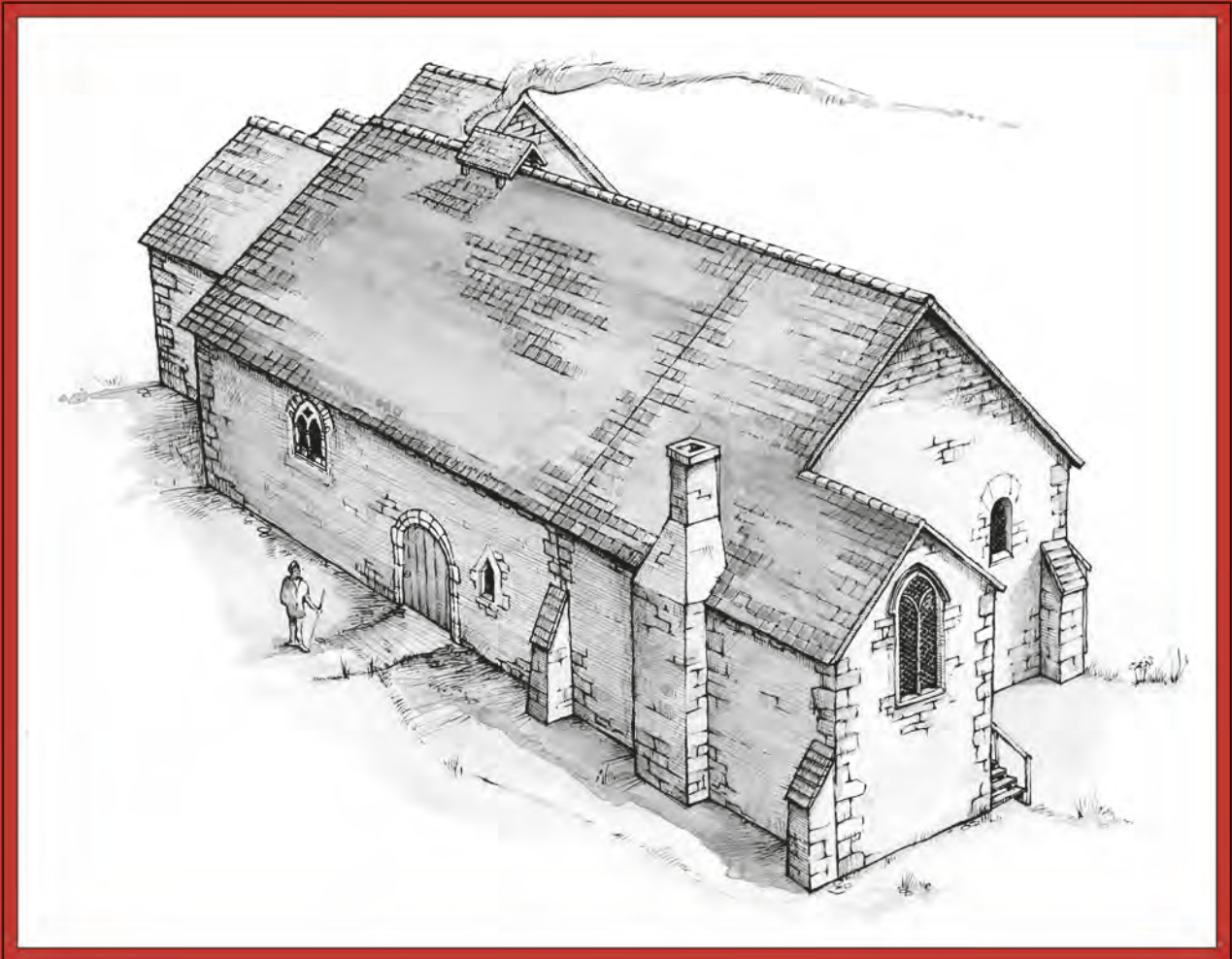


ESSEX



ARCHAEOLOGY AND HISTORY



**TRANSACTIONS OF THE ESSEX SOCIETY
FOR ARCHAEOLOGY AND HISTORY**

Volume 40

2009

ESSEX

ARCHAEOLOGY AND HISTORY

THE TRANSACTIONS OF
THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY

VOLUME 40 (Third series)

2009

This is the concluding volume of Series Three,
Volume 1 (Fourth series) will be published in 2011

THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY

Registered charity 213218

The Society was founded in 1852 as the Essex Archaeological Society. Its objects are:

1. To promote and encourage the study of the archaeology and history of the historic county of Essex.
2. In furtherance of the above, to publish the results of such studies in its journal and to disseminate information on matters relating to archaeology and history in Essex through appropriate media.
3. To organise conferences, lectures and visits for the benefit of members of the Society and interested members of the public; to educate the wider community in the archaeological heritage of Essex; to co-operate with other bodies on matters of common interest and concern.
4. To provide library facilities for Society members and approved members of the public.

