1993 *Settlements on Hill-tops: seven prehistoric sites in Suffolk*. EAA 65
- Martin E 1999 Suffolk in the Iron Age. In J Davis & T Williamson (eds.), *Land of the Iceni: the Iron Age in Northern East Anglia*. Norwich: Centre of East Anglia Studies: 45–99
- Sporrey P 2008. *Ely Wares*. EAA 122
- Stace C 1997 *New Flora of the British Isles*. Cambridge: CUP

A curious object from Firs Farm, Caxton

Aileen Connor

Excavation at Firs Farm, Caxton (TL 3021 5788) found evidence for a possible Roman to late medieval track coupled with extensive water management and limited settlement activity that was at its height in the medieval period. Of particular interest was the discovery of a 'face' made from animal bone and lava quern, found associated with a late medieval timber building. The significance of this composite object is debatable but could include protection against witchcraft.

Caxton is recorded in the Domesday Book as *Caustone*, a name derived from 'Kakkr's' farm (Reaney 1943, 157). Other than Ermine Street and a reference to a mosaic pavement and cobbled floor (HER 02416) there is little evidence for Roman activity in the village. The evidence for Anglo-Saxon activity is similarly sparse. The settlement may have a late Scandinavian origin and the site of Caxton moats (HER CB 15405) revealed traces of Saxon or Norman occupation (Dunning 1973, 26). The present settlement focus is thought to have its origins in the thirteenth century when Ermine Street (The Great North Road) was growing in importance as a major route from London to the north. A market charter was granted to Baldwin de Freville in 1247 for a site next to the road: the market continued in use until the eighteenth century (Wilson 1870–2). The parish church of St Andrew's has its origins in the eleventh century although most of the surviving building dates to the fourteenth and fifteenth centuries. The church is some distance from the modern village, and lies within an area of earthworks, narrow lanes and abandoned closes thought to be the focus of Caxton in Anglo-Saxon and early medieval times (RCHME 1968, 34). Excavation by OA East (formerly CAM ARC) took place in this area at the junction of St Peter's Street and Gransden Road, during October and November 1999.

The excavation revealed a ditched track, possibly Roman in origin and still in use in the fifteenth century. This track apparently continued the line of St Peter's Street to the north, called Potter's Way on a map of 1750 (CUL Maps Rb10 *Map of Manor of Caxton*), a name sometimes associated with Roman roads and known to have been used in connection with Ermine

Street (Reaney 1943, 29). The area was evidently troubled by flooding as there was extensive evidence for drainage which was presumably successful since timber structures were subsequently built in the later medieval period.

An unusual finds group was recovered from the foundation trench of one of these buildings (SF 12; Fig. 1). This composite item comprised an unmodified cattle axis vertebra with a fragment of trimmed Niedemendig lava quern wedged into the vertebral foramen and packed with unfired clay. It is debatable whether it was deliberately made, since the stone may have become accidentally wedged into the bone as a result of post-depositional processes, and the clay around it accumulated naturally over time. Arguing against this is the fact that the resulting object is clear-

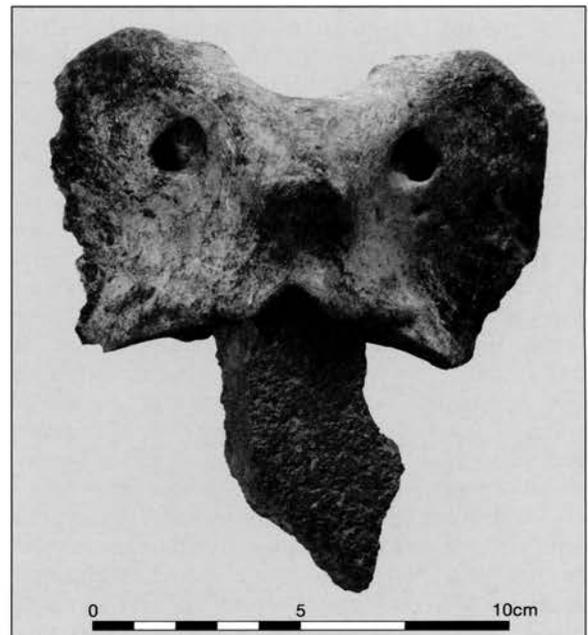


Figure 1. SF 12 showing fragment of quern stone and cattle bone as excavated.

ly reminiscent of a face (vertebra) with a protruding tongue (broken quernstone). The 'face' is cat-like in appearance perhaps implying an association with witches and witchcraft; alternatively, it may represent a human or other animal. The human perceptual system is designed to identify and recognize faces, and it is therefore no surprise that this object appears as a face to us today, but is equally likely to have been imagined as such by someone in the thirteenth or fourteenth century (Chris Wingfield pers. comm.).

If it is accepted that the object was deliberately, if crudely, manufactured then what was its purpose? The author has been unable to find any direct parallels, although a number of possibilities come to mind; children's toy or puppet, joke, ritual (such as might be used in witchcraft or as protection against witches or evil), a grotesque representation of a green man or a crude sexual image. Animal bones are known to have been used for a number of folklore-related purposes including divination, to bring luck or good fortune (e.g. wish-bones) and to aid healing (Oliver Douglas pers. comm.). There are many examples of folklore concerning the protection of houses from witchcraft, evil spirits and other dangers, by the careful placement of certain items at places of entry such as thresholds, chimneys and windows (Simpson & Stroud 2000, 'houses'). Objects specifically related to protection from witchcraft include jars but these are usually more obvious and often found in later contexts. Ralph Merrifield's (1987) comprehensive work on this subject contains no direct parallels despite the wide range of objects cited such as shoes, witches' bottles, dried cats and horses skulls. Brian Hoggard (1999) has collected many examples of concealed objects, but again there are no direct parallels for the Caxton piece. There are several recorded instances in Cambridgeshire of houses built in the sixteenth or seventeenth century containing objects in their walls, foundations or chimneys (Porter 1969, 180–82). Items include shoes, bottles containing salt or sometimes iron objects, iron being thought to be particularly effective against witches. There are also examples of unusually-shaped stones, dolls, and animal remains such as 'mummified' cats, horse bones, skulls and even blood (Porter 1969, 181). The inventory of concealed finds compiled by Jeremy Harte for Dorset (2009) includes a wide variety of objects including instances of placing ox or cow hearts in the cavities of walls or chimneys. Given the variety of object types and materials that have been found, it is certainly possible to place the Caxton 'face' in this category.

Another possibility is that the face was meant to be seen, perhaps as a crude copy of the stone heads used to decorate or protect houses and churches (Simpson & Stroud 2000, 'houses'). Simpson and Stroud (2000, 'heads') argue that the significance of such head symbols is 'ambiguous': whilst they may have their origins in pagan ritual, they are such powerful symbols that they need not be specifically associated with a particular religion or culture, and whilst they may be 'aggressive guardians' they could equally be purely decorative.

This curious 'face', possibly a protection against witchcraft, could be considered as a coincidence but may yet prove to have parallels elsewhere.

Acknowledgements

Thanks to Cambridgeshire County Council for providing planning advice, Martin Grant Homes (UK) Ltd funded the excavation. The excavators were Aileen Connor, Spencer Cooper, Tony Baker, Chris Montague, Diane Wells, Andrew Hatton and Phil Church. The photograph was taken by Andrew Corrigan. Elizabeth Popescu prepared the article for publication.

Cambridge Antiquarian Society is grateful to Oxford Archaeology East for a grant towards the publication of this paper.

Bibliography

- CUL 1750 Cambridge University Library Maps RB10 *Map of Manor of Caxton*
- Dunning, R W 1973 Caxton in C R Elrington (ed) *A history of the County of Cambridge and the Isle of Ely* Vol.V. Oxford: OUP
- Harte, J 2009 'Folk Magic in Dorset'. Available: http://www.apotropaios.co.uk/dorset_survey.htm. Accessed February 2009
- Hoggard, B 1999 'The archaeology of folk magic'. Available: <http://www.apotropaios.co.uk/index.html> Accessed: February 2009
- Merrifield, R 1987 *The Archaeology of Ritual and Magic*. London: Batsford
- Porter, E 1969 *Cambridgeshire Customs and Folklore*. London: Routledge and Kegan Paul
- RCHME 1968 *An Inventory of Historical Monuments in the County of Cambridge Vol 1: West Cambridgeshire*. London: HMSO
- Reaney, P H 1943 *The place Names of Cambridgeshire and the Isle of Ely*, English Place Name Society XIX. Cambridge.
- Simpson J & Stroud S 2000 *A Dictionary of English Folklore*. Oxford: Oxford University Press. Available: <http://www.oxfordreference.com> Accessed: February 2009
- Wilson, J M 1870–2 *Imperial Gazetteer of England and Wales*. London. Available: http://www.visionofbritain.org.uk/descriptions/entry_page.jsp?text_id=838320&word=NULL Accessed: February 2009

A morphological analysis of Ickleton, Cambridgeshire: an admission of defeat

Christopher Taylor

The difficulties for historians in using morphological analysis to understand the origins and growth of nucleated villages is examined using the example of one south Cambridgeshire village, Ickleton.

Introduction

The morphological analysis of rural settlements, that is the study of the arrangements of streets, lanes, greens and so on, of hamlets and villages, in order to understand their origins and growth, is perhaps one of the oldest and certainly one of the best known techniques of local history. Generations of historians, archaeologists and geographers have pored over maps and aerial photographs, walked streets and lanes and examined walls and hedges in order to understand what villages and hamlets might have looked like originally and how they developed. The results of such work have ranged from the academically sound, but simplistic, such as the study of the 'green' villages of County Durham (Thorpe 1951) to the terrifyingly complex and mind-blowing examination of the village plans of Northern England (Roberts 2008).

Here, in our county too, there has been a long tradition of village plan analysis, ranging again from the simplistic (Fox 1923, 311) via the arcane (Yorke 1911) to the highly complicated (Taylor 1983, 158, 218). This tradition has included the work of professional historians and institutional scholars and that of local history groups (Oosthuizen 1997; RCHME 1968 *passim*; VCH 2002 *passim*; Fulbourn Hist Soc 2006); and the results of extensive and limited modern excavations (Mortimer 2000; Cessford 2005, 134; Lewis 2005; 2007) as well as field surveys (Taylor 1996). All this has been of great value and has advanced the understanding of the origins and development of villages in both Cambridgeshire and elsewhere (Taylor 1983 *passim*). However, not all scholars have been convinced of the validity of either the methodology or the results of morphological analysis and certainly the present writer expressed his doubts many years ago in an uncompromising paper on the landscape of Whittlesford

(Taylor 1989; Lewis 2007). Nevertheless, both he and others have continued to examine the layout of Cambridgeshire villages and to draw interesting conclusions from them (Taylor 2002; 2006; Oosthuizen 2002), mainly because there is no satisfactory alternative method beyond total excavation.

There are two difficulties in using morphological analysis as a way of understanding village origins and growth. The first is the dynamic nature of villages themselves that through time results in the obscuring or the total destruction of early layouts, and indeed of the evidence of subsequent changes. Early students of villages tended to assume that, on the whole, village plans were static, and thus reflected ancient arrangements (Hoskins 1955, 48–54). Research over the last 30 years or so has indicated that, although some villages altered very little over time, many, perhaps the majority, were constantly changing (Taylor 1983, 151–74; Page & Jones 2007).

The second difficulty is the lack of direct documentation about both the origins of and the changes in settlement form. The best documentation that does exist is maps but these are almost all post-medieval in date. The written details of alterations or clearances are also rarely earlier than late medieval times. While both of these forms are useful in identifying relatively recent changes and sometimes enabling the situation in medieval times to be postulated, they do little to explain with any certainty the origins of villages or their early appearance. Even the most basic documentation that might help understanding does not appear until the twelfth century. Thus in most cases any explanations rely at best on careful retrogressive analysis or, at worst, on hopeful guesswork (Roberts 1993; 2008; Bourne 2002). Over much of England, and this includes Cambridgeshire, the study of village morphology is really the study of settlement prehistory: it is the analysis and interpretation of the present or recent physical arrangements of a settlement without any certain supporting historical evidence. Even evidence from excavation, when it is available, is usually small-scale relative to the settlement size, and open to differing interpretations. This paper is the

examination of one, seemingly simple, Cambridgeshire village, presented as a specific example of the problems laid out in general terms above.

Ickleton, the simple explanation

The village of Ickleton lies against the southern boundary of Cambridgeshire in the valley of the River Cam (Fig. 1). It is situated on the south-western side of the river between 30m and 35m OD, mainly on Middle Chalk, except at its extreme north-eastern end where it extends to River Gravels. The south-west end of the village once lay across the courses of two small north-east-flowing streams that rise at the heads of chalk valleys some 6km to the south-west. Subsequently they have been much altered and they now join north of the village. The resulting brook continues north-eastwards along its northern edge to the River Cam (Fig. 2).

At first sight Ickleton has a simple plan (Fig. 3). Most of the village lies on both sides of the main north-east to south-west Abbey Street. At its north-eastern end Abbey Street divides into three separate routes. One, Frog Street, turns sharply south-east and after a short distance leaves the village and continues towards Great Chesterford and Littlebury in Essex. The other two routes, Butcher Hill and Church Street, curve round the two sides of a low knoll, so forming an irregular oval enclosure within which is situated the parish church. On the north-eastern side of this enclosure Mill Lane extends a short distance to the edge of the river, now continuing across it only as a footpath. Further north, another road, Brookhampton Street, runs north-westwards for 500m before turning north-east and crossing the river to Hinxton.



Despite the complications of Frog Street, Brookhampton Street and the central 'enclosure', the apparently simple layout of a long main street stands out on both maps and on the ground. This simplicity is reinforced by the very similar plans of almost all of the neighbouring villages along the River Cam (Fig. 1). These include Little Shelford, Great Shelford, Whittlesford, Sawston, and Pampisford in Cambridgeshire and Little Chesterford in Essex, all of which have, or had, single main streets arranged at right angles to the river (Taylor 1971; 1989; 2002; 2006; 2008). In addition, Duxford in Cambridgeshire and Littlebury in Essex both have two parallel main streets at right angles to the river (Brown & Taylor 1978, 69–71). Villages lying along the River Granta further north-east, Great and Little Abington, Hildersham, part of Linton and probably Babraham, also have or had similar plans (Brown & Taylor 1995, 96–8).

This repetitive plan form once encouraged the present writer to seek an overall explanation for it (Taylor 1973, 106–8). The clue was seen to be the Icknield Way. Today the name in Cambridgeshire is given to various roads and green lanes that can be traced for long distances from the area around Royston to beyond Newmarket and to connect with similar routeways that appeared to link the ancient Ridgeway of Wiltshire and Berkshire with Norfolk. It was assumed that, perhaps in prehistoric times, the Icknield Way through our county comprised not one track but many intersecting unfenced routeways across the chalklands (Fox 1923, 145; Reaney 1943, 25). From this it followed that when these multiple tracks reached the valleys of the Rivers Cam and Granta, groups of them joined together into a single track and crossed the rivers at fords. After crossing the river the track divided again into a number of routeways. In later centuries the expansion of arable farming led to these multiple tracks being formalised and fixed running between the fields; and when in Saxon times villages were established they tended to be sited at the fords across the rivers, their main streets being aligned along the approaching Icknield Way track. Further, their very names often reveal their position. Thus the reasons for the shape of Whittlesford, Great and Little Shelford, Great and Little Chesterford and others seemed obvious and therefore so did that of Ickleton. Indeed Ickleton was a particularly good example of this type of village (Fig. 2). The two roads approaching the main street from the south-west, despite having been much altered by the enclosure of the medieval open fields, could be seen as two separate routes of the Icknield Way. Both could be traced from the Royston area, the northern one being the green lane from Royston to Chrishall Grange and thence to Ickleton, the southern one running from the south of Royston through Heydon and Elmdon to Ickleton. East of the River Cam the footpath from

Figure 1. Ickleton: Location

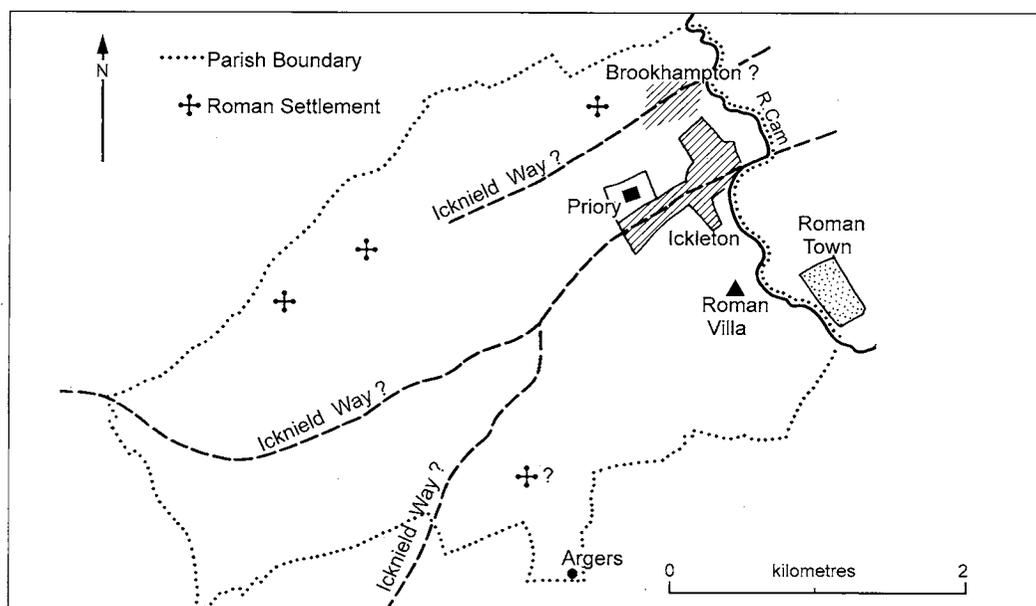


Figure 2. Ickleton parish.

the north-east end of the village led to Stump Cross where it joined the Roman road running north-east from Great Chesterford. The first element of the name of the village too seemed to be related to the Icknield Way, despite received wisdom failing to explain the origin of *Icknield*, the certainty that Ickleton means 'the dwelling of a person called Icel' and the fact that Ickleton does not have a common root with Icknield (Reaney 1943, 24–25, 94; Ekwall 1960, 261; VCH 1978, 230 fn. 16). A third possible branch of the Icknield Way seems to have run along the north-western side of the parish, crossing the River Cam to the north of the village.

In this way the layout of Ickleton, and indeed that of most of its neighbours, was explained in the early 1970s. And the next attempt to understand the Ickleton plan by the VCH followed and developed these ideas (1978, 230–1). Mill Lane was identified as the earliest part of the village, situated close to where the Icknield Way crossed the River Cam. This settlement then expanded south-westwards along Church Street and Abbey Street which became the main thoroughfare, and then south-east along Frog Street and north-west along Brookhampton Street. The habitative name given to Brookhampton Street, together with the same name being applied to the general area, specific closes, the river crossing and the road to the north of it, led the VCH to suggest that a separate settlement of that name may have existed there once (Fig. 2). It was, however, admitted that 'no documentary evidence of such a settlement had been found' (VCH 1978, 231).

The present author developed this idea subsequently with students in various lectures and field visits. He suggested that this former settlement had lain on the south-west to north-east road leading to the river-crossing to Hinxton and along its exten-

sion south-westwards, now a lane and footpath. He proposed that this routeway was yet another branch of the Icknield Way approaching the river and along which a settlement called Brookhampton had grown up. Thus Brookhampton Street in Ickleton was the street that led to Brookhampton while Brookhampton itself was a separate and now deserted settlement (Fig. 2). This theory of two settlements, Ickleton and Brookhampton, lying side by side on two branches of the Icknield Way, was supported by similar layouts nearby. At Duxford to the north, two parallel streets, St John's and St Peter's, each with a medieval church, run down to former fords across the river while to the south at Littlebury in Essex, Walden Road and Church Street do the same. So, by the late 1970s, the origin and plan of Ickleton was not only seemingly understood but, with parallels in a number of places, fitted neatly into the local landscape.

The development of problems

As happened with Whittlesford (Taylor 1989) this convincing explanation of Ickleton soon began to fall apart. This was not because of any work on Ickleton itself, for there was none, but as a result of research into the origins and development of English villages as a whole that took place in the last thirty years of the twentieth century (Taylor 1983; Lewis *et al.* 1997; Jones & Page 2006). Amongst the many advances in the understanding of rural settlements that took place in those decades a number stand out as affecting the interpretation of Ickleton.

One was the work through excavation, field-walking and on place-names that changed the perception of historians as to the date of the beginning of English villages. Until the 1970s it was generally assumed that the majority of these had been established in the fifth or sixth centuries AD by incoming Anglo-Saxons.

The new work gradually demonstrated a much more complicated history whereby the pattern of rural settlement, particularly in the Midlands and eastern England, in immediate post-Roman times was a dispersed one comprising mainly farmsteads and hamlets, many of which moved about in a very unstable way (Hall & Martin 1979; Shaw 1993). By the eighth century villages had begun to appear but it was not until the tenth or eleventh centuries—and sometimes later—that the majority of villages finally acquired plans that still can be dimly recognised today. Some of these, the so-called polyfocal villages, originated from the coalescence of early Anglo-Saxon farmsteads or hamlets (Taylor 1977). Others seem to have developed as a result of unregulated expansion. And many, perhaps the majority of villages, were given regular layouts as a result of late Anglo-Saxon and later planning (Taylor 1994). This last type of deliberately created village, together with similarly planned additions to existing settlements continued perhaps until as late as the thirteenth century (Jones & Page 2006, 1–15; Lewis *et al.* 1997 esp. 202–6). Other research revealed that villages once established could expand, contract, be completely deserted and even move about over time (Taylor 1983, 151–74). They could also change their name, sometimes more than once (Taylor 1967, 84–8). Yet, not all of these village studies have resulted in universal agreement. Many important issues regarding the origins and development of rural settlements are far from being resolved. Among the major uncertainties is the part played by lords in creating and developing villages as opposed to that played by the community as a whole (Lewis *et al.* 1997, 204–213; Harvey 1989; Dyer 1985).

All of this work in the understanding of villages has been taken on board by students of the history of Cambridgeshire villages. Evidence for the dispersed pattern of Saxon settlement has been found by excavation in various places and its existence has been postulated at Pampisford and Hinxtun (Malim 1993, 38–9; Taylor 2002, 55–7; 2008, 132–3). Planning of villages or parts of villages has been recognised, polyfocal villages identified, changes of name suggested, and shrinkage, movement and desertion all noted (Reaney 1943, 64; RCHME 1972, xxxiii, Bottisham (61–7), Fen Ditton (40), Swaffham Bulbeck (81); Oosthuizen 2002, 60; Taylor 1971; 2006; 2008; Lewis 2005; 2007). At the same time the problems of date and creators have all been discussed (Taylor 2002, 56–7; Oosthuizen 2002, 58–60). In view of this, and much more, the reader will understand why there is a problem with Ickleton, the morphology of which can be apparently replicated and explained by reference to examples all over the county and beyond. In fact Ickleton is far more complicated in plan than appears at first sight, and the explanation accepted hitherto is far too simplistic.

Ickleton: the plan

Ickleton has seven clearly identifiable parts, each of which demands a description and analysis before any attempt to produce an overall explanation can begin. This requires both a ground examination and the use of the only detailed early maps of the village that exist, the pre-Enclosure and Enclosure maps of 1810 and the first edition OS 6-inch plan of 1886 (CRO Q/Rdc 20; Q/Rd z 7; OS 1886).

Abbey Street

Abbey Street now incorporates two of the separate parts of the village that originally must have been two end-on, regular two-row settlement blocks. It extends from a north-to-south road in the south-west to a point where it divides into Church Street and Butcher Hill that surrounds the roughly circular enclosure containing the parish church (Figs 3 and 4). Although much altered along the northern side, its south side is well defined by a back lane that, two thirds of its way from the south-western end, dog-legs outwards by some 10m. Part of the northern boundary was almost certainly the altered course of the south-western of the united streams noted above, flowing north-east. This stream probably once flowed across the line of the south-western part of Abbey Street but was later moved north to form the northern boundary of the street when the settlement block was created. Further north-east its course has been completely altered by the construction of ponds and watercourses of eighteenth and nineteenth-century landscaping there (VCH 1978, 234). However, it is possible that an existing ditch, 60m long on the southern side of the landscaped area and running in the same direction as the modified stream to the south-west, but on a slightly more northerly alignment, may mark the original northern boundary of the north-eastern end of Abbey Street.

The point at which this change in alignment occurs is at almost the same place north of the street as the dog-leg in the back lane is on the south. This suggests that, as already noted, Abbey Street is made up of two separate parts. The first, and presumably the earlier, comprised the 200m long straight north-eastern end, set within a regular envelope and extending south-west from the Butcher Hill/Church Street divide. On the south side, properties 60m long extended to the back lane. On the north the properties, perhaps 60m to 70m long extended to the stream. The second, and probably later, extension comprises the rest of Abbey Street, here slightly curved and bisecting a truncated wedge-shaped envelope. The properties within this envelope were about 50m long at the north-eastern end, extending to perhaps 140m at the south-west. Although it is not absolutely certain, it is possible that this section of Abbey Street was laid out over pre-existing arable fields. At least one property north of the street and another on the south have curved boundaries, usually an indication that they are following former open-field strips.

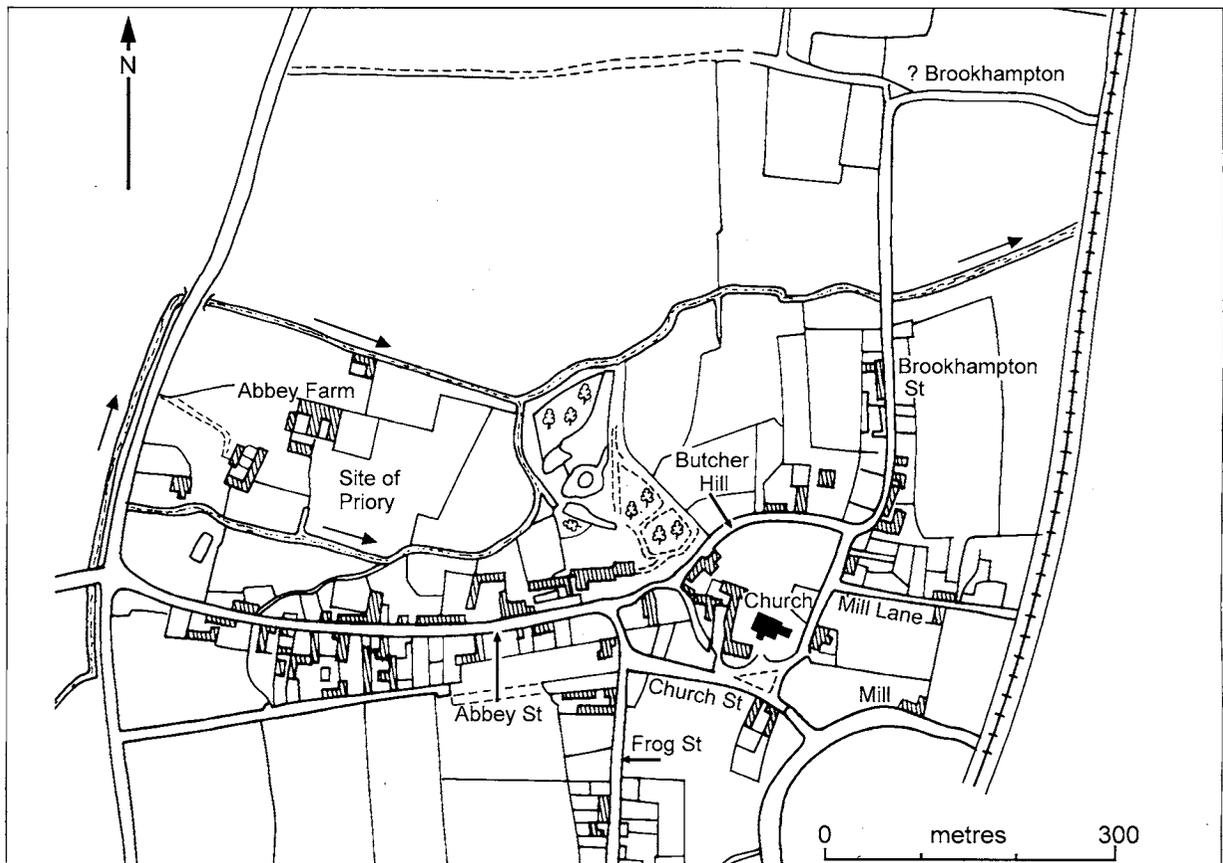


Figure 3. Ickleton village.

This apparently planned extension of the presumed earlier regular block to the north-east has one important relationship. At its south-western end its apparent northern boundary is also the former southern edge of the paddocks and outbuildings of Abbey Farm. This farm stands on the site of a priory of Benedictine Nuns that was founded between 1143 and 1148. It was always a small and poor house with never more than nine nuns recorded (VCH 1948, 223–6; Vincent 1999, 924–5). Nothing is known of the layout or extent of the priory church or of the conventual buildings. However, if the location of stone coffins and coins, recorded by the OS on its large-scale plans, is accurate (OS 1886 and subsequent editions) the priory precinct extended to the presumed northern boundary of the wedge-shaped second stage of Abbey Street. Thus the diverted stream there was both the northern side of Abbey Street and the southern boundary of the precinct. From this it follows that the south-western part of Abbey Street could have been later than the mid twelfth-century precinct.

On the other hand another, perhaps less satisfactory, interpretation is that the priory precinct originally covered a much larger area of land that extended as far as the northern edge of an unoccupied Abbey Street and that this part of the street was cut out of the earlier precinct and again laid out later. However the best explanation is that the south-western part of

Abbey Street and the smaller priory precinct were contemporary and were planned as a single unit, presumably in the mid 1140s. The street was perhaps added to an existing settlement area to the north-east.

The Church Enclosure

The place where Abbey Street divides into Church Street and Butcher Hill forms the south-western end of a roughly oval area completely bounded by roads and with the parish church in its south-eastern corner (Figs 3 and 5). This is situated on a low but very prominent knoll, at 35m OD. From its summit most of the parish of Ickleton is visible as well as parts of Duxford, Elmdon, Littlebury, Hinxton and Chesterford parishes.

Immediately south of the church and below the knoll, Church Street widens to form a small triangular green. From the western end of this green a curving footpath extends north-west between properties to meet Butcher Hill. The logical interpretation of this situation would be that, at an early period, the church stood at the southern end of a roughly D-shaped enclosure, on the south and south-west of which was a large open green. Most of this green was subsequently built over, except for that section to the south of the church. Although the church and churchyard only occupy a small part of the presumed enclosure, certainly by the early sixteenth century the vicar of

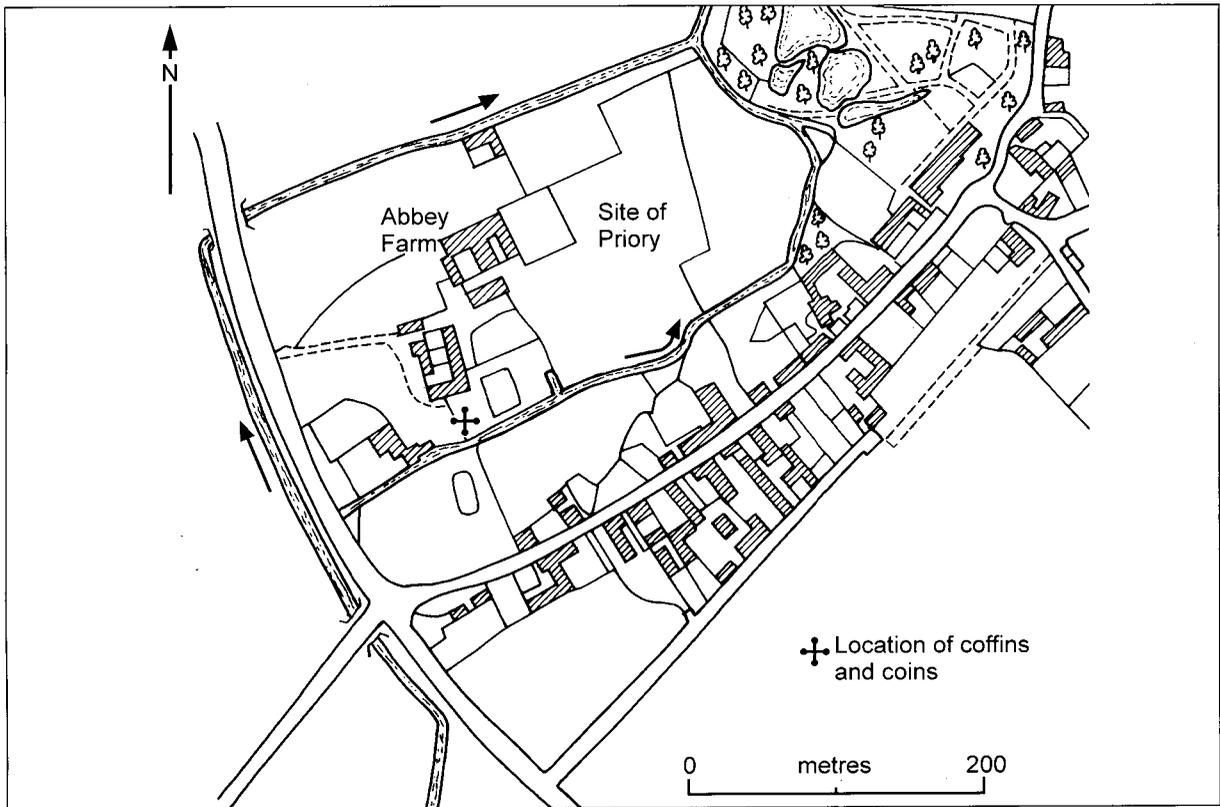


Figure 4. Ickleton: Abbey Street and site of priory.

Ickleton had a house and three acres of land next to the churchyard and thus presumably within the enclosure (VCH 1948, 224). The vicarage was subsequently moved to a site south of the green near the river (VCH 1978, 243).

Until recent development, most of the northern half of the church enclosure was not built on. The loss to the understanding of the history of Ickleton, as a result of a lack of excavation before the construction of modern buildings there, cannot be over-emphasised. It is possible that the enclosure was either a prehistoric or Roman settlement or even an early religious site reused in later Anglo-Saxon times. In the latter case it could be an example of one of the so-called curvilinear churchyards recognised, particularly in south-west England, and there interpreted as perhaps of early Christian origin (Barker 1982; Hall 2000, 277 and Appendix IV; Edwards & Lane 1992 *passim*). Whatever the case, the prominent position of the knoll, its relationship to all the other parts of the village that lead from it, as well as the existence of the church within it would seem to mark this 'enclosure' as of special significance and perhaps the oldest part of the village plan.

Further, although the church is not recorded until the fourteenth century (VCH 1978, 242), it was originally of some considerable size, of cruciform plan with a central tower, all of which dated from around 1100 or a little before (Taylor & Taylor 1965, 330–2; VCH 1978, 244; Pevsner 1970, 411–12; Hicks 1997, 17,

31, 205–6). Of particular interest is the fact that two piers in the arcades are re-used monolithic columns, probably from a Roman building. There is also much Roman material in the exterior walls. The source for all of this was either the Roman villa, excavated in the 1840s, to the south of the village, or, and perhaps more likely, the Roman town at Great Chesterford, only 1km away to the south-east (Fig. 2; Smith 1849).

Oosthuizen (2001, 65) has postulated that Ickleton church was originally an Anglo-Saxon minster. Her reasons for suggesting this were that it was cruciform in plan, probably eleventh century in date, belonged to a large manor of almost 20 hides in Domesday Book and that the parish probably was originally part of the *territorium* of the Roman town at Great Chesterford, all indicators of an Anglo-Saxon minster church. Oosthuizen also pointed to the similarity in date and plan form of Hadstock church, Essex, which also lay within the *territorium* of Great Chesterford and certainly was a minster church. To these reasons may also be added the existence of the circular enclosure within which Ickleton church lies and, perhaps less important, the large Roman villa at Hadstock that is situated north-east of that village on the banks of the River Granta (RCHME 1916, Hadstock (1) and (2); Bettley & Pevsner 2007, 438–40). It has also been suggested that the church was the priory church, the conventual buildings of which lay to its north (Radford 1967). However this is very doubtful and the traditional site of the priory at Abbey Farm is far

more likely.

The roughly eight-shaped green that once existed south and south-west of the church enclosure may have been an original feature of that enclosure, although it is much more likely that it was added later and was perhaps the site of the weekly market that was granted to the priory soon after its foundation in the mid-twelfth century and confirmed in 1222 and 1227 (VCH 1978, 241; Taylor 1982; Vincent 1999, 924–5). Whether there once were properties on the south side of this green is uncertain but it is likely. Only three buildings are shown there on the Enclosure Map of 1810 but the ground there is very uneven although

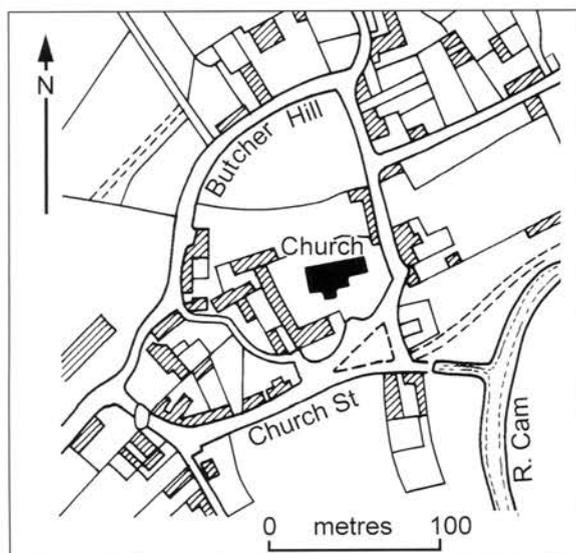


Figure 5 (above). Ickleton: church enclosure.
Below, Ickleton Church from the south-east.



there are no earthworks to indicate definitely former habitation. Nor are any settlement remains visible on aerial photographs (RAF 1946). Two of the existing properties there have markedly curved boundaries, perhaps the only survivors of a row along the southern side of the green. If so, these boundaries also suggest that this area too was laid out over earlier fields.

Frog Street

This street runs south-east from the junction of Abbey Street and Church Street (Figs 3 and 6). Its nineteenth-century arrangement of properties, until recently interspersed with empty plots, gave it a somewhat irregular appearance that belies other evidence that suggests that it too once may have been the main street of another regular two-row settlement block, and that originally it was added deliberately to the south side of the church enclosure in the same way as the north-eastern end of Abbey Street seems to have been to its south-western side. There are two reasons for suggesting this: first, that the rear ends of the neatly laid out properties on the south-western side of the street terminate against a continuous reversed-S boundary that was a back lane in 1810. This lane was not parallel to Frog Street, but left it at an angle at its southern end producing a wedge-shaped line of crofts. At its north-western end the lane met the back lane on the south side of Abbey Street on to which the northernmost properties of Frog Street abutted. This indicates that Frog Street was laid out after the creation of the north-eastern end of Abbey Street.

Whether there once was a regular row of properties on the north-eastern side of Frog Street is impossible to say. The short row of seventeenth-century and earlier cottages at the southern end of the street might suggest this and in 1810 some buildings lay further north towards Church Street. Today, only some

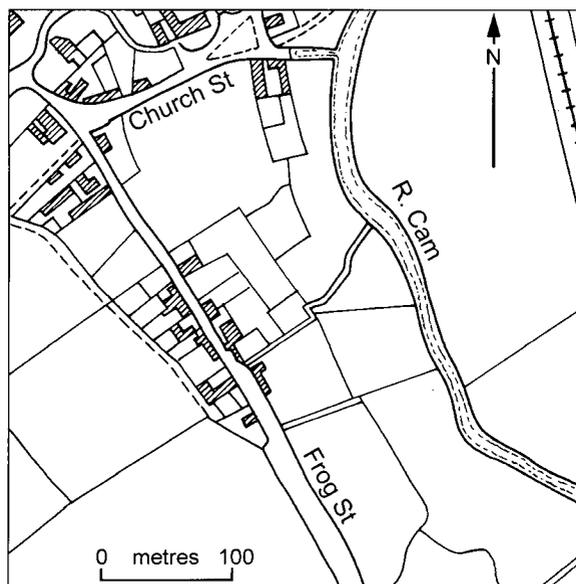


Figure 6. Ickleton: Frog Street.

uneven ground marks their site. The reversed-S curve of the western boundary of the Frog Street block presumably indicates that the adjacent properties were laid out over former open-field strips that were on a different alignment to the street. This would explain the wedge shape of the south-western properties. In addition, the 'old enclosures' south-west of the back lane were long, narrow curving strips in 1810, confirming the existence here of former open-field arable.

Mill Lane

Mill Lane is a straight length of street extending north-eastwards from the east side of the church enclosure as far as the railway (Figs 3 and 7). It then continues across the river as a footpath. Until the nineteenth century this footpath was a road that crossed the river at a ford and ran on north-eastwards to join the main London to Newmarket road, once the Roman road running north-east from Great Chesterford. The river-crossing route was cut by the construction of the railway in 1845 and reduced to a footpath. At its south-western end Mill Lane meets the street on the eastern side of the church enclosure at a T-junction. But, if its alignment is projected across the enclosure, it could be suggested that it once had been a continuation of Abbey Street and thus part of a major through-route and earlier than the church enclosure.

However, there are a number of features that make this unlikely. The first is the curious bend in the track/footpath beyond the railway where it turns sharply south-eastwards to reach the ford. This is an odd situation that already existed in 1810 and which could be interpreted as meaning that Mill Lane is not on the original alignment of a river-crossing route. A much better alignment would have been along the short length of lane that runs south-east from the corner of the green to the river and thence across the river and along its south-eastern side.

Other evidence that casts doubt on the antiquity of Mill Lane is its straight nature and the lack of old properties on its southern side, most of which is taken up by the land of the adjacent Norman Hall, the site of a medieval manor house. Of possible significance is the fact that on large-scale OS plans (e.g. 1886) the property boundaries on the northern end of Mill Lane intersect with and overlap the south-eastern boundary of Brookhampton Street. This relationship suggests that the Mill Lane properties were laid out after those of Brookhampton Street, itself a medieval settlement block. However, on the 1810 Enclosure Map this overlap is not shown and the two blocks abut against each other. This may mean that Brookhampton Street is later than Mill Lane.

Brookhampton Street

Brookhampton Street extends north-westwards from the north-eastern corner of the church enclosure (Figs 3 and 7). It runs for some 500m before turning north-east to cross the railway and the river to Hinxton, but only the south-eastern 250m has properties along it. These properties lie within a neat, roughly rectangular 'envelope', although none of the crofts now extend to its rear boundaries. This layout resembles a planned two-row settlement subsequently much altered. As already noted, modern map evidence suggests that the Brookhampton Street envelope is earlier than that of Mill Lane, although this is contradicted by the early nineteenth-century Enclosure Map. However, as the south-western corner of the envelope abuts against the northern side of the church enclosure, Brookhampton Street must be later than this element of the village. Brookhampton Street is the only one of the separate parts of Ickleton that has a habitative place-name. The *brook* element is presumably derived from the stream, already described, on the north side of Abbey Street. From there it flows north-east, crossing Brookhampton Street just to the north of the northern boundary of the envelope and then joining the River Cam just upstream of the crossing to Hinxton.

The name Brookhampton is usually said not to have been recorded until 1338 (Reaney 1943, 95). However, a mid twelfth-century charter, one of 12 recently discovered, contains details of a grant of one hide of land at Brookhampton to Ickleton Priory by King Stephen (Vincent 1999, 924–5). This would place the origins of Brookhampton before that date. However, there is evidence on the ground that complicates the picture. This is the fact that the two long external boundaries of the Brookhampton envelope have 'aratal' curves indicating that the whole settlement was laid out over earlier open-field strips. The western, hedged boundary has a slightly reversed-C curve while the eastern one, now a low earthwork scarp in pasture, has a reversed-S curve. Further, in 1810, the Old Enclosures that lay adjacent and parallel to the western boundary were long narrow closes, clearly once single open-field strips. Another long close next to the eastern boundary was formerly a strip lying between Brookhampton and the riverside

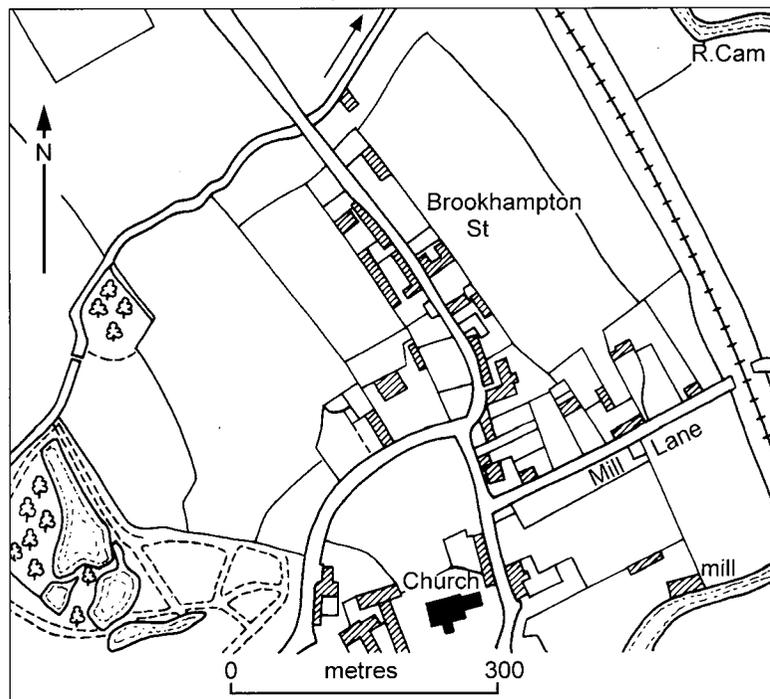


Figure 7. Ickleton: Brookhampton Street and Mill Lane.

meadows.

One last confusing feature of Brookhampton already noted, is the possibility that there was once a separate medieval settlement to the north of Brookhampton Street, aligned along the present lane running south-west to north-east to the river crossing to Hinxton. This settlement may have been an earlier Brookhampton, subsequently abandoned, to which much of the surviving medieval documentation may relate. This hypothesis is based partly on the fact that all of the sixteenth-century and later terriers refer to features there with the name Brookhampton. Thus the road running south-west from its alleged site around the present Old Cemetery, was called the 'highway' from Brookhampton, while the fields north of the stream were known as Brookhampton Closes and the river crossing as Brookhampton Bridge (VCH 1978, 231). Although, again as already noted, a former medieval settlement here would not be surprising, especially in view of parallels elsewhere, the hypothesis must be regarded as unproven at present. Most of the area of the supposed settlement is now permanent pasture that prevents field walking. Only excavation on the site could settle the matter.

Ickleton: summary and analysis

At the end of this description of the morphology of Ickleton, some seven separate blocks or units of settlement, together with the priory precinct, have been identified, and various dates and relationships ascribed to them (Fig. 8). In the centre is the church enclosure, probably Anglo-Saxon, perhaps Roman or even prehistoric in origin, but certainly in existence by 1100 by which time the church had been built within it. Attached to it to the south-west, and

thus later, is the planned north-eastern part of Abbey Street. This street was possibly associated with a green—or market place even—and in that case mid twelfth-century in origin. Beyond, the regular, probably also planned, south-western extension of Abbey Street is presumably also mid twelfth-century and perhaps contemporary with the priory precinct that abuts its northern boundary. Frog Street too is later than the church enclosure but equally it is later than the north-eastern end of Abbey Street. Mill Lane is again later than the church enclosure but may be earlier than Brookhampton Street. On documentary evidence the latter appears to have been in existence before the middle of the twelfth century unless the references are to the possible separate settlement to the north-west of Brookhampton Street.

This summary shows how complex is any attempt to establish the sequence of development of Ickleton village based on morphological analysis. The only fixed point is the church enclosure, apparently the earliest element and, whatever its original date, a possible contender for having been one part of a postulated Anglo-Saxon and earlier dispersed pattern of settlement within the parish. At present the limited fieldwork and excavation carried out at Ickleton have produced only hints of this dispersed pattern (Fig. 2). Nothing is known from prehistoric times. For the Roman period there is only the villa south of the village and close to the river (Smith 1849, 357–68; Fox 1923, 183–4), a large settlement including buildings on the top of a ridge west of the village, another settlement further west again that produced a hoard of pewter vessels and a third small occupation area just north of Ickleton (CHER 4212, 4228). A burial mound south-west of the village that contained a stone coffin may indicate the proximity of another Roman settlement (Liversidge 1977, 29). No Anglo-

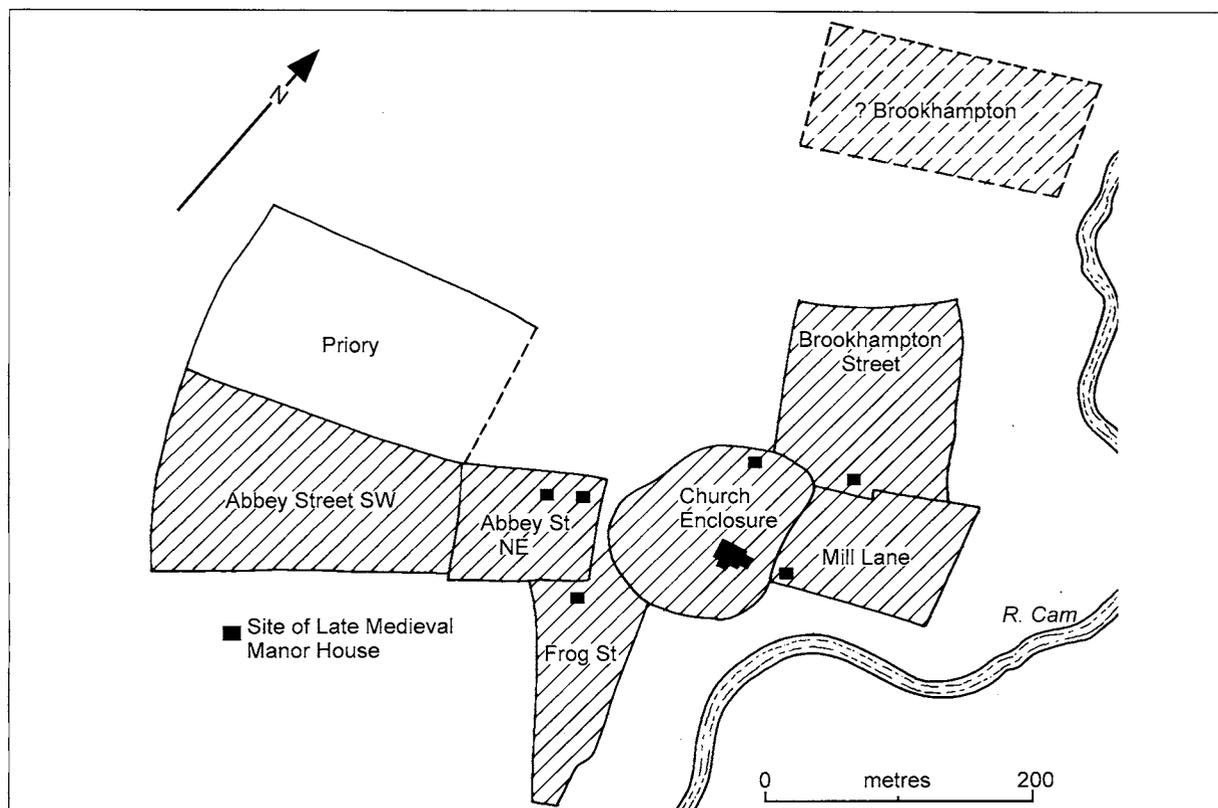


Figure 6. Ickleton: settlement blocks and locations of late-medieval manor houses.

Saxon occupation sites have been identified definitely although a possible one has been suggested in the south of the parish, adjoining the Littlebury boundary. There the field name Awgey, Augey, Argey or now Argers, recorded as *Ealdan Gehaeg* (old enclosure) in a charter of Littlebury dated to before 1008, could refer to a former Anglo-Saxon site (Hesse 1994; 1996). Useful as this information is in suggesting that there may have been a change from an earlier dispersed pattern of settlement unrelated to the present nucleated village in Ickleton, it too fails to answer the fundamental questions as to the date, the creators and the later developments of that village. In theory there are two further sources of information that might help, population and tenure. These must now be examined.

Ickleton: interpretation

Population

Medieval population statistics in England are notoriously defective, unreliable and difficult to interpret. Further, given that most of the development of the Ickleton village plan almost certainly had already taken place by the early thirteenth century, only the recorded population in 1086 in Domesday Book and the landholders listed in the 1279 Hundred Rolls are likely to be relevant. Even the valuable 1327 Subsidy has not survived for Ickleton and thus information

about the population there is even more limited than usual.

In 1086 the recorded population of Ickleton was 44, suggesting a total population of perhaps between 165 and 200, or 40 to 50 households (Rumble 1981, 15.1, 26.15). Such figures could mean a village very much smaller in area than it was by the early nineteenth century when the population was almost 500 in 1801 and when its extent was no greater than it became in the early twentieth century (VCH 1978, 230; CRO Q/RDz; OS 1904). Thus it is possible that at least some of the planned extensions to the church enclosure did not exist in the late eleventh century. On the other hand it seems likely that Ickleton was more extensive than just the relatively small area that was the church enclosure at that time.

By 1279 the number of tenants in the parish was 115, probably representing a total population of somewhere between 450 and 580 or 100 to 120 households (*Rot Hund* 1817, 585–9). Again, it may be worth comparing the 121 households and 493 people there in 1801. The 1279 statistics would suggest that the whole village of Ickleton, with all of its extensions, existed by then. Yet it is always dangerous to make connections between numbers of people or households and the extent of a village. One only has to look at the later nineteenth-century census returns for Ickleton to appreciate the difficulties. The 493 people living there in 1801 had grown to 813 in 1851, yet the actual village experienced hardly any physical expansion

(VCH 1978, 230). At Ickleton, as elsewhere in England, such a large increase in population was accommodated by the subdivision of existing houses and by the conversion of agricultural buildings to dwellings. Nevertheless it does seem that the apparently considerable increase in the population of Ickleton between 1086 and 1279 could have coincided with the laying out of at least some of the planned extensions to the village. But whether these extensions were purely the result of population growth that, after all, took place throughout England at this time, or whether there were more complex pressures and events involved requires further examination.

Tenure

The importance of the effect of tenure on the form of villages has been investigated by a number of historians. For example, the development of the concept of polyfocal villages was founded initially on the realisation that in some cases the separate foci originally had been held by different medieval lords. That is, such villages were the result of having multi-manorial tenure (Taylor 1977). Thus it would be of considerable value if the various parts of Ickleton could be equated with the documented manors there.

The first recorded holder of land in Ickleton is Elfhelm of Wrattling, a thegn of King Edgar, who held a number of small estates all over East Anglia. On his death in 989 he left one hide of land in Ickleton to a kinsman, also called Elfhelm (Hart 1966, 31, 45–6, 60). This land was probably later absorbed into the single large royal manor of 19½ hides recorded in 1066 and that was subsequently given by William I to Eustace, the second count of Boulogne. By 1086 the same estate belonged to Eustace's son, the third count Eustace (Rumble 1981, 15.1). On his death Ickleton passed to his daughter Matilda, who in 1125 married Stephen Count of Blois, later King Stephen. Ten years later, on Stephen's accession, Ickleton passed to the Crown. In 1141 Stephen granted Ickleton to Geoffrey de Mandeville, but it returned to Stephen on Geoffrey's downfall and death in 1143–4. Some time before 1148 the manor was granted to Eufeme, second wife of Aubrey de Vere, second earl of Oxford. However, she died soon afterwards and by 1152 a large part of this Ickleton manor was held by Roger de Lacy. It is not clear how Roger obtained it, although he seems to have been a relative of Richard de Lacy, Justiciar to Henry II who may have been granted it along with other estates in Cambridgeshire and Essex by Stephen before 1152 (VCH 1978, 232; Taylor 2005, 140–1).

It was precisely during this period of tenurial change that the large manor of Ickleton was broken up into a series of smaller holdings, most of which can be traced into the post-medieval period. The earliest of these subinfeudations seems to have been the foundation of Ickleton Priory between 1143 and 1148, almost certainly (*contra* VCH 1978, 233) a joint enterprise by Aubrey de Vere or his wife and King Stephen (Vincent 1999, 924–5). Its endowment at Ickleton seems to have comprised some 700 or so acres of land, perhaps six hides. Shortly before her death, in or soon after 1148,

Eufeme de Vere granted a holding of perhaps 1¼ hides to Colne Priory in Essex although the Priory sold it soon afterwards to the Valognes family. Before 1199 a member of that family by marriage, Hamon Walter, granted it to the Premonstratensian Abbey of West Dereham in Norfolk that had been founded by two of Hamon's brothers in 1180. This holding later became known as Durhams manor.

Roger de Lacy seems to have granted away at least two parts of the original Ickleton manor by 1152. These were first a, perhaps two-hide, estate to the Hospital of Montmorillon in France, that became Valences manor, and second, another one-hide estate held by Ralph Brito by 1183. The latter later passed by marriage to a Robert Hovel and then, between 1221 and 1251, was given to the Cistercian Abbey of Tilty in Essex. This became known as Hovels manor. Three other estates were granted away from the main Ickleton manor, probably by either Richard or Roger de Lacy. These were Brays manor, of at least one hide, in existence by 1199; a small 60-acre estate held by a member of the Multon family, subsequently Limburys manor, and a larger holding, later known as Caldrees manor, given to the Cistercian Abbey of Calder in Cumberland between 1200 and 1213 (VCH 1905, 174; 1978, 232–7).

Not all of the details of these grants are clearly recorded and the precise dates of some are uncertain. Nevertheless, it seems that between 1143 and 1200, and most probably in the 1140s and 1150s, most of the original eleventh-century manor of Ickleton had been broken up into no less than seven sub-manors or small holdings. That is, in the mid-twelfth century Ickleton changed from a village with a strong single manorial structure to one with a weak multi-manorial organisation.

As has been suggested already, it was in this period that most of the planned extensions to Ickleton may have appeared. Thus it would seem possible that the two processes were connected. The obvious link would be that the holders of each of the new manors created areas of dwellings as part of the tenurial reorganisation and, in particular, to house the concurrent increasing population. That is, a process of tenurial division produced a form of polyfocal settlement. However, there is no evidence for any such connection, indeed quite the reverse. On the few occasions where details of the manorial holdings are recorded, their various perquisites are located all around the village. This is particularly true of mills. A mill at Brookhampton belonged partly to Calder Abbey and partly to Tilty Abbey, while the Hovels and Caldrees manors both had a mill east of the village, just off Mill Lane (VCH 1978, 241). More significant are the later locations of the manor houses of these mid-twelfth-century holdings. Far from being positioned within different village settlement blocks, they seem to be randomly placed. While admittedly this could be interpreted as the result of subsequent movement and relocation, certainly no clear pattern emerges (Fig. 8).

The centre of Durhams manor stood on the north side of the church enclosure and thus was

associated with the presumed Anglo-Saxon part of the village. Two locations are recorded for the centre of the Limbury manor, neither of which can be associated with the settlement blocks in which they lie. One was in the north-eastern part of Abbey Street next to the Caldrees manor house, the other in Frog Street, near its junction with Abbey Street and close to the Hovels manor house. The Valence manor house stood on the south side of Mill Lane while the Brays manor house was in the extreme south-east corner of Brookhampton Street (VCH 1978, 232–7).

Similarly, although the Caldrees manor house stood at the north-eastern end of Abbey Street, the earliest grant of land to Calder Abbey was 'in Ickleton and Brookhampton' (VCH 1905, 174). The only notable aspect of the centres of the subinfeudated Ickleton manors is that they tended to be located close to the church enclosure. The reason for this is not clear, but the apparently random arrangement is repeated in the, admittedly later, layout of the Ickleton common fields. The sixteenth-century terriers that survive for these show no relation between the strips there and the manors (CRO R63 DDB1116).

One possible explanation for the absence of any correlation between the various planned extensions to the village and the twelfth-century subinfeudations is that, contrary to the earlier analysis, some at least of these extensions were already in existence before this subinfeudation took place. This would go some way to explaining the random placing of the manor houses and the relationships of the common-field strips and clarifying why the village in the late eleventh century may have consisted of more than the church enclosure. That is, some of the apparently planned twelfth-century extensions could have been laid out long before then and thus have been completely unrelated to the post-Domesday tenurial changes and population increase. An even more complicated possibility is that the extensions, whether they were of the mid-twelfth century or earlier, were not on previously empty sites. They could have been merely replacements of existing built-up areas and thus only a rationalisation of an older village plan. Similar major alterations to the layouts of medieval villages have been recorded in Dorset and Northamptonshire but these too are undated (RCHME 1970, Puddletown (21); 1982 Evenley, (9)).

Another connection between the settlement blocks that may be significant in confirming the possible date of one of them is the fact that no manor houses are known from the south-west part of Abbey Street. As discussed, the relationship between the priory precinct and this part of Abbey Street suggests that they are close in date, or even contemporary. It might also mean that the street was created by and was subsequently tenurially dependant on the priory itself.

A further explanation for the appearance of the planned extensions to Ickleton, regardless of date, form of tenure or even whether they were replacements for an older village layout, is that the process was instigated by the village community as a whole. The possibility that villagers themselves were in-

involved in the creation and planning of villages has been ignored by historians until recently, largely because of the difficulty of verifying a process that inevitably is mainly undocumented. This is certainly so in the pre-Norman Conquest period although in post-Conquest times a few examples are known of villagers reorganising their own common fields. These all are at places with weak and divided lordships, notably at Segenhoe in Bedfordshire and at Dry Drayton in Cambridgeshire, both mid twelfth-century in date (Fox 1981, 94–08; Lewis *et al.* 1997, 210–12). But, if villagers could reorganise complex field systems, there is no reason to suppose that they could not have planned or replanned villages. In the last few years a number of historians have re-examined the evidence for the involvement of the village community in all aspects of medieval rural life.

Dyer has pointed out that 'there is abundant evidence of the ability of ... villagers to select officials, collect money, gather information and make decisions. They could provide answers for inquests ... or carry out the difficult tasks of assessing and gathering taxes or collecting dues owed to lords' (Lewis *et al.* 1997, 210–11). Bailey, working on the status of peasants in medieval Suffolk, has shown that although free and villein holdings seem small their possessors often became prominent in their communities. 'Men such as these contributed to local public administration through their attendance at the leet and hundred courts and as officials of those courts and such service provided them with both status and a place within the wider political community' (Bailey 2007, 59). The agricultural historian Dodds has shown how peasants were as capable of implementing demanding cropping regimes or responding to changes in commercial requirements for crops as were the managers of manorial demesnes (Dodds 2008). Duffy has emphasised at least for later medieval times the importance of the village community in parochial unity that extended into spiritual matters and was encouraged by the Church itself (1992, 93–5). More closely related to village morphology, a recent analysis of early church-building in Lincolnshire by Everson and Stocker (2006, 74–6) has drawn attention to the significance of free or soke men in the establishment and specific placing of churches on village greens there.

The evidence for the reorganisation of field systems as at Segenhoe and Dry Drayton may be more relevant to Ickleton than appears at first sight. For the expansion of the village, whenever it occurred, involved the loss of valuable arable land. As has been pointed out already, Brookhampton Street, at least the western half of Frog Street, the south-western end of Abbey Street, the area south of Church Street and thus presumably the properties east of Frog Street appear to have been laid out over pre-existing strips in the common fields. If this did indeed occur, and if the site of the priory is included, some 70 acres (30ha) of cultivated land was lost to village expansion. This alone would have required a reorganisation involving the reallocation of strips as well as the expansion of the common fields elsewhere, regardless

of the work involved in the subsequent laying out of the new areas of habitation. This would have been a task better suited to being carried out by the village community rather than by the representatives of distant lords. In any case, the extension of medieval villages over their fields is a phenomenon that has been recognised in many places in England, even if usually undated (e.g. RCHME 1981, Lilbourne (3) and Yelvertoft (4); Taylor 1983, 152–7; Everson *et al.* 1991, 139–41, North Kelsey (2)). It seems to have taken place frequently in Cambridgeshire. At Caxton it appears to have happened in the thirteenth century, at Little Shelford and Harston perhaps at about the same time and at Little Downham in the early to mid-twelfth century (RCHME 1968, 34–5, Caxton (24); Taylor 1973, 226–8; Taylor 2006, 124–6; forthcoming).

Conclusions

Not for the first time, in the pages of this journal and elsewhere, the writer has been able to decipher changes in the English medieval landscape, at least to his own satisfaction. But again he has been defeated when attempting to identify the date, the reasons for and, most important of all, the people behind these changes. He, together with other historians, will surely continue to use morphological analysis in order to try to explain the development of rural settlement. Yet hopefully this paper has reminded all those involved in local history projects of the limitations of this particular methodology, and of how much their conclusions are based on guesswork, inspired or otherwise.

One last thought with implications far beyond Cambridgeshire and its villages relates to the way in which landscape historians and others interpret the surviving documentary record in order to explain the origins of the medieval English landscape. Whatever and wherever features there are being studied, sooner or later the 'Twelfth-century Problem' emerges. If the relevant documents are taken at face value, the twelfth century stands out as a time of rapid change and expansion. In general terms the century seems to be a period of increasing social complexity, major economic growth and considerable population expansion. More specifically in landscape terms, the century sees the appearance of new towns, new and expanded rural settlements both nucleated and dispersed, the clearance of forests, reclamation of wastes and the creation of complex field systems, as well as much else. That such events occurred in the twelfth century is not in dispute. The difficulty lies in deciding whether they were confined to the twelfth century or whether some at least only took place then, towards the end of a much longer period of change. For the majority of documents, both local and national, that provide most of the confirmation of these apparently twelfth-century developments, only came into existence themselves at that time as medieval bureaucracy grew. For earlier times, with the exception of Domesday Book, detailed documentation is scant. Historians must decide whether the emergence of

this bureaucracy that produced the records that survive was a consequence of the contemporary changes or unconnected with them and the result of other factors; and whether some of the apparent recorded innovations were actually much older.

At Ickleton the documentation *seems* to indicate that the village was changed out of all recognition in the twelfth century. Yet at the same time it *is* possible to make a case that many of the developments visible in its landscape had actually taken place perhaps more than a century earlier. At least for this writer, both at Ickleton and elsewhere in England, it is impossible to be sure.

Acknowledgements

The drawings are the work of Phillip Judge. The photograph of Ickleton Church is by Sarah Wroot.

Bibliography

- Bailey, M 2007 *Medieval Suffolk*. Woodbridge: Boydell.
- Barker, K 1982 'The early history of Sherborne'. In S M Pearce (ed), *The Early Christian Church in Western Britain and Ireland*. Oxford: BAR 102, 77–116
- Bettley, J & N Pevsner 2007 *The Buildings of England: Essex*. London: Yale University Press
- Bourn, D 2002 Flaxton: a township in two parishes. *Yorkshire Archaeological Journal* 74: 155–67
- Brown, A E & C Taylor 1978 Cambridgeshire Earthwork Surveys III. *PCAS* 68: 59–76
- Brown, A E & C Taylor 1995 Little Linton and the Linton landscape. *PCAS* 84: 91–104
- Cressford, C 2005 The manor of Hintona: the origins and development of Church End, Cherry Hinton. *PCAS* 94: 51–72
- Dodds, B 2008 Demesne and tithes: peasant agriculture in the late medieval ages. *Agricultural History Review* 56.2: 123–41
- Duffy, E 1992 *The Stripping of the Altars*. London: Yale University Press
- Dyer, C 1985 'Power and conflict in the medieval village'. In D Hooke (ed), *Medieval Villages*. Oxford: Oxford University Committee for Archaeology: 27–32
- Edwards, N & A Lane 1992 *The Early Church in Wales and the West*. Oxbow Monograph 16, Oxford
- Everson, P L, C C Taylor & C J Dunn 1991 *Change and Continuity*. London: HMSO
- Everson, P L & D Stocker 2006 *Summoning St Michael*. Oxford: Oxbow
- Ekwall, E 1960 *The Concise Dictionary of English Place-Names*. Oxford: OUP
- Fox, C 1923 *The Archaeology of the Cambridge Region*. Cambridge: CUP
- Fox, H 1981 'Approaches to the adoption of the Midland System'. In T Rowley (ed), *The Origins of Open Field Agriculture*. London: Croom Helm: 64–111
- Fulbourn History Society 2006 *In Search of Fulbourn*. Fulbourn: Fulbourn History Group
- Hall, D & P Martin 1979 Brixworth, Northamptonshire: an intensive field survey. *Journal of the British Archaeological Association* 132: 1–6
- Hall, T A 2000 *Minster Churches in the Dorset Landscape*. Oxford: BAR 304

- Hart, C 1966 *Early Charters of Eastern England*. Leicester: Leicester University Press
- Harvey, P D A 1989 'Initiative and authority in settlement change'. In M Aston, D Austin & C Dyer (eds), *The Rural Settlement of Medieval England*. Oxford: Blackwell: 31–43
- Hesse, M 1994 The Anglo-Saxon bounds of Littlebury. *PCAS* 83: 129–39
- Hesse, M 1996 The field called Augey in Ickleton. *PCAS* 85: 159–60
- Hicks, C (ed) 1997 *Cambridgeshire Churches*. Stamford: Paul Watkin
- Jones, R & M Page 2006 *Medieval Villages: Beginnings and Ends*. Macclesfield: Windgather Press
- Lewis, C 2005 Test pit excavation within occupied settlement in East Anglia in 2005. *Medieval Settlement Research Group Annual Report* 20: 9–16
- Lewis, C 2007 New avenues for the investigation of currently occupied medieval rural settlements. *Medieval Archaeology* 51: 133–63
- Lewis, C, P Mitchell-Fox & C Dyer 1997 *Village, Hamlet and Field*. Manchester: Manchester University Press
- Liversidge, J 1977 Roman burials in the Cambridge area. *PCAS* 64: 11–38
- Malim, T 1993 An investigation of multi-period cropmarks at Manor Farm, Harston. *PCAS* 82: 11–54
- Mortimer, R 2000 Village development and ceramic sequence: the middle to late Saxon village at Cottenham. *PCAS* 89: 5–33
- Oosthuizen, S 1997 Medieval settlement relocation in West Cambridgeshire. *Landscape History* 19: 43–55
- Oosthuizen, S 2001 Anglo-Saxon minsters in South Cambridgeshire. *PCAS* 90: 49–67
- Oosthuizen, S 2002 Unravelling the morphology of Littleington. *PCAS* 91: 55–61
- OS (Ordnance Survey) 1886 1st edn 1:10560 Plan, Cambridgeshire Sheet LIX NE
- OS 1904 2nd edn 1:10560 Plan, Cambridgeshire Sheet LIX NE
- Page, M & R Jones 2007 'Stability in medieval village plans'. In M Gardiner & S Rippon (eds), *Medieval Landscapes: Landscape History after Hoskins*. Macclesfield: Windgather Press
- Pevsner, N 1970 *The Buildings of England: Cambridgeshire* (2nd edn). London: Penguin
- Radford, R 1967 Ickleton Church. *Archaeological Journal* 124: 228–9
- RAF (Royal Air Force) 1946 Vertical Air Photographs 106G UK 1635, 5404–6
- Reaney, P H 1943 *The Place-Names of Cambridgeshire*. Cambridge: CUP
- RCHME (Royal Commission on the Historical Monuments of England) 1916 *An Inventory of the Historical Monuments in the County of Essex Vol. I, North-West Essex*. London: HMSO
- RCHME 1968 *An Inventory of the Historical Monuments in the County of Cambridge Vol. I, West Cambridgeshire*. London: HMSO
- RCHME 1970 *An Inventory of the Historical Monuments in the County of Dorset Vol. II, South-East*. London: HMSO
- RCHME 1972 *An Inventory of the Historical Monuments in the County of Cambridge Vol. II, North-East Cambridgeshire*. London: HMSO
- RCHME 1981 *An Inventory of the Historical Monuments in the County of Northampton Vol. III, Archaeological Sites in North-West Northamptonshire*. London: HMSO
- RCHME 1982 *An Inventory of the Historical Monuments in the County of Northampton Vol. IV, Archaeological Sites in South-West Northamptonshire*. London: HMSO
- Roberts, BK 1993 Five Westmorland settlements: a comparative study. *Transactions of the Cumberland and Westmorland Archaeological Society* 92: 133–43
- Roberts, B K 2008 *Landscapes, Documents and Maps: Villages in Northern England and Beyond. AD 900–1250*. Oxford: Oxbow Books
- Rotuli Hundredorum* 1817 Vol. 2. London: Record Commission
- Rumble, A (ed) 1981 *Domesday Book: Cambridgeshire*. Chichester: Phillimore
- Shaw, M 1993 The discovery of Saxon sites below fieldwalking scatters at Briworth and Upton, Northamptonshire. *Northamptonshire Archaeology* 25: 77–92
- Smith, C R 1849 Recent discoveries at Ickleton and Chesterford. *Journal of the British Archaeological Association* 4: 356–78
- Taylor, C 1967 Whiteparish. *Wiltshire Archaeological Magazine* 62: 79–102
- Taylor, C (ed) 1971 *Domesday to Dormitory: The Landscape of Great Shelford*. Cambridge: privately printed
- Taylor, C 1973 *Roads and Tracks of Britain*. London: Dent.
- Taylor, C 1977 Polyfocal settlement and the English village. *Medieval Archaeology* 21: 189–93
- Taylor, C 1982 Medieval market grants and village morphology. *Landscape History* 4: 21–8
- Taylor, C 1983 *Village and Farmstead*. London: George Philip.
- Taylor, C 1989 'Whittlesford: the study of a river-edge village'. In M Aston, D Austin & C Dyer (eds), *The Rural Settlement of Medieval England*. Oxford: Blackwell
- Taylor, C 1994 'The regular village plan: Dorset revisited and revised'. In M Aston & C Lewis (eds), *The Medieval Landscape of Wessex*. Oxbow Monograph 46: 213–18. Oxford: Oxbow Books
- Taylor, C 1996 An archaeological field survey of Wothorpe, Cambridgeshire. *PCAS* 85: 161–70
- Taylor, C 2002 Nucleated settlement: a view from the frontier. *Landscape History* 24: 53–72
- Taylor, C 2005 Chrishall Grange, Fowlmere: a settlement in eight landscapes. *PCAS* 94: 127–40
- Taylor, C 2006 Landscape history, observation and explanation: the missing houses in Cambridgeshire villages. *PCAS* 95: 121–32
- Taylor, C 2008 New thoughts on old sites. *PCAS*, 97: 112–36
- Taylor, C forthcoming. The landscape of Little Downham. *Landscape History*
- Taylor, H M & J Taylor 1965 *Anglo-Saxon Architecture* Vol. I. Cambridge: CUP
- Thorpe, H 1951 The green villages of County Durham. *Transactions of the Institute of British Geographers* 15: 150–80
- VCH (Victoria County History) 1905 J Wilson (ed), *The Victoria History of the County of Cumberland*. Vol. 2. London: Constable
- VCH 1948 L F Salzman (ed), *A History of the County of Cambridge and the Isle of Ely*. Vol. 2. London: OUP
- VCH 1978 A P M Wright (ed), *A History of the County of Cambridge and the Isle of Ely*. Vol. 6, *Chilford Hundred, Radfield Hundred, Whittlesford Hundred*. Oxford: OUP
- VCH 2002 A F Wareham & A P M Wright (eds), *A History of the County of Cambridge and the Isle of Ely*. Vol. 10, *North-Eastern Cambridgeshire*. London: OUP for the University of London Institute of Historical Research
- Vincent, N 1999 New charters of King Stephen. *English Historical Review* 114: 899–928
- Yorke, A C 1911 A village in the making. *PCAS* 15: 281–99

Funerals, the final consumer choice?

Ken Sneath

When writing Martin Chuzzlewit in 1843, Charles Dickens posed the question, 'Why do people spend more money upon a death, Mrs Gump, than upon a birth?' he was reflecting a trend that was common in the previous two centuries. This article sets out to explore funerals focusing on Huntingdonshire in the late seventeenth and eighteenth centuries. It is largely based on evidence from probate accounts. Whilst historians have made extensive use of probate inventories, probate accounts are much less commonly used, in part because relatively few survive. However, the accounts provide important insights into many subjects, not least the funeral practices of the early modern period. The article begins with a consideration of the probate process, examines the validity and representativeness of the sources and finally explores what the sources tell us about funerals.

The probate process

Church courts were established separately from secular courts during the eleventh century (Arkell 2000, 3). Church courts operated under Canon Law and their responsibilities ranged from church administration to the most intimate aspects of personal life (Ingram 1987, 7). Church courts were also responsible for testamentary business and oversaw the distribution of 'moveable goods' including credits and leasehold property but not real estate which comprised freehold and copyhold land and buildings. The inheritance of freehold and copyhold land was initially the responsibility of manorial courts and subject to common law (Arkell 2000, 7).

Production of an inventory as part of the process of probate and administration was required in ecclesiastical law from 1342 although some inventories were produced before this date. The requirement to produce an indented inventory of the deceased's estate as a 'true and just account' was laid down in statute in 1529 (Grannum & Taylor 2004, 91–2). In 1653 the Court for the Probate of Wills and the Granting of Administrations was established in London but the court ceased to function in 1659. In theory all wills of persons dying in this period should be amongst

the records of this civil court which are held at the National Archives. However, it appears that some executors and administrators avoided this new court because of the expense and inconvenience involved. Some wills seem to have been implemented without formal probate and others were proved retrospectively after restoration of ecclesiastical courts in 1660 (Grannum & Taylor 2004, 17). Prior to 1858 when ecclesiastical probate was superseded by civil district registries, there were three levels of ecclesiastical court: prerogative, consistory and archdeaconry as well as deanery and peculiar jurisdictions. (Erickson 1993, 32–3). Individuals with property outside the jurisdiction of prerogative courts had their wills proved at either the relevant consistory court or the prerogative courts of Canterbury and York.

During the eighteenth century the practice of exhibiting probate inventories substantially diminished. The rate of reduction varied significantly across England reflecting local diocesan decisions rather than a central ruling (Cox & Cox 2000, 27; Tarver 1995, 66). For example, Winchester inventories almost disappeared from diocesan records by 1720. Wrightson and Levine also found that in Whickham the survival of inventories was rare after the second decade of the eighteenth century (Wrightson & Levine 1991, 239). Styles asserted that in most parts of England, probate inventories survive in only very small numbers (if at all) after 1730 (Styles 2007, 137).

A major complication in the probate process was 'peculiar jurisdictions' which were exempt from the authority of their local archdeacon and sometimes also from their bishop (Tarver 2000, 4). Prior to 1852 the parishes of Brampton, Buckden, Leighton Bromswold and Stow Longa in Huntingdonshire were separate 'peculiar'. They were granted to Prebends who then held, exercised or farmed out the duties and privileges that were held by the Archdeacon in the other parishes of the Archdeaconry (Fig. 1).

It was the custom of ecclesiastical courts that proved wills to insist that local men make an inventory of the personal estate of the deceased. The purpose of a probate inventory was to avoid disputes over

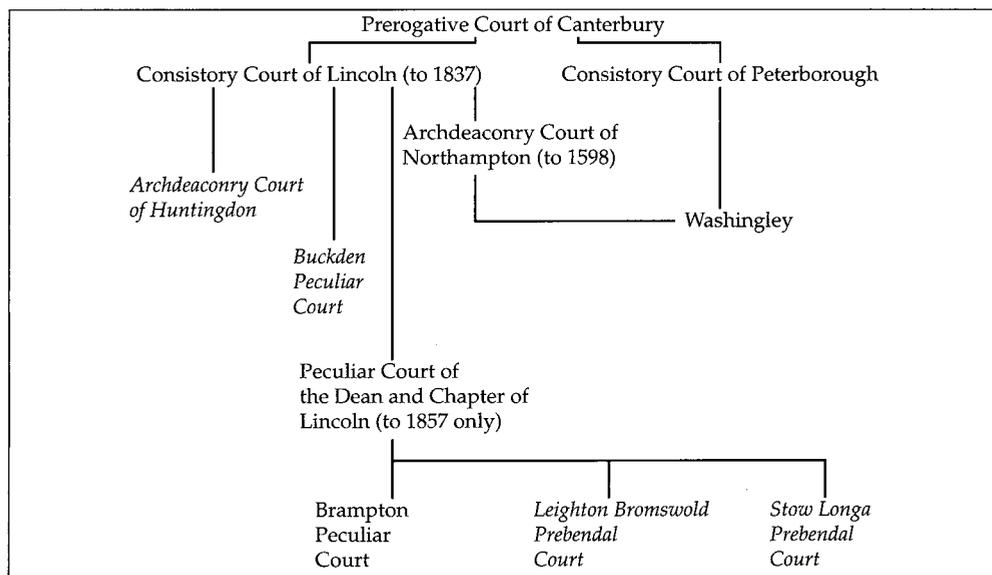


Figure 1. Probate arrangements in Huntingdonshire.

estates. Inventories also helped to safeguard executors or administrators against excessive claims on the estate and provided evidence for the determination of fees due to the probate court (Overton et al. 2004, 13). Usually within a few days of the death appraisers recorded in an inventory movable goods including livestock and crops, furnishings, cash and debts due to the deceased. Appraisers should have been people who were 'honest and skilful' (Grannum & Taylor 2004, 93). Estabrook suggested that appraisers were ordinary people usually familiar with the deceased and possibly of the same status or occupation (Estabrook 1998, 130).

Probate accounts

'Accountants' presented probate accounts in respect of certain estates to church courts. Accountants were executors of estates where there was a will and administrators acted in cases of intestacy. Accountants were predominantly female. In the surviving probate accounts for Huntingdonshire, 58% of accountants were female. Accountants were 'charged' with the value of the estate as set out in the probate inventory. Probate accounts reveal how assets were disbursed and record payment of funeral costs, debts owed by the deceased, wages due to employees, court fees, medical expenses, rents and payments for the care of surviving children. Unlike probate inventories they are not therefore a 'snapshot in time'. Farms continued to function and children had to be cared for. Probate accounts recorded payments over what could sometimes be a considerable period of time following the death of the deceased person. The account served two functions: to acquit the accountant of further responsibility for debts of the deceased and to ensure that the residue of the estate was distributed accord-

ing to the will or in cases of intestacy, according to law (Erickson 2000, 103).

Probate accounts survive in much smaller numbers than inventories. Based on data obtained from a project on probate accounts led by Peter Spufford, Erickson calculated that about 43,000 accounts for England and Wales are extant. This represents less than 5% of the number of surviving inventories (Erickson 2000, 104). However, the total includes over 10,000 accounts (24%) from the Prerogative Court of Canterbury and a further 19,590 accounts (46%) that relate to just two counties, Kent and Lincolnshire. Huntingdonshire, with 310 surviving usable accounts, has the seventh highest survival rate of probate accounts in England.

The reason for the relatively low number of surviving probate accounts is a matter of controversy. Peter Spufford wrote that accounts once existed as commonly as inventories and therefore argued that it is 'surprising' that so few court copies of these records have survived (Spufford 2000, 214). Clare Gittings suggested that probate accounts were not considered of such importance as wills and were often not preserved by ecclesiastical courts. She argued that administrators' accounts have survived in much greater numbers than executor's accounts and therefore the reason that these accounts were kept was that where there was no will, the account was the only document showing how the estate had been distributed and was therefore of greater significance as a probate record (Gittings 1991, 51). On the other hand, Mortimer has recently argued that probate accounts were a minority aspect of the probate process. Mortimer accepted Tarver's argument that the small number of extant accounts is a reflection of the small number created (Mortimer 2006, 3). Tarver's argument was based on two surviving probate books, one for Derbyshire and the other for Warwickshire. The Derbyshire

book covered the period November 1678 to August 1681 and recorded 151 grants of probate, 125 letters of administration and four probate accounts (1.4% of estates for which probate had been granted). The Warwickshire book covered the period May 1679 to November 1684 and recorded 581 grants of probate, 420 letters of administration and 127 probate accounts (12.7% of estates for which probate had been granted) (Tarver 2000, 235–6).

Parliamentary legislation is crucial in evaluating the role of probate accounts. Ecclesiastical courts were suspended during the Interregnum and an Act of Parliament in 1685 removed the powers of church courts to call for accounts. After 1685 accounts were only to be created at the instigation of relatives or creditors of the deceased (I James II c17). The number of probate accounts was therefore strongly biased by time period. Mortimer studied probate accounts in four of the five counties with the highest survival rates of probate accounts *i.e.* East Kent, West Sussex, Berkshire and Wiltshire. In all four counties approximately two-thirds of surviving probate accounts relate to the first half of the seventeenth century. All four counties had substantially fewer accounts after 1685 when the power of the church courts to call for accounts was removed. Huntingdonshire followed a similar pattern with 93 accounts for the period 1680–84 but only 24 for the years 1685–89 (Table 1).

However, very few accounts survive for the first half of the seventeenth century in Huntingdonshire, two-thirds of which relate to the period 1670–1684.

Based on his analysis of surviving accounts by time period, Mortimer argued that the majority of accounts were created at the instigation of church courts rather than at the instigation of a relative or creditor of the deceased (Mortimer 2006, 8). Mortimer argued that there is 'little room for doubt' that the principal reason for accounts to be submitted to the courts was debt. Mortimer calculated that debts and other expenses approximating to about two-thirds of an estate in East Kent triggered calls for accounts to be created. About three-quarters of accounts created prior to 1685 were called for by the courts as a result of perceived financial burdens upon the estate and therefore upon beneficiaries. (Mortimer 2006, 8–11) Mortimer's conclusion is that probate accounts are bi-

ased sources with much higher levels of debt than the average estate (Mortimer 2006, 17).

Thus, two possible causes of bias in extant probate accounts are that relatively few accounts were originally created, and that those that have survived are not representative of those that were created. In the former case, bias is created because the accounts that were created dealt with special cases *e.g.* as Mortimer argued, estates with above average levels of debt. But Bower argued that the requirements of the Probate Act of 1530 meant that accounts once existed as commonly as inventories with duplicate copies in the hands of the courts and of the accountants who had rendered them. Furthermore, Bower argued that the 1671 Act for the Better Settling of Intestates' Estates had little effect on the pattern of survival of accounts. Bower suggested that it was not until 1685 that there was a fall in the number of accounts (Bower 1999, xxi–xxii). If Bower is correct then there is no need to presume that accounts *originally created* prior to 1685 reflect persons with above average levels of debt.

Erickson also accepted that accounts were never made for the same number of estates that produced inventories but she did not attempt to quantify this difference. Erickson speculated that the circumstances that produced accounts were cases of conflict over an estate or liability to debt. Evidence of conflict over an estate was relatively rare but the largest items of expenditure in extant accounts were usually debts. Erickson found that about a quarter of accounts ended in debt (Erickson 1993, 38). However, the majority of accounts had assets to disburse after debts were paid and so Erickson concluded that prior to 1685 there was no pattern to extant accounts other than random survival (Erickson 2000, 114–5).

Mortimer is correct to challenge Erickson's assumption that courts which called for accounts on the grounds of debt would restrict themselves to those cases that ended in a negative balance (Mortimer 2006, 8). Debts were a significant element in many accounts that were not overdrawn after debts and other expenses were paid. This is not surprising in the light of the extent of borrowing and lending in early modern England. Muldrew showed that most households in King's Lynn were engaged in litigation over debt. However, Mortimer's conclusion that when debts and

Table 1. Surviving probate accounts from five counties.

	Huntingdonshire		East Kent		West Sussex		Berkshire		Wiltshire	
	No.	%	No.	%	No.	%	No.	%	No.	%
1600–1629	3	1	4808	43	400	36	696	45	459	35
1630–1649	6	2	2319	21	307	28	382	25	418	32
1650–1659	1	0	6	0	22	2	9	0	6	0
1660–1669	1	0	993	9	53	5	125	7	39	3
1670–1679	122	39	1413	13	183	17	181	12	231	18
1680–1684	93	30	754	7	121	11	103	7	73	6
1685–1689	24	7	258	2	9	1	32	2	37	3
1690–1719	36	12	538	5	4	0	28	2	40	3
1720–1749	14	5	0	0	0	0	0	0	0	0
1750–1799	10	3	0	0	0	0	0	0	0	0
Total	310	100	11089	100	1099	100	1556	100	1303	100

expenses amounted to about two-thirds of an estate, a call for an account by the court was triggered cannot be sustained in Huntingdonshire (Mortimer 2006, 8). In Huntingdonshire almost half (48%) of surviving accounts dated prior to 1685 recorded total payments from the estate that were less than two-thirds of the charge. Further research is required before a final answer to the problem of why such low levels of accounts have survived can be given. Mortimer argued that accounts were a minority aspect of the probate process on the basis of very limited evidence by Tarver. However, we may at least conclude with Mortimer that probate accounts are biased sources because debt levels at least in surviving probate accounts are much higher than in the inventoried population.

The accounting process of probate accounts suggests general confidence in their accuracy. The Probate Act of 1530 provided for a substantial financial penalty if administration of estates was not carried out properly (21 Henry VIII c5). This involved keeping scrupulous records of all payments and 'casting an account' to bring back to court (Bower 1999, xix). The court inspected the accounts and expenses deemed inappropriate were rejected. Payments of any debt of more than £2 had to be supported by an acquittance or a cancelled bond. Payments of smaller amounts were attested by the accountant's oath (Erickson 1993, 35–6). However, courts could interpret this guidance liberally, as the archdeaconry court of Huntingdon allowed an amount of £29 in J Thoday's account (1676) for 'various debts due by the said deceased whose names this accountant cannot remember'.

Funeral Rituals

Probate accounts provide a good deal of information about funeral rituals. Erickson suggested that funeral amounts were generally between £1 and £2 but varied widely with an individual's wealth. Erickson did not attach dates to her estimates of funeral costs but she is likely to be referring to the period for which most probate accounts survive *i.e.* about 1590–1690 (Erickson 2000, 108). The mean cost of a Huntingdonshire funeral recorded in 249 probate accounts in the quarter century 1675–1700 was £5 and the median £3. The cost of individual funerals ranged from seven shillings and six pence to £106. The range is a crude measure of dispersion and a more useful measure, the standard deviation was £7.89 (CV=1.58) in Huntingdonshire.

Laqueur argued that there was almost no relationship between costs of seventeenth- and early eighteenth-century funerals and the size of the deceased's estate. He argued that in this period funerals were a demonstration of status quite independent of their economic position. For Laqueur this situation had changed by the nineteenth century when funerals had become a consumption good. Money now made the man and death became the occasion for a final accounting, a stocktaking of worldly success. Those of relatively low status could have a lavish funeral if they could afford it (Laqueur 1983, 109–115). By contrast, Fritz suggested that 'the invasion of commerce

into the rites of passage' took place in the seventeenth century. A consumer-oriented mentality drove 'ordinary ranks' to imitate elite society and provided the emerging undertakers with an untapped market (Earle 1989, 79). This led the pamphleteer T T Merchant to complain that 'persons of ordinary rank may for the value of fifty pounds make as great a figure as the nobility and the gentry did formerly' (Fritz 1994–5, 246). Estabrook saw funeral costs as a reflection of the urban/rural divide. In Bristol and its surrounding villages, the funeral expenses of ordinary urban dwellers often exceeded those of the most substantial yeomen (Estabrook 1998, 153).

Evidence from Huntingdonshire did not support Laqueur's contention that there was almost no relationship between costs of early modern funerals and the size of the deceased's estate. Huntingdonshire accounts showed a significant positive correlation between funeral costs and inventory values ($p < 0.01$). The strength of the relationship was moderate (Pearson correlation coefficient 0.310).

Macfarlane wrote that seventeenth-century funerals were dignified occasions, filled with processions, tears, solemn gestures and lengthy sermons, but they were also occasions for feasting and exchange of gifts (Macfarlane 1970, 100). Gittings argued that the most striking feature of funeral details contained in probate accounts was the amount of money spent on food and drink (Gittings 1991, 53). It commonly amounted to half the cost of burying someone and could be as much as three-quarters or more of total costs (Gittings 1984, 97). Food and drink amounted to more than half the total cost of burial in over two-thirds of Huntingdonshire probate accounts. In Huntingdonshire, expenditure on food and drink for mourners varied widely and was not necessarily related to social rank. A barber from Godmanchester, John Dickenson, had goods worth £47 15s when he died in 1676. His funeral cost over £6, more than the funerals of half the gentry whose records survive. Two-thirds of the cost of Dickenson's funeral was spent on food and drink; bread and cakes at £2 10s and a hogshead of beer for £1 12s 6d. At Mary Harrison's funeral in St Ives in 1679, £8 was spent on bread, beer and cakes for mourners. An indication of the amount of food that could be purchased for such sums is revealed by Joane Lord's probate account. Expenditure on her funeral included 20 dozen cakes at £1 10s and 20 dozen loaves at £1 2s. Although the amounts were small, the Overseers of the Poor in Godmanchester and Kimbolton provided beer for mourners at paupers' funerals. Hospitality for mourners could extend beyond food and drink. For example, tobacco and pipes costing 10s were provided at the funeral of William Proud of Ramsey in 1676.

Cressy argued that in their funeral customs, the elite tried to distinguish themselves from the masses. People could be buried in the most expensive lead coffins or their shrouded body might be placed in a reusable parish coffin for the duration of the funeral ceremony. Gittings suggested that poorer people would at least be carried to the grave in the

communal coffin and then the body was buried just in its shroud (Gittings 1999, 157). The earliest surviving parish coffin dating from around 1645 is from Easingwold, Yorkshire (Litten 1991, 157).

Cressy commented that people of rank preferred personal coffins and 'would not be seen dead' in the common parish box. However, he argued that none but the wealthy could look forward to decomposing in their own wooden box (Cressy 1997, 430–4). Funeral expenditures recorded in Huntingdonshire probate accounts did not accord with Cressy's argument because most accounts included a coffin. In Huntingdonshire, more than three-quarters of the probate accounts related to the period from 1676–1688 and the median value of Huntingdonshire coffins was ten shillings. An excavation of a Quaker burial ground in 2006 at Hemingford Grey in Huntingdonshire suggested contrary to Cressy that use of coffins was widespread. The excavation found that all people interred between 1687 and 1721 were buried in coffins (Pitts 2007, 6). Gittings pointed out that more than the bare minimum funeral was usually provided for paupers and in Kent, a coffin was always used at a pauper burial from the mid-seventeenth century onwards (Gittings 1984, 61). Sharpe found that in Devon at the end of the eighteenth century deceased paupers were 'usually' provided with coffins at a cost of 7s 6d (Sharpe 2002, 298). Overseers of the Poor accounts in Great Gransden, Huntingdonshire recorded a coffin costing 10 shillings provided for 'an old beggar man found dead under a haycock' in 1680 (Huntingdonshire Archives HP 36/12/1). Overseers of the Poor in both Godmanchester and Kimbolton also provided coffins for a number of pauper funerals (Huntingdonshire Archives HP 36/12/2/1; Huntingdonshire Archives HP52/12/5). In Godmanchester, the price of seven coffins for paupers in the three year period 1787–9 was lower than comparative prices for those recorded in probate accounts. Five coffins cost nine shillings and the other two cost six shillings.

In the eighteenth century, coffins were made of wood but covered with fabric, usually baize. Upholstery pins were nailed to the surface of the coffin in various patterns and the coffin was finished with stamped metal motifs which were cheap to produce. Coffins finished in polished wood did not become fashionable until the introduction of French polishing in the mid-nineteenth century.

The funeral ritual adhered strictly to the hierarchical niceties of genteel funerary decorum. Significant amounts could be spent on mourning clothes, particularly gloves. Gifts of gloves and hatbands to mourners maintained perceptions of status (Finn 2000, 148). The most expensive funeral in the Huntingdonshire probate accounts at £106 5s 10d was that of a clergyman, Francis Barnard of Wyton in 1682.¹ Barnard's funeral represented 36% of the value of his inventory value.