Publications

The articles in its journal range over the whole field of local history. Back numbers are available; a list and prices can be obtained on application to the Librarian. Members receive a regular Newsletter covering all aspects of the Society's activities, news of current excavations and fieldwork, and items of topical interest.

The Library

The Library is housed in the Albert Sloman Librarian at Essex University, Colchester, and is extensive. It aims to include all books on Essex history, and has many runs of publications by kindred Societies. Members may use the Library on any week day during Library opening hours (and on Saturdays in term time) on presentation of a reader's ticket, available on application to the University Librarian.

Membership

Application should be made to the Hon. Membership Secretary at 1 Robin Close, Great Bentley, Colchester CO7 8QH. The current annual rates of subscription are: full member £20; family member £22; institutional member £25; associate or student (who do not receive Essex Archaeology and History) £9.

Subscribing Societies in Essex

Billericay Archaeological and History Society; Brain Valley Archaeological Society; Chigwell School; Colchester Archaeological Group; The Friends of Historic Essex; Essex Society for Family History; Halstead and District Local History Society; Ingatestone and Fryerning Historical and Archaeological Society; Lavers History Group; Maldon Archaeological and Historical Group; Nazeing History Workshop; New Hall School, Boreham; Rochford Hundred Field Archaeology Group; Saffron Walden Historical Society; St Osyth Historical Society; Woodford and District Historical Society

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Website

Further information on the Society and its activities may be viewed at <http://www.essex.ac.uk/history/esah/>

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Cover illustration: Reconstruction drawing of Stone House, West Thurrock, viewed from the north-west, by Mark Gridley

Grant of Arms to the Society

By Letters Patent of the three Kings of Arms dated 15 June 2009 arms and a crest were granted to **The Essex Society for Archaeology and History**. The grant was made pursuant to a Warrant dated 18 May 2009 issued by the Earl Marshal, an Office which has been hereditary in the Dukes of Norfolk since the late 17th century. In the case of all new grants of arms a Warrant has to be issued by the Earl Marshal instructing the Kings of Arms to make the grant and the Warrant was issued in response to a Memorial or Petition by Howard Martin Stuchfield, Esq., J.P., F.S.A., F.R.Hist.S., President of The Essex Society for Archaeology and History which recited the history of The Society commencing with the foundation of The Essex Archaeological Society on 14 December 1852.


Since the 15th century in England the Sovereign has delegated power to grant new arms to the three senior Heralds or Kings of Arms and the earliest surviving grant by an English King of Arms is that of 1439 to the Worshipful Company of Drapers of the City of London. The grant to The Essex Society for Archaeology and History is part of a sequence that stretches back almost six hundred years. The arms granted are blazoned *Gules three Seaxes points upwards Argent hilts pommels and quillons Or each enfiling a Saxon Crown also Or* and the crest *Upon a Helm with a Wreath Or and Gules A demi Griffin Gules grasping in the dexter foreclaws a Seax Argent hilt pommel and quillons Or and resting the sinister foreclaws on a Roman Helmet also Or*. A motto is shown on the patent of DUCIT AMOR ESSEXIAE.

The arms are based on those of the County of Essex namely *Gules three Seaxes fessewise in pale Argent hilts and pommels Or points to the sinister and cutting edges upwards*. These arms were granted to Essex County Council by