Barnard's coffin at £5 was ten times the common sum of 10s and his burial linen was a further £5. Gloves provided for mourners at Barnard's funeral cost £39 15s 8d. This sum is put into perspective by comparison with John Berridge's funeral at Upton in 1722 when 14 pairs of gloves were provided for 1s per pair. A horse and related charges for Barnard's burial was £4 13s whereas a horse for Francis Marchant's funeral at Stanground in the same year, 1682 cost only 10s.

Parish bells tolled when a person was dying and rang again when the funeral service took place. Tolling of the bell was variously interpreted by Protestant and Catholic but after the restoration of the monarchy in 1660 it symbolised the rehabilitation of the ceremonies of the Church of England. Joyce Jeffries, an elderly single Herefordshire gentlewoman, paid 3s 6d for ringing five peals at the burial of her cousin about 1640 and the catholic squire William Blundell had ringers to the value of 4s towards the end of the seventeenth century (Cressy 1997, 421–4). The range of payments for bell ringing is illustrated in Huntingdonshire where the cost of digging James Cooper's grave and ringing the bell was 2s in 1681 whereas in the following year John Peachey a gentleman from Needingworth had ringers costing 10s. Bells also tolled for the poorest in society. In 1789, Overseers of the Poor in Godmanchester provided beer costing 3s and 2s 10d for the toll bearers at the funerals of John Ray and a deceased person recorded as Bright.

Cressy commented that strictly there was no fee for a Christian burial but custom required payment of fees to the church. Only men dying with goods valued at £6 13s 4d or more were required to pay mortuary fees and then only when constrained to do so by local custom. The fee was assessed on a sliding scale from 3s 4d to 10s (Cressy 1997, 456–7). John Dickenson's mortuary payment was 10s but Peacock's mortuary in 1682 was only 7s 6d despite the value of their goods being almost the same.

Funeral sermons became more common from the seventeenth century onwards and followed a set pattern (Mytum 1994, 14). A text would be expounded to remind mourners of their own mortality, followed by a biography of the deceased. Jupp suggested that the description of the deceased's character was awaited with keenest anticipation. The preacher carefully selected what was good from the person's life and drew a veil over the rest. In this way he could both satisfy the expectations of the congregation and his own conscience (Houlbrooke 1999, 188). Gittings suggested that income from funeral sermons was a lucrative business for clergymen. She argued that the usual fee was 10s prior to the Restoration and £1 thereafter (Gittings 1984, 138). Mortimer found that most funeral sermons in Berkshire cost 6s 8d or 10s with the higher charge twice as common as the lower. He speculated that the two figures depended on whether the

1. Francis Barnard was almost certainly a member of the prominent Barnard family of Brampton Park, Huntingdonshire. Edward Earl of Manchester sold the manor of Houghton and Wyton to Robert Bernard of Brampton Park in 1651. (Page, Proby and Inskip Ladds, 1932, 179). Following his funeral on December 19 1679, the Wyton parish register recorded that Francis Barnard's body was transferred to Brampton for burial. (Huntingdonshire Archives, HP 101/1/1/1)

incumbent preached or whether an external preacher spoke (Mortimer 1990, xix–xx). In Huntingdonshire, fees for funeral sermons were almost always 10s in the last quarter of the seventeenth century and not the higher fee of £1 suggested by Gittings.

Washing, winding and watching were all involved in preparing the body for burial. Neighbouring women and female servants were frequently employed to clean and dress a corpse (Cressy 1997, 428). Winding the corpse in a sheet or burial shroud was the minimum requirement for a decent burial for only animals were buried naked. Legislation in 1678 required all bodies to be buried in wool to support the domestic woollen industry (Willett & Cunningham 1992, 55). This is reflected in payments in probate accounts where woollen cloth is expressly recorded. The woollen sheet for Atkins of Holywell in 1681 cost as much as 18s whereas woollen to wind the body of James Cooper of Stanground in the same year was only 6s. Overseers of the Poor accounts for Great Gransden recorded affidavits sworn to affirm that five paupers were buried in wool in 1678. However, these accounts also recorded two cases where the body was buried in linen: Andrew Lilly in 1682 and Mary Griffin in 1683. Each case incurred a fine of £5 of which half went to the informer and the other half to the poor of the parish. In the case of Mary Griffin, the informer was Barnabas Oley, Vicar of Great Gransden, who was buried in the church two years later (Fig. 2).

Cressy argued that the custom of sitting up all night watching the body applied to both rich and poor. The intention was to safeguard the body and to ensure that there was somebody present if the corpse revived. In the late seventeenth century, John Aubrey reported the practice in Yorkshire of watching and sitting up all night until the body was interred while drinking beer, taking tobacco, and sometimes engaging in 'mimical plays and sports' (Cressy 1997, 427). In 1720, women were paid 2s 6d for laying out Henry Careless, a waterman from Godmanchester, and a further 3s 6d was paid for watching the body, victuals and drink for the watchers and for the fire and candle.

William Gouge, one of the most widely read conduct book writers in the seventeenth century, argued in his *Domesticall Duties* that it was the duty of children to bring the bodies of their deceased par-

ents for burial with 'decency and honour' (Cressy 1997, 415). Testators in Huntingdonshire frequently expressed their concern that their body was given a 'decent Christian burial'. The *Directory of Publique Worship* of 1645, which superseded the Canon of 1603 and lasted until 1660, reflected Puritan teaching that corpses should be immediately interred without any ceremony (Schofield 2005, 98). The Puritan rector Samuel Hurlstone stipulated in his will of 1616 that his body should be buried 'without any delay after my death, without popish pomp, vain compliments and ringing' (Spurr 2006, 292). However, being buried 'without pomp' could be variously interpreted. The significant levels of expenditure on funerals recorded in probate accounts could be viewed as avoidance of meanness rather than vanity and ostentation. One example of desire for a simple funeral was that of John Brown of Broughton. His will commended his soul into the hands of Jesus Christ and humbly hoped that he would take care of it. His loving wife Mary Brown was enjoined to bury his body in 'a frugal manner'.

Mortimer found that many individuals in the Berkshire probate accounts were buried within the building of their church (Mortimer 1990, xix). This was not the case in either Huntingdonshire or Yorkshire. There were only two references in extant probate accounts to burial inside a church. Both were gentlemen. The will of Matthew Burgh, gentleman and alderman, required his body to be buried in the parish church of St Augustine in Hedon, Yorkshire. Robert Ramsden, a gentleman, was buried in the parish church of Halifax in 1757. The usual place of burial was the Anglican parish churchyard. Although the unbaptised or suicides were not legally provided for, even these were often buried in an unconsecrated part of the churchyard (Morgan 1989, 95).

The practice of erecting gravestones goes back to at least the medieval period although these were usually for high status individuals and survival of medieval gravestones is very rare (Houlrooke 1989, 38). Relatively few gravestones can be dated even to the seventeenth century (Gittings 1984, 143). Mytum and Chapman argued that this is partly due to erosion of inscriptions of early memorials or because broken stones have been removed. They also suggested that stones may sink into the ground and many early

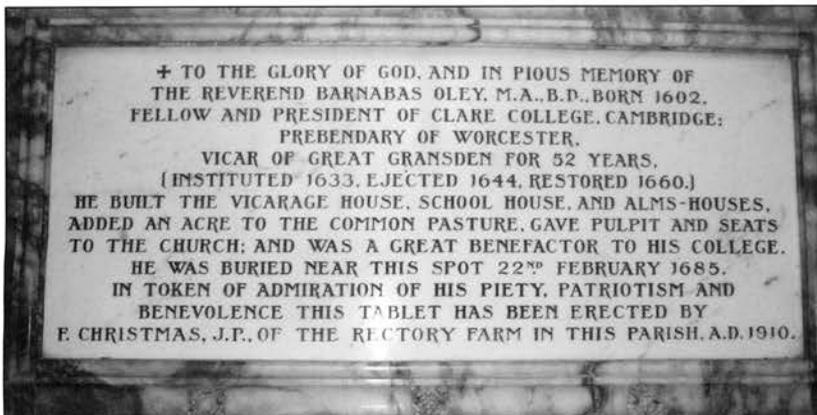


Figure 2. Memorial to Barnabas Oley in Great Gransden Church.

stones are partially buried so that their form and date cannot be easily ascertained (Mytum & Chapman 2006, 67).

One of the earliest known gravestones in Huntingdonshire is that of William Bandol, a yeoman who died in Stilton in 1613 (Fig. 3)

The Huntingdonshire probate accounts revealed that the median expenditure on headstones was 4s 6d in the 1670s but £1 11s 3d in the second half of the eighteenth century. The diary of Thomas Marchant provided an insight into how the costs of headstones were calculated. The diary recorded that the tombstone for Marchant's father cost 3 shillings a foot in 1714 plus 7s 6d for 'squaring him and working the edges' and a further penny a letter for the inscription (Bower 2005, 8). Tombstones for the middle ranks varied considerably in both price and quality. John Shawforth, a yeoman from Wheldrake, Yorkshire had a tombstone costing over £12 in 1793. Tombstones were also erected for those of relatively low status. Henry Apthorp, a butcher from St Ives had a gravestone which cost £2 2s in 1783 and setting his gravestone was a further 6s 8d. His funeral cost £8.4s 9d, 41% of his movable assets. One of the oldest dateable gravestones in Godmanchester churchyard is that

of Robert Vinter who died in 1723. The inscription reads, 'Here lyeth the Body of Robert Vinter who dyed February 16th 1723 aged 49' (Fig. 4).

Vinter's inventory reveals that he was a tailor with moveable goods valued at £34 8s 6d. Although there is no probate account to give details of his funeral it also probably represented a significant proportion of his assets. When Vinter died he was only 49 years old but perhaps saddest of all is that his moveable goods included three barrels of beer in his buttery worth 16 shillings which he had not got round to drinking!

Laqueur argued that funerals became a consumption good. There is one important difference between funerals and other consumption goods: the consumer is dead. However, many people expressed their wishes about their funeral arrangements before their death. These wishes ranged from precise details to general principles to be followed. Llewellyn cites one devout working person's desire to be 'simply not sumptuously...buried, I require no more' (Llewellyn 2000, 237–9). The actual purchaser of funeral goods is usually the executor or administrator of the estate and they may have an important influence on the funeral arrangements. In a purely material sense the more that is spent on the deceased's funeral the less



Figure 3. Gravestone of William Bandol (1613).



Figure 4. Gravestone of Robert Vinter (1723).

remains to be distributed to legatees. One of the important findings from the probate accounts is that the substantial proportions of movable assets spent on funerals show that consumption could have a broader meaning than merely material goods. It was also about exhibiting status and religious concerns including the desire for a decent Christian burial.

However, the relatively poor could also have a decent Christian burial. The limited evidence from probate accounts showed that in Huntingdonshire, the median cost of a funeral for inventoried husbandmen and labourers was no lower than that of the population with surviving probate accounts. The very poorest in society could have a dignified funeral and the use of coffins was widespread. Overseers of the Poor accounts suggested that even beggars could be buried in coffins rather than shrouds and beer was provided for mourners at paupers' funerals.

Bibliography

Manuscripts

Huntingdonshire Archives:

Probate accounts 1605–1785 (HRO AH/19)

Overseers of the Poor Accounts

Godmanchester 1786–89 (HP 34/12/2/1)

Kimbolton Overseers Account Book 1753–1758 (HP 52/12/5)

Great Gransden Overseers Account Book (HP 36/12/1)

Borthwick Institute of Historical Research, University of York

Probate accounts 1690–1796 (no accession number)

Printed Works

Arkell T 2000 'The probate process'. In Arkell T, N Evans & N Goose (eds), *When death do us part* Oxford: Leopard's Head Press 3–13

Bower A (ed) 2005 *A fine day in Hurstpierpoint—the diary of Thomas Marchant 1714–1728*. Hurstpierpoint: Hurst History Study Group

Bower J 1999 'Introduction'. In Spufford P (ed.), *Index to the probate accounts of England and Wales*, London: BRS xv–xcv

Cox J and N Cox 2000 'Probate 1500–1800'. In Arkell T, N Evans and N Goose (eds), *When death do us part* Oxford: Leopard's Head Press 14–37

Cressy D 1997 *Birth, marriage and death* Oxford: OUP

Earle P 1989 *The making of the English middle class* London: Methuen Publishing Ltd

Erickson A 1993 *Women and property in early modern England* London, Routledge

Erickson A 2000 'Using probate accounts'. In Arkell T, N Evans and N Goose (eds), *When death do us part*. Oxford: Leopard's Head Press 103–119

Estabrook C 1998 *Urbane and rustic England: cultural ties and social spheres in the provinces 1660–1780*. Manchester: Manchester University Press

Finn M 2000 Men's things: masculine possession in the consumer revolution. *Social History* 25: 133–155

Fritz P S 1994–5 The undertaking trade in England: its origins and early development, 1660–1830. *Eighteenth-Century Studies* 28: 241–253

Gittings C 1984 *Death, burial and the individual in early modern England*. London: Routledge

Gittings C 1991 Probate accounts: a neglected source. *The*

Local Historian 21: 51–59

Gittings C 1999 'Sacred and secular: 1558–1660'. In P Jupp & C Gittings, (eds), *Death in England*. Manchester: Manchester University Press 147–173

Grannum K & N Taylor 2004 *Wills and other probate records*. Kew: The National Archives

Houlbrooke R 1999 'The age of decency 1660–1760'. In P Jupp & C Gittings, (eds), *Death in England*. Manchester, Manchester University Press 174–201

Ingram M 1987 *Church courts, sex and marriage in England, 1570–1640* Cambridge, CUP

Laqueur T 1983 Bodies, death and pauper funerals. *Representations* 1: 109–131

Llewellyn N 2000 *Funeral monuments in post-reformation England*. Cambridge: CUP

Litten, J 1991 *The English way of death: the common funeral since 1450*. London: Robert Hale

Macfarlane A 1970 *The family life of Ralph Josselin*. Cambridge: CUP

Morgan J 1989 'The burial question in Leeds in the eighteenth and nineteenth centuries'. In R Houlbrooke (ed), *Death, ritual and bereavement*. London Routledge 95–117

Mortimer I 1990 *Berkshire probate accounts 1583–1712*.

Reading: Berkshire Record Society

Mortimer I 2006 Why were probate accounts made?

Methodological issues concerning the historical use of administrators' and executors accounts. *Archives XXXI*: 2–17

Mytum H 1994 *Mortuary monuments and burial grounds of the historic period*. Oxford: Springer

Mytum H & K Chapman 2006 The origin of the graveyard headstone: some 17th-century examples in Bedfordshire. *Church Archaeology* 7–9: 67–78

Overton M, J Whittle, D Dean & A Hann 2004 *Production and consumption in English households 1600–1750*. Abingdon: Routledge

Page W, G Proby & S Inskip Ladds 1932 *Victoria County History, A history of the county of Huntingdon*, vol 2. London: Victoria County History

Pitts M 2007 Compassion revealed in Quaker finds. *British Archaeology* 95: 6

Schofield R 2005 Monday's child is fair of face: favoured days for baptism, marriage and burial in pre-industrial England. *Continuity and Change* 17: 93–109

Sharpe P 2002 *Population and society in an East Devon parish: reproducing Colyton 1540–1840*. Exeter: University of Exeter Press

Spufford P 2000 'Long-term rural credit in sixteenth and seventeenth-century England: the evidence of probate accounts'. In T Arkell, N Evans & N Goose (eds), *When death do us part*. Oxford: Leopard's Head Press 213–228

Spurr J 2006 *The Post-Reformation: religion politics and society in Britain 1603–1714*. Harlow: Pearson Education Ltd

Styles J 2007 *The dress of the people: everyday fashion in eighteenth-century England*. New Haven: Yale University Press

Tarver A 1995 *Church court records*. Chichester: Phillimore Press

Tarver A 2000 'Understanding probate accounts and their generation in the Post-Restoration diocese of Litchfield and Coventry to 1700'. In T Arkell, N Evans & N Goose (eds), *When death do us part*. Oxford: Leopard's Head Press 229–252

Willett C & P Cunnington 1992 *The history of underclothes*. New York: Dover Publications

Wrightson K & D Levine 1991 *The making of an industrial society: Whickham 1560–1765*. Oxford: Clarendon Press

The 'Age of the Windmill' in the Haddenham Level

N James

The Haddenham Level accounts are well known as a rare source for the history of local fen engineering in the mid 1700s. The range of data in them is broader than has been recognized: implications for economic, social and cultural history are explored. Nor are the accounts isolated: they can be related to the Bedford Level Corporation's archive. Collating these sources shows that, at first, the devolution of responsibility to internal drainage boards was gradual. The relation between regional history and local history is discussed.

'Milling is a lovely job, when the wind is strong, and regular' (Marshall 1967: 73)

H C Darby's definitive history of the draining of the Fens (1956; 1983) is consistently and very effectively focused at the regional level. That holds even for the eighteenth century, when the administration of draining and flood defence progressively gave way to local management. The first district to obtain statutory authority for local management was the Haddenham Level, in 1727. Darby describes the devolution as a simple transfer of local responsibility from the regional authority of the Bedford Level Corporation to groups of farmers in their own fens. Even as the Corporation became weaker, the latter were confident, at first, that they could drain their fields into the rivers, which the Corporation did still control. The main problem was that the better the fields were drained the more their surfaces wasted, leaving them ever lower than the rivers crossing the Fens. The Corporation's work is documented in its order books, accounts and journals, but a basic problem in trying to understand the period from soon after 1720 to about 1930 is that little survives of the local records.

With hindsight, it is easy to regard the devolution as a mistake. Eventually, it became clear that the best way for farmers to preserve the bountiful inland peat districts of the Bedford Level and further north was to manage them as a single region, as originally intended in the mid 1600s. Less cautious than Darby, Summers (1976: 115) branded the century from 1727 on as an ironic 'triumph of localism'. Perhaps because

the technology was superseded, the period has been largely neglected by historians since, but such evidence as does survive for the struggle of that century deserves attention for two reasons.

Evidence

First, the method of draining that prevailed from the late 1600s to the second quarter of the 1800s is distinctive. Prof. Darby saw that clearly, dubbing the eighteenth century 'the Age of the Windmill' (Darby 1956: 117), partly in order to emphasise the role of the steam engines which eventually superseded wind power. He was delighted by the image of the grand, creaking wind-driven pumps—always known as windmills—that proliferated across most of the peat Fens (Fig. 1).¹

As a historian of technology in particular, it fascinated R L Hills even more. He showed how the sites of wind pumps recorded in archives and on historic maps can be recognized as archaeological scatters of brick and nails and he reported a section cut through one drainage channel (Hills 1966: 122). The Royal Commission on Historical Monuments (1972) went on to record several earthworks which reveal how the pumps gathered water and discharged it. The Royal Commission showed how the records of local drainage authorities can clarify the topography and archaeology. The method of working from documentary evidence to remains on the ground was used more recently in the Haddenham Level with similar results (Finney *et al.* 1997).

Dr Hills then drew attention to a set of accounts that record aspects of how the Haddenham Level Commission managed its fens in 1739–45 (Hills 1967: 29, 125; Hills 2003: 41, 151). These documents preserve a grain of technical detail not to be found in the minutes examined by the Royal Commission. Hills's brief, selective but effective analysis remains the sole substantial publication.

Have historians assumed that they are unique for the mid 1700s? It is sometimes pointed out that the very first of the modern commissions established



Figure 1. Drainage mill and wheel, from W H Wheeler 1868 A history of the Fens of south Lincolnshire.

under Parliamentary authority was for Waldersea, in 1607 (Darby 1956: 34), but Haddenham's provisions, 120 years later (13 Geo. I c. 18), were the precedent, up to the later 1800s, for dividing the rest of the fens into small districts run by autonomous commissions or boards comprising the principal landowners. Considering the difficulty that much larger institutions have in maintaining archives of their activities, it is not entirely surprising that few of the boards' records survive. A telling exception are the archives held by Archer and Archer, clerks to eight boards, but their records are only as good as the documents that they inherited in the first place.

The Haddenham accounts are not the only records of their kind. It has transpired, partly from regional records also to be considered here and partly from evidence of the North Level to be published elsewhere, that there are other documents which refer to contemporary work on the Fens. That the accounts are not unique makes it the more important to describe them more fully.

For studying the Age of the Windmill, archives and archaeology can usually be complemented by two other sources of evidence. For the research reported here, both parish records and manorial records were sampled briefly in order to assess the feasibility of producing a more rounded view of the scene. The early newspapers too reveal technical details and, indeed, hints of context not always recorded elsewhere (Finney *et al.* 1997; James 2006).

However, advertisements and notices about fen engineering did not appear until the 1760s, about ten years later than the Haddenham accounts.

The second reason for studying the Age of the Windmill in more detail is that the local sources qualify the regional history and may even seem to contradict it. How does the particular relate to the general? Local history brings forth the farmers and the engineers as figures less passive than they appear by implication from Summers or Darby (James 1999: 89). This is a topical issue for historians, but here it will be recommended that the paradox can be resolved, in the first place, by treating it as a problem of evidence rather than one of social theory.

Beyond technology

In emphasising, for their different reasons, the technology of pumping, neither Hills nor Darby took a sufficiently broad view of the method of draining. Of the two, Darby's was more systematic, and here follows his sole account of it (Darby 1956: 121; repeated with little alteration in his book of 1983).

The smaller dykes within a district emptied into a main drain. Here a mill was created to transfer water from this district ... into the river ... The mills themselves were, ordinarily, made with four sails ... Thus the whole of the Bedford Level came to consist entirely of small districts, each dependant for its

internal drainage upon small cuts leading to a central drain, which, in turn, discharged its water by pumping into one of the major arterial cuts.

Remaining to be described more fully is that pattern of cuts and flood defences with which the pumps worked as a complementary part of the technology. To maintain the fens in the Age of the Windmill demanded attention to three distinct but related features:

- (i) drains or dykes were cut and kept flowing;
- (ii) flood defence banks were built and maintained around the fens—'banking';
- (iii) water had to be raised ever higher into the rivers by 'milling' as the surface of the fens wasted away.

Thus there was a distinct set of tasks and skills that depended on an understanding of the earth and the water. Some of the tasks may have been more or less full-time or seasonal. Certain cultural implications are explored in a genre of popular literature about 'fen characters' (most notably, Marshall 1967). The Haddenham accounts reveal the eighteenth century pattern through both positive evidence and substantial negative evidence. Hills overlooked the latter, presumably out of his interest in the machinery.

More recently, there have been academic attempts to document local knowledge of landscapes. Thus, Ingold (2000: 315) distinguishes between technology, 'knowledge of ... principles of mechanical functioning ... independent ... of its human carriers and of the specific contexts of its application', and 'technique', 'embedded in ... experience'. Whyte (2009) has tried

to retrieve the local perspective in Early Modern Norfolk. The distinctive landscape and culture of the Fens is a good case too. Except that it is now powered by electricity, the principles of engineering remain the same as in the Age of the Windmill, but while it will be shown here that much of the work then must have been a matter of 'technique', today's 'technology' requires very few hands. The accounts imply a different experience of the Haddenham Level.

The purpose of the present contribution is to consider the accounts with an eye to social history as well as the engineering. The intention is not to describe every task but to assess the triple model of the engineering in general and the implications for distinct livelihoods.

The accounts

The Level comprises the south-west corner of the South Level, between Earith, where the Great Ouse enters the Fens, and the Isle of Ely. As defined originally, it comprised some 6,650 acres (2,270ha.; it is now about 7,750 acres). To east and north, it is bounded by the highest part of the Isle of Ely, which may have produced more run-off than most other districts had to cope with; and its west and south sides are bounded by the Hundred Foot River and Old West River, respectively, main drains which remained under the Bedford Level Corporation's management (Fig. 2). In 1739–45, the north bank of the Old West

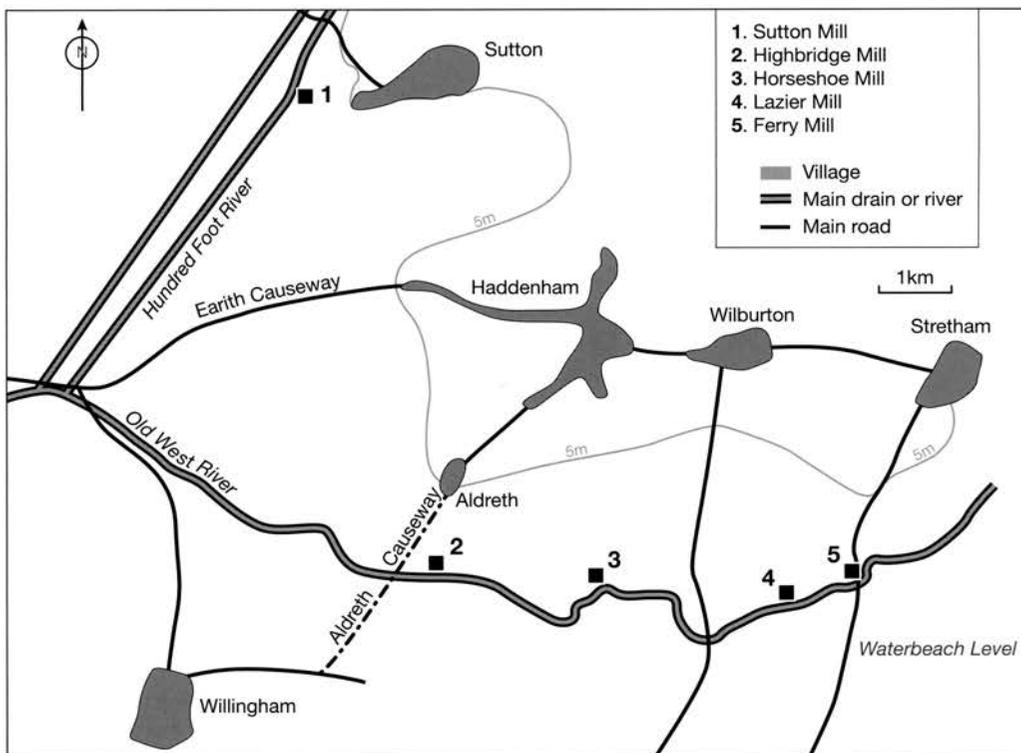


Figure 2. The Haddenham Level, marking the sites of the wind pumps (1739–45; adapted from Finney et al. 1997 Fig. 1).

from Earith to the Aldreth Causeway remained outside the Haddenham Level Commission's area.

The 'Haddenham Level Accompts' are the work of 'Robert Read Receiver and Expenditor'. They cover 1739-41 and 1743-5. But for a single set of minutes from a meeting in 1750, kept with the accounts, they are the only records known of the Haddenham Commission earlier than the 1900s. They survive by virtue of the liberty vested in the monastery and cathedral of Ely until 1836. The Commission's founding statute stipulates that accounts were to be approved at the Michaelmas Quarter Sessions there in alternate years. Why, indeed, do only two of these documents remain, even under the care of the diocese? They are now among the Ely Diocesan Records, at the University of Cambridge, kept with other documents on sewers and draining. The account for 1739-41 is catalogued as A8/46 and the one for 1743-5 is A8/47. Item 47 includes the minutes of 1750 and also three sets of the Manea Commission's minutes from 1749 to 1752.

In conformity to the expected model, the statute envisaged 'Cuts, Drains, Damms, and Outlets ... and ... Works and Engines for draining and conveying the Waters from the same', but the emphasis in the accounts is on the 'Engines'. Hills showed that the accounts distinguish five windmills, normally run by two men at a time, each usually paid a shilling a day, probably the normal rate for unskilled or semi-skilled work in Cambridgeshire during the mid 1700s (Gilboy 1934: 220). During the harvest season, when work at the mills was not usually needed, the rate was two shillings. Hills (2003: 151) also considered the mills' efficiency as pumps (good, he remarks, compared to slightly later mills elsewhere but that chronology may be critical: conditions deteriorated steadily (James 2006)).

Some of the sums, below, are conservative. Where, in a few cases, payment is listed for more than one kind of work or commodity without specifying the proportions, either the fractions are estimated or, more often, the whole sum is ignored. On 5 June 1745, for example, 'John Dann and partners' were paid 'for Cleaning the Tunnels, Stopping the mole holes in the west River Bank, and other jobs'. That range of skills is of the greatest interest but the entry cannot be used to distinguish expenditure on banking from the cost of the other tasks.

Budget

The accounts show that the biggest source of income was the rates levied on owners in the Level, which came to slightly more than £348 in each of the four years covered. That is much less than to be expected from the rate of a shilling and sixpence per acre set by the statute. Yet, year by year, the Commission did manage to balance its books (Table 1). The accounts do not cover the Commission's capital. The opening balances were £180-10-2 in 1739 and £246-10-2¼ in 1743.

Table 1. Account totals (£-s-d).

	1739-41	1743-5
Income	1082-9-1	1103-1-4¼
Expenditure	754-8-4¾	1089-5-7
Balance	328-0-8¾	13-15-9¼

Since Mr Read described and dated the items of expenditure, the costs can be distinguished year by year and from season to season. There was little expenditure on banking. Perhaps that was because all of the Level's downstream boundaries are along main drains in the charge of the Bedford Corporation. Nor was anything spent on cutting new drains. On the other hand, each year did incur bills for milling and upkeep of the pumps and their intakes and outlets, and for supplying materials. In 1739-41, the Commission spent £60-11-1 on timber, in 1743-5, £38-1-8. There was peat to buy too, a perquisite for the 'millers' (fuel). Supply, in turn, entailed the cost of carrying, by cart or boat. Expenditure fluctuated greatly (Table 2)

Table 2. Total expenditure.

Expenditure	£	s	d
2 October 1739 - 1 October 1740	294	5	11
4 October 1740 - 28 September 1741	460	2	5¾
30 September 1743 - 24 September 1744	421	2	5½
2 October 1744 - 28 September 1745	668	3	1½

One reason for the variation is financial. In the course of 1739-41, the Commission paid Mrs Grace Browne £135 of interest on a loan. In 1743, six months of interest and return to her of 'part of the principal' came to £322-10-0 and, a year later, they paid £200 of 'Security' on the loan.

Year by year, the costs of engineering varied sharply (Fig. 3). In principle, that could be a function of both planning and weather: periodic projects of development; and seasons wet or dry. For development, the only direct evidence would be the accounts themselves, which show no capital investment. For the weather, there is information on Britain in general (Stratton & Houghton Brown 1978: 74-6). Completing 'Another wet year', the winter of 1739-40 set in with nine weeks of severe frost from Christmas Eve. The following winter was notoriously cold, starting with heavy frost in October. 1741 was very dry. Winter 1744 was harsh and protracted and then heavy rainfall caused floods in late autumn. 1745 brought 'Excessive rain in spring and summer'. Indeed, the Commission spent £25-18-0 on milling in May 1745; but the evidence for other correlations is ambiguous.

There is a lot of detail among the accounts. Some of it helps to specify the costs. While, for instance, other than clerical fees, nearly all the work was paid at the standard rates *per diem*, certain tasks were undertak-

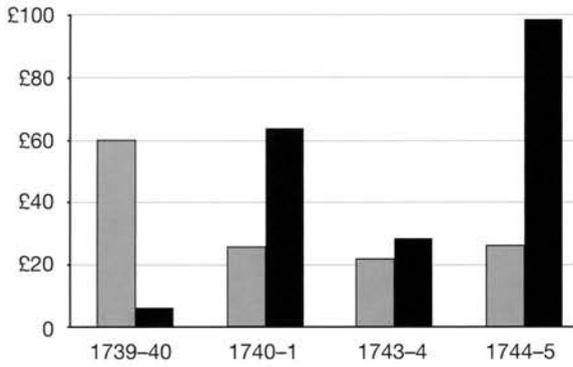


Figure 3. Expenditure on drains (grey) and milling (black).

en as piece work. In September 1739, for example, men were paid 4½d or 5d per pole for 'Dyking out', and, in August 1740, at 6d. Some of the supplementary detail provides comment on general conditions too. In 1740, for example, the Commission sold 'an old Horse Bridge' for two shillings and was paid the same 'for Lime ... Left when the Ferry Mill Tunnel and waterway was Repaired'. That, in August 1740, 'Scouring out' was needed 'where the Banks were Slipt and Troden in' seems to confirm that herding remained important. There are helpful details of topography as well, such as the note that, in October 1740, 'Robert Feast and partners' were paid 'for Dikeing out ye drain from Sutton Division Ditch to Sutton Mill being three Hundred and Eighty poles'.

In regard to the seasonal distribution of tasks, the picture is somewhat imprecise in as much as certain payments were deferred and not all entries necessarily specify exactly when a given job was performed. The principles are clear, however: milling was normally needed during the wetter months of winter; and the main season for work in the drains was during the usually drier months of summer and early autumn (Fig. 4).

It is striking that only in 1744-5 did the Commission pay for maintaining banks (but there is other evidence that it had worked on banking earlier in 1739; see below); and 1745 was the only year in which it paid a mole-catcher (moles were thought to weaken the flood defence banks). Nor do the accounts show any expenditure at all on cutting drains or bringing clay for banking.

The archive of the Bedford Level Corporation (at the Cambridgeshire Archives) explains why these costs did not arise. Among several other entries, the journal of William Cole, Deputy Surveyor of the South Level, records, for 21 November 1738 and 25 October 1739, that he supervised work in the Haddenham Level.² The Corporation's accounts confirm, among other costs there, that it paid 'To repair Haddenham Level Banks' (and bridges within the Level) in 1739 and again in 1741.³ In March 1743, John Huckle worked on bridges in the Level and, in December 1746, drains were deepened.⁴ As for moles, the accounts for 1739-40 include payments for hundreds, apparently caught

along the southern part of the South Level Barrier Bank by the Hundred Foot River.⁵

Corporation and Commission cooperated closely. For 8 October 1746, Cole recorded that he surveyd the Worke in haddenham Levell, with ye commissn of that Levell, who proposd to lay out 100£ on the Banks of that levell, if wee would spare them some materials, they would provide the rest ... wee lent them 2 Gangs ...⁶

However, not all of the Commission's work was up to scratch. On 22 March 1739, he

observed that several persons employd ... in cradging the Bank ... had very much lowerd & weakend the banks in taking the Earth of the top of them which is often the occasion of Gulls & forwardd them from doing any more.²

Cooperation extended to finance too. The Corporation paid back a loan of £20 in February 1741.

The accounts are systematic and detailed. 'R Read' was the Commission's Clerk in 1771 (*Cambridge Chronicle* 25 May p 3). It may well have been the same Read (see below). By implication, some thirty years of precious information has been lost.

Livelihoods

Did farming in the Black Fens depend on a distinct set of skills during the Age of the Windmill? Were there men who understood several of them, who might, thus, have had a broad knowledge of how the landscape was maintained? Did the technology provide distinct livelihoods, whether by virtue of working at a range of the tasks or of specializing in only one? Since the accounts record the Commission's disburse-

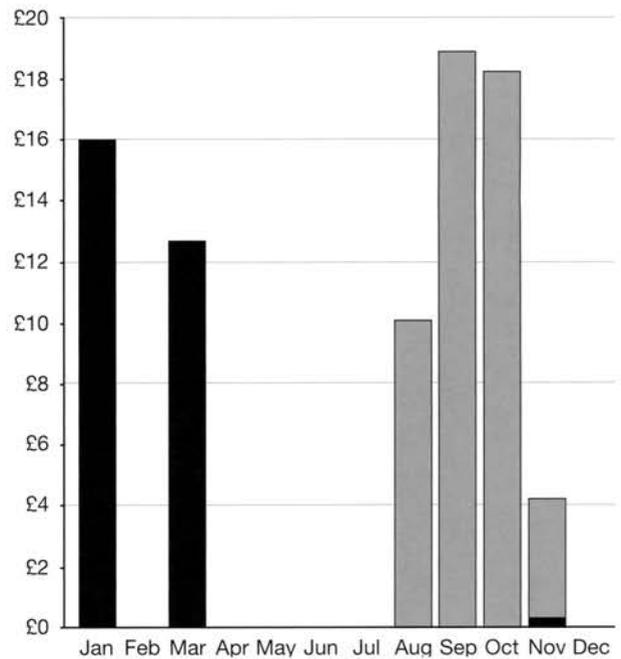


Figure 4. Haddenham Level expenditure in 1740: milling (black); drains (grey).

ments to each payee for specified work or supplies, these questions can, perhaps, be answered.

In 1743–5, there were payments for five distinct tasks: clearing drains; banking; building bridges and other features; millwrights' work; and milling. There were payments to 14 men for milling, eight for wright work and seven for work in the drains. A first step in assessing the likelihood that this regime created specializations is to see how many were paid for only one of the tasks (Table 3): about half of those working in the drains, at milling or helping to maintain the mills were paid for those respective tasks only; and the two bankers worked only on the banks. On the other hand, about half of those working in the drains or as millwrights also worked as millers. One or two worked at all three tasks. John Dann's pay in June 1745 (above) implies familiarity with a range of related skills.

Table 3. Payees by selected skill 1743–5.

	Total	Solely	Drains	Millwrights	Millers
Drains	7	4	–	1	3
Banks	2	2			
Bridges etc.	1	1			
Millwrights	8	4	1	–	4
Millers	14	8	3	4	–

The Commission did not create full-time jobs in any one of these skills, but during the winter, when most of the milling was needed, several men could make almost the equivalent of full-time wages. That can be seen on the assumption that, at a shilling a day, full-time work for the whole season would have earned a labourer a bit less than £4. Out of ten payees in winter 1740–1, six made more than 75% of that total (Table 4; listing the men in the order given). The millers tended to work in pairs. Stephen Feast appears to be an exception. He made considerably more than the others but his pay included a proportion (not fully specified) for work on mill sails during the earlier part of the winter, and for two weeks he was paid

Table 4. Milling, December 1740 to March 1741 (£-s-d).

Mill	Sutton	Highbridge	Horseshoe	Lazier	Ferry
J Newill		3-5-0			
J Dann					3-5-0
J Frohock				3-1-0	
J Walsham			3-1-0		
D Cockell		3-1-0			
J Denton			3-1-0		
T Levitt				3-1-0	
J Huckell				1-5-0	2-1-0
S Feast	4-9-11				

ten shillings a week in stead of the normal six. Hills (2003: 41) suggests that that included an allowance for a helper. Feast was at the remoter Sutton mill, but all except one of the others too worked at only one site, and the exception, John Huckell, worked at two just a few hundred yards apart. If they were unfamiliar before, these men came to know particular fens well.

A few of those who worked at various of the Commission's jobs could sometimes have relied on them in large part. Consider Thomas Levitt's earnings from milling in 1743–5 relative to the maximum annual income of £15 or £16 for full-time labour at a shilling a day (Fig. 5). In May 1744, he was paid £2-1-0 for six weeks and two days but when that stint began is not noted. Part of what he earned in the next month was shared with others. In the same month, he was paid £6-12-9½ for a gang of unknown size that had worked at clearing drains of vegetation. In January, March and May 1745, he made £7-11-0, working alongside Thomas Dison, who was paid the same. In July and September, that year, he was paid at the two shilling rate. The records of the Bedford Level Corporation show that, for its part, it kept two labourers between Earith and Ely on a practically full-time basis.

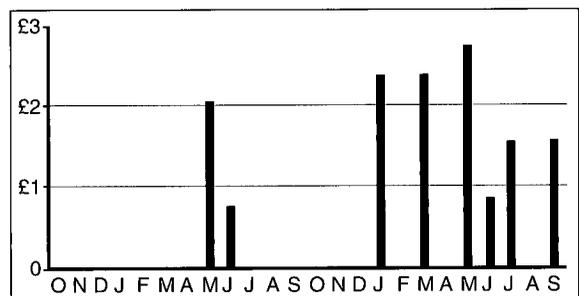


Figure 5. Thomas Levitt's wages for milling from October 1743 to September 1745.

By themselves, the respective records of the Commission and the Corporation do not necessarily prove the feasibility of relying on the tasks of draining and flood defence: some men worked for both organizations. In May 1744, for example, the Commission paid Alexander Merry £3-2-0 for work along the drains (including four shillings shared with another) and then paid him five shillings more for the same sort of work in the September. In 1743, the Corporation had paid him, as a gang leader, all of £87-4-4 for 'harthing and Drawing ... Gravell work ... Blackwork ... cutting the Bank Draining the River and taking up Dams' along the Old West River; it must have been a big gang.⁷

Others benefited from the Commission in various ways. For 'Sundry Goods', Mary Towerson (wife, perhaps, of Thomas, one of the original Commissioners appointed by the statute) was paid £23-16-6 in 1739 and Robert Pigott £7-18-10½ in 1740. In 1739–41, Edward Cannum was paid £1-18-6 for three sales of

line for sails and tailtree ropes. Amongst other income from the Commission, Thomas Mountford, ironmonger, was paid £30-6-8½ in August 1740; and, that year too, Francis Dickins was paid £2-2-16 for 3,500 'white Bricks' (see Finney *et al.* 1997: 159–62). In September 1741, Daniel Peacock sold 'grease, Goom, and oyl'. Stephen Feast supplied grease too (1741). There were the peat sellers. Then there were the carters, such as George Dewey, carrying 'one Back, Two Whips, and other things from Haddenham to Stretham Ferry' in 1739; or Mark Bidwell, in 1741, taking 'posts and Rails from Haddenham to Highbridge Mill to fence in the Hill'. Such entries help to show how the mills were built and how they worked. There are glimpses of the commissioners as well: expenses for their meeting of October 1739 included 'an Bottle of wine and firing' and 'Dinner, Ale, and wine' for seven.

In the pursuit of local history, other sources can be exploited to cast a little more light on the sociology and economy. The antiquary, William Cole, had a tenant named John Huckle who knew something himself of the recent history. (See Wells 1953: 145, and see Table 4: that Huckell's name was John too, working less than two miles from Cole's property; no doubt, this is the same man that worked for Cole's namesake in 1743.) Haddenham's Register of Burials (searched for 1746–82) provides some final context, although the transcript gives no information on status. Edward Cannum is listed in 1746, Ambrose Uffindell in both 1747 and 1763 (variant spellings of the surname; father and son, perhaps, but with no clue as to which was the Commission's banking gang leader paid in 1739), Thomas Dison in 1749 and Daniel 'Cockle' in 1750 (see Table 4). Robert Read (Sr) was buried in 1782. Sutton's register records burials of Stephen Feast in 1745 and 1749 (cousins, no doubt) and Robert Feast Jr in 1757. Manorial records too refer to some of the people recorded in the Commission's accounts. The Haddenham manor's Court Book (1734–43) shows that Cannum was a juror of the court. It also mentions (p138) John Denton (Table 4) as the holder of four acres in Gall Fen, to the other side of Aldreth.⁸ That detail can be explained, in turn, by the Bedford Level Decrees, which record awards of four acres in Gall Fen to each of three Dentons in 1667 (and two Danns in 1666; James 2006: 457).⁹ Denton (and perhaps John Dann) must have known the Level since childhood.

Discussion and conclusions

The complement between the Haddenham Commission's accounts and the records of the Bedford Level Corporation shows that, at first, the devolution of responsibility was more in respect of draining than of flood defence. The Corporation's work in the Haddenham Level was noticed earlier (James 2006: 458) but its wider significance for the technological history of the Bedford Level was not recognized until the Commission's accounts were studied more carefully. The Commission's early his-

tory shows a division of labour with the Corporation not characteristic later, when, partly, no doubt, owing to the Corporation's declining capacities, a more comprehensive view of the engineering seems to have developed even as the need for flood defence increased (James 2006: 458).

The statute envisaged 'proper Officers' to manage the engineering but, unlike the Corporation's records, the Haddenham accounts reveal nothing about who made the technical decisions or how they were reached. Since he does not mention a specific colleague, the citation for 1746 in Cole's journal (above) implies that the decisions were the commissioners' own. The only salary listed in their accounts is Read's.

The Commission's emphasis on milling in 1739–45 may have been partly a function of the Level's extensive riparian edges. The geography of the neighbouring district, to the east, the Waterbeach Level, is similar, so that the same pattern of history could be expected there. The local commission there was established in 1741. In general, the findings for Haddenham imply that, across the Black Fens as a whole, the scope of local engineering would have broadened progressively in response both to deteriorating conditions and to the Corporation's decline.

The local sources reveal a labour-intensive technology. Because of how the weather affects the Fens and owing to the soil itself and the water, it required skills of observation and of walking, hauling, grappling, digging and lifting. Whether those skills were learned through the 'jobb' itself or whether, to the contrary, the work demanded men long familiar with this landscape, so long as it depended on comparatively large numbers spending substantial time in or around the fens, the 'experience' and 'knowledge' of the Age of the Windmill must have been distinctive.

Local history complements the regional outline. It helps to expose revealing variations of the general pattern of development. It brings into focus the efforts of a greater range of people, amplifying our understanding of that development. More broadly, it helps to explain the Age, its technology, techniques and culture, on its own deserves rather than treating it as just an interlude. The Haddenham accounts do surely merit more systematic analysis. However, progress depends, in large part, on recovering and studying more of the local archives.

Acknowledgements

Mr Meadows, Keeper of the Ely Diocesan Records, has long indulged my enquiries and musings about the accounts. I am grateful too to his colleagues at the Cambridge University Library and to the staff of the Cambridgeshire Archives for their help; and to Sarah Wroot for help with Figure 1. This paper derives from a contribution to the Society's spring conference in 2009.

Endnotes

1. Delight that he shared with the Society in his lecture in December 1983.
2. Cambridgeshire Archives R.59.31, journals of Wm. Cole, Dy. Surveyor of the South Level (uncatalogued).
3. Cambridgeshire Archives R59.31.19.78, 80.
4. Cambridgeshire Archives R.59.31.7.2(2), R.59.31.7.6.
5. Cambridgeshire Archives R59.31.19.78.
6. Cambridgeshire Archives R59.31.7.6.
7. Cambridgeshire Archives R59.31.19.82 p. 64.
8. Cambridgeshire Archives 305/M34.
9. National Archives C229 Part 3 Bundle 37, Part 5 Bundle 23.

Bibliography

- Darby H C 1956 *The draining of the Fens* (2nd ed.). Cambridge: CUP
- Darby H C 1983 *The changing Fenland*. Cambridge: CUP
- Finney J B, S M Finney & N James 1997 Wind pumps in the Haddenham Level: an archaeological survey. *PCAS* 84: 155–65
- Gilboy E W 1934 *Wages in Eighteenth Century England*. Cambridge (Mass.): Harvard University Press
- Hills R L 1966 Drainage by windmills in the Waterbeach Level *PCAS* 56–7: 115–22
- Hills R L 1967 *Machines, mills and uncountable costly necessities: a short history of the drainage of the Fens*. Norwich: Goose
- Hills R L 2003 *The drainage of the Fens*. Ashbourne: Landmark
- Ingold T 2000 *The perception of the environment: essays in livelihood, dwelling and skill*. London: Routledge
- James N 1999 Fen draining: detection in the archives. *PCAS* 87: 87–91
- James N 2006 Ground conditions 1550–1950. In C Evans & I Hodder (ed) *The Haddenham Project* (Vol. 2): 453–9, 462–4. Cambridge: McDonald Institute for Archaeological Research
- Marshall S 1967 *Fenland chronicle: recollections of William Henry and Kate Mary Edwards*. London: CUP
- Royal Commission on Historical Monuments 1972 *An inventory of historical monuments in the County of Cambridge* (Vol. 2). n.p: HMSO
- Stratton J M & J Houghton Brown (ed R Whitlock) 1977 *Agricultural records AD 220–1977*. London: John Baker.
- Summers D 1976 *The Great Level: a history of drainage and land reclamation*. Newton Abbot: David & Charles
- Wells H B 1953 Haddenham. In R B Pugh (ed) *A History of the County of Cambridge & the Isle of Ely* (Vol. 4). London: OUP
- Whyte N 2009 *Inhabiting the landscape: place, custom and memory, 1500–1800*. Oxford: Windgather

Upware and Bottisham sluices

K S G Hinde

Dredging of the River Cam at Upware in September 1989 unearthed a quantity of stakes and planks. This study seeks to explain their significance in the context of structures erected in the early nineteenth century to control the flow of water in the river below Clayhithe. No published information about these has been traced, save for partially misleading indications on some maps of the period.