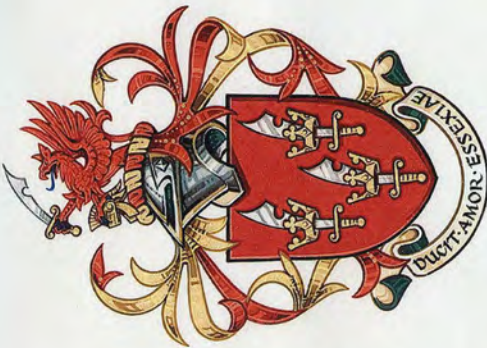
Letters Patent of Garter, Clarenceux and Norroy Kings of Arms dated 15 July 1932 and rather unusually a second copy of the patent was produced under the Common Seal of the College of Arms on 7 October 1936. In accordance with an Order in Council dated 21 May 1974 the arms were transferred to the new Essex County Council created by the Local Government Act 1972. The arms granted to The Essex Society for Archaeology and History have been varied from those of the County as the seaxes enfile [the term of blazon meaning to thread or pass through] Saxon Crowns as a reference to the East Saxons from which the County takes its name and are shown vertically rather than horizontally.

The crest shows a demi Griffin grasping a Seaxe and resting the sinister foreclaws on a Roman Helmet. A Griffin is a mythical beast which theoretically guards hidden treasure which is appropriate for an Archaeology and Historical Society and the Roman Helmet refers to the great Roman remains in the County. The Seaxe refers both to the County and back to the arms.

Mottoes do not technically form part of a grant of arms as legal property cannot be granted over a group of words. They may however appear on a patent and the motto which might be translated as 'A Love of Essex Leads Me' is most appropriate.



Norroy and Ulster King of Arms
College of Arms



TO ALL AND SINGULAR

to whom these Presents shall come Peter Llewellyn Gwynn-Jones Esquire Commander of the Royal Victorian Order Garter Principal King of Arms David Hubert Boothby Cheshire Esquire Commander of the Royal Victorian Order Clarenceux King of Arms and Thomas Woodcock Esquire Lieutenant of the Royal Commission of the Peace for the County of Essex Send Greeting | Whittas Howard Martin Stuchfield Esquire In the Commission of the Peace for the County of Essex Fellow of the Society of Antiquaries of London Fellow of the Royal Historical Society President of THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY hath represented unto The Most Noble Edward William Duke of Norfolk Earl Marshal and Hereditary Marshal of England THAT The Essex Archaeological Society an unincorporated association was founded on the Fourteenth day of December 1882 and was registered as a charity on the Nineteenth day of November 1962 changing its name to THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY on the Seventh day of August 1980 THAT its current Constitution

is adopted on the Fifteenth day of June 2003 THAT the principal objects of the said Society are to promote and encourage the study of archaeology and history of the historic County of Essex to publish the results of such studies to disseminate information on matters relating to archaeology and history in Essex and to educate the wider community in the historical and archaeological heritage of Essex THAT the management of the said Society is vested in a Council consisting of twelve elected Members together with the honorary Officers AND THAT the said Council is desirous of having Armorial Bearings for THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY established under lawfull authority and duly recorded in Her Majesty's College of Arms AND Whittas Howard Martin Stuchfield as President of the said Society and on behalf of the said Council hath requested the favour of His Grace's Warrant for Our granting and assigning such Arms and Crest as We deem suitable to be borne and used by THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY on its Common Seal or otherwise according to the Laws of Arms AND FORASMUCH as the said Earl Marshal did by Warrant under his hand and Seal bearing date the Eighteenth day of May 2009 authorize and direct Us to grant and assign such Arms and Crest accordingly KNOW YE therefore that We the said Garter Clarenceux and Norroy and Ulster in pursuance of His Grace's Warrant and by virtue of the Letters Patent of Our several Offices granted by The Queen's Most Excellent Majesty to each of Us respectively do by these Presents grant and assign unto THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY the Arms following that is to say Gules three Saxons points upwards Argent hilt pommetts and quillons Or each enfiling a Saxon Crown also Or And for the Crest upon a Helm with a Wreath Or and Gules A demi Griffin Gules grasping in the dexter foreclaws a Stear Argent hilt pommetts and quillons Or and resting the sinister foreclaws on a Roman Helmet also Or Mantled Gules Doubled Or as are in the margin hereof more clearly depicted to be borne and used for ever hereafter by THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY on its Common Seal or otherwise and according to the Laws of Arms In witness whereof We the said Garter Clarenceux and Norroy and Ulster have to these Presents subscribed Our names and affixed the Seals of Our several Offices this Fifteenth day of June in the fifty-eighth year of the reign of Our Sovereign Lady Elizabeth the Second by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of Her other Realms and Territories Queen Head of the Commonwealth Defender of the Faith and in the Year of Our Lord Two thousand and nine

Peter Llewellyn Gwynn-Jones

Garter

DH B Cheshire

Clarenceux

Thomas Woodcock

Norroy and Ulster



Paul William Jex Buxton

1925–2009

With the death of Paul Buxton, on 5 January 2009, the Society has lost a good friend and a loyal and generous supporter. His early childhood was spent in London, but in 1929 his father bought Wilderness House in Chipping Ongar. One of Paul's childhood memories was a room in this house that was set aside to assemble the Neolithic pottery excavated by his parents at Koszytowce in Moldavia. Two years later Paul's father acquired the adjoining Castle Farm estate, which included Ongar's motte and bailey castle of which he himself was later to become the custodian.

After leaving Rugby School he joined the Coldstream Guards in 1944, later telling me in his typical self-deprecatory way of his great difficulties in learning how to drive tanks. He was in action at the end of the war, was wounded and left the army in 1947 with the rank of Captain. After graduating at Balliol College, Oxford, he joined the Foreign (Diplomatic) Service and had postings in Delhi, the United Nations, Guatemala and Washington, latterly as counsellor. After leaving the service in 1971, he spent a few years in merchant banking before joining the Northern Ireland Office in 1974. He was appointed Under Secretary in 1981 and remained in Belfast until his retirement from full-time work in 1985. He felt no personal threat at this difficult time of Northern Ireland's history, and told me of his purchase of a second-hand car from a staunchly republican area, though he did admit with hindsight that it was perhaps not the wisest thing to have done! Castle House was unoccupied for much of this period, but he and his family returned for holidays and kept closely in touch with local matters (including the provision, at a very generous

discount, of the land for the local GPs' new surgery). He took a keen interest in the Castle Farm estate in Ongar, particularly in his custodianship of the landscape and its woodlands. After retiring from the Northern Ireland post he served on the Monopolies and Mergers Commission for seven years.

Paul joined the Society in 1961. He served on Council from 1989 until his death, first as an elected member, then as Honorary Membership Secretary from 1993 to 1995, and finally as a Holding Trustee. His good sense and his ability to get quickly to the nub of the matter were invaluable. He also provided generous financial support, through his father's trust, for the publication of the recent Index volume. Above all, he was a good friend, and his wry and self-deprecating sense of humour, and his very wide range of interests, enlivened many of my journeys along the A12 to Council meetings.

He took a deep pride in his ancestors, particularly the "Great Liberator", Thomas Fowell Buxton (1786–1845), philanthropist and agitator (with William Wilberforce) for the abolition of slavery. Paul himself had a strong sense of social justice, and was involved in several charitable foundations dedicated to improving the lot of the oppressed and the underprivileged, including Anti Slavery International, the Howard League for Penal Reform and the Prisoners' Advice Service. Last, but not least, he was a champion of trees, cultivating bat willows on his estate, doggedly guarding his woodlands against the ignorant and the uncaring, and championing that magnificent but neglected tree, the black poplar.

Michael Leach

David Tyrwhitt-Drake Clarke, M.A., F.M.A., F.S.A., F.R.N.S.

1923–2009

David Clarke was born at St Albans on 30 September 1923, the only son of Dr and Mrs S H Clarke, and was educated at Haileybury College, Hertford, where his interest in history began to develop. In 1941 he won a minor scholarship in Classics to Gonville and Caius College, Cambridge. However, war service intervened in 1942 when he joined the Royal Signals, based first at GHQ (Home Forces) at Hounslow, then in Italy with the Special Boat Service (8th Army), whose headquarters were located at Bari. Inevitably, this latter posting enabled him to arrange reconnaissance trips to some of Italy's major classical sites.

On returning to Cambridge in 1946, he completed his studies and graduated in 1947 in Classics and Classical Archaeology. For the next twelve months he held the Sir Charles Walston and Christopher James studentships at the British School at Athens, whose museum collections he catalogued, as well as taking the opportunity to travel widely in Greece and to excavate at Old Smyrna. In 1948 he took up an appointment as Lecturer in Classical Archaeology at the Farouk I University in Alexandria.