Introduction

Chisholm (2005) explains the multiplicity of terms used to describe structures erected in watercourses for the purposes of control of water and navigation. For the purposes of this work, it is necessary to understand that an 'overflow' means a fixed dam allowing water to overflow only when it reaches a certain level and is in effect a weir. A 'staunch', also called a 'stank', means a form of dam adjustable to control the flow or head of water either by removable boards or a guillotine. When used for navigation, these were called 'flash locks', being opened when the head of water had built up sufficiently to allow a boat to pass through. Except for the flash lock on Bottisham Lode, the locks on the River Cam were all 'pound locks'. These consisted of gates enclosing each end of a chamber or pound. A boat enters the chamber and the water in it is then lowered or heightened so that it can move into the different level above or below the lock. A 'sluice' is the term used herein to describe a combination of all three; whilst a 'weir' is generally applied to what was probably a combination of overflow and staunch. A 'cradge bank' is a small bank to contain minor floods within a small area of washland and built nearer the river than the main flood bank.

The excavated remains

The *Ely Standard* of 21st September 1989 carried a report on the discovery which merits full repetition:

'Work dredging the River Cam at Upware turned up a major surprise on Thursday—a lock or staunch

which had lain hidden for nearly 200 years. Dozens of massive stakes and planks came floating to the surface as workmen scraped away at the bottom of the nine-foot deep stretch of river. Some of the unbroken stakes were over 12 feet (3.6m) long, as thick as tree trunks, and still had sharp points, while among the planks were a few over six metres long.

The dredging was being carried out by Waterbeach firm Taylors. Workman Paul Hodson said it was the largest and most unexpected find the firm had ever made. Archaeologists and local historians called to the site believe the wood was part of an early lock or staunch, built when the course of the river was diverted in the early nineteenth century.

The structure would originally have stretched right across the river. A number of the poles had huge iron nails still embedded in them while one had roman numerals scratched into it. However, Alison Taylor, of the Cambridge archaeological unit said the discovery definitely did not date back beyond 200 years. A great deal of work was carried out on the river at Upware around 1820 when its course was straightened. Logic suggests that any man-made structure would date from then.

Old drainage records would almost certainly refer to it, but Alison Taylor said her unit had neither the time nor the resources to go through them. As for the discovery's future, difficulties in preserving wood, coupled with the cost and impracticality of putting it back together means that it could end up as very historic firewood.'

The writer inspected the remains on 24 September 1989, and noted that they had been deposited on the washland just south of the junction of the outfall of Reach Lode and the Cam. He found the stakes to be rough tree branches, about 9 to 12in (23–30cm) thick, and some tapered to a centre point. The boards varied in width up to 18in (45cm). This wood was removed shortly afterwards. The only other remaining evidence of these is a series of photographs taken by Michael Petty, deposited in the Cambridgeshire Collection, Cambridge Central Library. Fig. 1 is one of these, and clearly shows the remains excavated, with



Figure 1. Remains excavated in 1989 with the River Cam on the left and the 'Five Miles' public house in the background.

the River Cam on the left, and the 'Five Miles' public house in the background.

The River Cam before 1820

The reconstruction of Denver sluice in 1748–50 would have caused problems in controlling water levels above Denver. Until 1820, there were no sluices on the River Cam and Ouse between Clayhithe and Ely except for the three installed in the mid-seventeenth century to regulate the flow of water into the Cam from the three lodges, Bottisham, Swaffham and Reach (Fig. 2). Although it was proposed to construct a sluice near Ely, this was never erected (Chisholm 2007) and there were also none on the Ouse from Ely to Denver Sluice. The actual levels of water maintained in the stretch from Clayhithe to Ely are open to conjecture. Elstobb (1778, 4 & 12) painted a dire picture of its condition, but probably for partisan reasons since he was wholly opposed to the retention of Denver sluice. He did recommend that a stank (*i.e.* staunch) be made across the Cam about a mile and a half 'below Upware, to raise a head of 2 or 3 ft. of water'. Later, in 1792, Mylne recommended the construction of one or two locks downstream from Clayhithe to create a greater depth of water. This implies continuing problems in maintaining the water level for navigation, but it was almost thirty years before these recommendations were implemented.

Statutory Authorities

To understand this account, it is necessary to appreciate the confusion of responsibilities placed upon the various bodies referred to below. W H Wheeler, as cited by Darby (1983 172–3), noted in 1882 that

the number of Acts of Parliament concerned inter alia with the Ouse was 'extraordinary' and that the number of jurisdictions that controlled a river and its banks had so accumulated that it was almost impossible to define their powers and rights. In addition to those primarily cited below, the Cam Conservancy was responsible for the Cam between Cambridge and Clayhithe (see Chisholm 2003) and the Swaffham and Bottisham Drainage Commission was, after much dispute, obliged to accept maintenance of the three Lodges and their locks.

The Eau Brink Commission

Responsibility for maintenance of the rivers throughout the Bedford Level was originally vested in the Bedford Level Corporation by Act of Parliament of 1663, with power to tax the relevant land to meet the cost. Frequent floods throughout the eighteenth and early nineteenth centuries deprived many landowners of the means to pay these taxes and in consequence severely limited the capacity of the Corporation to fulfill its functions. Despite proposals in 1860 for its abolition, the Corporation survived in increasing impotence until 1920 (Summers 1976, 218). Navigation was particularly impeded by the wide bend in the River Ouse between Wiggenhall St. Mary and King's Lynn. In 1795 an Act (with eight supplementary Acts up to 1831) constituted the Eau Brink Commission to construct a new channel to bypass this bend. It was not in fact completed until 1821 (Darby 1983, 154). Because it was expected that this would reduce the average level of water immediately below Denver Sluice and thus up the Ouse and Cam, this Commission was also required to im-

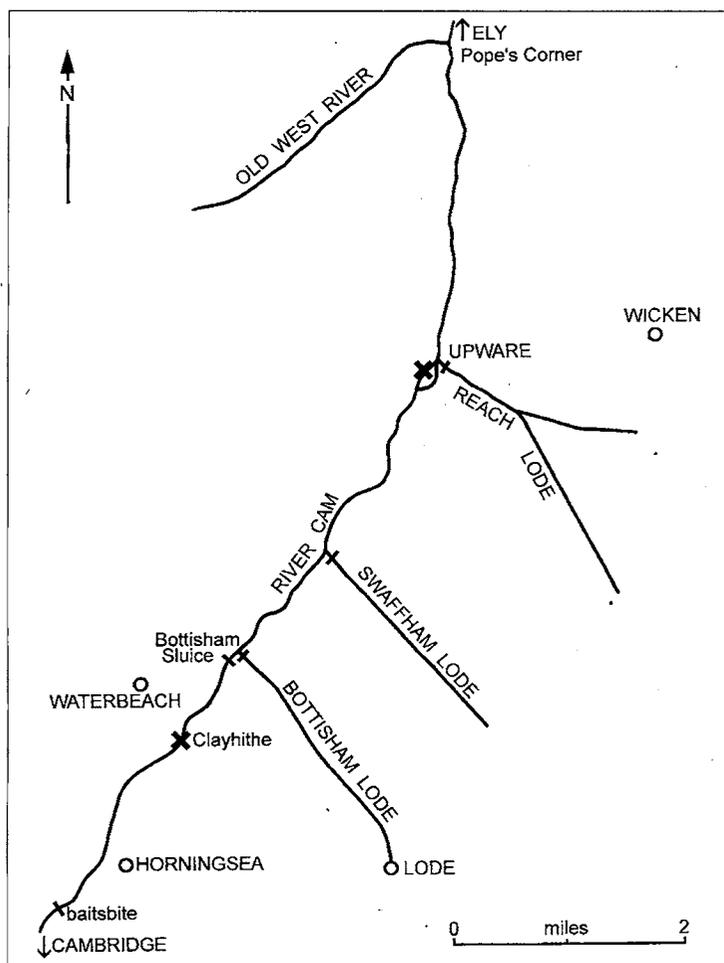


Figure 2. Upware 1820–1862.

prove the navigation and erect staunches or sluices on the River Cam up to Clayhithe Sluice. The latter had been erected by the Conservators of the River Cam (Chishom 2003). The extent of the works envisaged is evidenced by the estimate dated 1819 of probable expense remaining to be expended under the Eau Brink Acts (Wells 1830, 1, 765) including 'works upon the Cam for the protection of the navigation – £6543'. The Eau Brink Minutes of 22 May 1820 record the receipt of a tender for a lock, staunch and side cut near Reach Lode, *i.e.* at Upware, in the sum of £1290, and the same near Bottisham Lode for £1017.

Bottisham Sluice

The latter was to be erected at Waterbeach, below Clayhithe and was later known as Bottisham River Sluice to distinguish it from the single gate lock at the nearby point of discharge of Bottisham Lode into the Cam. The two tenders for Bottisham and Upware received in 1820 clearly demonstrate that the two sluices were to be erected at the same time. The existence of Bottisham sluice is confirmed by a reference to it in the Minutes of the Swaffham and Bottisham Drainage Commission of 21 April 1821. It is also marked on Baker's Map of 1821 as a sluice, and on the Eau Brink Map as an overfall. Humphrey, 11, writing in 1829, identifies the inter-relation between

the two sluices in controlling the flow of water: 'if the overfall or waste at Bottisham Sluice be dropt 2 ft. (60cm) the floor of the present sluice at Clayhithe will be laid nearly or quite dry'. This envisages a lowering of the water level above Bottisham. He continues: 'Diagram 3 shows what would be the state of the river if Baitsbite Sluice only were removed and the water between Clayhithe and Bottisham reduced 2 ft. (60cm), which is all it can be reduced without lowering the overfall at Upware—even if Bottisham Sluice were entirely taken away'. Previously, the Report of Thomas Telford and John Rennie dated 9 October 1823 (Eau Brink Records) had observed that the overfall at Upware was too high and could be reduced 10ins (c. 25cm) without injury to navigation.

Upware Sluice

At Upware there was a wide horseshoe-shaped bend in the river from Crooktree Farm in the south to the outfall of Reach Lode in the north (Fig. 3), based on the Wicken Enclosure map of 1840). This is still partially identifiable from the line of the present eastern flood bank. Baker's map of 1821 (compiled 1817–1820) shows that a new cut had been constructed by then to bypass this bend. In January 1822 the Eau Brink Minutes record receipt of a tender from Mrs Rayner 'for the land requisite for the New Cut making upon

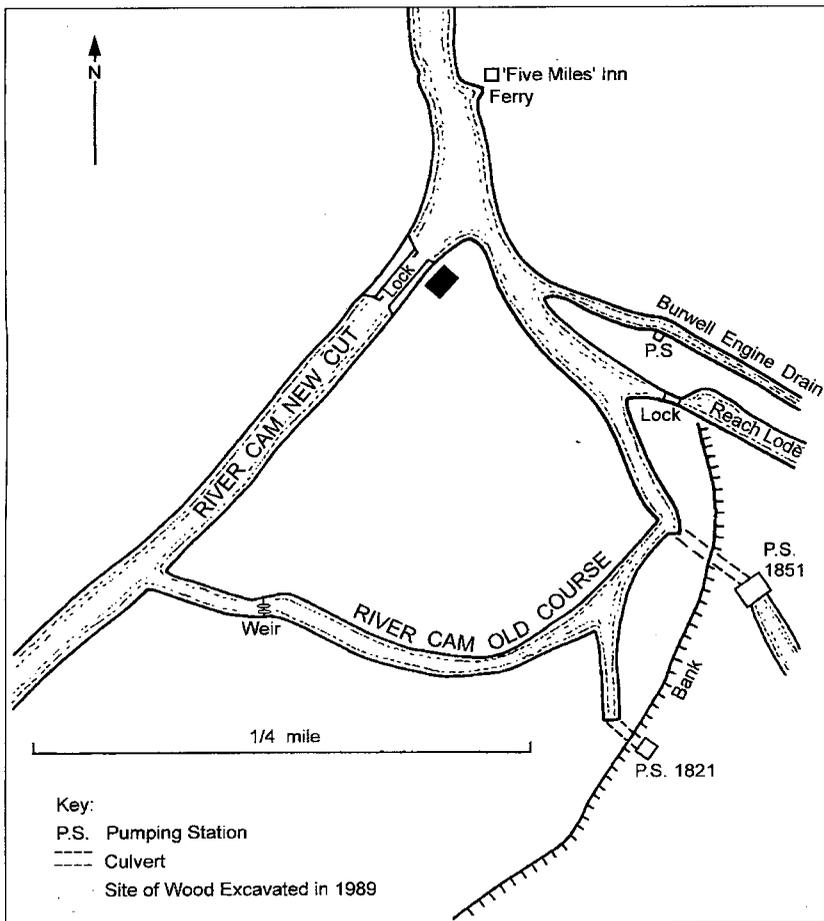


Figure 3. The River Cam from Cambridge to Ely.

the River Cam'. This may have been an offer to purchase. Certainly she owned this land by 1834 as is recorded in Lenny's Particulars (Lots 102 and 103 Wicken) as well as much other land in the parish (Knowles 1902, 38-9). Baker also marks a sluice, but without identifying its exact position. All subsequent maps mark the new cut, but are confusing in identifying the structures actually erected. Wells' map of 1829 marks a lock on the new cut but no structure on the old course. Lenny's map of 1833 marks an overfall on the southern section of the old course, as does the OS first edition of 1836 (calling it a staunch) but neither indicate a lock on the new cut. Nevertheless, the Eau Brink records amply confirm the existence of both a lock and a staunch at Upware in 1823, confirmed by the Report on the state of the locks etc. in July, and the Report of Thomas Telford and John Rennie of 9th October 1823 (Eau Brink Records). The latter states that the staunch and pound lock upon the River Cam near Reach Lock had been properly executed but the overfall was too high and a lock-keeper's house was required. They also confirm that these structures were different from the lock on Reach Lode, often called Upware sluice or lock in early records, and refer to the structures at Bottisham Locks. The best evidence of the true position of these at Upware is provided by

the Wicken Enclosure map of 1840, probably drawn slightly later because it shows Mary Hatch as owner of the land on either side of the New Cut, and she did not inherit from Mrs Sarah Rayner until 1841. This clearly marks a staunch at TL 535698, and shows the New Cut as narrowing at its northern end into an enclosure, which must have been the position of the lock at TL 536700. This position is confirmed by the tender of 1820 as for a lock near Reach Lode.

Use of the old course to accommodate the staunch and overfall is easily explicable in that it had to be maintained to provide the discharge from the pumping station erected in 1821 by the Swaffham and Bottisham Drainage Commissioners and, lower down, the outfalls of Reach Lode and the Burwell Fen drain (Fig. 3). McKnight (1975, 42), states that 'on the best engineered river navigations, the weir is often remote from the lock chamber, with an artificial canal cut constructed for the navigation channel'. The old course provided a channel for the weir, but not for navigation, without requiring any expense, other than for the weir itself.

Construction of the railway line from London to Ely in 1845, and later to King's Lynn, brought about a considerable reduction in the use of the river for navigation, and in consequence the revenue derived

from tolls (Hills 2003, 79 and 160 and Chisholm 2003, 190). This affected the capacity of the various authorities to maintain the works on the river. In 1851, the Swaffham and Bottisham Drainage Commission demolished their pumping station and erected new plant close to the outfall of Reach Lode (Hinde 1971 and RCHM 1971). Save for the weir, this removed the necessity to maintain the south and eastern portion of the old course.

The Eau Brink Commission records contain an Award of the engineers appointed in relation to the navigation of the rivers above Denver Sluice dated 30 January 1852 stating that 'when and as soon as the River between Upware Sluice and the present site of Bottisham Sluice or any other sluice that may be erected below it, shall be deepened to the level shown on the accompanying section of that River, the said Upware Sluice shall be taken up and the Materials removed'.

The South Level Commission

Meanwhile the confusion of authorities having responsibility for maintenance of the Cam was compounded by the creation of the South Level Commission by Act of 1827. This body was required to cleanse and deepen the Cam and Ouse between Clayhithe and Littleport Bridge. Thus it became responsible for the bed of the Cam whilst the Eau Brink Commission remained responsible for the sluices. The Act (not sectioned, p. 64) specifically mentions Upware Sluice in connection with tolls.

At an early stage the South Level Board set to work in deepening the Cam below Clayhithe (Minutes 18 June 1831 and October 1834) and this must have enabled the removal of Clayhithe Sluice and further works on the Cam above it in about 1835 (Chisholm 2003, 188). The South Level Minutes of 4 June 1851 reported that the depth of the river between Clayhithe and Bottisham Sluice varied between 4 ft 6 i. to 6 ft (1.8–2.4m) and between Bottisham Sluice and Upware Sluice from 5 ft to 6 ft (1.5–2.4m). Before then, on 4 April 1851, it had proposed to the Eau Brink Commission that the sluices at Bottisham and Upware be removed, but presumably the engineers' report modified this proposal.

Yet another authority was then created by the Ouse Outfall Act of 1860, its title describing it as an Act for better defining the powers and responsibilities of the Eau Brink Drainage Commissioners. The South Level Board requested that the navigation sluices and works supported by the Eau Brink Commission in the Brandon, Little Ouse, Cam and Lark rivers be transferred to it. Sections 47–50 of the Act provided for this, and gave it power to remove sluices until 1894, when responsibility for these works was to revert to the Eau Brink Commission. The Bedford Level Commission retained the power to appoint sluice keepers, but at the expense of the South Level Commission.

Removal of Upware Sluice

The South Level Board rapidly assessed the position. On 6 July 1860 the Minutes record that

'the Committee met at Waterbeach and proceeded to view Bottisham River Sluice, Bottisham Lode Sluice, Swaffham Lode Sluice and Upware Sluice transferred to the Commissioners by the Eau Brink Act lately passed and they directed the Superintendent to estimate the cost of removing Upware Sluice and of opening a sufficient channel through the site of it, and also to value such of the materials of that sluice as it will be necessary or advisable to remove, also to estimate the cost of putting sufficient pointing doors below Swaffham Lode and Bottisham Lode Sluices for the purpose of enabling the Navigations to pen into those sluices without the aid of Upware sluice, also to estimate the cost of lowering the lower cills of Bottisham River Sluice and of putting that Sluice into such effective state as to maintain by that sluice alone the heads of water now maintained by that sluice and Upware sluice together, also to report how far the materials of Upware sluice may be rendered available towards executing the above works.'

The Superintendent's estimates followed on 28th September 1860:

Cost of removing Upware Sluice and opening the river there excluding the value of materials estimated at £207.10. 6d	£301. 6. 0d
Cost of repairing Bottisham River Sluice and lowering the chamber and lower cill 4 ft.	£908. 8. 0d
Cost of additional doors below Swaffham Lode Sluice after including part of materials from Upware Sluice	£398.12. 0d
Cost of additional doors for Bottisham Lode Sluice after including remainder of materials	£362.10. 0d
Cost of scouring out Bottisham Lode and repairing and lowering cills of do. and Bottisham Lode Sluice sufficiently to render additional doors unnecessary	£377.15. 0d

The date of completion of these works is not recorded, other than those at Bottisham River Sluice, reported as completed by September 1862. It must be assumed that the remainder were executed within a year.

The old course of the river from the Cam to the discharge channel of the 1851 pumping station was wholly infilled during the twentieth century, but much of its course can be identified from sunken sections in the washland.

The significance of Upware Sluice and the remains found

The extent to which Upware sluice was used is open to doubt. There is no evidence of a bank on its eastern side, which abutted washland, and in its absence the lock must have been covered by water in times of flood. Even a cradge bank would not have protected it against severe floods. The discharge of water from the 70hp Swaffham pumping station of 1850 and the 40hp Burwell plant of 1841 would have caused a considerable surge into the river. Their combined delivery would have been at least 150 tons per minute (Hinde 2006, 31). This could have caused back-up and

consequential silting at the northern gate of the lock, requiring it to be left open to create scour. Thus the lock may have become unusable before its removal. Nevertheless, although there is no evidence of a lock-keeper's house having been built, and no lock keeper is listed by Wells (1830, Vol. 1, 582), the Wicken Census Returns for 1841 and 1861 list Joseph Phipers (b. 1791) as sluice keeper living close to the Burwell Engine and with the toll keeper. The latter almost certainly collected the taxes at Reach Lode lock, and is listed in 1871, but not any sluice keeper. This suggests that the latter operated the Upware sluice.

An exact identification of the 1989 remains will probably never be possible, not least because their early removal prevented detailed examination. Their nature suggests that they were not part of the lock itself. The possibility that they were parts of a coffer dam constructed when the lock was removed is unlikely. The stakes would form no tight dam. Dam boards were customarily shaped boards, about 9in. (23cm) wide and 2in (5cm) thick tapered to a point at one end (Clarke 1987). It is most likely that they formed parts of the side of the lock. McKnight (1975, 35) states 'on river navigations well supplied with water the sides of the chamber were sometimes partly or completely made of sloping grass banks, normally with a row of timber posts to prevent descending craft being stranded on the side'. The present paper may be useful if any further remains are found in the future, although it reveals that parts of the lock, staunch and overfall were to be re-used as far as possible for repairs to the other sluices. In addition, any remains of the staunch and overfall will have been left in the old course of the Cam, long since infilled and situated in the washland, which is unlikely to be disturbed.

Conclusion

The existence and position of a lock and separate weir at Upware can now be definitely established. These were part of the works carried out on the Cam in 1820 by the Eau Brink Commissioners pursuant to its statutory requirements. Those works included excavation of the new cut at Upware and construction of Bottisham River sluice. The latter eventually enabled the Cam Conservancy to demolish Clayhithe sluice and the other sluices from Baitsbite to Jesus Lock (Chisholm, 2003).

It is also clear that the lock and weir at Upware were removed in 1862–3 by the South Level Commission in conjunction with the alteration of Bottisham River sluice, and can well have become redundant before that time. The significant role of Bottisham sluice in controlling the flow of water from Baitsbite to Denver from then up to the present day is thus established. The remains found in 1989, which were indicative of the position of the lock at Upware, most probably formed part of its eastern side.

Acknowledgements

I am indebted to Dr Philip Saunders and Gill Shapland of the Cambridge Record Office for their assistance in identifying and retrieving the relevant records, and to Mr Michael Petty and the Cambridgeshire Collection of Cambridge Central Library for Fig. 1. Unwittingly, Professor Michael Chisholm provoked this work by his various recent publications and has since given me much guidance and assistance.

Bibliography

- Baker R G 1821, *Map of Cambridgeshire and the Isle of Ely*.
 Chisholm M 2003 Conservators of the River Cam PCAS 92: 183–200
 Chisholm M 2005 Locks, Sluices and Staunches: Confusing Terminology, *Trans. Newcomen Society* 75: 305–316
 Chisholm M 2007 Re-assessing the navigation impact of draining the Fens in the seventeenth century PCAS 96: 175–192
 Clarke C O 1987 'Constructing a Dam', forthcoming in *Association of Drainage Authorities Gazette*
 Darby H C 1983 *The Changing Fenland* Cambridge: CUP
 Elstobb W 1778 *Report on the Navigation between Clayhithe and Denver Sluice*
 Eau Brink Commission Records, Cambridge Record Office ref. R79/104
 Hills R L 2003 *The Drainage of the Fens* Ashbourne: Landmark Publishing
 Hinde K S G 1971 Swaffham Fen Engine PCAS 63: 87–89.
 Hinde K S G 2006 *Fenland Pumping Engines* Ashbourne: Landmark Publishing
 Humphrey C 1829 *Report on the present state of the River Cam*
 Knowles M 1902 *History of Wicken* London: Elliot Stock
 Lenny J G 1833 *Plan of part of the Bedford Level subject to the Eau Brink Tax and Particulars referring thereto* (compiled 1828–1834) Halesworth: C Roper 1844
 McKnight H 1975 *The Shell Book of Inland Waterways* Newton Abbot: David & Charles
 Mylne R 1792 *Report of Robert Mylne, Engineer, on the Proposed Improvement of the Drainage and Navigation of the River Ouze* London: Henry Baldwin
 Ordnance Survey (OS) 1836 first edition one inch map.
 Royal Commission on Historical Monuments (RCHM) 1972 *North-East Cambridgeshire* London: HMSO
 South Level Commission Minute Books 1827–1866: Cambridge Record Office ref. R79/104
 Summers D 1976 *The Great Level* Newton Abbot: David & Charles
 Swaffham & Bottisham Drainage Commission Minutes 1819–1849, Cambridge Record Office ref. R71/17
 Wells S 1830 *The History of the Draining of the Great Level called the Bedford Level*, 2 vols. London: R Pheney
 Wells S 1829 *Map of the Bedford Level* accompanying *The History*
 Wicken Enclosure Map 1840, CRO Ref. 124/P84

Changes in the landscape of west Cambridge, Part V: 1945 to 2000

Philomena Guillebaud

This last of a series of articles covers the period between 1945 and 2000, which saw great changes in the landscape of what had once been the West Fields of Cambridge: many new university and college buildings, some private housing and, for the first time, more than a token amount of social housing. Demolition of large private houses built before 1914 was limited, many providing the initial accommodation for new colleges, most of which found their homes in west Cambridge. By contrast, most University development took place on previously unbuilt land. The pattern established at the time of enclosure in 1805, which had left its mark clearly on development over the succeeding 150 years, became much less significant thereafter thanks to the extensive acquisition of land, whether by purchase or lease, by the University.

Whereas before WWII there were few limits to what the University and colleges could do with their land, they now had to come to terms with a planning machinery which obliged them to fit their plans within a broader overall framework of development. At times, particularly in the early days, there have been difficulties but with experience a degree of mutual accommodation has been arrived at.

Introduction

This is the last of a series of five articles tracing the evolution of the landscape of west Cambridge through the past two centuries, beginning with the enclosure of the West Fields in 1805 and concluding in 2000. The latter date is admittedly arbitrary but it makes a convenient stopping point for this narrative.

Over the last 200 years the town of Cambridge developed in a series of spurts. The first and most dramatic occurred in 1811 after the enclosure of one of its two medieval Great Fields, the East or Barnwell Fields. The over-crowded old town burst out eastwards in a rash of new residential building (Bryan and Wise 2005), later spurred by the arrival of the railway. Another spurt, this time northwards, took place at mid-century, after the 1840 enclosure of the Parish of Chesterton (historically not part of the Borough of Cambridge, but much of it later incorporated in it when the municipal boundaries were redrawn in 1911–12.)

Although enclosure of the West Fields had been completed in 1805, earlier than either the East Fields or Chesterton, no such residential explosion had followed because the colleges, the dominant landowners, manipulated the enclosure process to ensure that the lands closest to the Backs (the local expression for the former water meadows and college gardens on either side of the stretch of the river Cam lying west of the town) were in their exclusive hands. Their largely successful efforts to prevent the encroachment of buildings on the green vistas beyond the river arose not, be it said, because of far-sighted concern for the future development of the colleges, much less of the university: the mind-set of the Cambridge academic at the start of the nineteenth century, as is evidenced by Winstanley's *Unreformed Cambridge* (Winstanley 1935), was essentially introverted and what motivated the dons at the time of enclosure was the desire to create and maintain the equivalent of a semi-private park or greenbelt in which they could ride and walk.

Eventually the impact of the agricultural depression after 1870 obliged the colleges to find new sources of revenue by granting building leases *inter alia* in this western quarter, leading to the creation of the suburb of west Cambridge (Guillebaud 2007), which came to be inhabited mainly by academics and other professionals. But the east and north sides of the original town continued to grow faster, and between the wars most development, notably including council housing, occurred in those areas. By contrast in west Cambridge change was minimal in the interwar period: five short roads were built and partly developed for private houses, one terrace of council housing appeared (south of Barton Road), the new University Library was erected and Clare, one of the ancient colleges immediately east of the river, put up a new court across the river in west Cambridge. Both of these academic forays into new territory were undertaken with reluctance and only after lengthy efforts to find central sites had failed. Most other university expansion, of which there was a good deal (laboratories, lecture halls, etc., financed with the aid of government grants), continued to be squeezed into the congested town centre.

Nevertheless the seeds of west Cambridge's expansion after World War II were being sown in the inter-war period. The two most significant changes were the introduction of town planning and the new system of central government grants to the University.

While outlining the broader economic and social context within which University development took place after 1945, the sections which follow describe in turn the physical changes in west Cambridge attributable to the expansion of existing and the creation of new colleges, to the growth of University facilities and to new housing construction, both private and social. The major changes over the period 1945-2000 are shown in Figure 1.

Planning for the post-war period

A previous article (Guillebaud 2008) outlined the inter-war experience with town planning in Cambridge, with its very limited impact on west Cambridge. The early initiatives had focussed on developments in east and north Cambridge, and it was not until the Cambridge and District Town Planning Scheme was drafted in 1936 that attention began to be paid also to the other side of town. The University, individual colleges and/or the Cambridge Preservation Society raised objections to certain features of the Scheme, notably the kind of zoning envisaged and the route of the proposed ring road through the western outskirts of Cambridge, and in consequence a public inquiry took place, presided over by an inspector appointed by the Ministry of Health. Given the glacial pace at which planning matters moved this was not held until March 1939, and while the inspector seems to have considered some of the objections well-founded, with the outbreak of war the entire scheme was shelved and his report was never published (Cooper 2000, 75-76).

Even in the thick of the war, planning for the post-war period was very much on the minds of the authorities. In 1943 the newly-formed Ministry of Town Planning commissioned Stephen Dykes Bower to review Cambridge planning experience and the nature of the problems faced; his report was never published, but as the first serious examination of the issues—particularly whether limits should be placed on future growth of the town in order to preserve its special characteristics as a university town—it proved useful to his successors (Cooper 2000, 78-86). Also in 1943, an interim Act was passed requiring planning permission for new developments in areas not yet covered by formal planning schemes (Town and Country Planning (Interim Development) Act 1943). In Cambridge it led the county and town authorities to set up a new Joint Planning Committee (first convened in May 1945) and to recruit a Regional Planning Officer, whose role became more significant after the passage of the much more substantial Town Planning Act of 1947. Under this Act, planning became an obligatory function for all local governments, private land development was forbidden without the

consent of the local planning authorities, and development rights in undeveloped land were transferred to the State, which set aside £300 million from which to pay compensation in hardship cases. The transfer of development rights did not survive the return to power of the Conservative Party after 1951, but it created an enormous burden of work for all academic bodies, both before and after its elimination.

The County Council, now designated as the planning authority, was faced with the need to prepare a comprehensive development plan for the county, preceded by a detailed survey of its physical features. The plan was to run for 20 years, with quinquennial reviews. Realising that drafting such a plan was beyond its resources and having taken advice, the County recruited in 1948 a planning consultant, Prof. Holford, retaining him for 18 months. Somewhat unusually, the County Council accepted an offer by the University to meet one-third of the cost of employing him. He was joined by Henry Myles Wright who had worked with Holford at the Ministry of Town and Country Planning; the latter did much of the detailed local work since Holford was simultaneously involved with other assignments. Their report (Holford & Myles Davies, *Cambridge Planning Proposals* 1950) was completed in December 1949 and published a month later, its recommendations underlying much of the development plan for the county and town published by the local authorities in 1952 and approved by the Minister for Town and Country Planning in 1954.

The Holford report made two major points: firstly that Cambridge had a unique character as a university town which must be safeguarded, and secondly that the town had serious traffic problems which had to be solved. Both were factors in the recommendation that the future rate of growth should be reduced, such that the population of the town (within certain defined boundaries) could be stabilized at not more than 100,000. At the same time major new road proposals were made. Without going into detail here (the reader interested in a more detailed examination of planning in this period is referred to the Holford Report itself or to Anthony Cooper's book *Planners and Preservationists*) it may be said that few of the new road proposals, although incorporated in the 1952 plan and several subsequent revisions, were ever carried out whereas the policy of size limitation was adopted and followed until the 1970s, with repercussions which persist to the present day.

Concern for the future of Cambridge was of course not confined to the central authorities. The eminent Prof. A E Richardson, addressing the 1944 Annual General Meeting of the Cambridge Preservation Society, said: 'What is the future of this university town to be? Is Cambridge to be allowed to throw out tentacles in all directions? Will borough aggrandisement overshadow the age-old beauty of the ancient thoroughfares?' And more in the same vein.

By the end of the war there was a tacit consensus that the west side of the Borough would be largely devoted to University and college needs—a view not uncoloured by the fact that those parties owned al-

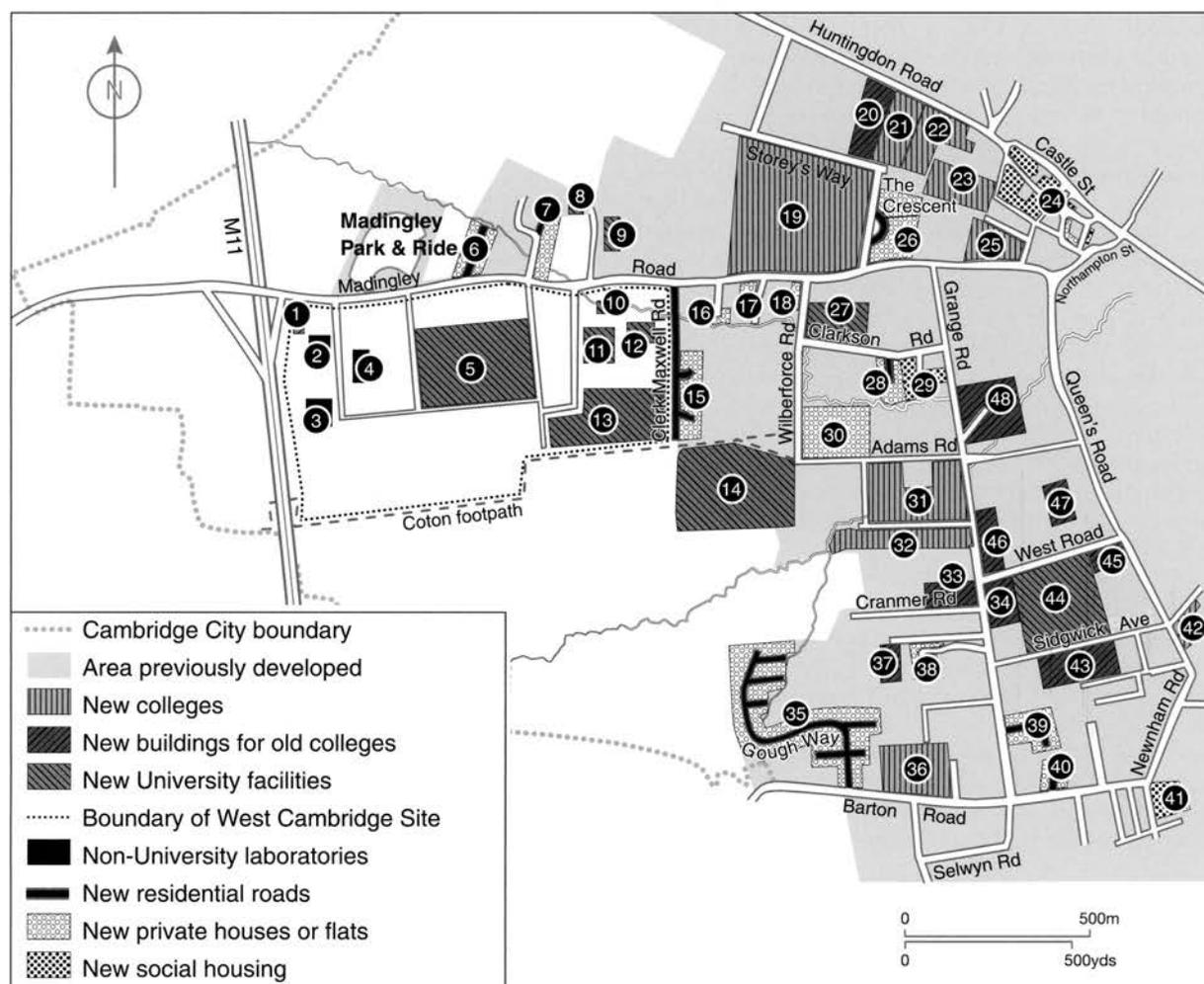


Figure 1. Sketchmap of west Cambridge showing approximate locations of new construction 1945–2000 (not to scale).

- | | |
|---|--------------------------------------|
| 1. Schofield Centre, Dept of Engineering | 25. Lucy Cavendish College |
| 2. British Antarctic Survey | 26. The Crescent, Benians Way |
| 3. Computer-Aided Design Centre | 27. Centre for Mathematical Sciences |
| 4. Schlumberger Cambridge Research Centre | 28. Clarkson Close |
| 5. Dept of Veterinary Medicine | 29. Cockcroft Place |
| 6. Lansdowne Road | 30. Wilberforce Rd/Adams Rd |
| 7. Bradbrushe Road | 31. Robinson College |
| 8 and 9. Dept of Earth Sciences | 32. Clare Hall |
| 10. Whittle Laboratory, Dept of Engineering | 33 and 34. Selwyn College |
| 11. Computer Laboratory | 35. Gough Way |
| 12. Roger Needham Building (Microsoft) | 36. Wolfson College |
| 13. New Cavendish Laboratory, Dept of Physics | 37. Corpus Christi College |
| 14. University Sports Ground | 38. Pinehurst |
| 15. Clerk Maxwell Road, The Lawns and Perry Court | 39. Champneys Walk |
| 16. Hedgerley Close | 40. St Mark's Court |
| 17. Blenheim Court | 41. Lammas Court and Lammas Field |
| 18. Wilberforce Road | 42. Darwin College |
| 19. Churchill College | 43. Newnham College |
| 20. Trinity Hall | 44. Sidgwick Site |
| 21. Fitzwilliam College | 45. Gonville and Caius College |
| 22. Murray Edwards College, formerly New Hall | 46. St Catharine's College |
| 23. St Edmunds College | 47. King's College |
| 24. Castle End | 48. Trinity College |

most all of the land in question. Hence the Holford report's recommendation that 'all land between the Huntingdon and Barton Roads and west of the Backs should be treated as a reserve' for future, and perhaps distant, University and college needs (Holford 1950, 59 para 345) was essentially an endorsement of accepted wisdom. The report, written in late 1949, stated that the University was aware of the need for a general development plan 'and is trying to prepare one based on the needs of departments and on groupings most likely to promote efficient working of the University machine' (Holford 1950, 59 para 344). Cooper claimed that the weaknesses of the Holford scheme's proposals for the University and colleges stemmed from the fact that 'neither the University nor the colleges knew where they were going and had made little headway in planning for the future. Indeed they had little idea of the size to which they should grow, if at all' (Cooper 2000, 107).

There was no accepted overall strategy, but the University had been thinking about the future, as will be shown, and one college at least had been defining its policies on the matter. St John's College had been the largest landowner in west Cambridge at the time of the 1805 Enclosure Award but had since sold land to the University or other colleges: to the University, the land for its Observatory; to Trinity and Emmanuel, land for playing fields; to Newnham College, Ridley Hall and Westminster College, their college sites. Its position as predominant landowner had been overtaken by the University itself in the 1920s when the latter acquired from Trinity College more than 400 acres (160ha) of land between the Madingley and Huntingdon Roads which it devoted to the University Farm, but the University's land was on the western margins of the Borough, whereas the substantial quantity of land still owned by St John's, some occupied by houses under 99-year leases and the rest playing fields or farmland, lay precisely in area most conveniently located in relation to existing University and college centres. (Not that St John's was the only college with strategically placed land in west Cambridge: others with lesser holdings included Corpus Christi, Gonville and Caius, Jesus and King's.)

In 1946 the University Treasurer wrote to a number of college bursars asking for comments on a list of possible sites for new University buildings, and in particular one for nuclear physics. Replying on 3 August 1946 on behalf of St John's, J S Boys Smith, Senior Bursar since 1944, expressed the view that the choice of a site for any particular purpose ought to be made in the light of a more general policy. Writing later (Boys Smith 1983, 186):

I explained our interest in western Cambridge and said that the [College] Council was not opposed to University or college development westwards into that area; but that they would wish to part with land there only for a definite and suitable purpose. It was our policy, in the interest of the amenities of the Backs, to preserve the whole of our Playing Fields, both north and south of the driftway ... as open land. I explained that the College had refrained

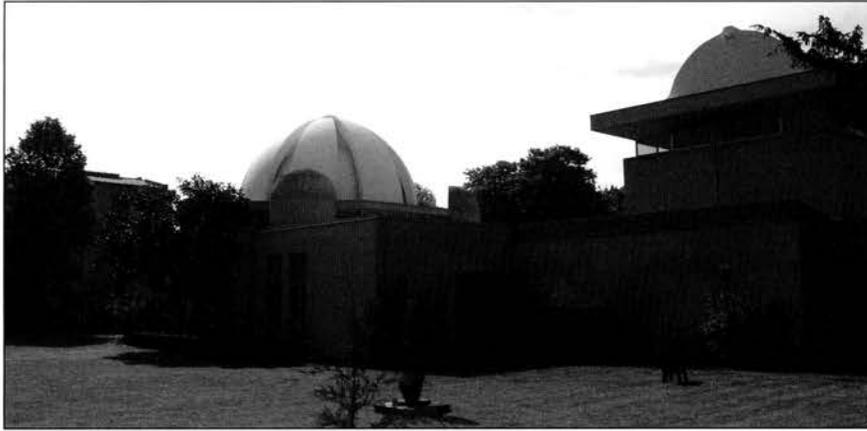
from developing the land between the Observatory and Storey's Way, north of Madingley Road, as probably the best site for a new college if one were to be founded in the future, and that we wished to keep it available for that purpose. I also said that the College did not think that the vacant land north and south of Clarkson Road should be regarded as suitable for University uses just because it was vacant and suggested that, in the long term, it was the central area between Adams Road and the University football ground that might most appropriately be redeveloped for University uses, the land adjoining Clarkson Road then taking its place a residential area.'

While the University's response to this letter has not been found, the subsequent passage of the 1947 Town and Country Planning Act seems to have encouraged some forward thinking on its part, as demonstrated by a number of land purchases in west Cambridge in and after 1948. To mention only the larger ones, in 1948 the University bought from Corpus Christi its old cricket field and adjacent Fellows' Garden, which in the 1950s became the Sidgwick Site housing a number of Arts Faculty buildings. The following year it acquired from Merton College, Oxford, the latter's 100-acre (40ha) farm on the south side of Madingley Road to house the future Veterinary School, as well as two pieces of land adjacent to that farm and previously owned respectively by Storey's Charity (20 acres, 8ha) and St John's (17 acres, 7ha) which had been requisitioned during the war as the site of an aircraft repair factory (Guillebaud 2007, 188), and in 1951 it bought Bredon House, a private house near Barton Road which, after temporarily housing New Hall students, became the nucleus of University, later Wolfson, College.

None-the-less there was still no overall strategy for university and college development in west Cambridge, although a Sites Committee had been established in 1947 under the chairmanship of the Vice-Chancellor, of which Boys Smith was one of the original members. Nevertheless in 1950 there was a replay of the situation in 1946. In this instance, the University asked St John's whether the latter would be willing to sell land on the north side of Clarkson Road as a site for Fitzwilliam House (later Fitzwilliam College), the centre for non-collegiate students established in 1869 which had long since outgrown its quarters in the town centre. In his reply of 17 March 1950, Boys Smith again explained the college's policies on west Cambridge, urging that individual developments be seen in the context of an overall strategy so that the latter should not be pre-empted by scatter-shot short-term actions. Given its ownership of much of the land in question, the college was intimately affected by proposals relating to western Cambridge (Boys Smith 1983, 187–190)

...and on its own side, is concerned to ensure that the decisions it takes in regard to its own land shall be such as promote the right development of the whole area, upon which the future character of academic Cambridge will in a large measure depend'.

He reiterated his insistence that any strategy should



*Murray Edwards College
(formerly New Hall).*

not be limited to vacant land, but should take into consideration the demolition over time of some of the existing unsuitably large private houses and the use of their sites for academic buildings. He referred again to St John's College playing fields west of Queen's Road, but this time, in the light of the 1947 Town and Country Planning Act, expressing as a hope rather than a given that these not be built on.

He also—again in the light of the new Act—made the following suggestion (Boys Smith 1983, 188):

'If large areas passed into the ownership of the University in advance of the possibility of their immediate use, there might be circumstances in which the University would be subject to external pressure to use some of these areas for less suitable purposes rather than incur the expense of acquiring further land elsewhere. A College is less exposed to external pressure of this kind and may be the more appropriate holding body until the land is actually required'.

His college would not be opposed to an informal commitment not to develop any given site without previous consultation. Responding to the specific query about the Clarkson Road site for Fitzwilliam House, he pointed out that the latter was a case in point, since it was foreseen that there might be several years' delay before the necessary funding could be obtained—as indeed occurred, and the eventual site chosen was different.

The proposal that colleges might be more appropriate holding bodies for future development sites than the University itself met with the approval of the University's Financial Board, and was adopted as a general policy, the colleges in question undertaking to consult the University before taking any action which might prejudice future development by the latter.

In general, Boys Smith's remarks were remarkably prescient, but whereas he expected that most new University developments would take place on sites then occupied by large redundant private houses, it was the new colleges, with the lone exception of Churchill, which came to occupy such sites, while most University building in west Cambridge occurred on previously vacant land. This was largely the result of financial forces: most of the new colleges faced formidable funding challenges, and it was

cheaper to move into existing houses, however ill-adapted to their new purposes, and to build in their spacious grounds, with or without demolishing the old houses, as and when financing could be raised. In contrast, the University at least until the end of the 1960s had access to government capital grants for new buildings.

The expansion of the colleges after 1945

Well before the end of WWII, it was clear that there would be rising national demand for university places, in which Cambridge would have to play its part. If there was to be no abandonment of the traditional collegiate structure of the University, this required expanding the existing colleges, creating new ones or both. In practice, both occurred. Of the existing colleges, Corpus Christi, Gonville and Caius, Girton, King's, St Catharine's, St John's, Trinity and Trinity Hall built outposts in west Cambridge, and others converted existing large houses there into college hostels (another reason for the survival of many older houses), while Newnham and Selwyn expanded on or near their original sites

Between 1882, when Selwyn Hostel, later Selwyn College, came into existence and the early 1950s, not a single new college was created; in the subsequent quarter century, eleven came into being. Seven (Churchill, Clare Hall, Darwin, Lucy Cavendish, New Hall, now Murray Edwards, Robinson and University, later Wolfson) were entirely new foundations, while four (Fitzwilliam, Homerton, Hughes Hall and St Edmund's) represented achievement of college status by previously existing institutions with varying degrees of linkage to the University. Of the eleven new colleges, nine found their sites in west Cambridge, (although one of the nine, St Edmund's in its earlier capacity of a residence for Catholic students, had acquired its site on Mount Pleasant as early as 1896 when it took over the premises of the short-lived Ayerst Hostel), while only two (Hughes Hall and Homerton) were outside west Cambridge.

There was no master plan: no two of the new colleges were exactly alike, having different histories,



Clare Hall



Fitzwilliam College



Robinson College

different objectives, different sources of funding. But all addressed themselves to one or more of the principal problems facing the University system by the 1950s, which were: the huge growth of academic staff, primarily but not exclusively in the sciences, who held university appointments but had no fellowships; the lack of opportunities for women; the need to address the issue of "mature students" who had missed out on university education at a younger age, and the overall need for more student places, both at the undergraduate and graduate level. While the expansion of the older colleges would make a contribution, it was clear that new institutions would be needed.

Several of the new colleges addressed themselves to more than one of these issues. At the cost of great over-simplification, it may be said that Darwin, Clare Hall, Hughes Hall, Lucy Cavendish, St Edmund's and Wolfson were primarily designed as graduate colleges, though also catering in varying degrees to the needs of mature students; Lucy Cavendish and New Hall were new establishments for women; Churchill, Fitzwilliam, New Hall and Robinson were designed for both undergraduates and graduates (the first of these with a particular emphasis on the sciences), while Homerton, previously a teacher-training institution, also joined this group.