Coming back to England in 1949, he was appointed Keeper of Antiquities at Leicester City Museum where the next 14 years were spent productively immersed in its museums and local archaeology. Having reorganised the archaeological galleries twice, he was responsible for devising the Jewry Wall Museum project, which successfully came to fruition in 1966, as well as completely reordering, cataloguing and displaying the Newarke Houses and Chantry House. He also instituted the regular annual reporting of archaeological fieldwork in Leicestershire in the County Society's Transactions and, after himself conducting several excavations in Leicester, was instrumental in creating a post of Field Archaeologist there, one of the first in the country. Besides his museum duties he was much involved with the very active Leicestershire Archaeological Society and found time to act as its Honorary Secretary from 1955–63, during which time the membership almost doubled to nearly 500 members.

Whilst at Leicester, David Clarke married fellow archaeologist Joan Radcliffe Kirk, M.A., F.S.A., whom he had first met when they were both working on Sheppard Frere's excavations at Canterbury in 1947. From that year until their wedding in 1957, Joan was an Assistant Keeper of Antiquities at the Ashmolean Museum in Oxford, undertaking fieldwork in the county and publishing articles on Romano-British and Anglo-Saxon topics. She was also responsible for the museum displays



at Chedworth Roman villa and dug for Kathleen Kenyon at Sabratha and Jericho. Although a busy family life ensued with the arrival of their four children, Caroline, Michael, James and Rachel, Joan Clarke continued to maintain her archaeological interests and readily applied her expertise to cataloguing the Anglo-Saxon collections at Colchester.

David Clarke took up his appointment as Curator of the Colchester and Essex Museum in May 1963, in succession to Mark Reginald (Rex) Hull, M.A., F.S.A., F.M.A., who retired on 11 May after thirty-six years in post, and he served that office himself with great enthusiasm and distinction for twenty-five years until the end of September 1988.

On moving to Colchester David Clarke put his talents and previous experience immediately to good effect. The groundfloor of the castle was cleared and its tarmac replaced with parquet flooring to allow the staging of regular temporary exhibitions. A series of introductory historical display boards was introduced, and with tape-recorded talks installed by Soundguide Ltd. in 1966, Colchester became only the second provincial museum to adopt this system.

The old cases in the crypt were removed in favour of a newly designed medieval gallery opened in 1969. Over the years storage of the reserve collections was upgraded, documentation improved and, within the limited funds available, the whole of the Castle was gradually redisplayed. The main galleries on the first floor were recased and successively given thematic displays over a number of years with more intensive study collections exhibited in the East Gallery. The Lucas Vault was made accessible to the public with a display on the Siege of Colchester.

The Hollytrees Museum, long the preserve of the Assistant Curator Harold William Poulter, until his death on 8 May 1963, had the glazing bars of its Venetian window restored. At David's suggestion, the Society agreed to vacate its rooms on the first floor in favour of more commodious accommodation for its library, store and office in the former flat above. This enabled new galleries to be created for costume and uniforms and the expansion of the reserve collections curated by Mrs. Valerie Mansfield, together at first with her husband Major Alan Mansfield. Construction of a new laboratory in two north-facing rooms (now the public entrance) on the ground floor was financed and equipped from Mr. Poulter's legacy and an archaeological technician was appointed.

The Natural History Museum was also recased and after nine years of waiting, Holy Trinity church was finally handed over by the Diocese of Chelmsford to allow the creation of a new Museum of Town and Country Crafts in 1973. Another major addition which David oversaw was the conversion in 1987 of the groundfloor of Tymperleys into a Museum of Colchester Clocks, comprising mainly those generously bequeathed to the town by Bernard Mason, together with the house which he had really intended as civic accommodation for the Mayor.

When East Hill House became vacant in 1972, David immediately saw this Grade I listed building's museum potential. Formal negotiations were soon commenced with Essex County Council about its long-term future. The former stables were secured for immediate temporary use by the Schools Service, and rooms on the ground floor made available both for museum storage and as a working base for the Colchester Excavation Committee. This occupation probably saved one of Colchester's major historic properties from dereliction, or worse. However, by 1975 staff accommodation and laboratories in the existing museums had become increasingly inadequate and no longer met legal requirements. Together with other pressing needs this resulted in an alternative proposal being adopted which was to convert the empty former Alston's warehouse adjacent to the Castle to accessible museum use. Despite its total cost gradually rising to £170,000 and stringent financial restrictions on facilities having to come into play, the Museum Resource Centre finally became operational in 1981.

Admission charges had been introduced in 1970 for adult visitors to the Castle Museum during the summer

months, students and pensioners excepted. They followed an initial period of Sunday charging applied primarily, it is said, to help ward off the disturbing influx of Mods and Rockers from Clacton in the 1960s. The income so derived was applied by agreement of the Council to special projects not covered by the annual budget.

Education in museums was a commitment to which David Clarke was passionately espoused, both in terms of visitor outreach and professional staff training. Following a Carnegie UK Trust report in 1964, negotiations were held with Essex County Council, which agreed to provide the necessary salary and working expenses of a Schools Service Officer. Under the 1926 agreement when the collections of Colchester Corporation and the Essex Archaeological Society were formally amalgamated, the latter held four seats on the Museum Committee, but it now generously agreed to give up one of these to allow the County to be represented in respect of this work. Although undergoing major structural changes in 1990 and subsequent years, the Museum's Education Service has grown from these early beginnings into a very significant organisation.

David Clarke's museum philosophy was simply and directly expressed in his Annual Reports, that for 1967/8 stating – "Everyone who crosses our threshold must go away enriched. Nothing less will do, and with nothing less must we be satisfied." – as much an indication of intent to his governing body as to re-assure them about the quality of service they could expect. His Annual reports were pithy and highly readable; they did not shrink from saying what was needed although the message might not always go down well in certain quarters. For example for 1969/70 he wrote, "The wind blew chill through the corridors of the Treasury, as it did through the broken windows of Holy Trinity Church, through the Castle when the boiler again burst, through the Hollytrees when melted snow poured through the roof, and through the Natural History Museum via the leak so often recorded in these reports."

To supplement the museum experience, a series of informative, readable and well-illustrated booklets was soon produced which set high standards of production that other museums might try to emulate. These included guides to *Colchester Castle* (1966, regularly updated), *The Hollytrees and Charles Grey* (1967), *Visitors Colchester* (1967, new edition), *The Colchester and Essex Museum* (1971), *The Town Hall* (1973), and two booklets entitled *Camulodunum and the Temple of Claudius* (1966) and *Colonia Claudia Victricensis* (1967), which were later revised and published as a co-authored volume double the size entitled *Roman Colchester* (1981). Although for many years tourist promotion was not an established function of the local authority, certain appropriate duties fell to the Museum Curator. Thus, when the copyright and blocks of the *Colchester Official Guide* were handed over to the Council by Benhams, David edited a third edition (1972), before persuading distinguished Colchester-born historian, Dr Geoffrey Martin, with whom he was well acquainted from Leicester days, to

write a completely new version to a high, though fittingly popular standard.

One of David Clarke's most important and lasting legacies was the re-founding in 1964 of the Colchester Excavation Committee to meet the challenge of extensive development in the town. B.R.K. ('Ros') Dunnett was appointed first Director of Excavations, followed in September 1970 by Philip Crummy, for both of whom the Castle was at first the base of operations. David provided essential advice and support throughout, serving as Secretary of the Management Committee, with the Society's former President Major Jack Brinson as Secretary of the main committee. David Clarke took on that role too from 1972–88, and guided the transition to the Colchester Archaeological Trust. He saw to it that Colchester Borough Council resources were provided as needed, and when more working space became necessary, he was instrumental in persuading the County Council to make available accommodation first at East Hill House, then at 12 Lexden Road, aptly named *Camulodunum*.

David Clarke was a fellow of both the Society of Antiquaries of London and the Royal Numismatic Society. As a Fellow of the Museums Association, he was a fervent advocate of professional standards in museums. He served on the Association's Council and was Chairman of its Education Committee (1971–6) and subsequently Chairman of Examiners (1976–9). As a tutor he was a tireless organiser of courses and seminars. He was also a member of the ethics working party. In 1969 he was Chairman of the Public Relations Committee to co-ordinate the British contribution to International Museums Year sponsored by the International Council of Museums, while in 1971–2 he had the distinction of serving as a member of the Committee on Provincial Museums appointed by the Paymaster General, Lord Eccles.

He also served on many other museum and archaeological committees at county and regional level as well as locally. He was the first Chairman of the Essex Curators' Group. David Clarke was very much aware of the importance of the Essex Archaeological Society's role as an original co-founder of the Museum Service which partly bore its name. As well as being its Curator, he took on the demanding duties of Editor from 1972 to 1986, transforming the annual *Transactions* into the prestigious *Essex Archaeology and History*, which it continues to be. He also contributed to the assessment and sorting out of the Society's extensive archives, some of which were transferred to the Essex Record Office.