The first of the new colleges to be founded, New Hall (now Murray Edwards College) in 1954, took a long time to reach its proper home, residing in various temporary quarters until its permanent premises were built in an area with multiple associations with the Darwin family. In 1882, after her husband's death, Mrs Charles Darwin bought a house with a large garden called The Grove lying between Huntingdon Road and Storey's Way and originally built in 1812 by William Custance, one of the three Commissioners for the enclosure of the West Fields. During the years when she used it as her winter residence, two of her sons, Francis and Horace, settled on adjacent sites, Francis building Wychfield and Horace building The Orchard (Thompson 1989, 17). Horace's two daughters, Nora Barlow and Ruth Rees Thomas, had been leaders in the campaign to set up the Third Foundation, as New Hall was initially known, and in 1953 they gave the freehold of their father's house The Orchard, together with four acres (1.6ha) of land, to New Hall. In 1957 the University, with assistance from the University Grants Committee, bought The Grove, which by then had passed out of the hands of the Darwin family. Most of it, including the house itself, was assigned by the University to Fitzwilliam College, whose long search for a new site was thereby brought to an end, but three acres (1.2ha) of the garden were given to New Hall, as was Beaufort House, a large private house abutting on Storey's Way. Francis Darwin's house, Wychfield, had earlier been bought by Trinity Hall and became part of that college's expansion into west Cambridge.

The Orchard was pulled down to make way for New Hall's main range, but The Grove, Beaufort House and Wychfield still stand, now part of a cluster of college buildings of which there had been no

trace before the war. This grouping which includes Churchill and St Edmund's Colleges is sometimes referred to as the Hill colleges (the Hill in question being Castle Hill).

Chronologically, after New Hall the next college was Churchill, in 1960, one of six new colleges which came into existence in that decade and the only one to be built on vacant land: the 42-acre (17ha) site on Madingley Road which had been reserved by St John's College for such a purpose, as mentioned by John Boys Smith in the letter of August 1946 cited above.

Clare Hall, Lucy Cavendish and Robinson were installed on previously built-on land acquired from St John's, after the latter had bought in the existing leases. In the case of Clare Hall, one house (1 Herschel Road) was demolished but the others retained for college use until the present day. Lucy Cavendish College, on Madingley Road and Lady Margaret Road, demolished no houses, but converted four on their site and built new quarters on the gardens. Robinson, the last of the new colleges to be founded (in 1977) demolished four large houses in the area bounded by Grange Road, Herschel Road and Adams Road and successively bought up and retained neighbouring houses as these became available.

The other new colleges in west Cambridge are St Edmund's, Darwin and Wolfson. St Edmund's though new as a college had been installed on its west Cambridge site since the end of the nineteenth century, and built considerable additions notably in 1992. The founders of a yet-unnamed graduate college, having in 1963 purchased the houses previously occupied by Sir George Darwin and his family and made famous by Gwen Raverat's *Period Piece*, decided to commemorate the connection by naming the college in honour of the Darwin family who gave permission for the name. That college subsequently bought from St John's College the adjacent house, the Hermitage, and added new buildings to make a continuous frontage with the original Darwin property. Finally, Wolfson College, originally University College and the most southerly of the new creations, is unique in that its site has no historical connection either with St John's or with the Darwins. Its nucleus was Bredon House, a private house on Selwyn Gardens with a long garden stretching down to Barton Road, bought by the University in 1951, and the college went on to acquire adjacent properties on Barton Road and Barton Close, but without demolishing any of the existing houses.

There has been considerable property trading among the colleges. Among the more significant sales were those by Gonville and Caius College, to the University or to Selwyn, of ten large houses on the south side of West Road and round the corner into Grange Road. It had begun these sales in 1936, when it sold to Selwyn four houses immediately adjacent to the latter's original site on Grange Road, thereby providing the locus for Selwyn's most recent building programme, and followed this by three more houses sold in 1963 (the sales to the University are discussed in the next section). St John's in 1955 sold to Trinity a

seven and a half acre (3ha) site off Grange Road between the former's playing fields and Burrell's Walk containing four large houses and some additional land, where the latter erected further accommodation known as Burrell's Field while retaining the original houses. Jesus sold houses on or near Grange Road to Selwyn which demolished them for its new Cripps Court, and several other colleges acquired individual houses, not necessarily contiguous with a main site, and converted them into hostels. If we add to this the expansion of the Choir Schools of King's and St John, both involving acquisition of previously private houses in Grange Road, and the establishment of several language schools, it is not surprising that so many of the behemoth residences built between 1875 and 1914 survive to this day.

The expansion of the University into west Cambridge after 1945

The first post-war move into west Cambridge, the creation of the Sidgwick Site, took place without the lengthy and heated debate which preceded the building of the new University Library in the thirties. There was concern about the isolation of the library on its new site, and Corpus Christi College had signalled its willingness to sell the smaller of its two playing fields and its adjacent Fellow's Garden, providing a site near to and south of the Library. Between the Corpus site and the Library was a row of large nineteenth century residences along West Road on freeholds owned by Gonville and Caius, and that college was prepared to sell some of them to the University as and when the latter wished to expand the site—and did so in 1962, when 7, 9 and 11 West Road were sold. It was recognised that the Arts and Social Science faculties had outgrown their facilities in the New Museums and Downing Sites and although there was some debate about using the Sidgwick Site for scientific departments, it was decided relatively painlessly that proximity to the Library made it more appropriate for the Arts and Social Sciences.

The initial master plan for the Sidgwick Site was drawn up by the firm of Casson and Conder, who also designed the first buildings including the Raised Faculty Building, Lady Mitchell Hall, and others erected over the period 1957 to 1961. Later buildings were designed by other architects, notably the History Faculty building, an iconic if notorious design by James Stirling, and the master plan for the Site has been modified over time as circumstances, including funding availability, have changed. Two sites remain to be developed.

In the same period, preparations were being made for the creation of the Department of Veterinary Medicine, opened in 1955. West Cambridge was the logical site for such an initiative, and the University had acquired the land for it by buying the 100-acre (40ha) dairy farm south of Madingley Road from Merton College, Oxford in 1949. In some quarters there was a feeling that agriculture and veterinary

medicine were somehow *infra dig* as subjects for study at Cambridge, despite the existence of a Department of Agriculture since 1899. This attitude is reflected both in the fact that the former was abolished in 1974, all that remains being the Department of Plant Sciences, and that the future of the Veterinary Department has several times been under threat, although it appears less precarious now than at some past moments. Absent a Department of Agriculture, the University Farm now serves only a very minor academic purpose (a handful of on-going research projects and certain teaching functions connected with the Vet School) but plays a vital role as a land bank: land not immediately needed by the University for development purposes is held in reserve and farmed on a commercial basis, a function carried out not only on University-owned land but on behalf of several colleges, notably Jesus, St John's and Trinity, with land to the west of Cambridge.

Not all moves in this period were to the west. The Departments of Engineering and Chemistry acquired large new quarters in the 1950s in the southern part of the city, in Fen Causeway and Lensfield Road respectively.

Each of the afore-mentioned developments was made possible with the aid of government grants for new buildings, the Veterinary Department from the Ministry of Agriculture and Fisheries and the others from the University Grants Committee.

During the first 20 years after the end of World War II the University grew steadily both in numbers and in range of subjects studied, amid rising unease about where the process might end. The General Board of the Council of the Senate produced three reports on the development of the University, dated respectively November 1955, March 1956 and February 1960 (*Cambridge University Reporter* 30 November 1955 411–22, 14 March 1956 957–65 and 17 February 1960 821–31) which focussed on such thorny issues as the optimum long-term size of the University, the balance between arts and science subjects, the possible need, if a 'steady state' of size were to be the aim, to cut back on some older fields of study to accommodate new ones, and the appropriate balance between men and women students. Matters of location were mentioned only in passing, with references on the one hand to congestion in the traditional centre and on the other to the importance of keeping the University compact in the interest of fostering inter-disciplinary teaching and research.

Despite the precedents created by the Library and the Sidgwick Site, the geographical balance began to tilt more clearly to the west only after 1965, following a report on Long-term Needs of the Scientific Departments, the so-called Deer Report (*Cambridge University Reporter* 8 December 1965, 543–579, *Report to the General Board of the Committee of the Board on the Long-term Needs of Scientific Departments*), which demonstrated beyond a doubt that the existing quarters of most of those departments were at bursting point, that some were irremediably obsolete and any real improvement could only be achieved by moves to en-

*Raised Faculty Building**History Faculty*

tirely new locations. This led to an impassioned and protracted debate, not helped by the fact that virtually none of the participants had any experience of physical planning. Which departments or faculties should move, and with which others, and where to?

In 1966 the Council of the Senate commissioned two architect's reports, one on redevelopment of the Old Addenbrooke's Hospital site and the other on development of the West Cambridge site. The latter, carried out by the firm of Robert Matthew, Johnson Marshall and Partners, came under fire particularly from the Professor of Architecture, Leslie Martin. In the light of his criticism, which cited *inter alia* the lack of clear criteria on space utilisation and insufficient attention to the impact on traffic movements, the Council decided in February 1967 that the proposals should be regarded as working hypotheses and not a rigid framework, but approval was given to the move of the Department of Physics, the most cramped of the scientific departments, to virgin territory in west Cambridge. Again, the University Grants Committee

provided capital grants for the first phases of development completed in 1974.

At much the same time, the Department of Geodesy and Geophysics, hitherto lodged in improvised quarters in the Department of Geography and elsewhere, was transferred to Madingley Rise, a large house built in the late 1890s by the Professor of Astrophysics just west of the Observatory, where it was later joined by other divisions of what became the Department of Earth Sciences in purpose-built buildings.

At the time of the move of the Department of Physics to its new quarters in 'the New Cavendish', it was hoped in some quarters that it would before long be joined by the largest department in the University, that of Engineering. There are a number of reasons why, except for certain special facilities on which more later, this did not happen. In the first place, unlike Physics and many other scientific departments occupying often obsolete quarters in the Downing or New Museums Sites in the town centre, Engineering had acquired large new premises in 1952 and, not



Entrance to the Centre for Mathematical Sciences. Image courtesy of the University of Cambridge.

being under the same space constraints, was reluctant to move to the hinterland. Moreover around this time external events were undermining the University's hopes for expansion: first the students riots at the end of the sixties, and then the abrupt worsening of the general economic situation in the early seventies. To quote Christopher Brooke: 'The student uprising—whether one views it as a great surge of human idealism or a sordid outflow of human violence—was a Godsend to those who handled the country's finances. The brakes were steadily applied throughout the 1970s' and the way prepared for the cuts (or more modest expansion) of support for the universities in the 1980s (Brooke 1993, 512). From then on, the University was obliged to rely on benefactions as the main engine for new capital development.

Nevertheless, two facilities of the Engineering Department did move to west Cambridge, each having characteristics making it inappropriate for an urban setting: the Whittle Laboratory, which conducts research on turbomachinery including full-size jet engines, in 1973 and the Schofield Centre, which incorporates a large centrifuge.

By 1974 the immediate financial realities had become very clear, as was the fact that despite the expenditure of so much time, paper and passion there was still no coherent master plan for the future, if and when financing from whatever source became available. The machinery of University governance now made another attempt, in the shape of the *Report of the General Board on the long-term development of the University* (known as the Swinnerton-Dyer report) (*Cambridge University Reporter* 17 December 1974, 543–579). As well as reflecting an official decision to set a ceiling below 14,000 for the expansion of student numbers (both undergraduate and postgraduate), it was the first concerted examination of the geographical implications of future development. It noted that virtually all college and University development (excluding the Botanic Garden and one or two other facilities) was concentrated in an ellipse about two miles long and a mile wide, stretching north-westwards from the Chemistry Department on Lensfield Road to the Veterinary Department on Madingley

Road, and that to avoid further dispersal future development should be concentrated within or close to that ellipse.

Subsequent events resulted in expansion in student numbers beyond the ceiling foreseen in 1974, but the concept of the ellipse has by and large prevailed, and the only significant exceptions have been medical institutions where proximity to the new Addenbrooke's Hospital has trumped all other considerations.

From an early stage of consideration of the West Cambridge Site, it was envisaged that part of it should be reserved for leasing to non-University scientific research institutions whose interests made proximity to the University mutually beneficial. The income from such leases would also help fund the development of the site as a whole. Although in the initial plans drawn up by Robert Matthew *etc.* in 1966, a section on the southern part of the site was set aside for such use, it is the most westerly part, High Cross, which has come to be devoted to it, and in the 1970s and 80s when financial stringency put a stop to further University building the only new developments were the establishment of several independent institutes in the High Cross research park, namely the Computer-Aided Design Centre (later Aveve) in 1969, the British Antarctic Survey in 1973 and the Schlumberger Cambridge Research Centre in 1983.

Not until the late 1980s was there new University development in west Cambridge, and then it was not on the main West Cambridge Site, but on a vacant site abutting Clarkson Road on the north, which had earlier been suggested as a possible site for Fitzwilliam College and various other uses. The land belonged to St John's, and some three acres (1.2ha) of it had been sold to Girton College for its Wolfson Court in 1969, leaving what was known as the seven acre (3ha) field. In 1988 it was decided to establish in Cambridge a national research institute for mathematics and theoretical physics, and two colleges, St John's and Trinity, were among the major financial supporters. St John's offered to finance a purpose-built building on the seven acre (3ha) field and to subvent the rent for the first five years, while Trinity gave a large donation to the running costs for the same period. Named after



Schlumberger Laboratory

Cambridge's most eminent mathematician, the Isaac Newton Institute for Mathematical Sciences opened in 1992.

In 1989 the University requested planning permission for an Athletics Centre at the southern end of Wilberforce Road, on part of Grange Farm, owned by St John's College. This facility, covering an area of almost 20 acres (8ha) and intended to encompass both indoor and outdoor athletics, would have included buildings so large as to dominate the landscape at a very visible point and planning permission was refused. The University appealed the decision, but the appeal was denied in 1991, and the University was obliged to revise the project to limit it to outdoor athletics (a running track and hockey fields) and a pavilion, construction of which started in May 1993.

In the mid-1990s, with a more optimistic financial climate led by the boom in the dot.com sector and an active fund-raising campaign on the part of the University, further growth became possible. First to benefit was the Faculty of Mathematics, squeezed into inadequate quarters behind the University Press in the town centre. It was decided to rehouse much of this in Clarkson Road rather than West Cambridge, both because proximity to the Isaac Newton Institute was desirable and because it was thought that the relatively limited site would make fund-raising easier—as in fact proved to be the case. At a public meeting held in 1997 the architect, in explaining his design which featured a central building linked to seven pavilions, said it might take 25 years before the last pavilion was built as funds became available, but in practice construction started in 1998 and the entire initial design, plus a library and gatehouse, was completed by the end of 2002. The whole complex, including the Isaac Newton Institute, is known as the Centre for Mathematical Sciences. The University has given assurances that no further buildings will be added to the site.

At much the same time, discussions were under way with the Microsoft Corporation, culminating in that company's decision in 1996 to establish in Cambridge its European research establishment combined with a donation of \$19 million from the William H. Gates Foundation towards the cost of new facilities in west Cambridge for the University's Computer

Laboratory. It had been envisaged that Microsoft would initially occupy part of the University's building and only later move in adjacent separate quarters, but in practice both buildings were built simultaneously, being completed in 2001. (While there have been major developments since 2000, this article does not discuss any buildings not started by that date.)

All of the developments described above came into being in the context of a complicated planning process involving on the one hand the University (and/or the colleges as appropriate) and on the other the local government planning authorities, namely the County until 1974 and the City thereafter. Relations were not always smooth, particularly in the early days. The records of the early negotiations over the Sidgwick Site show an exasperated University, accustomed over the centuries to doing more or less what it wanted with its own, confronting a seriously under-staffed County Planning Office struggling to apply new policies in the absence of precedents and often without detailed regulations or guidance. This was town and gown friction removed to another level. With experience and the passage of time there was improvement, and since all official policy papers, from the Holford Report on, affirmed the primacy of University and college interests in west Cambridge, most disagreements tended to be on matters of detail or process rather than of principle.

A major problem lay within the University, whose unwieldy system of government, as well as problems of turf battles, made it difficult to arrive at consensus, particularly on issues of the kind which we have been describing. Given the conflicts of interests within that body itself, it was not surprising that those in the University with planning responsibilities preferred as far as possible to conduct their battles in private, and having eventually arrived at some agreed position, would then present it to the local planning authority with little or no prior consultation and expect to receive automatic approval, which was frequently not forthcoming, with the resultant delays and mutual exasperation. The fact that until 1992 the Vice-Chancellor changed every two years was another factor militating against efficient planning. With the establishment of the Vice-Chancellorship as a full-time five-year post, separated from that of Head of

a college, and other administrative changes on the University side there has been significant improvement. On the other side, the lack of a unitary local planning authority and the fact that County and City planners do not always agree has at times complicated matters for the University, but here again changes have eased some previous sources of friction.

On the whole, as far as west Cambridge was concerned, what the University wanted, the University got, but not always, and not always in the shape originally proposed. Mention has already been made of the sports centre on Wilberforce Road, approved only in a version much reduced from its original scale. Another example was the new buildings for the Mathematics Faculty, whose originally-envisioned three storey height above ground was attacked by local residents as creating an inappropriate bulk in a largely residential neighbourhood. The University accepted a redesign with a lower elevation which involved it in heavy excavation costs.

The largest setback for the University occurred during the preparation of the 1996 Cambridge Local Plan and concerned the New West Road (or Western Relief Road) and an adjacent potential development site at the east end of the old Rifle Range. The road, first proposed in the Holford Report as part of its efforts to tackle Cambridge's chronic traffic problems, was to run in a northward arc from Barton Road to Madingley Road and then, skirting the Observatory on its west, to Huntingdon Road. Initially linked to the idea, later abandoned, of closing Queen's Road to through traffic, its alignment showed up on every successive development plan for the next 40 years but it was given less and less priority over time, particularly after 1980 when construction of the relevant stretches of the A14 and the M11 fulfilled much of the function of diverting long-distance traffic away from the centre of town. Public financing was not forthcoming, and the road was reclassified as a development road, *i.e.* to be built and financed as part of a local development initiative.

The University wanted the road primarily as providing access to the eastern end of the old Rifle Range site, which it proposed to develop for Arts and Social Science Faculties once the Sidgwick Site was full. On the other hand, there was a growing consensus that the road threatened the environmental qualities of west Cambridge. This was strengthened by a 1990 report by Foster Associates commissioned by the City Council, which recommended a 'green finger' of open space leading from the undeveloped countryside over the former Rifle Range, the University's rugby ground and the playing fields of King's College Choir School to the Backs. The road would have cut straight across this, and the cost of concealing it in a cutting would have been prohibitive.

During preparations for the Cambridge Local Plan, these disagreements, among others, led to the appointment of an Inspector by the Department of the Environment (which had replaced the Ministry of Town Planning). The Inspector did not find the University's arguments persuasive, and the upshot

was that the road alignment finally vanished from 1996 Cambridge Local Plan, and the Green Belt boundary was altered to incorporate the whole of the old Rifle Range site, thereby removing it as a potential development area—at least for the time being.

Residential development

In comparison with the extensive academic development described above, the amount of new residential housing was relatively modest. As in the past, the bulk of new housing was built on the opposite side of town. In west Cambridge there was considerable infill of previously developed areas, and six new cul-de-sac roads were built to serve housing developments on land hitherto owned by one or another college (there being virtually no undeveloped private land left). These were Lansdowne and Clerk Maxwell Roads, running respectively north and south from Madingley Road; Clarkson Close abutting Clarkson Road on the south, and Champney's Walk, St Mark's Court and Gough Way with its side roads, all immediately north of Barton Road.

Although the preferred type for private houses built in the area after the war remained the free-standing two-storey house in a garden, the fact that domestic servants had become almost extinct led to a preference for smaller houses on smaller plots. Where an older house with a big garden was on a corner lot, the lot was often divided and a smaller house built on the original garden, with access from a side road. Sometimes the earlier house would be pulled down, as at 9 Madingley Road at the corner of Grange Road, where the original was replaced by three detached houses. Perhaps surprisingly, new flats were not common: the Pinehurst complex begun before the war with two blocks was increased to seven, and a small block of mixed flats and maisonettes, Blenheim Court, was built on Madingley Road opposite Churchill College. More common was the terrace of maisonettes, as at the north end of Wilberforce Road, or the development put up by St John's on its former kitchen garden and orchard east of Storey's Way, or St Mark's Court and Champney's Walk off Barton Road. In some cases there were mixtures of terraces and detached houses, or terraces and flats.

Much the largest private housing development was Gough Way, a 13-acre (5ha) site sold by Corpus Christi College in 1961 on which 161 detached houses and a block of 12 flats were subsequently built. The St John's development cited above had almost 60 units mainly in terraces but no other private development had more than 30.

An earlier article (Guillebaud 2008, 187) pointed out the striking lack of social housing in west Cambridge until the mid-twentieth century ('social housing' is a loose term which has come to cover both local authority-provided housing formerly called 'council houses' and that built by housing associations, both having at least at some stage contained an element of subsidy). The original parish of St Giles

contained two ancient populated areas on the edges of the West Fields, one being Castle End in the north extending from the Castle down to Northampton Street and partly over-lying the old Roman town and the other and lesser one being Newnham village in the extreme south of the Parish, centred on one of the town's three ancient mills. By the end of the nineteenth century both areas had come to contain slums, and the very first instance of social housing in the whole of Cambridge was the construction by the Borough of eight small houses for the elderly at Castle End in 1910–11 (presumably preceded by demolition). Yet after this promising beginning, there was no follow-up. Records of the inter-war period list numerous houses in Castle End condemned as unfit for human occupancy, but although a certain amount of slum clearance took place there before 1939, nothing replaced the demolished houses and courtyards, the residents being rehoused in new council housing mainly on the east side of town. In Newnham, with much less deteriorated housing, the old courtyards on either side of Newnham Road near the mill were cleared in the interwar period and replaced by lock-up garages or warehouses, and surprisingly a terrace of 31 council houses was built in Selwyn Road, south of Barton Road, in 1924, the only instance of social housing in west Cambridge between the wars.

Conditions in Castle End finally began to change after 1945, but slowly. North of Northampton Street on the site of the former Kettle's Yard, derelict since before the war apart from a group of four old cottages rescued by the Cambridge Preservation Society, the City Council in 1955/6 built a group of four bungalows and 12 flats for the elderly. This is today one of the pleasanter street scenes in Cambridge, a wide lawn sloping up from the street to the new housing, with the old cottages, now transformed by Jim Ede into the house and gallery called Kettle's Yard, on their right and the spire of the now-redundant St Peter's church in the background.

One result of the antiquity of the settlement at Castle End and its long neglect is that the streets retain their medieval layout, forming an archipelago

of irregular islands of housing. In the northern half, although there were pockets of private ownership, almost all the land belonged either to Storey's Charity, St John's College or Cambridge Corporation. (It is an interesting coincidence that the land owned by the first two had both been pre-enclosure farm homesteads, which necessarily had to be located beyond the boundaries of the open fields.) Each was considering development schemes, and there is on record a proposal for a scheme on St John's land at the top end of the site in the early sixties involving two 10-storey tower blocks. The residents would have had magnificent views and the skyline would have been dramatically altered, but fortunately the idea was never seriously considered. Finally in 1965 the three corporate landowners commissioned a design for a joint development covering the area bounded by Mount Pleasant, Pleasant Row, Castle Street, Castle Row and Albion Row which would have done away with an intersecting street, Shelly Row, and envisaged a mix of social and commercial housing, each owner financing construction on its own part of the site. For various reasons, the principal one being the excessive cost of the design, this scheme was never carried out and in 1970 Storey's Charity decided to go ahead on the land it already owned, augmented by an adjacent area previously rented and now bought from the City (*The Foundation of Edward Storey* 25–27). This area, bordered by Mount Pleasant, Pleasant Row and Shelly Row, already contained two groups of almshouses built by the Charity in 1844, and in 1974 the latter now opened Storey's House, with 52 units of sheltered but independent houses. In 1981 it also built Edward House, a residential care home with 16 places on Albion Row, at the southern end of its previous development.

In 1971/2 the City Housing Authority and St John's were considering a new joint scheme on their parts of the territory, involving some exchange of property, but once more this came to nothing, one reason being discovery that the surface water sewerage system for the whole area was seriously deficient and had to be fixed first. In the meantime much of the neighbour-



The Crescent, Storey's Way. A private housing development.



Honey Hill: on the left, new City-built social housing and on the right the restored old cottages of Kettle's Yard.



Storey's Charity housing, Albion Row

hood was suffering from “planning blight”, with vacant sites, derelict houses occupied by squatters and a general air of decay.

Description of the Castle area must here be interrupted to explain the role played by housing associations. There had been sources of social housing other than the local authorities, such as almshouses and the predecessors of housing associations, but these played only a minor role until after the second world war when, partly for political reasons, they became much more important, in Cambridge as elsewhere. One unintended result of the decision taken back in the 1950s to restrain the expansion of Cambridge's population was a chronic shortage of affordable housing. This affected the University's and colleges' ability to attract staff in the same way that it affected public services. Local authority housing could not keep up with demand, and a new opportunity was offered with the enactment of the Housing Act of 1964 which set up the Housing Corporation, a public body that regulated housing associations in England and funded new affordable housing initially by means of loans and, after the 1974 Housing Act, also grants.

Jesus College, needing to rehabilitate a much deteriorated area it owned along King Street in the old town, wanting to make a contribution to affordable

housing for the benefit of its own staff as well as the population at large but unwilling to take on the management of a large housing project, hit upon the idea of setting up a housing association which it named after the street in question. The King Street Housing Society was given a 99-year lease by the College and built successively the two developments known as Malcolm Place and Manor Place, which it has managed ever since. By the time the second phase was built, given the element of public subsidy involved, the right to nominate tenants was divided equally between the Society and the City Housing Authority.

This precedent attracted the attention of St John's College when in 1976 it was seeking to alleviate the housing problems of its staff and research students. At the corner of Grange and Clarkson Roads the college owned the freeholds of three large houses, 63, 65 and 67 Grange Road, each standing in an acre of garden, and a small area of undeveloped land behind. Number 65 Grange Road was due for demolition because of structural problems, and 63 and 67 Grange Road had no need for the large garden areas behind. The resulting site of about three acres (1.2ha) was conveniently located near the college, but capable of accommodating a project larger than required for its own needs. Accordingly, with encouragement from

the local authorities, it approached the King Street Housing Society and a planning application was submitted for a project of 72 housing units, mostly flats.

In the face of strong local opposition on the grounds of excessive density, planning permission was denied and the scheme was then redesigned for 53 flats and seven houses plus a communal building, in which form it was approved in 1978. A 99-year lease was signed, but implementation of the project was held up by objections in the City Council to the proposal that the right of nomination be divided in three, one-third to St John's, one-third to the Society and one-third to the City Housing Authority. These objections were finally overcome, construction began in 1980 and the scheme was fully occupied in 1981.

St John's followed the housing association model when it finally embarked on redevelopment of its part of the long-delayed Castle End project, on an acre of land at the northern end of the 'island' bordered by Shelly Row, Pleasant Street and Castle Street. The housing association selected was the Granta Housing Society, and since the College had no interest in securing housing on the site, there was no tripartite division of tenant nominations. The College signed a 99-year lease in 1980 with Granta to build 60 flats in three storey buildings. Because of a moratorium on financing, construction was not started until March 1982 but was completed in October 1983.

Finally in 1983 the City Housing Authority embarked on development of its part of the site, south both of the Storey's Charity site and of the St John's development. In 1983 it received planning permission for 34 housing units on Castle Row and Shelly Row, and these were built in 1984/85.

Add to this the rehabilitation of a handful of nineteenth century row houses on Castle Street and Shelly Row and a new private housing development, Honey Mews built in 1984/5, and the end of the twentieth century saw a complete transformation of this formerly decayed area.

Nothing on that scale took place in Newnham, which had much less need, but it too became the site of a social housing scheme in the post-war period. An ancient outpost of Cambridge, separated from it by a stretch of the river which frequently flooded in winter, Newnham was divided between three town parishes and had no church of its own. Its significance lay in its mill and the small settlement around it. In the mid-nineteenth century, a new development sprang up in the area south of Barton Road known as Newnham Croft, separated from the earlier village by the playing fields of Gonville and Caius College and by the so-called Lammas Land which became a public park. This dense settlement of row houses was occupied by a mixture of artisans and college servants and gave rise to the building of a new church, St Mark's, originally a mission church of Grantchester Parish and later to become a new town parish around the time that the municipal boundaries were redrawn to include this area.

Because Newnham, particularly its southern part, contains a valuable range of small shops—the only

such area in whole of west Cambridge—it became increasingly popular with retired people who appreciated the ability to cater to their daily needs without recourse to public transport, with which the area has always been poorly served. Add to this the fact that it was and is the site of a well-regarded state primary school and thus attractive to parents of young children and the result was that house prices rose to the point where the income group equivalent to the original inhabitants could no longer afford to live there. Fortunately, the University owned a hockey field immediately adjacent which it did not consider suitable for development for its own purposes, and the Granta Housing Society, with commendable imagination, was able to buy it in 1980 and build Lammas Court with 24 units of sheltered housing and Lammas Field with 30 units of social housing. There was no college involvement in this development.

In terms of the built environment, the most visible change in the landscape other than those described above was the building of the Madingley Road Park and Ride site, opened in 1996 on 17 acres (7ha) of land leased from University. However there has been another less noticed but more widespread change, namely the disappearance of the elms. These huge trees, dotting the field boundaries as well as many of the suburban streets and so characteristic of the old landscape, began to succumb to Dutch elm disease from the early 1970s until today there are no full-grown specimens left in west Cambridge. To some extent they have been replaced by limes and other species, but the effect is not the same.

Finally, it must not be overlooked, despite the emphasis on changes in the landscape, that there are substantial areas in the northwest and in the south of the area discussed which are still productive farmland, much of it part of the University Farm. Only one farm remains in private hands, Rectory Farm of 60 acres (24ha), south of Madingley Road next to the Coton Parish boundary, which is protected from inappropriate development by covenants imposed by the Cambridge Preservation Society, its previous owner.

Conclusion

As a result of the developments described in this and previous articles, and as shown in Fig. 1, considerably less than half of what were once the medieval West Fields of Cambridge is now farmland: the north-west between Madingley and Huntingdon Roads which is already being planned for future development with emphasis on University needs, and the south-west between the Coton Footpath and Barton Road, currently protected by its inclusion within the green belt. Virtually all the land in these two areas is owned by the University and colleges.

Underlying the visual transformation is a sequence of changes in the relationship between the town and its western hinterland. Originally, as the open field system developed, there was an organic relationship between the residents of the town and

the fields around them, although even by the thirteenth century, when the University established itself in Cambridge, local religious foundations such as the Hospital of St John had begun to accumulate land as a result of pious benefactions. Over the subsequent centuries, similar donations benefitted the new colleges, so that when the enclosure of the Parish of St Giles (essentially coterminous with the West Fields) took place at the beginning of the 19th century, it emerged that only 15% of the 1360 acres (about 544 ha) of the Parish was still in private hands—and two-thirds of that was owned by the Lord of the Manor of Madingley. All the rest was owned either by the colleges (60%, including a token amount owned by the University itself) or other corporate bodies, mainly ecclesiastical or charitable (25%). Moreover the colleges influenced the geographical redistribution performed by the Commissioners of Enclosure in such a way that virtually all the land closest to the town was in their hands (Guillebaud 2005).

The impact of this ownership pattern on development over the subsequent 150 years was profound: ask why a given road or building was built where it was built, and the answer can almost always be found by consulting the Enclosure Award and its map. It was decisions by individual colleges, influenced as they might be by external factors such as the agricultural depression of the late 19th century, which determined the nature and timing of development, or the lack of it. The shift of ownership into college hands continued in the years leading up to the first World War—by 1914 it stood at 85% of the Parish area—but thereafter was replaced by a different shift, from college to University ownership.

The virtual autonomy of the University began to be undermined both by the post-1918 financial crisis that brought in the system of central government grants without which the great expansion of science teaching and research would have been impossible, and by the gradual introduction of town planning. After 1945 government pressure to increase student numbers, combined with ever-growing need for new facilities, led to the physical transformation described above. Increasingly the University has taken land from the colleges or other owners, either by purchase or lease, the West Cambridge Site being the most extensive so far. This reflects the reality of the modern functioning of Cambridge as a collegiate university, the diminished teaching role of the college *vis-à-vis* the faculties and departments and in particular the growth of scientific fields requiring extensive laboratories.

At the same time the University has had to come to terms with the reality of an active planning machinery, such that it now negotiates its own plans within the broader framework of city, county or regional plans. Hence the somewhat paradoxical situation that the development of west Cambridge is now more closely integrated with the city as a whole than at any point in the last 200 years, despite the fact that the University and colleges have a near monopoly of land ownership and constitute much the largest occupants of west Cambridge.

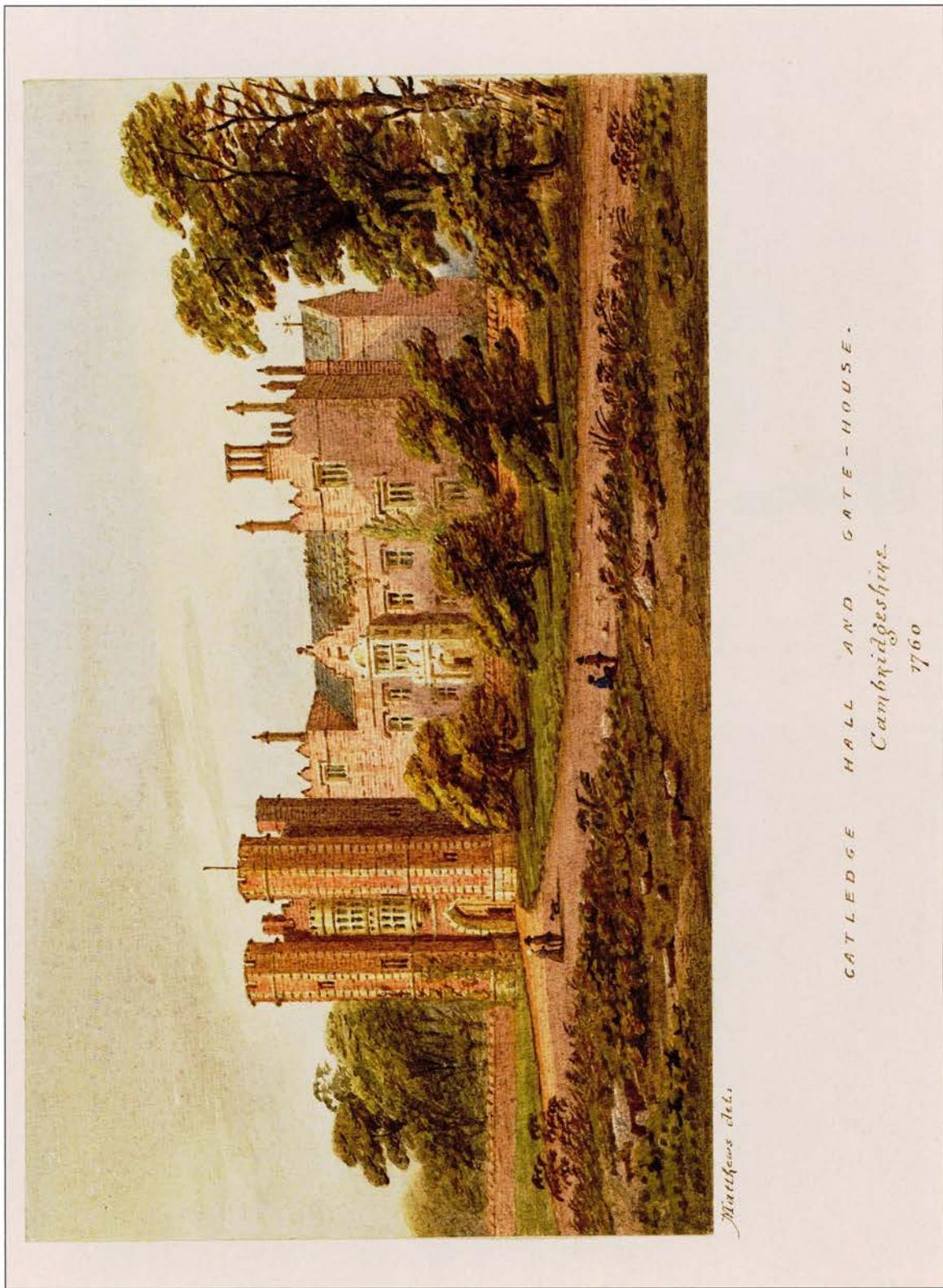
This change at the institutional level is also occurring on the social level: west Cambridge is becoming less of an academic enclave. Firstly it has several significant social housing developments, the largest concentrated in the Castle End area. Secondly faster rail services have made commuting to London feasible, and the existence in west Cambridge of relatively spacious houses and good schools has made this area particularly attractive. On top of the existing house shortages, one consequence of the influx of new residents is that house prices in this area have risen to the point where fewer young academics can afford to buy, with the result that more dons now live in parts of town of which the older generation of dons were barely aware. Whether these trends will continue, time alone will tell.

Acknowledgements

I wish to thank above all Malcolm Underwood, Archivist of St John's College, for eight years of unflinching help and moral support, as well as the archivists of the majority of the other Cambridge Colleges, the staffs of the County Record Office, the City Library's Cambridgeshire Collection and the University's Estate Management and Building Service for their good-humoured help in tracking down obscure data and Lucy Adrian first among others for wise advice.

Bibliography

- Boys Smith, J S 1983 *Memories of St John's College Cambridge 1919–1969*. Oxford: OUP
- Brooke C N L 1993 *A History of the University of Cambridge* Vol IV. Cambridge: CUP
- Bryan P & N Wise 2005 Cambridge New Town: a Victorian microcosm, *PCAS* 94: 199–216
- Cambridge University Reporter*, *passim*.
- Cooper A 2000 *Planners and Preservationists: the Cambridge Preservation Society and the City's Green Belt 1928–1985*. Cambridge Preservation Society
- Foster Associates 1990 *Planning Strategy for West Cambridge. Foundation of Edward Storey: A Short History 1693–1993*. n.d. Cambridge, available from Trustees of Storey's Charity.
- Guillebaud 2005 'The Enclosure of Cambridge St Giles: Cambridge University and the Parliamentary Act of 1802', *PCAS* 94: 185–198
- Guillebaud P 2007 West Cambridge 1870–191: building the bicycle suburb, *PCAS* 96: 193–210
- Guillebaud P 2008 West Cambridge: the two World Wars and the inter-war lull, *PCAS* 97: 179–193
- Holford W & H Myles Davies 1950 *Cambridge Planning Proposals: A Report to the Cambridgeshire County Council*, Vol. 1. Cambridge: CUP
- Leedham-Green E 1996 *A Concise History of the University of Cambridge*. Cambridge: CUP
- Taunt D & E Wheatley 2006 *The first forty years of the King Street Housing Society 1966–2006*. Cambridge: King Street Housing Society
- Thompson D M 1989 The Grove *Fitzwilliam Journal* 17–18.
- Winstanley D A 1935 *Unreformed Cambridge*. Cambridge: CUP



CATLEDGE HALL AND GATE-HOUSE.
Cambridgeshire.
1760

Plate 4. Catledge or Kirtling Hall (1760). Watercolour by 'Matthews' (ref. SB1 mounted, 180 x 106mm).



Above, Plate 5. Layton's Stone, Ely (1807). Pen & ink drawing by H. Burgess (ref. SB 2 mounted 332x 242mm, border included). Ink stamp of 'Cambridge Photographic Record' on reverse.

Below, Plate 6. Vicar's Buildings, St Tibbs Row, Cambridge Watercolour, anonymous (1855) (ref. SB13 mounted 381 x 316mm).



The CAS Collection of Cambridgeshire 'Sketches'

John Pickles

The Society's large collection of photographs and negatives, mostly c. 1890–1940, have long been deposited in the County Record Office and Cambridgeshire Collection of the city's public library. It retains in its own library a rich collection of prints and engravings of many periods, and a number of unique drawings and paintings in various media. They include ten pencil sketches of Fenland topography done in 1822 by 'Shepherd', watercolours by Edward Vulliamy (1876–1962) and Louis Cobbett (1862–1947), and a prize-winning watercolour of the view from Laurie & McConnal's roof (1938) by Beryl Pickering. The Society's three bound albums of well-known topographical watercolours from the first quarter of the nineteenth century, principally by Richard Relhan the younger, now kept in the Map Room of Cambridge University Library with a typescript catalogue of their contents, deserve separate and fuller treatment.

It is intended to illustrate some of these images in a short series and finally to print a list of them all. We begin with three early examples. The identity of the three artists is difficult and further information would be welcome. I am grateful to Andrew Morris who provided digital photographs of the originals for reproduction.

Catledge or Kirtling Hall (1760)

Watercolour by 'Matthews' (ref. SB1 mounted, 180 x 106mm). Plate 4

One of the great lost houses of Cambridgeshire, this Tudor mansion near Newmarket mostly built by the first Lord North (d. 1564) was the largest country house in the county in the 1660s. The Cambridge antiquary William Cole visited in August 1752 while making notes for his 'Parochial Antiquities', but failed to gain access as the family were at dinner. He described it as a 'noble old seat' and correctly noted that part of it had been 'lately [*i.e.* in 1748] taken down' but what remained was 'very capacious'. After the death in 1762 without children of Maria, widow of the sixth Lord North who occupied the house as her jointure, the property reverted to another branch of the family, and was hardly used by them. It was demolished in 1801 and the site was largely planted with trees. The estate was bought from the Norths by Lord Fairhaven in 1941. The large 'tower' or former gatehouse still exists with later modifications.

The neat and pleasing watercolour of 1760 by the unidentified 'Matthews' predates a more familiar sketch by Rev. Cooper Willyams, Vicar of Exning from 1788 to 1806, published as an engraving by Ravenhill in Sir Egerton Brydges's *Topographical Miscellanies containing ancient histories and modern descriptions of man-*



sions (1792). The Willyams drawing is reproduced in a full account of the house in *VCH Cambridgeshire, X* (2002), 63–9, and the Relhan collection (see above) includes a watercolour of c. 1800.

Layton's Stone, Ely (1807)

Pen & ink drawing by H. Burgess (ref. SB 2 mounted 332x 242mm, border included). Ink stamp of 'Cambridge Photographic Record' on reverse. Plate 5

At Ely on the afternoon of Sunday, 30 June 1799, an apprentice basketmaker called Robert Jervis found a man hanging in an open lodge at a nearby kiln. The body was taken down by Edward Lupson, gardener, and John Lee, a fisherman. One young man present noted that the man's left foot was supported by five tiles on which he appeared to have stood and the right foot hung straight down with his toes touching the ground. These and other details became known on the Monday following, 1 July, when Hugh R Evans, the Ely coroner, held an inquest at *The Anchor* on the death of John Layton, a local porter, 'then and there lying dead.'¹ Layton's cousin Mary Woodbine related that on the previous Saturday night he had asked her neighbour if he could borrow a cord which he had had previously 'to tye the Pig up with'. What he needed it for this time he would not say. Mary 'further saith that she thought she observed a great Wildness in the Deceased's Eyes.' Yet on Sunday morning he had helped a maltster, Thomas Cunnington, shift some grain and seemed 'quite as sensible as he ever saw him'. Robert Bristow who was well acquainted with Layton deposed that on the fatal day their talk had turned to a woman who had lately hanged herself at Barnwell, and Layton said 'it was a pity she made away with herself': to Bristow he appeared 'in his perfect senses and in every respect as usual.'

Did no one at the inquest comment on the barely efficient, painful way in which Layton had choked

to death, presumably struggling to regain his footing? Surely they must have asked 'Why did he do it?' There is no clue in the official record about his motives. One may surmise that Mary Woodbine's statement about the 'great wildness' in his eyes was intended to show he had gone mad and she had good reason to say so. There had been another suicide in Ely only days earlier when the inquest found that William Johnson, a thirty-nine year old tailor who had forced himself into the small opening of a well, suffered from 'lunacy'. That kind verdict allowed him to be buried in the churchyard of Holy Trinity on 27 June. No such fate awaited Layton since it was concluded that he 'feloniously, wilfully, and of his Malice forethought, killed and murdered himself'. The parish officers were instructed by warrant (a printed form with the blanks filled in by hand) to take the body 'to be buried in some public Highway' and to certify where. On the reverse is a manuscript note by Robert Dix, churchwarden, and William Willson, constable, dated 2 July 1799 recording that Layton was 'interred in a place between Ely and Stretham near to a certain place called Barton Pitts in the Parish of Ely Trinity in the said Isle in the King's Highway'. (CRO, Coroner's Records, Isle of Ely, ES/CO/P21).

It is not clear who Layton was for of course he does not appear in burial registers whereas Johnson does, and there are several possibilities. He may have been an unmarried man of middle years. The sequel is odd since Johnson was probably soon forgotten while Layton, whose last act had been to exclude him in death from the society to which he belonged, lived on as a very visible warning. *The Cambridge Chronicle* of 21 September 1799 (p3) recorded that to mark his death 'a stone has been placed by subscription, on the road leading to Cambridge and Chatteris, engraved on three sides'. The inscription (taken here from the drawing) read, 'All Ye/ That pass by/Pray to God/



To Preserve/And Keep you/From the Crime/ Of Self Murder/ On which occasion/ This Stone/ Was Erected/ In Memory of/ IOHN LAYTON/ 1799'. 'Crime' seems to be emphasised in italic and the whole has rather the appearance of a gravestone. How long the stone survived after 1809 when this picture was done I am unable to say; it is not mentioned later in the century and may have been removed when the roads were widened or otherwise altered. Note the figure on the right, a Fenman with his tools who adds a contemporary, everyday feeling to the subject.

I am grateful to Anne Holton-Krayenbuhl for identifying the crossroads in the picture as 'probably the junction between Cambridge Road and Witchford Road (TL 534 797)', and for suggesting that H. Burgess is almost certainly 'Hilkiah'. He is sometimes mentioned in connexion with his father, the better known William Burgess of Fleet (d. 1813), with whom he collaborated on a series of engraved drawings of churches in Lincolnshire and Cambridgeshire, including Ely Cathedral, in the first decade of the century. Hilkiah (1775–1868) whose long career has hardly been studied was described in the 1851 census as an 'architectural engraver'. *Layton's Stone* may have been intended merely as a rough sketch. An album of more than 130 of his ink drawings with the date 1808 has been sold and resold by booksellers in recent years but its present whereabouts is unknown to me. The query about whether he also wrote verse (*Notes & Queries*, 8 March 1947, p107) deserves the answer 'no' since the texts referred to are in fact by others.