Making museums and the national heritage available to as wide a public as possible was dear to David Clarke's heart. He was an able and entertaining lecturer with the skill to enthuse his audience. If a visitor to the museum arrived with a query, he would invariably spend twenty minutes or half an hour giving them a full and authoritative answer, even on seemingly unimportant subjects. The effect was to provide endless good will and customer satisfaction in the museum's favour. There are many amusing anecdotes that linger happily in the minds of those who knew him (see for example Colchester Archaeological Group Bulletin Vol. 49, 2009, 4).

Joan Clarke died on 13 October 2007 and David Clarke passed away two years later on 27 November 2009, aged 86 years. At his funeral at Combe, Oxfordshire, where they had spent their retirement years, fitting tributes to his life and work were paid by their four children and several of their ten grandchildren, who read some of his numerous poems. We offer our condolences to his family and remember a life rich in service and achievement.

G. Mark R. Davies

Nancy Raymonde Edwards (née Briggs), M.A., F.S.A.

1929–2009

The tragic death of Nancy Briggs has deprived the county of an outstanding scholar and a keen supporter of the Essex Society for Archaeology and History.

Nancy was born on 1 June 1929 at Winchester, the only child of Major-General Raymond Briggs, C.B., D.S.O. of Liverpool and Helen Kenworthy of New Orleans. She read history at St Anne's College, Oxford and, following training as an archivist at the Bodleian Library, came to Essex in 1953 as Assistant Supervisor at the Essex Record Office. Here she joined the staff of the redoubtable Dr F.G. 'Derick' Emmison, County Archivist from 1938–69. Emmison, or 'Fred' as he was known by the staff, crafted a formidable team that propelled the Essex Record Office to an unrivalled position. One prominent member of staff was the late Hilda Grieve with whom Nancy enjoyed an excellent relationship and whom she succeeded as Senior Assistant Archivist and Supervisor of the Search Room in 1967 upon the appointment of the former as the Deputy Editor of the Essex Victoria County History. Many exciting initiatives were introduced during this evolutionary post-war period – pre-eminent was the pioneering work of Arthur Charles 'Gus' Edwards who had joined the education staff at Chelmsford in 1949 as County History Adviser and Lecturer attached to the Record Office. Gus organised a series of highly successful exhibitions at Ingatestone Hall over a fifteen year period which literally enthused and inspired thousands of visitors – young and old alike. An integral part of these annual exhibitions were the accompanying booklets which became best-sellers. Nancy was responsible for two such publications – *Leisure and Pleasure in Essex* and *Georgian Essex* which appeared in 1960 and 1963 respectively. Nancy increasingly collaborated with Gus and in the process formed a close relationship which culminated in the surprise announcement of their engagement following the death in 1975 of Gus's first wife, Dorothy. The marriage, which followed in 1978, formally brought together two much loved and widely known personalities. A substantial and unexpected legacy facilitated Nancy's premature retirement from the Record Office in 1987 and the opportunity to fully share the last few years of Gus's life until his peaceful passing in 1992 at the age of 86.

Nancy was justifiably proud of her father who was hugely influential throughout her life. General Briggs led a distinguished military career – most especially during the North African Campaign of 1942–3 when he commanded the 2nd Armoured Division under General Claude Auchinleck, and subsequently General Bernard Law Montgomery in the offensive against the formidable



“Desert Fox”, Erwin Rommel and his crack Panzer Army, the Afrika Korps. Prior to the Eighth Army launching its planned offensive, Briggs spent nineteen hectic days continuously and heavily engaged with the enemy culminating in holding off over 150 tanks. For this action Briggs won an immediate D.S.O.