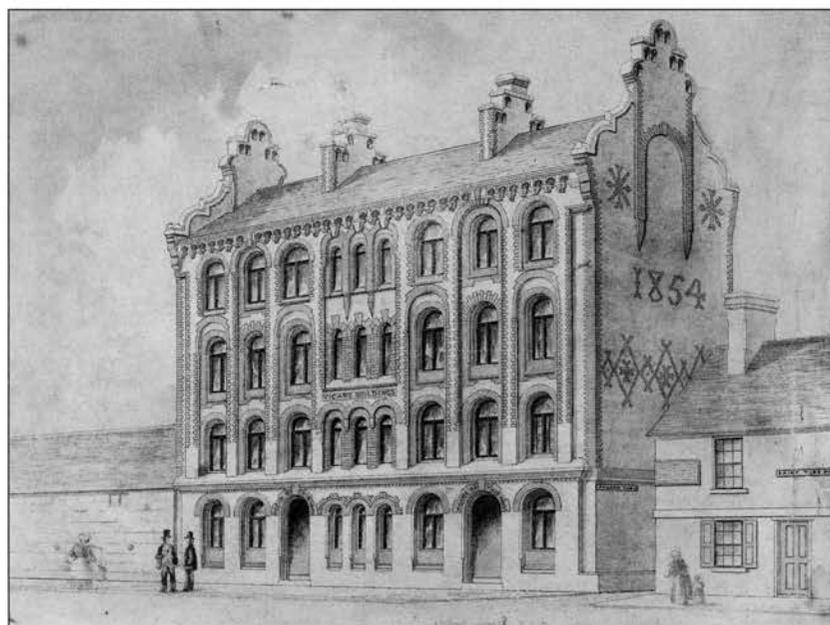
Vicar's Buildings, St Tibbs Row, Cambridge

Watercolour, anonymous (1855) (ref. SB13 mounted 381 x 316mm). Plate 6

'A rickety and filthy mass of buildings, called Sharpe's Rookery, at the Falcon-yard, leading from Petty Cury, under three archways, into the Black-ditch, in the parish of St. Andrew the Great, has been razed by the Rev. John Cooper, the vicar of the par-

ish, who has made a public carriage-way in lieu of a narrow, low, covered passage, and erected a model lodging-house for sixteen families, under the title of 'Vicar's Buildings', from designs by Mr R. R. Rowe, architect. Messrs. Gray and Sons were the builders. The exterior is brick, but moulded in various forms of divers colours: no particular style of architecture has been adopted: it is a brick construction, the chief feature being a combination of semicircular arches and vertical lines, which the *Cambridge Chronicle* compares to the old houses in Bruges. Two open arches lead into the entrance-halls, whence two stone staircases rise to the upper floors: one staircase leads to four suites of apartments, the other to twelve. Each door upon the landings is the front door of a distinct dwelling, consisting of a sitting-room, two bed-rooms, scullery, water-closet, sink, coal-place, cupboard, and dust-shoot.' ('Model Lodging House at Cambridge', *The Builder*, 17 Feb. 1855, 84).

The *Cambridge Chronicle* of 10 February 1855 (p5, col 2) which *The Builder* drew on here provides other non-architectural details beginning with a Dickensian reminder of what Sharpe's Rookery had been—a 'lofty, ugly, decayed, unsavoury, rickety, black-looking, propped-up mass'—before settling into a more measured style. Although the whole cost of acquiring the site and erecting the building had been borne by Cooper at somewhat under £2,500, he had found 'some eight or ten gentlemen in the University and town' willing to take £50 shares and the cooperation of others was invited. An entry (24 February 1855) in the diary of Joseph Romilly, University Registrar and like Cooper a Fellow of Trinity College, shows he was not minded to be one of them: 'Wrote to John Cooper declining to take shares in his Lodging Houses: by the way I am much pleased with the superscription over each door "Peace be to this House".' (M E Bury & J D Pickles, *Romilly's Cambridge Diary 1848-1864* (2000), 198). If the *Cambridge Chronicle* is correct in estimating an annual rental of only £125



before reductions for rates and taxes, it surely erred in saying that income was 'a most satisfactory interest' for shareholders. Rents varied from two shillings a week for a one-bedroom apartment to four shillings and sixpence for an apartment with two. 'The dwellings are nearly all occupied, and tenants are clean and manifestly cheerful and happy. Their moral and intellectual faculties have also been provided for: the Vicar has deposited in every room a Bible and Book of Common Prayer, and has specially invited the inmates to obtain other books from his parish lending library'. To keep them and as importantly the shareholders 'cheerful and happy' a careful list of fifteen rules had been drawn up. Prospective tenants needed to apply with a week's rent in advance and a reference of their good character to the Superintendent, John Arliss, who occupied no 13. He had 'authority to make suggestions for the better management of the rooms, and to interfere in case of misconduct.' Animals and dogs were not allowed. Drunkenness and ill conduct would lead to immediate ejection. Other regulations prohibited trade and sub-letting, putting liquid down the dust shafts or flower-pots on window ledges. Before it became black with soot (as it appears in the few later photographs that survive) the place must have been attractive, notwithstanding its somewhat barrack-like appearance. Its facilities could have been equalled in few private houses in the town in 1855.

To the articles in the *Builder* and *Cambridge Chronicle* further details may be added from the unpublished minutes of the town's Sanitary Committee of 8 February 1855 (Report book, CRO, 128–30). Its members visited 'and minutely inspected the building' at Cooper's invitation and were mightily impressed, congratulating him for his 'successful and praiseworthy efforts ... to benefit the working classes in his Parish'. The report noted that the building was fireproof and on four floors, with lofty and well-ventilated rooms, lighted from windows that opened, and all had fireplaces and boarded floors while the sculleries were paved with non-absorbent slate. There was a constant supply of mains water and waterclosets were on the 'most ample scale' and carefully drained. The only fault found was the absence of facilities for washing and drying linen but the Vicar had given them to understand that he contemplated building a nearby public washing and bath house. They trusted that similar healthy homes would be built 'in various parts of the Town'. They were not.²

Building enterprises of this kind, usually known as 'five per cent philanthropy', were not uncommon in the mid-century especially after the Great Exhibition when the Prince Consort's model designs had been shown, and the subject attracted the pens of statisticians, reformers, and moralists. The intention was to provide sound housing at affordable rents for the working classes with a reliable return for investors, not charitable refuges for the infirm, destitute or unfortunate, though the term 'inmates', as it was used above, indicates only too well an authoritarian approach. Such schemes often foundered since even modest rents were too high for many. If the breadwinner died or was ill how was his widow to afford

the rent? Who would pay when the tenant was old? The Cambridge Union's pamphlet *List of out-door poor receiving relief* (1885) includes two elderly women at nos. 14 and 15, both 'infirm' and on long-term support from the rates, while the decennial censuses of 1861–91 suggest that some inmates would hardly have an income consonant with the payment of regular rents above the smallest.

Although the later history of Cooper's project and its probably rapid failure are involved in obscurity which others may wish to explore,³ such was the local attention paid to it in 1855 that it ought to be better remembered. Cooper left Cambridge and his living at St Andrew the Great in 1858 and was Vicar of Kendal for nearly 40 years before his death in 1896. His architect, Richard Reynolds Rowe (1824–99) who at the time was merely the town surveyor, went on to become one of the most favoured and ubiquitous Cambridge architects and when the long overdue study of his work is made one trusts that his early 'Vicar's Buildings' will not be overlooked. I have found no other early view of the façade of the building. It was demolished c. 1971 during the Lion Yard development when so much Victorian work in central Cambridge was destroyed, and the whole site is now covered by the new Grand Arcade of 2007/8.

Endnotes

1. Evans was coroner of Ely for over thirty years and convened 271 inquests between 1796 and 1823. Of those some six per cent (17) were cases of 'self murder' (the term 'suicide' never being used); of them only five were adjudged *felo-de-se* like Layton. See Robert Halliday, 'Wayside graves and crossroad burials', *PCAS* 84 (1995): 113–19. The Layton inquest and his memorial stone are briefly referred to on p116. Roadside burial was abolished by statute in 1823.
2. Cooper's pioneering effort on behalf of the virtuous working class was not repeated until 1878 when the Cambridge Industrial Dwellings Co. Ltd was incorporated. It worked in a different fashion, buying up and renovating or replacing old property on a substantial scale for rent. If it is doubtful whether local worthies involved as shareholders remembered the origins of the Vicar's Buildings, the philosophy of their prospectus was not dissimilar. 'Decent tenements will draw decent tenants who will leaven the neighbourhood in which they dwell; and on all their own property the Company will be able to impose rules which will tend to the cleanliness and health of the inhabitants and thereby help them to a higher social and moral level.' (Quoted in F A Keynes, *By-ways of Cambridge History* 2nd edition (1956, p107). Eglantyne Jebb was well aware of slum life in Victorian Cambridge and of attempts to remedy it, but she did not refer to the Vicar's Buildings in her *Cambridge: a brief study in social questions* (1906).
3. The Arliss family, descendants of the first Superintendent, lasted longest and at some point took over much of the building for their own printing works. What evidence there may be for the unlikely notion that early in the twentieth century part of the building was used by the police as a sort of 'licensed brothel' I am unable to say. The idea is canvassed in Henry Bosanquet, *Walks round vanished Cambridge: the Lion Yard* (1974), p24; crude sketches of the front and rear of the building immediately before its demolition are included.

Fieldwork in Cambridgeshire 2008

Tom Lyons, Elizabeth Shepherd Popescu and Sarah Poppy

The work outlined below was conducted for a variety of reasons, including development control derived projects, emergency recording and research. All reports cited are available in the Cambridgeshire Historic Environment Record, Cambridge, for public consultation.

All reports cited are available in the Cambridgeshire Historic Environment Record, Cambridge, for public consultation. Many of the reports are available in digital format from the Grey Literature Library at the Archaeology Data Service (<http://ads.ahds.ac.uk/catalogue/library/greylit/>), or Heritage Gateway (<http://www.heritagegateway.org.uk>).

Abbreviations:

AS	Archaeological Solutions, previously Hertfordshire Archaeological Trust
BUFAU	Birmingham University Field Archaeology Unit
CCC	Cambridgeshire County Council
CGMS	CGMS Consulting
CAU	Cambridge Archaeological Unit
GSB	Geophysical Surveys of Bradford
NA	Northamptonshire Archaeology
NAU	NAU Archaeology, previously Norfolk Archaeological Unit
OA East	Oxford Archaeology East, previously CAM ARC
OA South	Oxford Archaeology South

Abbots Ripton, St Andrew's Church (2007)

TL 2307 7802 (Lindsey Archaeological Services Report 1027)

N Field

The excavation of three underpinning trenches at St Andrews Church exposed a previous episode of underpinning. A grave cut was observed inside the south aisle of the church. Two trenches were excavated on the exterior of the church but no archaeological deposits were observed.

Abington Pigotts, Home Farm

TL 3090 4475 (Archaeological Solutions Report 3004)

S Unger, L Smith and T Woolhouse

An evaluation was carried out on the site of the me-

dieval moat enclosing Home Farm. Home Farm is depicted on cartographic sources from 1838, and includes a grade II listed barn, cart shed and granary of probable late 17th-early 18th century date. One trench traversed the moat, and demonstrated that it continued northwards as far as its limit depicted on historic maps of 1886 and 1901. Pottery of 16th-18th century date was recovered from the basal fill of the moat, indicating it had been cleared out in late post-medieval times. No features contemporary with the original moat or later periods of activity were recorded.

Alconbury, North Road

TL 1816 7626 (Albion Archaeology Report 2008/46)

D Ingham

Evaluation revealed the remains of previously unknown Iron Age and Saxon settlement activity considered to be of regional significance, as well as medieval ridge and furrow earthworks and a number of other undated features.

Bartlow, Bartlow Park

TL 5865 4492

H Eckardt, A Clarke, C Speed and D Thornley

Two cores were taken from one of the Roman barrows (mound VII) to test the anomalies identified during Electrical Resistance Tomography survey, revealing no evidence for internal phasing or revetments. Further test pitting in the grounds of Bartlow Park recovered small quantities of Roman material, but encountered no remains *in situ*.

Bluntisham, Bluntisham Baptist Church

TL 3682 7460 (OA East Report 1076)

T Lyons

Evaluation revealed three possible grave cuts within the existing cemetery. Several small features were also found and may have been medieval or post-medieval in date. Two pits contained several sherds of 15th- or 16th-century pottery.

Bottisham, St Peter's Field

TL 5414 6037 (NAU Archaeology Report 1904)

P Crawley

The southern part of the site was subject to a systematic field walking and metal detector survey, which recorded an even spread of medieval to modern building material, and sparse finds of post-medieval pottery, modern metal artefacts and two fragments of burnt flint. Six evaluation trenches were also excavated, recording ditches and gullies, all undated but sealed by a subsoil thought to indicate a pre-medieval date.

Burrough Green, Primary School

TL 6369 5558 (Cranfield Forensic Institute Report 022)

P Masters

Gradiometer and resistivity surveys revealed little evidence relating to the medieval moat. A short linear magnetic anomaly in the south-eastern part of the survey area may indicate the presence of a well, while the resistivity survey indicates an arrangement of linear and rectilinear anomalies, which could suggest the presence of walls within the moated island.

Burrough Green, Burrough Green Primary School

TL 6375 5580 (OA East Report 1050)

T Fletcher

Evaluation in advance of construction of new school buildings revealed the south-eastern corner of a medieval moat (SM 33588). A boundary ditch and probable farm track dating to the 19th century were also found.

Cambridge, 33 KV expansion cable, King's Hedges to Jesus Green (2004-8)

TL 4561 6016 (CAU Report 834)

B Davenport, R Newman and A Slater

An intermittent watching brief undertaken along the route of the 33kv reinforcement cable that crossed the northern and eastern sides of Cambridge found no remains of archaeological significance along the stretch between King's Hedges Road and Water Lane. Monitoring of groundworks at 24 Thompsons Lane revealed evidence of a possible 12th century channel, a 14th century laneway and the foundations of 17th century warehouses. Remains of 17th to 19th century cellars were also located on St John's Road. Furthermore, evidence of an extensive network of palaeochannels in the areas of Jesus Green and Midsummer Common was uncovered, which were followed by numerous episodes of consolidation and the ground raising activity during the 17th to 20th centuries.

Cambridge, Addenbrooke's access road (sites 4 and 7)

TL 4603 5456 & TL 4557 5432 (CAU Report 843)

N Armour and M Collins

Two further open area excavations were undertaken along the route of the Addenbrooke's access road. Site 4 revealed former field boundaries and drainage ditches of post-medieval date, together with a series of 20th century features that probably relate to the agricultural shows held on the site between 1948 and the 1960s. Site 7 revealed a large number of features, including 24 ditches and ditch recuts, which tentatively

dated to the Late Iron Age to Romano-British periods. A rectilinear enclosure and associated trackway were also recorded, together with a probable watering hole of Iron Age date. Seven undated pits, an utilised tree throw and a number of undated rectilinear trenches were also encountered, the latter possibly part of a medieval warren. Together the excavations confirmed that the historic and prehistoric occupation within the Hobson's Brook valley was confined to the valley sides, and that associated field systems and tracks largely avoided the damper valley base.

Cambridge, Anglian Water sewer, Chesterton to West Cambridge (2000-2001)

TL 4430 5902 (CAU Report 840)

C Cessford

A watching brief along the route of a major sewer line between Chesterton and West Cambridge recorded a significant Roman to post-medieval archaeological sequence on the corner of Chesterton Lane at TL44625906 (published in PCAS 94). Elsewhere the route clipped what appeared to be the outer edge of the 4th century Roman town ditch and a post-medieval river defence bank was observed at TL44885926.

Cambridge, Clay Farm

TL 4563 5490 (CAU Report 826)

A Slater and A Dickens

Further evaluation was undertaken in the proposed Clay Farm development area. No archaeological remains were encountered in the west or south-west part of the site (areas 1-3), although the evaluation revealed some modern features, probably related to the agricultural shows held in the area during the 20th century, most notably the Royal Show of 1960-61. Low density of remains were recorded in the north-west part of the site (area 4), including two linear ditches on a WNW to ESE alignment, tentatively dated to the Late Bronze Age/Early Iron Age. A probable medieval/post-medieval phase of activity is represented by a sequence of E-W orientated irregular ditches, which appear to have been used for quarrying rather than land division. A series of parallel and intercutting ditches with vertical sites represent evidence for coprolite extraction over part of the site, dated to the latter part of the 19th century. A group of enigmatic sub-rectangular gullies with associated features was also encountered. The features lacked domestic material, giving rise to a range of possible interpretations, including raised agricultural beds, small animal pens or feeding structures or small mounds for controlled rabbit breeding. Evaluation in the north-eastern part of the site also revealed several distinct phases of activity. The earliest evidence was of Romano-British date, comprising two zones of closely spaced parallel linear features on a NS alignment, interpreted as raised agricultural beds, possibly for asparagus. The occurrence of such features at this site, as well as the Bell Language School and Addenbrooke's Link Road, indicate the widespread use of this type of cultivation. Traces of ridge and furrow cultivation on a NNW to SSE alignment were also evident at the site, together

with a field boundary of probable medieval date.

The south-eastern area (area 6) produced further evidence ranging from the prehistoric to post-medieval periods. Two ditches containing Middle Bronze Age pottery and a third shallow ditch were encountered, which represents the southern edge of the known large rectilinear triple ditched enclosure to the east. Two shallow sub-rectangular pits were cut into the fill of the inner ditch, and contained a high quantity of burnt and heat affected flint, possibly representing the deliberate manufacture of fragmented flint chip-pings as temper for pottery production. In contrast to the southern and eastern sides of the enclosure, the western edge appears to have been defined by a single ditch, with another ditch to the south possibly representing an annex or extension to the main enclosure. A decapitated deer burial and three irregular charcoal spreads were found outside the main enclosure. Several other features within the area were considered to be of prehistoric date, including a segmented gully and postholes located further to the south of the enclosure. Very little evidence of Romano-British activity was found, with the exception of a curving ditch and series of NNE to SSW aligned gullies corresponding with the orientation of planting beds seen during other investigations in the area. The area also demonstrated the southerly continuation of field boundary ditches and ridge and furrow recorded in area 5, as well as a series of NNW to SSE gullies. Several post-medieval features were also recorded, probably associated with field boundaries.

Cambridge, Fitzwilliam College Library

TL 4401 5950 (CAU Report 817)

A Slater

Area excavation revealed a number of features, including two Bronze Age ditches and possible structural evidence, together with late Iron Age or Roman ditches. A late medieval tree bowl and possible post-medieval path were also recorded.

Cambridge, Gonville and Caius College Boathouse

TL 4546 5933 (CAU Report 821)

R Newman

Test pits and boreholes on land adjacent to the Gonville and Caius College boathouse revealed a substantial peat deposit 3m in depth. The deposit was located immediately adjacent to the present course of the river Cam, and associated with an area of marshland shown on the map of 1830 as lying adjacent to a feature known as the 'Cambridge sluice'.

Cambridge, land at rear of 1 High Street, Cherry Hinton

TL 4860 5628 (OA East Report 1034)

W Punchard

Evaluation revealed evidence for a preserved prehistoric land surface containing animal bone, Early Bronze Age flint flakes and a piece of human bone. Possible medieval pits were found which suggest activity close to the contemporary street frontage.

Cambridge, land at rear of 1 High Street, Cherry Hinton

TL 4860 5628 (OA East Report 1080)

R Atkins

A watching brief recorded two 14th-century pits in the same area as an earlier evaluation. Sherds of un-abraded pottery were recovered from these features suggesting domestic occupation fronting onto the High Street.

Cambridge, land between Huntingdon Road and Histon Road (2007-8)

TL 4370 6073 (NA Report 08/37)

P Mason

Large-scale evaluation identified two areas of mid-late Iron Age to late 2nd /early 3rd century AD occupation, together with evidence for an inter-joining field system. Smaller concentrations of Bronze Age, Roman, medieval and post-medieval artefacts were also dispersed across the remainder of the proposed development area.

Cambridge, Kavli Institute

TL 4316 5937 (CAU Report 820)

R Newman

The earliest evidence identified from area excavations comprised residual sherds of late Iron Age and early Roman pottery, recovered from a series of post-medieval gravel quarries. It is likely that gravel extraction started during the later medieval period, and reached a peak of activity in the 17th century, removing all traces of earlier activity. During the 18th and 19th centuries the area reverted to rough pasture, before the erection of the Newall 25 inch refractor telescope in 1891. Foundations for the telescope and dome were recorded during the excavation, together with features associated with its decommissioning in the 1950s.

Cambridge, St Bede's School

TL 4786 5692 (CAU Report 845)

J Hutton and R Standing

An evaluation revealed a large feature and the terminal end of an undated ditch, the latter sealed by the subsoil. The line of the WWII GHQ anti-tank ditch, running some 250m west of St Bede's School, was mapped from Luftwaffe aerial photographs.

Cambridge, St John's Triangle (2007-8)

TL 4486 5874 (CAU Report 851)

R Newman

A programme of archaeological investigation and monitoring revealed evidence of occupation spanning the Roman, Saxo-Norman, medieval and post-medieval periods. Following probable agricultural usage in the late prehistoric period, a small extra mural settlement was established to the south of the Roman town during the 2nd century AD. Traces of domestic occupation were identified, situated alongside the Colchester to Godmanchester road, beneath which were found a number of quarries, probably for the extraction of gravel for road construction. The site was abandoned by the end of the 3rd century AD, and

reoccupied during the mid 10th century, at which time up to six long narrow properties were in existence. By the late 11th century the settlement had rapidly expanded, and extended at least 600m south along the gravel ridge. Between c. 1140 and 1275, the Triangle site was incorporated into the heart of the medieval Jewry, during which time a number of stone buildings were constructed. The area continued to develop following the expulsion of the Jews in the late 13th century, and by the end of the medieval period the earlier properties had been subdivided into at least 11 separate plots. A cemetery was established in the centre of the Triangle site by 1250, belonging to the nearby Hospital of St John. The disarticulated remains of at least 132 individuals, recovered from the backfill of a 19th century construction trench, are likely to have originated from the cemetery. The density of occupation, and associated expansion of commercial premises, continued to increase during the post-medieval and modern periods, culminating in the existence of at least 23 separate properties by the end of the 19th century. Three metalworking workshops dating to the 15th/16th centuries were encountered, together with a large pit containing late 16th/early 17th century tavern waste and a large deposit of fish bones from imported cod. An early 18th century tavern deposit was also recovered, together with a large clearance deposit in a backfilled cellar, representing the contents of a late 18th century coffee house, and containing a significant assemblage of pottery, glass vessels and other artefacts.

Cambridge, St Matthew's School

TL 4594 5841 (OA East Report 1070)

T Lyons

Evaluation in advance of the construction of new school buildings revealed substantial truncation. Large, parallel features were visible across the trench which were interpreted as 19th-century 'coprolite mines'. This practice involved deep excavation to quarry phosphates and resulted in heavily disturbed natural geology. The remainder of the soil sequence consisted of up to a metre of 19th- and 20th-century made ground.

Cambridge/Girton, University Farm

TL 4258 6036 (CAU Report 852)

N Armour

Evaluation encountered early Romano-British settlement features associated with a probable enclosure system and roadway. Earlier activity was revealed by a pit containing the near-complete remains of a Late Bronze Age pot and two Late Bronze Age/Iron Age ditches. Medieval and post-medieval features representing the remains of ridge and furrow and former field boundaries were also identified.

Cambridge/Girton, University Farm

TL 4233 6026 (CAU Report 862)

K Anderson and D Hall

Following evaluation, two phases of field walking survey indicated low levels of prehistoric and Roman

activity across the site. Quantities of flint and some Roman and medieval pottery were collected during the first extensive phase. Two areas of relative concentration were identified, which were subject to a second intensive survey, recovering further Neolithic/Bronze Age flints, Late Iron Age and Roman pottery and post-medieval finds.

Cambridge, 130-136 Victoria Road

TL4481 5957 (Archaeological Services and Consultancy Report 1146/CVR/2)

M Cuthbert

A watching brief revealed a post-medieval ditch aligned north-south, similar to that depicted on the 1889 Ordnance Survey map, together with the brick foundations of the Victorian terrace of houses that stood on the site prior to redevelopment.

Caxton, South Oliver's Barn, 94 Ermine Street

TL 3039 5860 (AS Report 3077)

W McCall, S Unger, C Lamprey and A Newton

An earthwork survey was undertaken on an area of ridge and furrow, which recorded a series of ten parallel furrows running across the site on a NW-SE alignment. Subsequent evaluation revealed no further archaeological features or finds.

Chatteris/Haddenham/Mepal/Sutton/Wentworth/Witcham, Chatteris to Haddenham water scheme (2007)

TL 4302 8185 (Air Photo Services Report 2007/23)

R Palmer

Aerial photographic assessment was undertaken for a 1km wide corridor along the route of a 17km pipeline between Chatteris and Haddenham. A rectangular enclosure was recorded at Horseley Fen that forms part of a larger complex. One, possibly two, ring ditches were mapped to the west of Mepal Outdoor Centre, while a double ditched trackway appeared to extend westwards from a group of enclosures at Block Fen. A triple ditched feature with adjacent ditches and possible occupation areas was identified at Staple Leys, north of Haddenham. Three groups of medieval ridge and furrow were mapped, which form part of the open fields of Chatteris, Mepal-Sutton and Haddenham. The majority has been levelled by agriculture, although a few pasture fields retain earthwork features. The layout of the WWII airfield at Mepal was also recorded, together with its use as a Thor missile base in the 1960s.

Chatteris, Block Fen (2007)

TL 4392 8407 (AS Report 2960 & 3091)

C Pole and K. Doyle/P Stone

Area excavation identified two areas of prehistoric activity that produced material of late Neolithic and early Bronze Age date. The earliest evidence was a large pit surrounded by an erosion area, interpreted as a possible watering hole. A post and stake hole were located close by, suggesting there may have been associated structures or screens. Further evidence of prehistoric activity was demonstrated by a group of

five postholes, two containing dating pottery of Late Neolithic/Early Bronze Age date. Twenty six undated features were recorded, including a group of stake holes that appeared to form a sub-rectangular enclosure or possible livestock pen in the area of the postholes. A shallow ditch was also recorded, together with nine tree bowls and numerous silt layers.

Colne, Manor Farm

TL 3735 7587 (OA East Report 1036)

T Fletcher

Evaluation revealed early medieval pits and postholes believed to represent occupation along the East Street frontage. A rectangular building with timber foundations set in clay was recorded close to East Street and was dated to the 17th or 18th centuries.

Dry Drayton, Scotland Farm (2007)

TL 3658 6017 (Albion Archaeology Report 2008/112)

D Ingham

Excavation revealed part of a late Iron Age enclosure, previously recorded as a cropmark, located next to the Dam Brook. The excavated area contained structural remains and a concentration of settlement-related features. Ceramic evidence indicates the settlement had a short lifespan, beginning in the late 1st century BC and falling out of use by the mid 1st century AD.

Duxford, Red Lion, Whittlesford Bridge

TL 4845 4721 (CAU Report 836)

J Hutton

The earliest evidence for activity identified during evaluation was provided by a group of Late Mesolithic flints and environmental remains recovered from a tree throw. Limited evidence for medieval activity was identified, comprising one pit containing pottery of 13th – 15th century date. A nearby undated posthole and ditch are suggested to be of similar date. A wall relating to former mid 19th century outbuildings was also recorded.

Ely, Highfield School

TL 5375 8085 (OA East Report 1047)

L Bush

Evaluation in advance of expansion of the school revealed an undated ditch, which was probably prehistoric. Medieval and post-medieval features were also encountered, including preserved ridge and furrow.

Ely, Lancaster Way Business Park (2007)

TL 5202 7845 (Air Photo Services Report 2007/20)

R Palmer

Aerial photographic assessment recorded extensive evidence for medieval cultivation surrounding Lancaster Way Business Park, which combined with the presence of natural clays meant that any existing pre-medieval archaeology may be masked from view. A possible mound was identified to the south-east of the development area, along with a number of ditches of possible archaeological significance.

Ely, land east of Lancaster Way Business Park

TL 5192 7844 (NA Report 08/31)

S Morris

Field walking survey recovered a small number of worked flints, along with two sherds of prehistoric pottery, a spread of Roman, medieval and post-medieval pottery and a single sherd of Saxon pottery. Most of the finds probably relate to field manuring but a significant concentration of post-medieval finds were found on the site of a 19th century farm, demolished for the creation of the airfield. The metal detector finds were minimal, but included a fragment of medieval silver ring brooch and a lead quarter seal.

Ely, land east of Lancaster Way Business Park

TL 5192 7844 (NA Report 08/48)

I Fisher

Geophysical survey recorded a complex of round-houses with accompanying enclosure system, along with possible industrial activity to the north of the development site. Medieval ridge and furrow cultivation was also mapped along with later field boundaries and drains.

Ely, land east of Lancaster Way Business Park

TL 5192 7844 (NA Report 08/121)

M Holmes

Further to previous survey work, large-scale evaluation revealed evidence for Iron Age and early Roman settlement activity, characterised by boundary and enclosure ditches, in the northern part of the site. Smaller areas of Iron Age or Roman remains were recorded within the south-western and eastern parts of the site. No evidence of Anglo-Saxon activity was found, and earlier suggestions that the previously identified Anglo-Saxon burial site to the south might extend into the proposed development area, or that the location for the early settlement of Cratendune was located within the development area was not supported by the excavations. Later activity comprised extensive medieval ridge and furrow cultivation and post-medieval field boundaries.

Ely, land east of Lancaster Way Business Park

TL 5195 7869 (NA Report 08/151)

C Simmonds and P Mason

Small-scale evaluation encountered further evidence for settlement dating to the Mid-Late Iron Age, characterised by ditches, gullies and pits. Later activity comprised extensive medieval ridge and furrow cultivation, and a modern pipe trench.

Ely, Old Plough, Prickwillow (2006)

TL 5748 8113 (Archaeology Rheesearch Group Report)

Magnetometer and resistivity survey recorded no evidence for a westward extension to the house, although the presence of possible foundations to the north of the present house was suggested. An area of low resistivity to the east of the existing house was interpreted as a possible harbour basin.

Ely, land off Stirling Way, nr Witchford

TL 5150 7890 (OA East Report 1061)

R Atkins

Evaluation and test pits, based on geophysical results, revealed settlement dating from the late Iron Age and Roman periods. Substantial Late Iron Age and Early Roman pottery assemblages were recovered from three phases of activity, dating from the 1st century to the middle of the 2nd century. Features included post-holes, ditches and pits which were concentrated on a plateau at the southern edge of the development area, suggesting that only a small part of the settlement was exposed. A notable feature was a large boundary ditch following the contour of the slope. Post-medieval furrows, quarry pits and 18th- and 19th-century field boundaries were found on the north-facing land.

Ely, former Thurlow Nunn Standen site, Lisle Lane

TL 5451 8029 (Essex County Council Field Archaeology Unit Report 1924)

M Germany

Evaluation found significant archaeological remains in the south-eastern part of the site, comprising 1.4m of vertical stratigraphy, which had probably accumulated due to a combination of alluviation, refuse dumping and consolidation to reduce flood risk. A 14th-16th century gully perpendicular to Lisle Lane, and two large late 15th/16th century ditches were also recorded, the latter possibly representing a moat or large ditched enclosure. The rest of the site contained a small number of post-medieval and modern features, probably related to earlier use for horticultural purposes. The north-western and central parts of the site were probably severely truncated when the Thurlow Nunn Standen site was constructed in the 1970s.

Farcet, Float Fish Farm

TL 2267 9476 (Archaeological Solutions Report 3027)

G Brogan, W McCann, L O'Brien and S Unger

Evaluation trenching established a full sequence through the fen and pre-fen landscape. Overlying the natural Pleistocene gravel terrace an alluvial sediment of grey silty clay was revealed, which was probably formed under localised standing water. A palaeosol formed over the alluvial sediments, which contained horizontally bedded leaves of *Phragmites*, suggestive of a periodically wet landscape. In two trenches a very thin layer of tufa-rich silt was observed, which may represent a period of open freshwater pools. Thick peat deposits had formed over the old land surface, with three differing types of peat observed. No archaeological features were revealed, although a single unstratified sherd of Beaker pottery was recovered.

Fenstanton, Jones Boatyard, Low Road

TL 3137 7033 (CAU Report 839)

M Collins

A phased test pit survey and trial trench evaluation identified two palaeochannels, including a probable former course for the River Great Ouse. A medium-sized pit dating to the Beaker period indicated some level of prehistoric activity in the area.

Eversden, Great & Little, land at Harlton Road, Little Eversden

TL 3728 5285 (OA East Report 1081)

G Rees

Evaluation, followed immediately by small open area excavation, identified two pairs of parallel ditches on different alignments as well as a series of pits, a quarry and a well. Those features that could be dated were post-medieval. It is likely that settlement exists in the immediate surrounding area which is considered to be of high archaeological potential.

Foxton, land between 3-11 Mortimers Lane

TL 4141 4846 (OA East Report 1066)

G Rees

Excavations in advance of residential development, 100m south-west of the site of the 12th-century moated manor, uncovered evidence of prehistoric, medieval and post-medieval activity. The earliest features were several undated linear ditches that may have formed two enclosures associated with the partial remains of a ring gully. To the north lay an Iron Age well. In the early medieval period a trackway and several small ditched enclosures were constructed and were associated with a pastoral economy centred on cattle. The enclosures were re-cut in the later medieval period by which time small scale clunch extraction appears to have been taking place in the north-western part of the site. A well was dug to the south of the trackway. By the end of the 17th century, all of the medieval features had been backfilled and two clunch-based house platforms were constructed. These were associated with postholes and a substantial drainage system. The boundary between these two properties ran along the line of the medieval trackway and remained until the early 20th century, whereas the properties themselves had been demolished by the mid 19th century.

Fulbourn, Hall Farm, School Lane (2007)

TL 5196 5614 (Archaeological Project Services Reports 14/08 and 56/08)

T Bradley-Lovekin

Area excavation was undertaken of a Saxo-Norman rural settlement, dated from the mid 11th to the last quarter of the 12th century. The presence of limited quantities of earlier 10th to mid 11th century pottery suggests an antecedent to the settlement, while redeposited artefacts of prehistoric and Romano-British date were also recovered. Traces of seven timber structures, refuse pits, enclosures, boundary ditches and two wells were found.

Godmanchester, Godmanchester Primary School

TL 2448 7084 (OA East Report 1052)

N Gilmour

A small quantity of Roman and medieval pottery was recovered, most of which came from the subsoil. One possible medieval quarry pit was identified, along with a series of post-medieval remains that may represent garden features.

Godmanchester, Wigmore Farm (2007)

TL 2455 6971 (Archaeological Project Services Report 17/09)

P Cope-Faulkner

Excavation revealed a number of Iron Age features, including an enclosure ditch, ditches, pits, gullies and postholes. No structures were clearly identifiable and the majority of features are probably agricultural in origin. A ditch of Roman date, medieval ridge and furrow and post-medieval quarrying were also recorded across the site during the excavation. A wide range of flint implements were retrieved from the site, the majority of which dated to the Mesolithic, although a number of Iron Age lithics was also recovered.

Great Fen Project

TL 2200 9000 (centred) (OA East Report 1007)

C Begg and S Macaulay

OA East was commissioned to undertake a study of the northern part of The Great Fen project area, north of the B660, centred around Whittlesey Mere and Holme Fen (encompassing a total of 1,800 hectares). The objective was to determine the current state of preservation of the archaeological remains, to consider what the probable impact of the Great Fen project on this resource and to make recommendations for further work. The initial stage of the project indicates that the condition of the buried peat is not only very poor but also that it is deteriorating at a rapid rate. Only in the far north-west corner of the project area (around Trundle Mere) and on a spur of higher land to the south-west (near Top Farm), is the peat preserving organic archaeological remains. Known archaeological sites in the study area include two medieval fisheries, one of which is Whittlesey Mere itself. Further work is planned.

Great Gidding, land off Winwick Road

TL 1156 8285 (Cranfield Forensic Institute Report 024)

P Masters

Gradiometer survey revealed a series of parallel anomalies, which represent the remains of ridge and furrow along with two significant responses that may represent kilns.

Great Stukeley, land at 67 Ermine Street

TL 2210 7450 (OA East Report 1069)

T Lyons

Evaluation revealed probable early medieval settlement dating from the 11th or 12th centuries. A hollow way lay at right angles to Ermine Street (which forms the western boundary of the development area), at the base of which were several cart tracks. Seven other features were discovered including pits, postholes and a beam slot. Most of the excavated features produced Late Saxon/early medieval pottery, being either St Neots ware or Stamford ware.

Haddenham, the Manor, Church Lane

TL 4633 7562 (AS Report 3127)

C Davies, R Greene, S Unger and A Newton

Excavation revealed a large north-south aligned ditch

and a large sand quarry pit that truncated the north-eastern quarter of the site. The ditch yielded a moderate assemblage of 12th to 14th century pottery and its relatively large size would suggest it may have formed an important boundary within the medieval village. Two 19th/20th century garden features were also recorded, including an unusual pond constructed from 18th and 19th century gravestones.

Histon, NIAB site, Park Farm

TL 4342 6308 (CAU Report 833)

K Murrell

An evaluation and subsequent excavation revealed a four-post structure and an eighteen post sub-circular structure, indicative of small scale or seasonal occupation in the Late Bronze Age. A Middle Iron Age curvilinear ditch, and two alignments of post-medieval fields were also recorded, providing evidence for later agricultural activity at the site.

Houghton, Houghton Primary School

TL 2807 7215 (OA East Report 1075)

J Fairbairn

Evaluation in advance of the construction of new classrooms found medieval pits and ditches.

Houghton and Wyton, HEFA Test pits (2005–8)

C Lewis

A series of test pits were excavated by a collection of school children, teachers and members of the general public as part of the University of Cambridge Archaeology Department Higher Education Field Academy's CORS (Currently Occupied Rural Settlement) Investigation. Preliminary results suggest through the lack of 15th – 16th century pottery recovered from the test pits that Houghton and Wyton had gone through a period of reduced population at this time, in contrast to the Roman, Late Saxon and post-medieval periods that were well represented by pottery.

Houghton & Wyton, Houghton Grange

TL 529634 272121 (OA East Report 1064)

T Fletcher

Evaluation revealed medieval furrows. Drainage ditches were also recorded on the same north-west to south-east alignment. Several post-medieval and modern ditches were found.

Houghton and Wyton, RAF Wyton

TL 2808 7401 (Stratascan Report J2472)

R Smalley

Despite the presence of large areas of magnetic disturbance, detailed magnetic survey in the grounds of RAF Wyton recorded a number of anomalies of possible archaeological origin, including a number of pits across the site and a large ditched feature with possible former bank.

Houghton and Wyton, RAF Wyton

TL 2805 7416 (AOC Archaeology Group Report 7969)
M Melikian & T Carew

Evaluation demonstrated that the area of the airfield currently occupied by buildings has been severely truncated by building operations associated with the use of the site by the RAF since the 1920s. The open area along the south-west edge of the site had not been severely truncated, and a group of undated features were recorded, comprising possible roundhouses set within a rectangular field system. A few late post-medieval/modern features were also recorded, likely to be associated with agricultural activity or the construction of the airfield.

Huntingdon, Red Cross HQ, Castle Moat Road

TL 2396 7148 (NA Report 08/133)

J Brown

Evaluation of a site immediately to the north-west of Huntingdon Castle identified deeply stratified layers, including a substantial ditch, which may have been part of a putative western bailey perimeter or part of a ditch relating to the Saxon burh. In the eastern part of the site the ground was heavily disturbed by modern activity, and surviving features were heavily truncated. Roman remains were also encountered including a probable hard standing of yard surface, and intercutting pits. It is likely that further remains exist beneath the present building that could not be evaluated.

Huntingdon, 22 High Street

TL 2403 7161 (AS Report 2994)

W McCall, S Unger, C Davies and P Sparrow

A single evaluation trench revealed two large intercutting pits at a depth of almost 4m below ground level. The earliest pit was dated to the 12th to 14th century, while the later belonged to the 13th-14th century. No prehistoric or Roman features were found, although two sherds of residual Roman pottery were recovered.

Huntingdon, Huntingdon Town Centre

TL 2377 7171

R Clarke and A Connor

Excavations on the site of the old library and in the grounds of Lawrence Court that began in 2007 continued until March 2008. A range of medieval features included dense zones of pitting and quarrying. Wells, postholes, ovens, cobbled surfaces and ditched property boundaries were also found. Evidence of urban contraction across parts of the site in the later medieval period was represented by an extensive cultivation or levelling layer.

Evidence for industrial activities included dyeing, tanning, butchery, skinning, horn-, antler- and bone-working, most of which date to the Late Saxon and medieval periods (c.10th to 13th centuries). Of particular significance was the discovery of a small Late Saxon building, which produced a rare antler die that was perhaps used for stamping pottery. A large ditch that traversed the site may relate to the Anarchy period in the late 12th century, when Huntingdon was besieged. Other evidence of possible military activity

include a medieval arrowhead and a number of 17th century or later musket balls.

The excavations produced significant animal bone and pottery assemblages, along with numerous other finds and environmental remains. A post-excavation assessment report has been produced and future analysis and publication will draw together other recent Huntingdon town centre excavations.

Huntingdon, National Grid, Mill Common

TL 237 713 (OA East Report 1030)

T Lyons

Evaluation revealed presence a Roman ditch running parallel to Alconbury Brook which forms the southern boundary of the development area.

Huntingdon, land at Stukely Road

TL 2329 7245 (OA East Report 1038)

J House

Evaluation revealed the presence of medieval ditches, pits and postholes along Stukeley Road, formerly Roman Ermine Street, which represents the northern limit of 12th- and 13th-century Huntingdon.

Huntingdon, 21 Temple Close

TL 2435 7173 (OA East Report 1025)

C Thatcher

Evaluation revealed archaeology from the Roman, Anglo-Saxon and post-medieval periods. At the east of the site was a beamslot and posthole containing Roman pottery. These were associated with a piece of rotary quern stone. The west side of the site contained an Anglo-Saxon ditch.

Kennett, Kennett Hall Farm

TL 6908 6875 (Archaeological Solutions Report 3179)

M Adams. & M Brook

A detailed field walking and metal detector survey recorded a concentration of struck and burnt flint in the northern sector of the site. The struck flint represents a homogenous group, dating to the early Neolithic. Small quantities of Roman, medieval and post-medieval pottery were also recovered, together with a single sherd of Late Neolithic/Early Bronze Age pottery.

Kirtling, the Toilyard

TL 6864 5709 (CAU Report 853)

A Dickens

Evaluation revealed remains relating to the establishment of the Kirtling Estate Toilyard. The remains of brick footings for a sawmill were recorded along with a rubbish pit containing 21 complete glass bottles, including several codd bottles dating to between 1884 and 1912. The work also demonstrated that there had been both truncation and build-up of redeposited material on the site, presumably to level it for construction of the toilyard.

Linton, Linton Village College

TL 5565 4696 (OA East Report 1058)

N Gilmour

Evaluation, followed by excavations and watching

briefs, revealed extensive evidence for Late Roman archaeology as well as features dating to the Neolithic and Anglo-Saxon periods. Two Neolithic pits were found to contain Grooved Ware and Beaker pottery as well as diagnostic worked flint. An enclosure ditch was dated to the Late Bronze Age which also contained diagnostic worked flint. Several Iron Age features were recorded, one of which included a human femur. Late Roman features included a surfaced trackway, boundary ditches and pits. These yielded pottery, worked flint, coins, animal bone and a neonate burial. Three inhumation burials were dated to the Middle Saxon period, containing five individuals, three of whom had been decapitated. This was conceivably an execution cemetery, although the presence of a child buried with a young adult makes this less likely. A large curvilinear ditch also dated to this period.

Little Eversden, land at Harlton Road

TL 3728 5285 (OA East Report 1081)

G Rees

Evaluation, followed immediately by small open area excavation, identified two pairs of parallel ditches on different alignments as well as a series of pits, a quarry and a well. Those features that could be dated were post-medieval. It is likely that settlement exists in the immediate surrounding area which is considered to be of high archaeological potential.

Little Gidding

TL 1263 8164 (Archaeology Rheesearch Group Report)

Archaeology Rheesearch Group

Geophysical survey at the southern extremity of Little Gidding deserted medieval village complex recorded a clear set of rectilinear structures, interpreted as formal gardens. No conclusive evidence was collected to suggest the church had at anytime been larger than its current dimensions.

Littleport, 71 Victoria Street

TL 5729 8668 (AS Report 3011)

L Smith, C Davies and S Unger

Evaluation recorded a large ditch containing 16th-early 17th century pottery, consistent in size with those observed on moated or monastic sites. A number of other, largely undated, features were also recorded, comprising small ditches, gullies, pits and postholes, consistent with peripheral or back garden activity. Cartographic evidence records dwellings on the site from the late 19th century onwards.

Littleport, land to rear of 88–96 Wisbech Road (2007–8)

TL 5609 8728 (AS Report 3008 and 3047)

R Greene and P Sparrow and T Woolhouse

Area excavation recorded a number of Iron Age and undated features on the higher ground in the southern part of the site. Two large ditches were recorded, which together contained three sherds of late Iron Age pottery, animal bone, struck flint and a broken quartzite hammer stone. The two ditches crossed each other, although it was not clear whether they formed part of

a single enclosure or field system. A dense cluster of pits and postholes was also encountered, some containing a small quantity of wood, struck flint, shell and burnt stone.

Longstanton, Longstanton bypass areas 6, 7 and 8 (2007)

TL 3908 6718 (BUFAU Report 1559)

S Paul and R Cutler

Further to the ongoing programme of works along the construction route of the Longstanton bypass, three open areas were excavated which revealed archaeological features mostly dating to the Neolithic and Iron Age periods. Neolithic features comprising discreet pits, postholes and gullies were excavated within two areas, while an Iron Age enclosure and associated activity were recorded in the third area.

March, land west of Dartford Road, Phillips Chase & South of Elliot Road (2007)

TL 4114 9699 (AS Report 2206)

S Hogan, T Barton, C Hallybone, P Weston and T Woolhouse

Evaluation revealed a single pit containing Late Bronze Age/Early Iron Age pottery. Two north-south aligned medieval ditches were also encountered, although the small quantities of pottery recovered do not suggest intensive activity. Evidence for late post-medieval clay extraction was also recorded, together with ditches that correspond with property boundaries depicted on historic Ordnance Survey maps.

March, Hundred Road Trading Park

TL 4089 9846 (CAU Report 842)

J Hutton

Evidence for Late Mesolithic/early Neolithic activity was demonstrated through the recovery of flint artefacts from the topsoil and in secondary contexts. Evaluation also revealed a dense concentration of Bronze Age features in the north-western part of the site, comprising watering holes, pits, postholes, cremations and linear features, indicating settlement and possible ritual activity. The remains of a Roman field system and closely spaced cultivation pits was recorded in the eastern half of the site, which aligned perpendicular with the Fen Causeway, and may provide further evidence for intensive horticulture in the Roman period. A small number of prehistoric postholes, pits and a truncated field system were also identified in this area.

March, land off Hundred Road

TL 4075 9848 (OA East)

C Thatcher

Excavation to the north of the historic town of March revealed evidence for Bronze Age settlement and funerary practice of regional significance in the form of a sequence of eight large water pits surrounded by urned cremations dating to the Mid to Late Bronze Age. A section of wattled fence came from one of the earliest pits and may have formed a lining. A large quantity of wood was preserved throughout the pit

sequence, some of which had been coppiced. A possible fenceline led towards the south-western corner of the pit cluster. Two circular structures were recorded to the north, one of which was post built. Three phases of construction were noted in the latter building and a high concentration of charcoal was recorded in its postholes, suggesting repeated burning of each phase. Roman field systems and cultivation beds were also present, including a large boundary ditch which was directed around the edge of the water pit sequence, truncating only its latest fills.

March, 12 Jobs Lane

TL 4152 9514 (AS Report 3185)

M Adams

Evaluation revealed a broad range of features including an early Bronze Age pit containing worked flint and two distinct types of Beaker pottery, a V-shaped ditch of Roman date running roughly north to south across the site, a number of medieval pits and the evidence of several modern building demolition layers.

March, Orchard Court Place

TL 4174 9632 (OA East Report 1020)

S Cooper

Evaluation revealed a 19th-century boundary ditch containing a small pottery assemblage. Postholes, ditches and a quarry pit from the same period were also found.

Melbourn, Cambridge House, Back Lane (2007)

TL3793 4401 (Archaeological Services and Consultancy Report 880/MBL/2a and 880/MBL/03)

N Wilson and A Thompson and K Semmelmann

The earliest features identified during a second phase of investigation were two large ponds containing decayed peat deposits in their base, which had been interpreted as a possible palaeochannel during the evaluation. No finds were recovered from the ponds, although environmental samples were taken for further analysis. Two further medieval wells were exposed, together with a large N-S orientated ditch and two pits containing 12th-13th century pottery. A number of small postholes were excavated, but produced evidence for dates or structural layouts.

Milton, Ely Road

TL 4828 6296 (Archaeological Services University of Durham Report 1949)

D Hale

Geophysical survey detected a range of potential archaeological features including enclosures, ring-ditch remains and probable structures.

Milton, Ely Road

TL 4825 6293 (Air Photo Services Report 2008/10)

R Palmer

Aerial photographic assessment identified a number of probable archaeological features, comprising two parallel banks, a large D-shaped enclosure and two sides of a possible rectangular enclosure. A high density of features was also noted recorded in adjacent

fields to the east and south. Former boundaries within the grounds of Milton Hall were also mapped, which may indicate earlier land divisions in the park.

Milton, Ely Road

TL 482 629 (OA East Report 1053)

G Rees

Evaluation, based upon geophysical survey, revealed a high density of archaeological remains dating from the Late Iron Age through to the post-medieval period. Prehistoric flints suggests Mesolithic, Neolithic and Bronze Age activity in the area, although no features were positively identified. Late Iron Age archaeology included settlement and associated land boundaries, with two phases of activity. The Roman period saw expansion and intensification of this activity. Evidence was found for cultivation and processing of wheat and barley as well as possible rearing of horse and cattle. A 2nd-century cremation was also found. Medieval remains spanning the 11th to 14th centuries extended beyond the investigation area. Post-medieval garden features were also found.

Over, 15 High Street (2007)

TL3758 7052 (Archaeological Services and Consultancy Report 952/OHS/2)

J Richards

Evaluation recorded the remains of a former boundary ditch and several land drains. A length of the boundary wall of 17 High Street was also recorded: it was found to be of Flemish bond probably contemporary with the property, which dates from c. AD 1700 and is a grade II listed building.

Papworth Everard, St Mary's Church

TL 2815 6271 (OA East Report 1031)

T Lyons

Excavation revealed multi-phase medieval enclosure ditches, as well as a cobbled surface, adjacent to Cow Brook to the west of St Peter's Church. These contained fairly substantial pottery assemblages from the 11th to 13th centuries.

Peterborough, Oundle Road

TL 1859 9789 (OA East Report 1015)

T Lyons

Evaluation in front of the existing Guild House building revealed medieval and post-medieval occupation in the form of pits, postholes, ditches and a possible limestone wall. Pottery was recovered from most features, including Stamford Ware, St Neots Ware and Thetford Ware. Construction of the Guild House had resulted in the truncation of archaeological remains towards the building on the north side of the investigation area. The southern area, against Oundle Road, contained a greater depth of stratigraphy.

Saint Ives, East Street

TL 3132 7140 (OA East Report 1045)

W Punchard

Evaluation, immediately followed by excavation, revealed extensive medieval and post-medieval

archaeological deposits. Postholes and extensive pitting was discovered, the latter being possibly related to the tanning industry.

Saint Neots, The Bell, Great North Road, Eaton Socon

TL 1691 5813 (OA East Report 1074)

J Fairbairn

Evaluation revealed two small linear ditches dating to the Romano-British period and pits dating to the Roman and post-medieval periods.

Saint Neots, land north of Loves Farm

TL 2009 6190 (Archaeological Services and Consultancy Report 1009/LSN/2)

N Wilson

Evaluation along the route of a new water pipeline revealed a number of ditches and gullies. Pottery recovered from some of these features indicates that they were backfilled during the Roman period but others were clearly modern in origin. The upper fill of one ditch at the southern end of the route contained several sherds of late Neolithic or Bronze Age pottery. Though only one isolated ditch from this period was located during the current project, it is likely that further Bronze Age features may survive in the vicinity. More detailed examination was undertaken at the south-eastern end of the pipeline route, revealing further undated ditches and a large open well or pond of Roman date. It was concluded that some of the excavated features formed part of a Romano-British agricultural landscape associated with the recently excavated site at Loves Farm to the south of the pipeline's route.

Sawtry, Black Horse Farm (north of Scandstick) (2007-8)

TL 1770 8342 (AS Report 2999 and 3102)

A Newton and W McCall, K Doyle and K Henry

Further to previous excavations at the Black Horse site, excavations to the north revealed a number of features dated to the Middle Iron Age including a large ditch aligned east-west and three structures believed to be roundhouses. The largest of all of the roundhouses recorded on the Black Horse Farm site was found in this area, with two smaller roundhouses interpreted as possible ancillary structures associated with the larger roundhouse.

Sawtry, land off Gidding Road

TL 1643 8331 (NA Report 08/44)

C Jones

Evaluation revealed a large ditch containing small quantities of Roman pottery, animal bones, and a quern fragment on the eastern edge of the site, but which did not extend further into the development area. Trenches in the northern part of the site revealed this area to have been heavily disturbed by levelling and deposition of hardcore.

Sawtry to Sapley Anglia Water Pipeline

TL 18208 80138 (OA East Report 1008)

N Gilmour

Evaluation revealed Late Iron Age enclosures and possible settlement adjacent to Ermine Street (South of Monk's Wood Farm) where Roman cropmarks had previously been identified.

Soham, land at 30 Mill Corner

TL 5884 7312 (OA East Report 1010)

T Lyons

Evaluation revealed two archaeological features, both sealed beneath alluvium. One of these, a sub-rectangular feature only partially visible in plan, contained medieval pottery. The other was a small ditch. Modern truncation and petrol contamination was also present.

Soham, the Old Parish Hall

TL 5942 7316 (OA East Report 1023)

C Thatcher

Evaluation revealed evidence for Roman quarrying (in the form of extensive pitting) as well as medieval settlement. The latter included a boundary ditch perpendicular to the High Street, pits and a metalled surface lying within an apparent plot. Cartographic evidence shows a building was present on the site in 1635 which suggests that the existing Parish Hall overlies further external surfaces and boundaries associated with that building; these are expected to have been preserved since the Hall's foundations lie above the recorded archaeology.

Soham, land to rear of 77-81 Paddock Street

TL 5959 7311 (OA East Report 1011)

G Rees

Evaluation revealed Roman and early medieval archaeology. Medieval remains included two large pits as well as gullies and postholes suggesting probable settlement to the north.

Soham, land to rear of 52 Station Road

TL 5908 7341 (Lindsey Archaeological Services 1059 and 1076)

G Tann and R Lopez Catalan

Field walking survey recovered a small collection of Roman, medieval and post-medieval artefacts, likely to be the result of manuring activity. Two concentrations of archaeological remains were identified during evaluation, dated to the medieval and prehistoric periods. A NE-SW orientated burial containing three inhumations was found in the eastern part of the site, suggested to be of prehistoric date as no metal artefacts were recovered from the grave fill. Several undated small pits were located around the south-western side of the burial, possibly indicating a deliberate demarcation of the burial area. A substantial medieval ditch was also recorded, together with truncated gullies and pits.

Somersham, Knobbs Farm (2007)

TL 3678 7937 (CAU Report 815)

N Armour

Further evaluation was undertaken in advance of gravel extraction. The earliest features were a series of pits or wells, some of which produced Middle Iron Age pottery, with evidence for continuity in the use of these wells through the Iron Age into the Roman period. Romano-British activity commenced during the late 1st to mid 2nd century AD, involving the construction of four enclosures, a trackway, buildings, some possible corn-drying kilns and a cremation. Between the mid to late 2nd and 4th century, one of the enclosures was re-cut and another enclosure was established. A rectilinear field system and inhumation cemetery were also established at this time.

Stapleford, Magog Down

TL 4892 5315 (Archaeology Rheesearch Group Report)

I Sanderson

Magnetometer and resistivity surveys were undertaken to investigate a square cropmark feature. Both surveys confirmed the presence of a square anomaly with exterior sides of c. 15.5m and 1.8m width, orientated north-south to east-west. A resistance section was also carried out using a Wenner array, indicating the feature to be almost vertically sided, with a potential depth of over 2m. No structure is shown at this location on any available maps, and a military function is postulated. The Cambridge Evening News from 1912 talks of entrenchments on the Gog Magog Hills, and it is possible this feature may be associated with these military exercises.

Steeple Morden, Steeple Morden Quarry (2007)

TL 3047 3918 (OA Report)

L Piper (OA South Report STMSQEX)

Archaeological investigation in advance of the proposed extension of the existing chalk quarry revealed a large probable late Saxon or medieval ditch and the foundations of two similarly dated buildings. Beam slots of several sizes of a late Saxon to early medieval date were also observed. Two post-medieval ditches and a modern posthole were also revealed. In addition, undated features including a linear ditch and two pits along with over 200 tree holes were observed.

Steeple Morden, Station Quarry

TL 3078 3939 (OA Report)

G Thacker, Station Quarry (OA South Report STMSQEV)

An evaluation by Oxford Archaeology revealed a trackway ditch of medieval or earlier date, which extended the entire length of the evaluation area. A shallower ditch, running parallel to the first, was present in places. A beam slot was located close to the trackway ditch. Other trenches contained tree holes (none of which was dated), a post-medieval ditch and a drain belonging to a post-medieval barn.

Swavesey, Land north of Friesland Farm (2007)

TL 3514 6906 (Air Photo Services Report 2007/04)

R Palmer

Aerial photographic assessment mapped two groups of ditches, likely to be part of a continuous system. The regularity and shape of the features suggests a probable Iron Age or Romano-British date for the complex. Towards the east of the study area two light toned circular areas were also identified, which may indicate the location of Bronze Age barrows.

Thorney, Briggs Farm

TL2505 0070 (OA East Report 1082)

R Mortimer and A Pickstone

This site lies on the Bronze Age fen edge at between 0.50m and 2.70m OD and forms part of the same Bronze Age landscape as Flag Fen to the west. Neolithic occupation was indicated by sparse flint scatters and groups of small pits and tree hollows. During the earlier Bronze Age further pits were dug, with barrows being positioned at the ends of slight spurs above the fen. One truncated and one surviving barrow were excavated, the former containing an adult cremation in a very large collared urn. The second barrow contained consecutive burial pits (primary and secondary burials) at its centre which contained unurned, adult cremation burials. The landscape around the barrows was carved up by field system ditches during the Middle Bronze Age and a dozen wells were found within these fields. A single, relatively dense settlement area grew around one side of a large, rectangular and deep-ditched enclosure.

Dating is not yet clear but there is evidence for Middle Bronze Age occupation as well as the more obvious Later Bronze Age. The settlement does not appear to have continued into the Iron Age. Three roundhouses were found—two with ring ditches, one without—along with a group of post-built structures set within an L-shaped ditched enclosure. Other small posthole structures were found in the area of the roundhouses, as well as a number of pits and large wells. Although the pottery assemblage from the settlement is relatively small, a variety of fired clay objects have been recovered that point to craft activities, chiefly salt-making but including metalworking, possible pottery manufacture and weaving.

Warboys, Chapel Field

TL 3418 8166 (Geophysical Surveys of Bradford Report 08/15)

E Wood

Gradiometer and resistivity survey was undertaken as part of Time Team investigations, to find a 'lost' chapel mentioned in 1795 and located near the site. Results from both techniques appeared to show a single-celled building measuring 9m by 5m on an east-west alignment, towards the centre of the field. A rectilinear enclosure and a smaller circular enclosure were also recorded.

Warboys, Chapel Field

TL 3418 8166 (Wessex Archaeology Report 68730)

Wessex Archaeology (with contributions from CCC and OA East)

Time Team investigations revealed that Chapel Head Field contained evidence of activity and possible occupation from the Late Iron Age onwards and appears to have later been the site of a medieval enclosure which itself encircled at least one well-built structure. No conclusive evidence was found to confirm that the structure first recorded during geophysical investigation was a chapel.

Waterbeach, Ely Road Waste Management Park (2007)

TL 4870 6886 (CAU Report 835)

C Ranson

Excavation revealed further evidence for Romano-British activity at this location. Two possible prehistoric features were identified in the far south of the development area; a field boundary and an isolated pit, neither containing any material culture. The site was dominated by Romano-British occupation activity, dating to the 2nd to 4th centuries, with a peak in activity during the 3rd century. Parts of two rectangular enclosures were identified along the western edge of the excavation area, with a well-established driveway between the two, which is also visible as a cropmark to the south-west of the excavation area.

The southern enclosure had three major phases of construction, dating to the early 2nd, late 2nd - early 3rd and 3rd centuries respectively, and appears to have gone out of use by the late 3rd century. The later phases of the enclosure saw an increase in the material culture deposited into the ditches, including pottery, animal bone, oyster shell and iron.

The northern enclosure, of which only the corner was excavated, was constructed soon after the south enclosure, probably in the late 2nd century, and had two distinct phases of construction in the later 2nd and 3rd centuries. A number of small parallel gullies and small undated structure were excavated inside the south enclosure, associated with the second and third phases of the enclosure. A small curving gully in the north-western corner of the south enclosure was possibly part of a larger wooden structure, and contained pottery of 2nd -4th century date. A possible water hole was excavated just outside the south enclosure, thought to be contemporary with the final phase of enclosure ditches. This had a black organic basal fill that contained a large number of waterlogged seeds, pottery, oyster shell and a piece of black flint utilised as a tessera, while a deposit of three cow mandibles and three scapulae were included in another of the lower fills. In the north-western corner of the excavation area a rough gravel surface measuring 8m by 11m was exposed overlying the driveway between the enclosures, probably constructed the mid-late 3rd century. Overlying the metalled surface was a large midden, which formed in the late 3rd/early 4th century, and represents one of the final phases of Romano-British activity on the site. The midden contained a

single homogenous fill that yielded over 5000 sherds of pottery, 2000 fragments of animal bone, including some worked bone artefacts, 40 copper alloy objects and 75 coins. The finds recovered suggests that the midden may have been used as more than a rural settlement rubbish tip, and may have been associated with the nearby temple and its related activities. A sequence of ditches were exposed in the far south of the site, orientated NE-SW, with a gap between the ditches representing a possible driveway running parallel to Akeman Street.

In the north-eastern corner of the site an area of intercutting features was excavated, which included 42 pits, nine postholes and two possible large pond features. The quarrying activity probably started in the 2nd century, with activity continuing through to the late 3rd or early 4th century. Two large shallow features, probably ponds, were cut through the intercutting quarry pits in the late 2nd or 3rd century, and appear to have remained open. Two pits in the northern part of the pit cluster contained waterlogged deposits, including wood fragments, seeds and insects, suggestive of standing water. Nine postholes were also excavated, only one of which contained later Roman pottery. A number of undated features were also recorded, including pits, postholes, one well, four gullies, four ditches and a pit with possible foot prints.

Whittlesey, medieval remains at the Old Post Office

TL 2700 9699 (OA East Report 1041)

C Thatcher

Evaluation revealed several substantial pits and a possible well. These were probably associated with properties fronting the Market Square.

Whittlesey, land west of 15 Queen Street

TL 2691 9716 (OA East Report 1027)

J House

Evaluation revealed eight archaeological features which probably lay towards the rear of medieval plots on Queen Street. Undated pits as well as later medieval quarrying were also found.

Whittlesey, Stonald Field (2007)

TL 2629 9794 (Archaeological Project Services Report 88/08)

K Murphy

Excavation recorded a small Bronze Age pit with Beaker pottery and flints, and a partially preserved ring ditch with putative associated barrow. Overlying the Bronze Age features, remains of Middle Iron Age date were uncovered, the major elements of which were a ditched rectilinear enclosure surrounding a smaller internal area defined by a curvilinear ditch. Various pits, gullies and a small number of postholes, including a four-post structure, were also identified. These remains appeared to be settlement related, with relatively large amounts of pottery, animal bone and fired clay. The Middle Iron Age remains appeared, in common with the Bronze Age features, to have been quite badly damaged by later land use. Both the

Bronze Age ring ditch and the Iron Age remains appeared to extend beyond the western boundary of the site. Medieval and post-medieval features were observed to truncate earlier remains.

Wisbech, Licking's Drove

TL 4531 0856 (OA East Report 1033)

G Bailey

Evaluation revealed evidence for the canalisation of the River Nene, in two phases. The first of these took place in the late 19th century. Further development took place in the post-war period. A borehole survey indicated that the area was unsuitable for settlement and occupation before the 18th century.

Wisbech, Nene Infant School, Norwich Road

TL 4653 0938 (OA East Report 1063)

S Graham

Evaluation revealed two pits, containing post-medieval material, and a brick structure from the 19th century.

Wisbech/Wisbech St Mary/Parson Drove, pipelines west of Wisbech

TF 4103 0677 (Air Photo Services Report 2008/5)

R Palmer

Aerial photographic assessment was undertaken along a 500m corridor centred on three pipelines running from Wisbech St Mary to Wisbech, to Murrow and to Guyhirn. Visibility of sites from the air seemed to be dependant on soil type, with most being visible on land south and west of Wisbech St Mary. Roman settlement sites tended to be located on roddons, with field systems extending into the adjacent wetter ground, and those mapped are fairly typical of others known in the silt fens. The densest area of Roman ditches features was noted extending some 2km north of Guyhirn, while a less dense extensive area of occupation was mapped at Murrow. Medieval cultivation strips were also recorded between Guyhirn and Wisbech St Mary.

Wisbech, Wisbech Library

TL 4625 0959 (OA East Report 1048)

T Phillips

Evaluation (within a very small and deep trench) revealed early medieval deposits buried beneath 1.5m of post medieval overburden. The earliest activity was represented by an 11th-century ditch or terrace cut, part of ground works associated with the building of the castle and moat. The deposits encountered had the appearance of infill within a large feature, rather than layers of occupation. This material was cut by a later medieval feature. Further post-medieval deposits included a mortar construction surface and two phases of brick wall.

Desk-based assessments were undertaken at the following sites:

Cambridge, Jesus Green

TL 4510 5920 (OA East Report 1006)

Cambridge, National Extension College, Purbeck Road

TL 4591 5635 (OA East Report 1040)

Duxford, Red Lion Hotel

TL 4848 4725 (CAU Report 827)

Ely, Lancaster Way Business Park

TL 519 782 (CGMS Consulting Report)

Fulbourn, Thomas Road

TL 5091 5659 (Howlett Consultancy Report HC/101/A)

Hinxton, land at the Genome Campus

TL 4976 4481 (OA East Report 1042)

Histon, evaluation at 103 Cottenham Road

TL 4407 6457 (OA East Report 1079)

Huntingdon, Hampden House, Temple Place

TL 2436 7172 (OA East Report 1002)

Huntingdon, Whitehills

TL 2362 7136 (AS Report 2935)

Chatteris/Haddenham/Mepal/Sutton/Wentworth/Witcham, Chatteris to Haddenham water scheme

TL 390 875 to TL 488 751 (Archaeological Project Services 2008/08)

Wisbech/Wisbech St Mary/Parson Drove, Pipelines west of Wisbech

TF 4103 0677 (Archaeological Project Services 37/08)

The following sites produced little or no archaeological evidence:

Bottisham, Bottisham Village College

TL 5412 6087 (OA East Report 1054)

Bottisham, Queens Court, Downing Close (2007)

TL 5450 6060 (Heritage Network Report 564)

Burwell, land to the rear of 58–60 Newmarket Road

TL 5929 6637 (OA East Report 1009)

Cambridge, 1 Halifax Road

TL 4395 5976 (NAU Archaeology Report 1683)

Cambridge, Ranc Care Homes, Downhams Lane

TL 4586 6069 (CAU Report 828)

Cambridge, 2 Clare Road

TL 4421 5753 (NAU Archaeology Report 1800)

- Cambridge, 103–107 Grantchester Meadows*
TL 4413 5708 (CAU Report 848)
- Cambridge, Perse Upper School sports pitches*
TL 4622 5572 (AOC Archaeology Group Report 30167)
- Cambridge, Nuffield Hospital, 2–4 Trumpington Road*
TL 4525 5678 (Heritage Network Report 737)
- Cambridge, Milton Road Primary School*
TL 4529 5972 (AOC Archaeology Group Report 30041)
- Caxton, Pastures Farm*
TL 2925 6000 (CAU Report 829)
- Chatteris, 91 High Street*
TL 3918 8652 (AS Report 3098)
- Cottenham, land to the north-west of Orchard Close*
TL 4435 6721 (OA East Report 1077)
- Doddington, Askham House*
TL 3925 9103 (Heritage Network Report 513)
- Elm, land north of 29 Church Road, Friday Bridge*
TF 4683 0485 (PreConstruct Archaeology Report)
- Ely, the Wyches, Little Thetford*
TL 5300 7659 (OA East Report 1044)
- Fulbourn, Thomas Road*
TL 5091 5658 (Heritage Network Report 745)
- Girton, the New Pavilion Site, Girton College*
TL 4236 6122 (OA East Report 1060)
- Godmanchester, Flood Alleviation Scheme*
TL 524 270 (OA East Report 1049)
- Great Shelford, 66–68 Cambridge Road*
TL 4575 5315 (AS Report 3158)
- Harston, 15 London Road*
TL 4323 5169 (AS Report 2986)
- Histon, 103 Cottenham Road*
TL 4407 6457 (OA East Report 1079)
- Horningsea, the Lodge (2007)*
TL 4968 6361 (Archaeology Rheesearch Group Report)
- Huntingdon, Ullswater Road*
TL 2323 7219 (NA Report 08/22)
- Huntingdon, land to rear of 151 High Street*
TL 2418 7162 (AS Report 3097)
- Kennett, Dane Hill Road*
TL 6980 6821 (NAU Archaeology Report 1763)
- Kimbolton, Kimbolton School playing fields*
TL 0968 6768 (Albion Archaeology Report 2008/115)
- Litlington, South View, Church Street*
TL 3121 4265 (Heritage Network Report 456)
- Littleport, 119 Ely Road*
TL 5639 8560 (CAU Report 822)
- Lode, land north-west of Lug Fen Droveaway (2007)*
TL 5185 6617 (Heritage Network Report 706)
- March, Corner Farm, Flaggrass Hill Road*
TL 4286 9827 (OA East Report 1035)
- Over, 23 Fen End*
TL 3786 7076 (AS Report 3075)
- Ramsey, 3 & 5 Old Station Road*
TL 2847 8478 (AS Report 3204)
- Sawston, 11 Babraham Road*
TL 4861 4988 (OA East Report 999)
- Soham, 44 The Butts*
TL 5969 7245 (OA East Report 1046)
- Stretham, Chittering Farm*
TL 5149 7155 (CAU Report 814)
- Upwood and the Raveleys, Farm Close*
TL 2645 8305 (PreConstruct Archaeology Report 444)
- Upwood and the Raveleys, RAF Upwood*
TL 2734 8358 (Archaeophisica Report RUC081)
- Whittlesey, land at No. 2 Springfields, Eastrea*
TL 2929 9723 (OA East Report 1014)
- Willingham, the Green, Green Street*
TL 4076 7044 (OA East Report 1071)
- Willingham, land off Mill End/Spong Drive*
TL 4094 7090 (PreConstruct Archaeology Report)
- Wisbech St Mary, 155–159 Front Road, Murrow*
TF 3808 0732 (Archaeological Project Services Report 66/08)
- Wisbech, College of West Anglia, Elm High Road*
TF 4725 0851 (CAU Report 819)
- Woodhurst, the Forge*
TL 3139 7613 (Albion Archaeology Report 2008/116)

Reviews

Christopher Taylor, Christopher Brookes, Evelyn Lord and Sam Lucy

Medieval Bourn a Cambridgeshire Village in the Late Middle Ages

David Baxter 2008

Mission Computers, Cambridge, x + 190pp., 5 maps, 3 figs, 18 tables & 11 plates ISBN 1 902044 15 0, unpriced

At first sight this is a standard, old-fashioned history of a single village in the long tradition of English Local History. Except that it turns out to be non-standard, up-to-date and certainly not the history of just a village. The only point of similarity with many local histories is that there are not enough good maps. The author falls into the old trap of assuming that the reader knows the parish as well as he does. A situation made worse by the computer-generated maps that are both hard to read and an abomination of cartography. Even this reviewer, who has puzzled over Bourn since 1960, had to dig out his old 6-inch OS map to understand fully the text. In particular because much of the book is a *landscape* history of Bourn, the four parish maps are totally inadequate.

Despite this *Medieval Bourn* is very good indeed. This is because it is not a run of the mill local history. It does not begin with the discovery of a prehistoric axe, moving on to the traces of a Roman villa found in the eighteenth century, passing straight on to Domesday Book and filling most of the rest with a transcript of the Church Wardens' Accounts. The book is expressly the story of the last three centuries of the medieval period in Bourn and concentrates on what is the best-documented part of its history. This, of course, is helped by the fact that its late-medieval institutional lords, Barnwell Priory and Christ's College, made and kept very detailed accounts of the lives of the people of Bourn, providing a wealth of information not available at many other places. In Chapter 1 this fine documentary record is analysed carefully and set in its landscape context, using the author's local knowledge. This demonstrates how much most of us miss of the medieval landscape without the kind of documentary sources that Bourn has in such abundance.

The author correctly points out how different the morphology of the village, with its dispersed 'ends' and hamlets, is when compared with that of its near

neighbours and that of much of Midland England. However, it is not quite as unusual as he claims. Similar villages exist in the south-west of our county and survived at nearby Wimpole until the seventeenth century. Nor is his explanation for the layout of Bourn, its size and complex pattern of tenure really convincing. A better one would be that Bourn still retains remnants of its Anglo-Saxon pattern of dispersed settlement that other villages have subsequently lost. However, the book contains much more than a reconstruction and interpretation and of the late medieval landscape. Chapter 2 covers the life of the village and includes its social structure, changes in the status of its peasants, the impact of plague and famine and much else. Chapter 3 is a detailed account of the economy of Bourn, its crops, their yields, agricultural practices and trade. The book ends with a chapter on the remarkable iron-working industry, the remains of which were found as a result of excavation and fieldwork, but were more fully explained by the documentary record. A fine piece of work that should stand as an exemplar for future Cambridgeshire local historians.

Christopher Taylor

Formerly head of the Archaeological Survey for England
RCHM

The Cartulary of the Hospital of St John the Evangelist, Cambridge

Edited by Malcolm Underwood 2008

Cambridgeshire Records Society, Vol 18 Cambridge
lv + 292 pp. 10 illustrations ISBN 090432320X £21.50

The Hospital of St John the Evangelist had a similar destiny to the convent of St Radegund's: just as the convent was converted into Jesus College shortly before AD 1500, so, soon after, the site, the archives and some of the buildings of the hospital passed into the hands of the college of St John the Evangelist. The buildings were swept away, apart from small fragments, in the 1860s; but the archives remain, and very fortunately they have been for many years now under the care of Malcolm Underwood, one of the most senior and

respected of Cambridge college archivists. These records, and especially the late thirteenth-century cartulary, formed the basis of Miri Rubin's notable study, *Charity and Community in Medieval Cambridge* (1987). Those of us who have seen the cartulary and know Rubin's work have long hoped that the transcript she made twenty years ago would be translated into an edition of this vital text for the study of medieval Cambridge. That Malcolm Underwood had undertaken this work himself was very welcome news, and he has given us an admirable edition. It comprises a calendar of the documents—with full texts for the most important and the least susceptible to summary—with ample notes and a fascinating introduction, sketching the history and endowment of the hospital, and analysing the cartulary.

Especially interesting are the indications the cartulary provides of the topography of this part of Cambridge, of the hospital's relation to the Jews and Jewry of the town, and to the scholarly communities growing up around and in it. The latest documents originally included in the cartulary were of c. 1280, though there are some later additions, and it is not too much to say that this is the richest source for our knowledge of the town and its folk in the thirteenth century.

The hospital was a characteristic product of its age. The late twelfth and early thirteenth centuries witnessed the foundation of many institutions for the sick and the old: they reflected a fashion in which the Christian charity of the founders mingled with the urgent needs of a period of growth in English towns, accompanied by a corresponding increase in the poor and the sick. Concern for the urban poor was part of the wider European scene: the hospital of St John was founded when St Francis was in his teens. It was founded by a charitable layman or a perhaps more correctly by a group of laymen; but as it was a religious house, with a chapel served by a small community of priests at its heart, it was also founded by ecclesiastical authority—by Eustace, bishop of Ely.

The cartulary in its present state is incomplete, and Underwood has supplemented it with Appendices giving us texts of other documents from this rich archive. They whet our appetite: we may hope that another volume will follow giving us more of the documents not in the cartulary. In one of the most interesting of the originals printed here Bishop Eustace makes a settlement between the hospital and the nuns of St Radegund; for the hospital was in the parish of All Saints, of which the nuns possessed the rectorial tithes. The bishop made the kind of arrangement common when a chantry was established within the boundaries of a parish: the nuns allowed services and sacraments to be performed in the hospital, and burials in the hospital cemetery; the parishioners of All Saints were forbidden to worship in the hospital; and three of the lay patrons of the hospital gave the nuns rents in recompense for any losses the nuns might incur (Appendix 3, no. I, 236). In view of this and other interventions, Bishop Eustace was reckoned by his successors to be the founder, but in the memory

of the townsfolk it was they who had founded the hospital. This not unnaturally led to friction and argument later on but immediately, it seems, a peaceful settlement was made; not for nothing was Eustace one of Richard I's foremost diplomats—and he served King John too until Pope Innocent III, in his quarrel with the king over the election of the archbishop of Canterbury, insisted that Eustace become one of the administrators of the Interdict laid on England from 1208 to 1214.

These events clouded Eustace's last years (he died early in 1215); the document we have been examining belongs to an earlier phase. Underwood dates it 1208 x c. 1210. The acts of Bishop Eustace are being edited by Dr Nicholas Karn for the series of *English Episcopal Acts of the Twelfth and Thirteenth Centuries*; and both he and I would be inclined to date it to the very beginning of the century. William of Devon became prior of Barnwell between 1198 and 1202, not in or after 1208, as Underwood suggests;¹ Hugh prior of Ely gives it a *terminus a quo* of 1200, and there seems no reason to date it later than c. 1200. It must take us to the very root of the foundation, for the hospital—even if it started in temporary shelter—could not have survived as a religious house for the sick and elderly without chapel and cemetery. It is witnessed by a mingling of local ecclesiastics, of leading members of the bishop's household (including John Grim, who was apparently one of those engaged a few years later in founding the university) and members of the town's lay patriciate. The hospital, it seems, started in a peaceful settlement between townsfolk and the religious institutions of Cambridge brokered by the diplomatic skills of Bishop Eustace.

The study of these documents, under Malcolm Underwood's skilled guidance, can take us, time and again, to the heart of thirteenth-century Cambridge. If I have strayed a little beyond his cautious account of its foundation, that is due to the clarity with which he has laid out the evidence. The book is a very notable addition to a splendid series.

Christopher Brooke
Emeritus Professor of History
Gonville and Caius College
University of Cambridge
Cambridge

¹ See *Heads of Religious Houses, England and Wales, 1, 940–1216*, ed. D Knowles, C N L Brooke and V C M London, 2nd edn (Cambridge 2001), 151. The prior of Ely was Hugh, not 'Henrico' (cf. *ibid.* 46). I am very grateful to Nicholas Karn for showing me a draft of his edition of the acts of Eustace.

Index to the Contents of the Cole Manuscripts in the British Museum

George J Gray with a preface by John Pickles 2003
CUP facsimile reprint 170pp. with illustrations £5.00

William Cole of Milton

W M Palmer with a foreword by John Pickles
CUP facsimile reprint 178pp. with illustrations £16.50
Both available from Dr J Pickles, 27 Cavendish Road,
Cambridge, CB1 3AE

In *The Tyranny of the Discrete* John Marshall (1992) describes antiquarianism as 'negative, anti-human, escapist, killing curiosity as it romanticises the past', and antiquarians according to Marshall are 'uncritical, unselective, and lacking in conceptualisation' and today the term antiquarian is often used as an insult. Perhaps because of this opprobrium levelled against antiquarians, a recent book celebrating William Dugdale, the Warwickshire Antiquity, is careful to describe him throughout as a 'historian' (Dyer and Richardson 2009). However, W.G. Hoskins starts his definitive work, *Local History in England*, by discussing the work of antiquarians, who he sees as being at the root of academic local history. We could ask where would the local historians of today be without the descriptions, transcriptions and collections of the antiquarians of the past? Of particular relevance to Cambridgeshire was William Cole of Milton, whose biography was written in the 1930s by another antiquarian, Dr William Palmer M D.

Palmer starts by describing Cole's life, habits and his house, based on Cole's own manuscripts with referencing in detail. We see the antiquarian at work visiting every church in the county, copying monumental inscriptions and transcribing manuscripts in the University Library. Cole's interest was not confined to Cambridgeshire and in 1738 he travelled to Lisbon, Flanders, Normandy, Paris and Scotland. He was rightly celebrated in his time.

The book includes extracts from his diary for 1765–1770, and an account of his library, but perhaps his best known and most valuable contribution to the history of Cambridgeshire is his 'parochial antiquities', which are reproduced in this book. These consist of descriptions and drawings of the parish churches as he saw them in the eighteenth century, an invaluable record of Cambridgeshire parish churches at that time, which show Cole as an assiduous recorder of his time.

The index of the contents of his manuscripts shows the other side of the antiquarian, as a collector. The manuscripts, which are now in the British Library are an eclectic collection that not only contains a great deal of information about Cambridgeshire but also covers a wide range of antiquities from England, Scotland and abroad; and includes records of plays, surveys of cathedrals, pedigrees of noble families and much else besides. The entry for Dr Palmer's home town of Linton in Cambridgeshire, for example, includes arms and inscriptions; antiquities; extracts from the parish registers; notes on the estate map; accounts of priors,

rectors and vicars; notes and pedigrees on the Coney family and verses on Mrs Coney.

Cole and Palmer's work are evidence that antiquarians played a crucial role in the formation of local history as both an academic discipline and a popular pastime. Dr Pickles is to be congratulated on arranging for these reprints to be published, and for his scholarly preface and foreword to them.

Evelyn Lord

Fellow of Wolfson College
University of Cambridge

References

- Dyer C and C Richardson (eds) 2009 *William Dugdale Historian, 1605–1686* Woodbridge: The Boydell Press.
Hoskins, W G 1959 *Local History in England* Harlow: Longman.
Marshall, J 1992 *The Tyranny of the Discrete* London: Scolar Press, 2.

Early Anglo-Saxon Communities in the Landscape of Norfolk

Mary Chester-Kadwell 2009

BAR British Series 481 Archaeopress, Oxford xii + 235pp, illustrated throughout with figures, maps, plans, inc. 6 colour plates; ISBN 9781407304168 £50.00

This volume represents publication of Chester-Kadwell's recent PhD thesis, slightly slimmed down for a wider audience, and is a valuable contribution to the fields of early Anglo-Saxon landscape, settlement and burial research. Focusing her efforts on a defined geographical area, she employs a wide range of evidence in order to address topics as diverse as the inter-relationships of cemeteries and settlement, the interpretation of different forms of archaeological data, and the nature of Anglo-Saxon communities. Among the innovative aspects of the research is the considered use of the excellent metal-detector finds data for which Norfolk is renowned (built up over the course of the last thirty years through close communication with local detectorists; a pioneering approach now adopted nationwide through the Portable Antiquities Scheme). This data is critically treated, and given extra value through Chester-Kadwell's interviewing of Norfolk metal-detectorists, as she has attempted to determine where has and has not been detected (*i.e.* does a lack of known finds correspond with a lack of detection, or is it, in fact, a real pattern). A key finding is that metal-detector scatters have 'signatures': over 25 metal finds from a site very strongly suggests the presence of a cemetery, for example. This data is then combined with information on sites and monuments as recorded in the Norfolk HER through the medium of a geographic information system (GIS).

Before embarking on detailed analysis, a balanced and useful overview is given of early Anglo-Saxon archaeological evidence and its possible interpretations; this is followed by a 'case study' chapter that reviews a number of the major sites nationwide in terms of their

landscape context (including their relationship with prehistoric and Roman remains) and how cemeteries are placed in relation to settlements. This enables the formation of a number of research questions to be addressed analytically through the Norfolk data, with a theoretical approach that raises questions of communities: what they represent, and how they might have operated. This perspective is thus grounded in an approach that sees large-scale patterning as comprised of lots of small-scale decisions, and it is this local patterning that can be interrogated archaeologically. What follows is a detailed and nuanced interrogation of the data, which reaches a number of interesting conclusions. One pattern confirmed is the locational tendencies of early Anglo-Saxon settlements and cemeteries: the former have a strong tendency towards the slopes of river valleys, where they are best placed to exploit a range of environmental habitats, while the latter tend to lie further upslope (cremation cemeteries more so than inhumation). In each case, though, local considerations seem to have been at work, particularly in the relationship with previous sites and monuments. These general patterns are then explored through a series of more detailed localised studies, where the GIS mapping is employed to good effect. Editorially, the volume can barely be faulted, with attractive page-setting and excellent use of graphics.

This is certainly an approach that could be used elsewhere in Britain, and further afield; the national record is slowly catching up with the pioneering recording work encapsulated within the Norfolk HER, and such approaches are now becoming viable. Moreover, the rapid incorporation of developer-funded work into HERs means that regional studies such as this can proceed even before final publication of the sites in question, if the level of reporting through schemes such as OASIS is high enough. Chester-Kadwell is to be congratulated on a monograph that moves so seamlessly from detailed data analysis to nuanced interpretation.

Sam Lucy
Post-Excavation and Publications Officer
Cambridge Archaeological Unit
Department of Archaeology
University of Cambridge

Where most Inclosures be. East Anglian Fields: History, Morphology and Management

Edward Martin and Max Satchell 2008

EAA vol 124 xviii + 270pp., 44 figs, 38 tables, 19 charts, 72 plates ISBN 978 1 86055 160 7, £30

The principal purpose of this book is yet one more attempt to solve the problem of the origins of medieval common fields. At its core is a survey of ten small areas, mostly single parishes in Norfolk, Suffolk and Essex, plus one each in Hertfordshire and in Cambridgeshire (Dullingham). Using archive maps, documentary sources and fieldwork, the authors divided each area into 'land types' based on physical

characteristics, field shapes and names, historic land use, tenure etc. The collated results are illustrated by superb colour fold-out maps on 1st edn OS 1:2500 map bases. The results are then applied and analysed in relation to the land of the rest of the region.

The conclusion is that 'block holdings', or land in individual ownership, were more common in the south than in the north, where common fields, usually farmed in strips and in multiple ownership and/or occupation, predominated. Such results are of considerable interest to all agricultural historians.

The book includes much else of value. It contains an analysis of the so-called co-axial field systems recognised in East Anglia and concludes that they are less extensive than previously claimed and are not necessarily pre-Saxon. It also has an extensive glossary of agricultural terms both ancient and modern. If the difference between Inland, Bordland and Warland is needed, or the exact definition of stretch ploughing is required, the answers are here. There is also a good bibliography.

In the end, however, the real value of the book must depend on its conclusions about the origin of common fields, and block holdings. And here doubts begin to emerge. The authors decide that while the southern block holdings are probably older and even may have originated in Roman times or earlier, the common fields of the north are likely to have been the result of social and tenurial reorganisation caused by the Viking invasions of the late ninth century, or possibly by the English re-conquest in the early tenth century.

Despite much supporting evidence being provided, your reviewer is unconvinced. The effect on the landscape of the Scandinavian settlement in East Anglia remains poorly understood. The actual numbers and cultural impact of the incomers are also uncertain. And the suggestion that the complete and very rapid re-organisation of inherently conservative farming methods were the result of political, social or tenurial changes is not easy to take on board.

Behind these worries is another that concerns the methodology. Many of the eighteen different 'land types' that were identified from a mere twelve case studies and then applied to the whole region are very subjective. Further, to a considerable extent they are based on the Historic Landscape Characterisation Scheme (HLC) developed by English Heritage for management purposes. The value of HLC for heritage management is not in question, as the excellent last chapter of the book shows. But its use as an academic tool has caused serious divisions amongst scholars. Some see it as a new and objective way of advancing landscape studies, others as merely a reworking of old-fashioned geographical determinism. The book does not attempt to address this disquiet, or to clarify the problem or to satisfy the doubters.

Christopher Taylor
Formerly head of the Archaeological Survey for England
 RCHM

Index

Jane Carr

Illustrations are indicated by numbers in *italics* or by *illus* where figures are scattered throughout the text.

- Abbots Ripton, 147
Abington Pigotts, 147
Adams, M, *Fieldwork 2008*, 154, 156, *et al*
Addenbrookes, 79
aerial photos, 37, 73, 97, 149, 150, 151, 156, 158, 160
Alconbury, 147
Akeman Street, 159
Archaeological Solutions (HAT), 147–162
Anderson, K, *Fieldwork 2008*, 150, *et al*
Archaeological Rheesearch group, 151, 155
Armour, N, *Fieldwork 2008*, 148, 150, 158, *et al*
Ashwell, 65–8
Atkins, R, *Fieldwork 2008*, 149, 152
- Babraham, 92
Bailey, G, *Fieldwork 2008*, 160
Barham, Suffolk, 82
Bartlow
 church, 50, 56
 Bartlow Hills, 47–64, 147
Barton, T, *Fieldwork 2008*, 155, *et al*
Bedford, 68
Bedford Level Corporation, 113–120, 122
Begg, C, *Fieldwork 2008*, 153, *et al*
Birmingham University Field Archaeology Unit, 147–162
Bishop, B, in *A fen island burial...at North Fen, Sutton*, 37, 41–2
 see also Connor, A
Bluntisham, 147
bone, animal,
 Late Neolithic/Early Bronze Age, 15, 17
 Iron Age, 155
 Roman, 157, 159
 Medieval, 83, 89, 150, 154
 human
 Bronze Age, 17, 27, 34–5, 149; 157, cremations, 40, 43–4, 158
 Iron Age, 155
 Roman, 54, 55, 62, cremations, 54, 55, 156, 158
 Anglo-Saxon, 71–2, 155
 Medieval, 150
Boreham, S, in *A fen island burial...at North Fen, Sutton*, 37, 45
 see also Connor, A
Boston, C, in *A fen island...excavation at North Fen, Sutton* 11, 27
 see also Webley and Hiller
 Bottisham, 121–126, 148
 bracelet, Roman, 57, 59
Bradley-Lovekin, T, *Fieldwork 2008*, 152
Brocklebank, C, 50, 52, 56–7
Brogan, G, *Fieldwork 2008*, 152 *et al*
brooch, Medieval, 151
Brook, M, *Fieldwork 2008*, 154, *et al*
Brown, J, *Fieldwork 2008*, 154
Brown, L, in *A fen island...excavation at North Fen, Sutton* 11, 24, 25, 26,
 see also Webley and Hiller
Brudenell, M, in *Excavations at...Chesterton*, 77, 81–2
 see also Macaky, D
burial mound, Roman, 99
Burrough Green, 148
Bury St Edmunds, Suffolk, 25
Bush, L, *Fieldwork 2008*, 151
Bushnell, D, 98
- CAS, 143–6
Calder Abbey, Cumberland, 101
Cam River, 65, 69, 92, 121–6
Cambridge,
 Archaeology Unit, 45, 77, 147–162
 Changes in the Landscape, 127–142
 Colleges, 7, 71, 127–142
 Fieldwork 2008, 148–150, 160
 Museum of Archaeology and Anthropology, 7, 56
 Vicars' Building watercolour, 145–6
Cambridgeshire
 Archives, 71
 County Council, 37, 127, 147–162
 Dykes, 71
 Sketches, 143–6
Camden, W, 54
Carew, T, *Fieldwork 2008*, 154, *et al*
Catwellauni, 68
causewayed enclosure, 38
Caxton, 89–90, 103, 150
CGMS Consulting, 147–162
Cessford, C in *Excavations at...Chesterton*, 82–83
 see also Mackay, D,
 Fieldwork 2008, 148
Challinor, D, in *A fen island...excavation at North Fen, Sutton*, 11, 26, 27–8
 see also Webley and Hiller, 11, 26
Charney, Oxon, 66
charred plant remains, 44
Chatteris, 11, 34, 35, 150, 160
Chesterford, 95
Chesterton, excavations at, 77–88
Chilterns, 68

- Chippenham, 41
- Clarke, A, *The Bartlow Hills in context*, 47–64, *illus*, *et al*
Fieldwork 2008, 147, *et al*
- Clarke, R, *Fieldwork 2008*, 154, *et al*
- Clayhithe sluice, 121–126
- coffins, 95–6, 99, 108–9
- coins
 Roman, 50, 56, 59, 62–3, 159
 Medieval, 95–6
 coin moulds, 56–7
- Collins, M, *Fieldwork 2008*, 148, *et al*
- Colne Priory, Essex, 101
- CONNOR, A, *A fen island burial...at North Fen, Sutton*, 37–46, *illus*
 A curious object from Firs Farm, Caxton, 89–90, *illus*
 Fieldwork 2008, 154
- Cooper, S, *Fieldwork 2008*, 156
- Cope-Faulkner, P, *Fieldwork 2008*, 153
- Coppergate, York, 83
- corn-drying kilns, 158
- CRA'STER, Mary Desborough, 7–10
- Craster, Northumberland, 8
- Crawley, P, *Fieldwork 2008*, 148
- Cuthbert, M, *Fieldwork 2008*, 150
- Cutler, R, *Fieldwork 2008*, 155, *et al*
- Davenport, B, *Fieldwork 2008*, 148 *et al*
- Davies C, *Fieldwork 2008*, 153, 154, 155, *et al*
- Devil's Dyke, 71
- Denver Sluice, 122, 125
- Dickens, A, *Fieldwork 2008*, 148, 154, *et al*
- Dodwell, N, in *A fen island burial...at North Fen, Sutton*, 37, 43–4
 see also Connor, A
- Domesday Book, 96, 100
- Down Ampney, Gloucs, 66
- Doyle, K, *Fieldwork 2008*, 150, 157, *et al*
- Dry Drayton, 102, 151
- Dunstable, 68
- Duxford, 92–3, 95, 151, 160
- earthworks, 37, 47, 50–4, 56, 62–3
- Earith, 115–6, 118
- Eau Brink Commission, 122–3, 124, 125
- ECKHARDT, H, *The Bartlow Hills in Context*, 47–64 *illus*, *et al*
Fieldwork 2008, 147, *et al*
- Elmdon, 95
- Ely
 Bishop of, 696
 cathedral, 116
 fieldwork, 151–2, 160
 Isle of, 115
 Layton's stone, drawing, 144–5
 Ermine Street, 89
 Eversden, 152
- Fairbairn, J, *Fieldwork 2008*, 153, 157
- Farcet, 152
- faunal remains, see bones, animal
- Fenland, 11, 13, 35
- Fen Ditton, 69–72
- Fenstanton, 152
- Field, N, *Fieldwork 2008*, 147
- field boundaries, prehistoric, 76
- Fisher, I, *Fieldwork 2008*, 151
- Fleam Dyke, 69–76
- Fletcher, T, *Fieldwork 2008*, 148, 151, 153
- flint
 Mesolithic, 17, 19, 2041, 151, 153, 155, 156
 Neolithic–Early Bronze Age, 11, 12, 14, 15, 17–24, *illus*, 38, 41–2, 149, 154, 155, 156
 Iron Age, 77, 153
 worked, 15, 17, 18, 19, 20–1, 34, 37, 40, 41, 42, 44
 dagger, 21, 34
- Fordham, 41
- Fosberry, R, in *A fen island burial...at North Fen, Sutton*, 37, 44
 see also Connor, A.
- Foxton, 152
- Fulbourn 69–72, 152
- funerals, post-medieval, 108–112
- Gage, J, 50, 63
- GATHERCOLE, P, Mary Desborough Cra'ster, 1928–2008, 7–10
 see also Pickles, J, and Taylor, A
- geophysical survey, 47, 48–9, 54, 56, 62–3
- Geophysical Surveys of Bradford, 147–162
- Germany, M, *Fieldwork 2008*, 152
- Gilmour, N, *Fieldwork 2008*, 152, 154, 157
- Goddard, A, 50
- Goodburn, D, in *A fen island...excavation at North Fen, Sutton*, 11, 26–7
 see also Webley and Hiller
- Godmanchester, 152–3
- Graham, S, *Fieldwork 2008*, 160
- Granta River, 47, 50, 52, 54, 62, 65–8, 92
- Grantchester, 68
- gravestones, 110–112
- Great Abington, 92
- Great Fen Project, 153
- Great Chesterford, 96, 98
- Great Gidding, 153
- Great Shelford, 92
- Great Stukeley, 153
- Great Wilbraham, 70
- Greene, R, *Fieldwork 2008*, 153, 155, *et al*
- Grimes Graves, 41
- GUILLEBAUD, P, *Changes in the landscape of west Cambridge, Part V: 1945–2000*, 127–142, *illus*
- Guthlac, Saint, 68
- Haddenham, 11, 25, 38, 150, 153, 160
- Haddenham Level Accounts, 113–120
- Hadstock, Essex, 56, 96–7
- Hailes River, Hunts, 67
- Hailes, Gloucs, place name, 67
- Hale, D, *Fieldwork 2008*, 156
- Hall, D, in *Excavations at...Chesterton*, 77, 82–3
 see also Mackay, D
 Fieldwork 2008, 150, *et al*
- Hallybone, C, *Fieldwork 2008*, 155, *et al*
- Hanks, Prof. C, 8
- Harston, 8, 103
- Haversfield, 50, 52, 56–7
- Hay, S, *The Bartlow Hills in context*, 47–64, *et al*
- Heathrow, 33
- Henney River, see Rhee, 65–8
- Henry, K, *Fieldwork 2008*, 157, *et al*
- Hildersham, 92
- Hillfarrance, Somerset, 33
- HILLER, J, *A fen island...excavation at North Fen, Sutton*, 11–36
 see also Webley, L
- HINDE, K S G, *Upware and Bottisham Sluices*, 121–126, *illus*
- Hinxton, 93–4, 95, 98–9, 160

- Histon, 153, 160
 hoard, Roman, 65–8, 99
 Hogan, S, *Fieldwork 2008*, 155, *et al*
 Holmes, M, *Fieldwork 2008*, 151
 hone stone, 82, 83
 Horningsea, 70
 Houghton, 153–4
 House, J, *Fieldwork 2008*, 154, 159
 Huntingdon, 154, 160
 Huntingdonshire, funerals in, 105–112
 Hutton, J, *Fieldwork 2008*, 149, 150, 155, *et al*
- Iceni*, 68
 Ickleton, 56, 91–104
 Ingham, D, *Fieldwork 2008*, 147, 150
 Ipswich, Suffolk, 83
 Icknield Way, 92–3
- JAMES, N, *The 'Age of the Windmill' in the Haddenham Level*, 113–120, *illus*
 Jones, C, *Fieldwork 2008*, 157
- Kennett, 154
 KENNEY, S, *A re-appraisal of the evidence for the northern 'arm' of the Fleam Dyke at Fen Ditton*, 69–72, *illus*
 kilns, Roman, 69
 Kirtling, 154
 Hall, watercolour, 143–4
 knife, 70, 75
- Lamdin-Whymark, H, in *A fen island...excavation at North Fen*, Sutton, 11, 17–24, *illus*
 see also Webley and Hiller
 Lamprey, C, *Fieldwork 2008*, 150, *et al*
 Lark River, 125
 Lewis, C, *Fieldwork 2008*, 153
 Linton, 92, 154
 Littlebury, Essex, 92–3, 95, 100
 Littleport, 155
 Little Abington, 92
 Little Bealings, Suffolk, 82
 Little Chesterford, Essex, 92
 Little Downham, 103
 Little Shelford, 92, 103
 Loft's Farm, Essex, 82
 Longstanton, 155
 long barrows, 38
 Lopez Catalan, R, *Fieldwork 2008*, 157, *et al*
 Lower Welland Valley, 34, 35
 LYONS, T, *Fieldwork 2008*, *et al*, 147, 150, 153, 154, 156, 157
- Macaulay, S, *The Bartlow Hills in Context*, 47–64, *et al*
Fieldwork 2008, 153, *et al*
 MACKAY, D, *Excavations at Scotland Rd/Union Lane, Chesterton*, 77–88, *illus*
 Macphail, R, I, in *A fen island...excavation at North Fen*, Sutton, 11, 33
 see also Webley and Hiller
 March, 155–6
 Mason, P, *Fieldwork 2008*, 149, 151
 Masters, P, *Fieldwork 2008*, 148, 153, *et al*
 McBurney, C, 9
 McCall, W, *Fieldwork 2008*, 150, 154, 157 *et al*
 McCann, W, *Fieldwork 2008*, 152, *et al*
 Melbourn, 156
 Melikian, M, *Fieldwork 2008*, 154, *et al*
 Mepal, 150, 160
 Milton, 156
- Minerva, 65–8
 moat, 147, 148, 152
 Morris, S, *Fieldwork 2008*, 151
 Mortimer, R, *Fieldwork 2008*, 158, *et al*
 Murphy, P, *Fieldwork 2008*, 159
 Murrell, K, *Fieldwork 2008*, 153
- NAU Archaeology (Norfolk Archaeological Unit) 147–162
 Neville, R, 56, 61–2
 Newman, R, *Fieldwork 2008*, 148, 149, *et al*
 Newmarket, 92
 Newton, A, *Fieldwork 2008*, 150, 153, 157, *et al*
 Northampton, 69
 Northamptonshire Archaeology, 147–162
 NORTON, A, *An excavation at Station Quarry, Steeple Morden, Cambs*, 73–76, *illus*
 see also Piper, L
 Norwich Castle Museum, 8
- O'Brian, L, *Fieldwork 2008*, 152, *et al*
 Old Bedford River, 13
 Ouse Outfall Act, 125
 Ouse River, 11, 37–8, 66, 115–122
 Over, 38, 45, 156
 Oxford, 7–8
 Archaeology, 11, 73
 East, 12, 37, 69, 89, 147–162
 South, 38, 147–162
 University Archaeological Association, 8
- Palmer, R, *Fieldwork 2008*, 150, 151, 156, 158, 160
 Papworth Everard, 156
 Paul, S, *Fieldwork 2008*, 155, *et al*
 Percival, S, in *A fen island burial...at North Fen, Sutton* 37, 42–3
 see also Connor, A
 Peterborough, 156
 Phillips, T, *Fieldwork 2008*, 160
 PICKLES, J, *Mary Desborough Cra'ster, 1928–2008*, 7–10, *illus*
 see also Gathercole, P, and Taylor, A
The CAS Collection of Cambridgeshire 'Sketches', 143–146, *illus*
 Pickstone, A, *Fieldwork 2008*, 158 *et al*
 PIPER, L, *An excavation at Station Quarry, Steeple Morden, Cambs*, 73–76, *illus*
 see also Norton, A
Fieldwork 2008, 158
 place-names, 65–8
 plaques, Roman, 65–8
 Pole, C, *Fieldwork 2008*, 150, *et al*
 pollen, 44
 POPPY, S, *Fieldwork in Cambridgeshire 2008*, 147, *et al*
 pottery
 Neolithic, 11, 12, 13, 14, 15, 25, 33, 35, 37, 38, 40, 41, 42–3, 44
 by type
 Beaker, 14, 15, 25, 33, 152, 155, 156, 159
 Collared Urn, 13, 35, 37, 38, 40, 41, 42–3, 44, 158
 Grooved Ware, 11, 14, 25, 33, 155
 Impressed Ware, 11, 14, 15, 33
 Peterborough Ware, 25
 Late Neolithic-Early Bronze Age, 151, 154, 157
 Middle Bronze Age, 149, 155–6
 Late Bronze Age, 150, 155
 Iron Age, 77, 81–2, 149, 152, 155, 158, 159
 by type
 Darmsden-Linton, 77, 81–2
 Roman, 50, 52–4, 57, 59–61, 62–3, 69, 73, 83, 151, 152,

- 154, 157, 159
by type
 Hadham Ware, 60–1, 73
 Horningsea Ware, 54
 Nene Valley, 54, 60, 73
 Oxfordshire wares, 60–1
 Samian, 53, 54, 60–1, 73, 83
 Medieval, 73, 81, 82–3, 149, 150, 151, 153, 154, 156, 157, 154
by type
 Coarsewares, 83
 Essex Redwares, 83
 Lyveden ware, 83
 Medieval Ely ware, 83
 Northamptonshire Shelley Ware, 83
 St Neots type ware, 82–3, 153, 156
 Stamford Ware, 82–3, 153, 156
 Thetford type ware, 82–3, 156
 post-Medieval, 74, 147, 148, 151
 pottery stamp, 154
 priory, Ickleton, 95–6, 98–9, 101
 probate accounts, 105–112
 Punchard, W, *Fieldwork 2008*, 149, 156
- quernstones
 Roman, 61–2, 154, 157
 Medieval, 89
- radio-carbon dates, 40, 43, 45
 Ranson, C, *Fieldwork 2008*, 159
 Ravenna Cosmography, 65, 66
 Raverat, G, 133
 Rea River, Warwicks, 68
 Rees, G, *Fieldwork 2008*, 152, 155, 156, 157
 Rhee or Henney River, 65–8
 Richards J, *Fieldwork 2008*, 156
 ring ditches, 41, 150, 160
 round barrows
 Bronze Age, 11, 13, 35, 37–46, 74, 158, 159
 Romano-British, 47–64, *illus*, 148
 Royal Commission on Historical Monuments, 113
 Royston, 92
 Ryan, P in *The Bartlow Hills in context*, 62 *et al*
- Sabrina*, 67
 St Ives, 156
 St Neots, 157
 Sanderson, I, *Fieldwork 2008*, 158
 Sawston, 92
 Sawtry, 157
 seal, Medieval, 151
 Segenhoe, Beds, 102
 Semmelman, K, *Fieldwork 2008*, 156
 settlement
 Iron Age, 69, 147, 151, 152
 Roman, 149, 150, 151, 152, 159
 Saxon, 147, 149, 153
 Medieval, 73, 77–88 *illus*, 89–90, 91–104, 149, 152, 157
 SHEPHERD POPESCU, E, *Fieldwork in Cambridgeshire 2008*, 147, *et al*
 shrine, 66
 Simmonds, C, *Fieldwork 2008*, 151, *et al*
 Slater, A, *Fieldwork 2008*, 148, 149, *et al*
 sluices, 121–126
 Smalley, R, *Fieldwork 2008*, 153
 Smith, D, in *A fen island...excavation at North Fen, Sutton*, 11, 31–33
 see also Webley and Hiller
- Smith, L, *Fieldwork 2008*, 147, 155, *et al*
 Smith, W, in *A fen island...excavation at North Fen, Sutton*, 11, 28
 see also Webley and Hiller
 Snailwell, 44–5
 SNEATH, K, *Funerals, the final consumer choice?* 105–112, *illus*
 Soham, 157
 Somersham, 158
 South Cerney, Gloucs, 66
 South Level Commission, 125
 South Midlands Museums Federation, 8
 Sparrow, P, *Fieldwork 2008*, 154, 155, *et al*
 Speed, C, *Fieldwork 2008*, 147, *et al*
 spindle whorl, 77, 82, 83
 Standring, R, *Fieldwork 2008*, 149, *et al*
 Stansted, Essex, 82
 Stanwick, Yorks, 8
 Stapleford, 158
 Steeple Morden, 73–76, 158
 Strid, L, in *A fen island...excavation at North Fen, Sutton*, 11, 27
 see also Webley and Hiller
 Stone, P, *Fieldwork 2008*, 150, *et al*
 Sutton, 150, 160
 Archaeological Dig project, 37
 Conservation Society, 13, 37
 North Fen excavations, 11–36
 North Fen barrow, 37–46
 Swaffham Prior, 45
 Swavesey, 158
 Swaysland, C, in *Excavations at ... Chesterton*, 77, 83
 see also Mackay, D
- Tann, G, *Fieldwork 2008*, 157, *et al*
 TAYLOR, A, *Mary Desborough Cra'ster, 1928–2008*, 7–10, *illus*
 see also Pickles, J and Gathercole, P
 TAYLOR, C, *A morphological analysis of Ickleton, Cambs: an admission of defeat*, 91–104, *illus*
 temple, 159
 Teversham, 69–72
 Thacker, G, *Fieldwork 2008*, 158
 Thames Valley, 17
 Thatcher, C, *Fieldwork 2008*, 154, 155, 157, 159
 Thompson, A, *Fieldwork 2008*, 156, *et al*
 Thornley, D, in *The Bartlow Hills in context*, 47–64, *et al*
Fieldwork 2008, 147 *et al*
 tile kilns, Roman, 61–2
 Tilty Abbey, Essex, 101
 Timbey, J, in *The Bartlow Hills in context*, 47, 59–61, 63 *et al*
- Unger, S, *Fieldwork 2008*, 147, 150, 152, 153, 154, 155, *et al*
 Upton, Northants, 45
 Upware, 121–126
- de Vareilles, A, in *Excavations at ... Chesterton*, 77, 84,
 see also Mackay, D
 Verrill, L, in *A fen island...excavation at North Fen, Sutton*, 11, 28–31
 see also Webley and Hiller
 Victoria County History for Essex, 50, 54
 villa, Bartlow, 50, 56–7, 59
 Hadstock, Essex, 96
 Ickleton, 96, 99
- Warboys, 158–9
 Waterbeach, 121, 123, 159
 Waterhole, 15, 16, 17, 33–4, 35, 38, 148, 150, 155
 WEBLEY, L, *A fen island...excavation at North Fen, Sutton*,

-
- 11–36, *illus*
see also Hiller, J
Welsh language, 67–8
Wentworth, 150, 160
Wessex Archaeology, 159
West Dereham, Norfolk, 101
Weston, P, *Fieldwork 2008*, 155, *et al*
Whittlesford, 63, 92
Whittlesea, 153, 159
Wilson, N, *Fieldwork 2008*, 156, 157, *et al*
windmills, 113–120, *illus*
Wisbech, 160
Witcham, 150, 160
witchcraft, 90
Wood, E, *Fieldwork 2008*, 158
Woodditton, 71
Woolhouse, T, *Fieldwork 2008*, 147, 155, *et al*
- YEATES, S, *Senuna, goddess of the river Rhee or Henney*, 65–8,
illus

Abbreviations

<i>Ant.</i>	<i>Antiquity</i>	<i>PCAS</i>	<i>Proceedings of the Cambridge Antiquarian Society</i>
<i>Antiq. J.</i>	<i>Antiquarians Journal</i>	<i>PPS</i>	<i>Proceedings of the Prehistoric Society</i>
<i>Arch. J.</i>	<i>Archaeological Journal</i>	<i>PRO</i>	Public Record Office
<i>AS</i>	Archaeological Solutions, previously Hertfordshire Archaeological Trust	<i>RCHME</i>	Royal Commission on Historic Monuments (England)
<i>BAR</i>	British Archaeological Reports	<i>VCH</i>	<i>Victoria County History, Cambridgeshire</i>
<i>BUFAU</i>	Birmingham University Archaeological Field Unit	<i>VCHHunts</i>	<i>Victoria County History, Huntingdonshire</i>
<i>BRS</i>	British Record Society		
<i>CAU</i>	Cambridge Archaeological Unit		
<i>CBA</i>	Council for British Archaeology		
<i>CCC</i>	Cambridgeshire County Council		
<i>CGMS</i>	CGMS Consulting		
<i>CHER</i>	Cambridgeshire Heritage and Environment Record, formerly SMR		
<i>CRO</i>	County Record Office, Cambridge		
<i>CUCAP</i>	Cambridge University Committee for Aerial Photography		
<i>CUL</i>	Cambridge University Library		
<i>CUP</i>	Cambridge University Press		
<i>CUULM</i>	Cambridge University Unit for Landscape Modelling		
<i>EAA</i>	East Anglian Archaeology		
<i>GSB</i>	Geophysical Surveys of Bradford		
<i>HAT</i>	Hertfordshire Archaeology		
<i>HER</i>	Cambridgeshire Historic Environment Record, formerly Cambridgeshire Site and Monuments Record (SMR)		
<i>HMSO</i>	Her Majesty's Stationery Office		
<i>HRO</i>	County Record Office, Huntingdon		
<i>NA</i>	Northamptonshire Archaeology		
<i>NAU</i>	NAU Archaeology, previously Norfolk Archaeological Unit		
<i>NMR</i>	National Monuments Record, Swindon		
<i>OA East</i>	Oxford Archaeology East, previously CAM ARC		
<i>OA South</i>	Oxford Archaeology South		
<i>OUP</i>	Oxford University Press		

Recent Accessions to the Cambridgeshire Collection 2008

Chris Jakes

ABRAMS, Joe & INGHAM, David

Farming on the edge: archaeological evidence from the clay uplands to the west of Cambridge. EAA Report 123

Bedford. Albion Archaeology. 2008.

ISBN 9780955654602

AGE CONCERN CAMBRIDGESHIRE

Wisbech waterfront: memories and reminiscences. [DVD]

Chatteris. Age Concern. 2007.

ALMOND, Philip C.

The witches of Warboys: an extraordinary story of sorcery, sadism and satanic possession.

London. I B Taurus. 2008.

ISBN 978845115081

BACK, Michael

Peterborough to Kings Lynn.

Midhurst. Middleton Press. 2008.

ISBN 9781906008321

[Photographic history of M&GN railway line.]

BANHAM, Dale & WRENN, Andrew

Slave trade abolition in Cambridgeshire & Suffolk: an innovative resource for teaching local, national and international history, using original sources. [CD]

Cambridge. St John's College. [2008]

BEDINGFIELD, Marcus.

"Sleep well, England will avenge": the Chatham air raid 3rd September 1917, the connection with Suffolk and Cambridgeshire.

Chatham. The author. 2008.

[Includes details of seamen killed in air raid]

BETHNAL GREEN. St Matthias' School.

Merging: being the story of evacuation from Bethnal Green to Littleport.

Littleport. Littleport Society. 2008.

[Facsimile edition, originally published 1939]

BEVIS, Trevor A

From workhouse to hospital: illustrated reminiscences of Doddington Hospital.

March. The author. 2007

ISBN 090168080X

BEVIS, Trevor A

March past and present: an introduction to a fen market town.

March. The author. 2007

ISBN 0901680796

BLAIR, Andrew Hunter

The River Great Ouse and tributaries: a guide for river users.

St Ives. Imray, Laurie, Norie & Wilson. 2006.

ISBN 9780852889435

BLAKEMAN, Pamela

Oliver Cromwell's house Ely.

Ely. Ely Society. 2008.

ISBN 0903616173

BLANTON, Virginia

Signs of devotion: the cult of St Aethelthryth in medieval England, 695-1615.

Pennsylvania State University Press. 2007.

ISBN 9780271029849

[St Etheldreda]

BOWMAN, Martin

B-17 combat missions: fighters, flak, and forts: first-hand accounts of Mighty 8th operations over Germany.

London. Greenhill Books. 2007.

ISBN 9781853677540

BOWNS, Steven

Storming the Schwaben Redoubt by 1/1st Cambridgeshire Regiment on 14 October 1916.

Cambridge. CUP [2006]

BRODIE, Juliet & BRODIE, Heather

Grandad's war: the First World War diary of Horace Reginald Stanley.

Cromer. Poppyland Publishing. 2007.

ISBN 97809461148837

[Served with Cambridgeshire Regiment]

BROOKS, Peter Newman

Nimrod: a memoir of mischief and mishap.

Basingstoke. Moyhill Publishing. 2008.

ISBN 9781905597109

[Second edition, originally published 2007]

- BROUGHTON, Lynne
Interpreting Ely Cathedral.
[Ely] Ely Cathedral Publications. 2008.
ISBN 9781873027110
- BROWN, David
A better life: a story of ten migrants.
Cambridge. Advice for Life. [2008]
[Includes migrants resident in Cambridge & Huntingdon]
- BROWN, Harry
From birth to the departure lounge.
Hullwebs. 2007.
- BROWNESS, Stephen
A tale of two parishes ... and a coquinary manor: the urbanisation of Whittlesey, Cambridgeshire.
[Unpublished Landscape History Project, University of Leicester] 2008.
- BRYAN, Peter
Cambridge: the shaping of the city.
Cambridge. G.David. 2008.
ISBN 9780952966555
[Originally published 1999: updated with additional chapter, 1999–2008]
- BULLEN, Annie
Cambridge.
Andover. Pitkin Publishing. 2008.
ISBN 9781841652108
- BURNS, Peggy
Memories of Cambridge.
Elland. True North Books. 2007 (1999)
ISBN 1900463881
- CAMBRIDGE MAPMAKERS
The Ely map: map and guide to the historic city of Ely and surrounding area.
Prickwillow. Cambridge Mapmakers. [2008]
ISBN 9780953653249
- CAMBRIDGE LOCAL STRATEGIC PARTNERSHIP
Cambridge sustainable community strategy 2008–2011.
Cambridge. CLSP. [2008]
- CAMBRIDGESHIRE COUNTY COUNCIL.
Climate change and environment strategy.
Cambridge. CCC 2008.
- CAMBRIDGESHIRE COUNTY COUNCIL.
Research Group.
The demographic impact of international migration in Cambridgeshire.
Cambridge. CCC 2008.
- CAMBRIDGESHIRE COUNTY COUNCIL. Research Group.
Deprivation in Cambridgeshire – individual indices of deprivation 2007.
Cambridge. CCC 2008.
- CAMBRIDGESHIRE HORIZONS
Cambridgeshire quality charter for growth.
[Cambridge]. Cambridgeshire Horizons. [2008]
- CAMBRIDGESHIRE PRIMARY CARE TRUST
Cambridgeshire long term conditions strategy 2008–2011 and action plans 2008–2009.
Huntingdon. CPCT. 2008.
- CARPENTER, Ralph
Horace Gautrey's diary: part 3 1936–1938
Cottenham. The author. 2007
[Diary of Cottenham farmer]
- CARTER, John
Newmarket: a year at the home of horseracing.
Cheltenham. SportsBooks Ltd. 2008.
ISBN 9781899807628
- CARTER, John V
Ensign Carter's journal 1812: the Peninsular diary of Ensign John V Carter 30th (Cambridgeshire) Regiment of Foot.
Huntingdon. Ken Trotman Publishing. 2006.
ISBN 1905074379
- CHAFFE, Sylvia
Barway school records: volume 1, 1889–1909.
St Ives. The author. [2008]
- CHAFFE, Sylvia
Barway school records: volume 2, 1910–1923
St Ives. The author. [2008]
- CLIFT, Imelda
The Wedgwood/Darwin dynasty.
Ely. Melrose Books. 2008.
ISBN 9781906050801
- CONNOR, Aileen & TAYLOR, Ian
Excavation report for Spring Close Boxworth, Cambridgeshire.
Boxworth Village Research Group. 2007.
- COTTENHAM ENVIRONMENT AUDIT GROUP
Boundaries survey in the parish of Cottenham Cambridgeshire.
Cottenham. CEAG. [2008]
[Records the make-up and condition of hedgerows, trees, ditches, lodes etc forming boundaries in the parish]
- COTTENHAM ENVIRONMENT AUDIT GROUP
The Cottenham landscape: an exploration of the countryside around our village.
Cottenham. CEAG. 2008.
- COX, John G
Samuel Morton Peto (1809–1889): the achievements and failings of a great railway developer.
Oxford. Railway & Canal Historical Society. 2008.
ISBN 9780901461568
- CUNNINGHAM, Kathleen E
The great Romany showman.
Cambridge. Cambridgeshire Race Equality & Diversity Service. 2007.
ISBN 9781904452256

- DAVIDSON, Rosemary
Gwen Raverat: a miscellany.
Cambridge. Broughton House Books. 2007.
ISBN 9780954391768
- DAWSON, Peter
Henry Fawcett – man of vision.
[Trumpington. The author.] 2008.
- De ROND, Mark
The last amateurs: to hell and back with the Cambridge boat race crew.
Thriplow. Icon Books. 2008.
ISBN 9781848310155
- DELVE, Ken
The military airfields of Britain: East Midlands: Cambridgeshire, Derbyshire, Leicestershire, Lincolnshire, Nottinghamshire.
Ramsbury. Crowood Press. 2008.
ISBN 9781861269959
- DODKIN, Kathleen
Wartime reminiscences.
Royston. Royston & District Local History Society. 2005.
- DOWDY, Mac
An improving town: the buildings of Soham 1792-1807.
Soham. Soham Action 4 Youth. 2007
ISBN 9780955799006
- DWYER, Peter & HARDILL, Irene
Older people and village services: exploring the impact of community-based services in rural England.
London. Age Concern. 2008.
[Part of research carried out in Cambridgeshire]
- DWYER, Peter & HARDILL, Irene
Older people and village services: research report to Age Concern in the Midlands and Eastern regions of England.
Nottingham. Nottingham Trent University. 2008.
- EVAN-HART, Julian
War-torn skies of Great Britain: Cambridgeshire.
Walton on Thames. Red Kite. 2008.
ISBN 9780955473593
- FINCH, John
A Nobel Fellow on every floor: a history of the Medical Research Council Laboratory of Molecular Biology.
Cambridge. Medical Research Council. 2008.
ISBN 9781840469400
- FINCHAM, Garrick
Durobrivae: A Roman town between fen and upland.
Stroud. Tempus. 2004
ISBN 0752433377
- FOUNTAIN, Janet & KEPPEL-GARNER, Adam
Benwick bygones: village life in the twentieth century.
Benwick. The Authors. 2008.
- GDANIEC, Kasia, EDMONDS, Mark & WILTSHIRE, Patricia
A line across land: fieldwork on the Isleham-Ely pipeline,
1993–4. EAA Report 121
Cambridge. CAU 2007
ISBN 9780954482459
- GILBRAITH, Colin & WALSTON, Catharine
Pembroke in our time: a portrait of Pembroke College Cambridge since 1945.
London. Third Millennium Publishing. 2007.
ISBN 9781903942604
- GLAZEBROOK, Peter
Jesus: the life of a Cambridge college.
Cambridge. Granta Editions. 2007.
ISBN 9781857570878
- GOOD, Mike
Selwyn celebrated 1882–2007.
Cambridge. Jeremy Mills Publishing. 2007.
ISBN 9781905217267
- GOULDEN, Glenda
Foul deeds and suspicious deaths in and around the fens.
Barnsley. Wharnccliffe Books. 2008.
ISBN 9781845630720
- GUEST, Howard
On the shoulders of giants: portraits from the University of Cambridge.
Impington. Howard Guest Publishing. 2008.
ISBN 9780955875700
- HARWOOD, Helen
Cambridge: town, gown and village, a study of Cambridge and its hinterland 1930-1939.
[Unpublished dissertation. C U Institute of Continuing Education. 2008]
- HAWKING, Jane
Travelling to infinity: my life with Stephen.
Richmond. Alma Books. 2007.
ISBN 9781846880346
[Revised version of *Music to move the stars* originally published in 1999]
- HERBERT, Nicholas
Successive journeys: a family in four continents.
Gamlingay. Bright Pen. 2008.
ISBN 9780755204328
- HIGGINS, Michael
Ely Cathedral.
Andover. Jarrold Publishing. 2007. (2001)
ISBN 9781841650401
- HIRSCH, Pam & McBETH, Mark
Teacher training at Cambridge: the initiatives of Oscar Browning and Elizabeth Hughes.
London. Woburn Press. 2004.
ISBN 0713040548
- HIRSH, Jennifer
Memories of the Land Settlement Association in Abington 1936 to 1983.
Little Abington. Abington History Group. 2008.

- HOLLAND, Frank
D-Day plus one: shot down and on the run in France.
London. Grubb Street. 2007.
ISBN 9781904943938
Includes Cambridge childhood
- HOLMAN, Deborah & SCHNEIDER, Claudia
Economic migration in the East of England: update 2007.
Cambridge. Anglia Ruskin University. 2008.
- HOULDCROFT, P T
A medieval mystery at the crossroads: a lodge at the ancient crossroads in Royston.
Royston. Royston & District Local History Society. 2008.
[Royston cave]
- HOUSTON, James M
Evangelical preaching: an anthology of sermons by Charles Simeon.
Vancouver. Regent College Publishing. 2003.
ISBN 1573832642
[Originally published 1986]
- JEACOCK, Michael
More views from the fen.
Newmarket. Jeacock Group. 2008.
ISBN 9780955846601
- JENKIN, John
William and Lawrence Bragg, father and son: the most extraordinary collaboration in science.
Oxford. OUP 2008.
ISBN 9780199235209
- JESUS CHRIST OF LATTER DAY SAINTS CHURCH
Messenger gems: leaves of love, laughter and inspiration from the Cambridge Latter-day Saint magazine.
Cambridge. The Church. 2008.
- JOHNSON, Gordon
University politics: F.M. Cornford's Cambridge and his advice to the young academic politician.
Cambridge. CUP 2008.
ISBN 9780521723732
[Second edition originally published in 1994]
- KIRBY, Anthony
Anglia Ruskin University 1858–2008: a celebratory history.
Chelmsford. Anglia Ruskin University 2008.
ISBN 9780907262718
- KOYAMA, Noburu
Japanese students at Cambridge University in the Meiji Era: pioneers for the modernization of Japan.
Lulu.com. 2004
ISBN 9781411612566
- LANE, Jane A
The ancestors of Salmon Linton of Longstanton & Westwick (died 1803).
Little Wilbraham. The author. 2006.
- LANE, Jane A
Meldreth Rectory Farm house and the Linton family in the mid 19th century.
Little Wilbraham. The author. 2006.
- LANE, Jane A
Saint George's church, Six Mile Bottom, Cambridgeshire.
Little Wilbraham. The author. 2008.
- LANE, Jane A
The three branches of the Linton family in and around Oakington, Longstanton and Westwick.
Little Wilbraham. The author. 2003.
- LORD, Evelyn
Brewers and brewing in Huntingdonshire: a social and economic history.
Girton. EAH Press. 2008.
ISBN 9780956038401
- McGUINNESS, Brian
Wittgenstein in Cambridge: letters and documents 1911–1951.
Oxford. Blackwell Publishing. 2008.
ISBN 9781405147019
- MACKRELL, Judith
Bloomsbury ballerina: Lydia Lopokova, imperial dancer and Mrs John Maynard Keynes.
London. Weidenfeld & Nicolson. 2008.
ISBN 9780297849087
- MARSHALL OF CAMBRIDGE
A service of thanksgiving and celebration for the life of Sir Arthur Marshall ... Cambridge airport ... 19th May 2007. [DVD]
Cambridge. The Author. 2008.
- MARTIN, Donna
Olaudah: the interesting life of Gustavus Vassa, The African.
Soham. Soham Action 4 Youth. 2008.
ISBN 97809557999013
- MARTIN, Donna
Soham on the home front.
Soham. Soham Community History Museum. 2007.
- MARTIN, Edward & SATCHELL, Max
Where most inclosures be, East Anglian fields: history, morphology and management. EAA Report no 124
Ipswich. Suffolk County Council. 2008.
ISBN 9780860551607
[Includes Dullingham as case study]
- MAYO, O C
Pampeswrd – a history in six parts.
Pampisford. The author. 2008.
[Second edition. Originally published in 1985]
- MILLINGTON, Veronica
Fanny Eliza Johnson, a thoroughly modern Victorian headmistress: Bolton High School for Girls 1888–1893.
Hebden Bridge. Royd House. 2008.
ISBN 9780955620485
[Father & grandfather ran Llandaff House Academy in Cambridge]

- MOOR, R M, BOOTH, W.D. & ALLEN, W R
A history of the Cambridge Animal Research Station 1933 to 1986.
 Newmarket. R & W Communications. 2008.
 ISBN 1899772146
- MOORE, A E
Hither and yon: a Cambridge doctor's day.
 [Histon. S.Parr] 2008.
 [Memoirs of Histon G.P. 1933–1958]
- MORLEY, Arnold
Anglesey Abbey at war.
 Swindon. National Trust. 2008.
- MURKIN, Chris
Just another day at the office: the true working memoirs of a Paramedic who was formerly part of a Bomb Disposal team in Belfast.
 Milton Keynes. AuthorHouse. 2007.
 ISBN 978425980962
- NATIONAL TRUST
Peckover House, Wisbech.
 Swindon. National Trust. 2006.
 ISBN 9781843590989
- NEILD, Robert
The financial history of Trinity College, Cambridge.
 Cambridge. Granta Editions. 2008.
 ISBN 9781857570939
- PAGNAMENTA, Peter
The University of Cambridge: an 800th anniversary portrait.
 London. Third Millennium. 2008.
 ISBN 9781903942659
- PANAYOTOVA, Stella
I turned it into a palace: Sydney Cockerell and the Fitzwilliam Museum.
 Cambridge. Fitzwilliam Museum. 2008.
 ISBN 9780904454840
- PARKER, Mary
Histon Baptist Church 1858–2008.
 Histon. The Church. 2008.
- PAULSON-ELLIS, Christina
The Cambridge Association for the Care of Girls: social work with girls and young women in Cambridge 1883–1954.
 [Edinburgh] The author. 2008.
 ISBN 1904623638
- PEACHEY, Philip R
Jeweller's rouge: survival by the River Kwai.
 Wroxall. Springfield Leisure-Art Collection. 2002.
 ISBN 0947853065
 [Author from Burwell. Experiences as POW in Far East]
- PERKINS, Tom
The art of letter carving in stone.
 Ramsbury. Crowood Press. 2007.
 ISBN 9781861268792
- [Letter carver based in Sutton]
- PLOWMAN, Douglas
The Royston war memorial.
 Royston. Royston & District Local History Society. 2006.
- RABAN, Sandra
Examining the world: a history of the University of Cambridge Local Examinations Syndicate.
 Cambridge. CUP 2008.
 ISBN 9780521884143
- RALLS, S & RALLS, J
Trouble with traffic: how Royston learned to live with the motor vehicle.
 Royston. Royston & District Local History Society. 2007.
- REED, Leonard
True to the faith: stories from the lives of the pioneers of the Ipswich England stake.
 Cambridge. [The Church] 2007
 [The Church of Jesus Christ of Latter-day Saints. Includes histories of Cambridgeshire and Huntingdon churches]
- REX, Christina
Doodlebugs, gas masks & gum: children's voices from the Second World War.
 Chalford. Amberley Publishing. 2008.
 ISBN 9781848680852
- REYNOLDS, John
Engines & enterprise: the life and work of Sir Harry Ricardo.
 Sparkford. Haynes Publishing. 2008.
 ISBN 978844255160
 [Second edition, originally published in 1999]
- ROBERT MYERS ASSOCIATES
The Backs Cambridge: landscape strategy.
 Kington. RMA. 2007.
- RUDDERHAM, Roger
A history of St. George's church Littleport.
 Littleport. Littleport Society. 2008.
- RUSHWORTH, Gill
Swaffham Bulbeck and saffron.
 Swaffham Bulbeck. The Author. 2008.
- SALISBURY, Martin
Ronald Searle: a celebration.
 Cambridge. Anglia Ruskin University. 2008.
- SANDERSON, Gillian Frances Mary
Abbey House, Cambridge: the biography of a building.
 [Unpublished dissertation]. 2008.
- SCURFIELD, Matthew
I could be anyone.
 Gozo, Malta. Monticello Publishing. 2008.
 ISBN 9780955695209

- SHAW, Jean
Mercury poisoning, it's not in our heads any more: Jodi's journey goes on.
Littleport. Simply Me. 2007.
ISBN 9780955773617
[Third book about son Jodi who has autism]
- SHELFORD ORAL HISTORY GROUP
Health and housing.
Great Shelford. SOHG. 2008.
- SHELFORD ORAL HISTORY GROUP
Some Shelford lives: memories of some past and present residents of Great Shelford in Cambridgeshire ...
Great Shelford. SOHG. 2008.
- SIEVEKING, L. M., GOOCH, Jenifer & DALY, Olivia
A history of Robert Sayle 1840–2007.
Cambridge. John Lewis. 2008.
ISBN 9780955895005
[Third edition updated to 2007]
- SILLS, Peter
Ely cathedral: souvenir guide.
London. Scala Publishers. 2008.
ISBN 9781857595390
- SILVERSTON, Neville
Stories from a country practice.
Peterborough. Upfront Publishing. 2007.
ISBN 9781844264674
- SMART, Catherine H L
The great windows, King's College chapel, Cambridge.
London. Scala Publishers. 2005
ISBN 1857594118
- SMITH, Gordon
Football in Wisbech vol II: the next fifty years ... 1920–1970.
Wisbech. The author. 2007.
ISBN 0954456017
- SPOERRY, Paul
Ely wares. EAA Report 122
Bar Hill. CAM ARC. 2008.
ISBN 9781904452300
- STANLEY, Matthew
Practical mystic: religion, science, and A.S. Eddington.
Chicago. University of Chicago Press. 2007
ISBN 9780226770970
- STEARNS, Hubert Arthur
Memories of Hubert Arthur Stearn 1896–1987: pharmacist and councillor, Royston.
Royston. Royston & District Local History Society. 2005.
- STROUDE, H A E & LANE, J A
The history of St Michael's church, Longstanton.
Longstanton. The Authors. 2007.
- STROUDE, H A E & LANE, J A
The history of the charity for the church of Longstanton All Saints (including information on the charity for the church of Longstanton St Michael)
Longstanton. The authors. 2007.
- STROUDE, H A E & LANE, J A
The sign of the Talbot: the Burgoyne family of Impington & Longstanton, a family of lawyers in Medieval Cambridgeshire.
Longstanton. The authors. 2008.
- SUTHERILL, Mike
Anglesey Abbey gardens, Cambridgeshire: a souvenir guide.
Swindon. The National Trust. 2008.
ISBN 9781843592105
- TAYLOR, Kevin
Central Cambridge: a guide to the University and Colleges.
Cambridge. CUP. 2008.
ISBN 9780521888769
[Second edition. Originally published 1994]
- THISTLETHWAITE, Nicholas
The organs of Cambridge: an illustrated guide to the organs of the University and City of Cambridge.
Oxford. Positif Press. 2008.
ISBN 9780906894392
- TINKLER, Richard
Wharves Tinkler fenland smallholder: farming in the Huntingdonshire fens 1934–1970.
Somersham. The author. 2008.
ISBN 9780956024008
[Farm in Tick Fen between Warboys and Chatteris]
- TRACY, Kathleen
Sacha Baron Cohen: the unauthorized biography: from Cambridge to Kazakhstan.
New York. St Martin's Griffin. 2008.
ISBN 9780312375799
- UNDERWOOD, Jeane
Hundred Houses Society: a history.
Cambridge. Hundred Houses Society. 2008.
ISBN 9780953688111
- UNDERWOOD, Malcolm
The cartulary of the Hospital of St John the Evangelist, Cambridge.
Cambridge. Cambridgeshire Records Society. 2008.
ISBN 090432320X
- UNIVERSITY OF CAMBRIDGE
Connecting with communities report 2007.
Cambridge. CU 2007.
- WARD, LOCK & CO, LTD
Guide to Cambridge and district.
London. Cassell Illustrated. 2008 (1948).
ISBN 97818440365509
[Facsimile of second edition originally published c. 1948]
- WARRIOR, Josephine
King's College chapel Cambridge.
Cambridge. King's College. 2007 (1994)
- WATERS, Richard
The lost treasure of King John.
Heighington. Tucann Books. 2006.

ISBN 1873257651

2nd Edition

WELL CREEK TRUST

The Well Creek.

Wisbech. Well Creek Trust. 2007.

WHEATLEY, Elaine

A brighter future for homeless young women: a history of Whitworth House.

Cambridge. Friends of Whitworth House. 2008.

WHITTLESEA MUSEUM TRUST

Millennium memories of Whittlesey number 8

Whittlesey. Whittlesea Museum trust. 2007.

WHITTLESEA MUSEUM TRUST

Millennium memories of Whittlesey number 9.

Whittlesey. Whittlesey Museum Trust. [2008]

WILDING, Harry

A rice box full of memories: one soldier's recollection of his life during WW2.

Littleport. Littleport Society. 2008.

WILES, Colin

Workers on the move: migrant workers, housing and growth in the eastern region.

Thetford. Keystone Development Trust. 2008

WILLIAMS, Ivor A

The vestry book Royston, Cambridgeshire 1659-1749: an analysis.

Royston. Royston & District Local History Society. 2008.

WILLINGHAM, Keith

Histon Baptist Sunday School: the first 150 years.

Histon. The Church. 2008.

WILLINGHAM PARISH PLANNING COMMITTEE

Willingham parish plan: summary report.

Willingham. WPPC. 2008.

WILSON, Margaret

Eva, an aspiring Victorian: the life of Eva Knatchbull-Hugessen ...

Tonbridge. The author. 2008.

ISBN 9780952356417

[Newnham College student 1883-1886]

WIMBLINGTON PARISH HISTORY GROUP

Wimblington's buildings of interest.

Wimblington. WPHG. 2008.

WINCHESTER, Simon

Bomb, book and compass: Joseph Needham and the great secrets of China.

London. Viking. 2008.

ISBN 9780670913787

WORDEN, Mark & MARZIANO, Alfredo

A Pink Floyd fan's illustrated guide to Cambridge.

Cambridge. B Damned Publishing. 2007.

ISBN 9780953249121

YOSELOFF, Tamar

A room to live in: a Kettle's Yard anthology.

Great Wilbraham. Salt Publishing. 2007

ISBN 9781844714209

Novels set in Cambridgeshire

BALSARI, Saumya

The Cambridge curry club.

London. BlackAmber. 2008.

ISBN 9781905147694

[Originally published 2004]

BROWNE, Douglas G

The May-week murders.

Lexden. Ostara Publishing. [2007]

ISBN 9781906288020

[Originally published in 1937]

CLINTON-BADDELEY, V C

Death's bright dart.

Lexden. Ostara Publishing. [2008]

ISBN 9781906288037

[Originally published in 1967]

CLINTON-BADDELEY, V C

My foe outstretched beneath the tree.

Lexden. Ostara Publishing. [2008]

ISBN 9781906288044

[Originally published in 1969]

FAWCETT PRIMARY SCHOOL

The wishing eel.

Cambridge. CUP. 2008.

ISBN 978956020505

FENN, George Manville

Dick o' the fens.

Teddington. Echo Library. 2008.

ISBN 9781406864434

[Originally published 1888]

FRANKLIN, Ariana

The death maze.

London. Bantam Press. 2008.

ISBN 9780593056509

FRANKLIN, Ariana

The serpent's tale.

New York. G P Putnam's Sons. 2008.

ISBN 9780399154645

[American edition of *The Death Maze*]

GOSSETT, Richard V

Eli, eel of Ely.

Baltimore. Publish America. 2007.

ISBN 1424113695

[Other than title, no apparent local content]

GREGORY, Susanna
The devil's disciples.
London. Sphere. 2008.
ISBN 9781847440815

JACKSON, David
Bugz: contact
Great Wymondley. Art-Amis. 2008.
ISBN 9780955421419

LANGFORD, Michael
The de Vere papers.
Tunbridge Wells. Parapress. 2008.
ISBN 9781898594833

LEAVITT, David
The Indian clerk.
London. Bloomsbury. 2007.
ISBN 9780747581680

LENNON, Joan
Ice road.
London. Andersen Press. 2008.
ISBN 9781842707708
[Children's novel set in Fenland. Third volume of
The Wickit Chronicles]

LENNON, Joan
Witch bell.
London. Andersen press. 2008.
ISBN 9781842708576
[Children's novel set in Fenland. Fourth volume of
The Wickit Chronicles]

LENNON, Patrick
Steel witches.
London. Hodder & Stoughton. 2008.
ISBN 9780340898390

MALLIET, G M
Death of a cozy writer.
Woodbury, Minnesota. Midnight Ink. 2008.
ISBN 9780738712482

THE MEDIEVAL MURDERERS
The lost prophecies: a historical mystery.
London. Simon & Schuster. 2008.
ISBN 9781847370921
[Includes chapter by Susanna Gregory, set in
Cambridge in 1357]

MELIKAN, Rose
The Blackstone key.
London. Sphere. 2008.
ISBN 9781847441331

O'CONNOR, Ed
Primal cut.
London. Allison & Busby. 2007
ISBN 9780749081331

PEARCE, Philippa
Tom's midnight garden.
Oxford University Press. 2008.
ISBN 9780192720825
[50th anniversary limited edition]

SCOTT, Manda
The crystal skull.
London. Bantam Press. 2008.
ISBN 9780593055700

SWARTWOUT, R E
The boat race murder.
Lexden. Ostara Publishing. [2007]
ISBN 9781906288006
[Originally published in 1933]

SWIFT, Graham
Waterland.
London. Picador. 2008.
ISBN 9780330457217
[Originally published in 1983. This 25th Anniversary
Edition has new introduction by author.]

WEST, Tessa
Companion to owls.
Glensford. Fox Books. 2008.
ISBN 9780954362720

Format of articles and submissions

Format of articles

All articles should begin with a Summary. The main text of the Article should be followed by (as appropriate): Appendices; Glossary; Acknowledgements; Endnotes (if absolutely necessary); Bibliography; Acknowledgement of Grant.

Notes should be numbered consecutively throughout the article. Full stops after initials should be omitted.

References in the Bibliography should be cited as follows:

- Manuscripts: Buckinghamshire Record Office (hereafter Bucks RO) Dormer estate, D/93/Box 2, Court Roll of Ravensmere Manor, Hughenden 1752
- Books: Schmorl, G & H Junghanns 1971 *The human spine in health and disease*. 2nd American edn, ed. E F Besemann, New York: Grune and Stratton
- Articles in books: Hines, J 1998 'The sixth-century transition in Anglian England: an analysis of female graves from Cambridgeshire'. In J Hines (ed), *Studies in Early Medieval Chronology*. Oxbow Monographs
- Articles in Journals: Moorrees, C F A, E A Fanning & E E Hunt 1963 Formation and resorption of three deciduous teeth in children. *American Journal of Physical Anthropology* 21: 205-13
- Theses: Mortimer, C 1990 *Some Aspects of Early Medieval Copper-Alloy Technology, as illustrated by a Study of the Anglian Cruciform Brooch*. Oxford University D Phil thesis, unpublished

Format of submissions

The *Proceedings* are produced digitally: authors must supply copies of their final text both on paper and as digital files. Text should be supplied as a Word document, ideally via email although a disk may be acceptable: contact the Editors for more information. Artwork supplied will be scanned, placed and printed.

Tables

These should be set out with no vertical rules and as few horizontal rules as possible. A paper copy should be supplied to allow accurate checking. Files supplied from a specialist database must be compatible with Microsoft Excel.

Figures and illustrations

A complete list of figures and their captions must accompany each article; note that greyscale photographs **MUST** be referred to as figures and included in the list of figures rather than separately as plates. Colour images may be included as plates at the discretion of the Editors. Each piece of artwork and/or digital file **MUST** be clearly identified with the correct figure number, and **named in a way that identifies the article in which it is to appear** ('Fig.1' alone is not sufficient). The desired location of each figure must be marked on the paper copy of the final text. If created digitally figures should be supplied in digital format, both to save time and cost, and to ensure that the final versions are of the best quality. Requirements for both digital files and camera-ready artwork are noted below; please contact the Editors for more specific information.

Note that the PCAS page is set in two columns: maximum column width is 73mm ; maximum full page width is 155mm; maximum full page height is 240mm.

Photographs

Note: photographs from digital cameras should be supplied as digital files, not as prints.

Prints: glossy prints to be submitted at the size at which authors would wish them to appear, with crops marked on an overlay.

Scans of photographs: image resolution should be 300dpi printed at the desired size. TIF and EPS are appropriate file formats.

Artwork

Camera-ready artwork must be supplied no larger than A4, in finished form, and with adequate keys and scales included in the image (textual statements of scale must be avoided). The scanning process is less able than the camera to compensate for some problems: extremely fine lines and small text must be avoided. Letratone must not be used.

Line art scans should have a resolution between 900 and 1200dpi when printed at the desired size, and should be supplied as TIF or EPS.

Graphic files should be produced using graphics packages such as Illustrator or Freehand, and be in a standard graphic format such as TIF or EPS that can be imported into another application. Please **check files exported from GIS packages** to ensure all lines and placed images are true black or grey, not RGB, and that lines have been assigned a thickness appropriate to the final print size.

Other information

Twenty-five offprints of each paper will be supplied. Further offprints may be ordered at extra cost at proof stage.

Contributors who know of possible sources of subventions towards the cost of printing their paper should inform the Editors of this when submitting the typescript; long articles will not normally be accepted without some financial support.

The *Proceedings* are produced for the Society by Sarah Wroot. Printed and bound in Great Britain by Burlington Press, Foxton, Cambridge CB22 6SA. T: 01223 870266; F: 01223 8722113.