Although Nancy was immensely proud of her father's gallantry, she inherited many of his fine qualities and was clearly a “Daddy's Girl” – it never proved possible to benefit from a close relationship especially with the War imposing itself during her formative years. However, a recurring theme is Nancy's life-long loyalty and commitment to a cause or interest. A case in point was her interest in monumental brasses. Nan Mackean, a close friend of some 63 years' standing, recently recounted the following from her early school days: “We were allowed to go out on Saturday afternoons (always in pairs) so I went with her to visit churches and rub brasses (Surrey and the nearer parts of Kent, I think). I helped weight the paper down with hymn books and then held it down to keep it from slipping. N did the rubbing. We usually had tea afterwards with the Vicar – I was better at small talk than Nancy”. Whilst up at Oxford, Nancy was appointed to

the Editorial Committee of the Brass-Rubbing Section of the Oxford University Archaeological Society and was subsequently introduced to the Monumental Brass Society which she joined in 1950. Regular contributions to the Society's *Transactions*, almost exclusively on topics related to Essex, soon brought her to prominence and election to the Executive Council. For her outstanding contribution to the Society she was rewarded with a Vice-Presidency in 1974 and election as a Fellow of the Society of Antiquaries of London the following year.

Another sphere of interest close to Nancy's heart was her association and work in connection with the British Federation of Women Graduates, an organisation established in 1907 to advance and promote the higher education and wider learning of women graduates. Nancy's involvement with the library, in particular, extended back to its earliest days at Crosby Hall. She was Chairman of the Library Committee of the Sybil Campbell Library, Honorary Archivist and was appointed a trustee shortly before her death. She frequently travelled to the University of Winchester for the purpose of organising the library in its new home. Nancy was equally committed to the work of the Local Association where she performed the role of Programme Secretary.

Nancy was no less committed to her adopted county. She served as a member of the Editorial Committee of the Essex Victoria County History from 1978 until its demise in 2000 succeeding Bill Liddell as Secretary for the last five years of its existence. During her association she contributed an account of the now demolished Belhus mansion, the home of the Barrett-Lennard family at Aveley, to the architectural section of volume VIII which was published in 1986 and concluded work on the Chafford Hundred. She remained a staunch supporter of the V.C.H. Appeal Fund until her untimely death. The work and activities of the Historical Association also claimed her attentions, especially at the local level where from 1998 to 2004 she served as Chairman of the Essex Branch which had been revived by her late husband after the War. Other county societies and organisations with which Nancy was associated included the Essex Gardens Trust, Friends of Essex Churches, Friends of Hylands House (Chelmsford) and the Friends of Valentines Mansion (Ilford).

In addition to Gus Edwards, the most inspirational person in Nancy's life was the late Sir Howard Colvin, the renowned British architectural historian. It was Colvin who contributed the foreword and provided valuable support which enabled Nancy to publish the definitive biography of the Georgian architect, John Johnson (1732–1814) under the aegis of the Essex Record Office. Johnson was engaged by private owners to build country houses such as Terling Place, Hatfield Place and, Nancy's favourite Essex building, Bradwell Lodge. As County Surveyor of Essex he was commissioned to design and build Chelmsford's new Shire Hall. Nancy's book was published in 1991 to coincide with the 200th anniversary of the first public assembly held in the new Shire Hall in October 1791. Colvin, until his death in December 2007, provided significant encouragement in



the preparation of her *magnum opus* – an erudite work on the country houses of Essex to be published by Phillimore as part of their English Country Houses Series. Nancy had devoted many years to painstakingly researching the major and minor houses and gardens of Essex with completion to have coincided with her 80th birthday in June 2009.

Nancy joined our Society in 1960 and remained a committed member throughout her life. She served for numerous periods on our Council and was a prominent member of both the Library and Programme Committees where her knowledge proved invaluable. She was also a very keen supporter of the Society's programme of visits, especially to Essex country houses. In typical Briggs fashion all events and activities were supported to the full.

Nancy was a remarkable lady who was uncomplaining and courteous. She possessed a wonderful sense of humour and enjoyed being unpredictable on occasions. She always maintained and demanded the highest possible standards. However, to the uninitiated she could appear somewhat aloof and quite reserved to the point of being almost shy. Those who won her confidence were richly rewarded with a wonderfully lively personality. She fell victim to a road accident within a few hundred yards of her home in Chelmsford on Friday, 23 January 2009. On that fateful morning the country lost an eminent architectural historian, our beloved county of Essex lost an outstanding scholar and antiquary and we all lost a very dear friend.

Requiescat in pace

H. Martin Stuchfield

West Thurrock: Late prehistoric settlement, Roman burials and the medieval manor house, Channel Tunnel Rail Link Excavations 2002

Phil Andrews

With contributions by Paul Drury, Jessica Grimm, Jacqueline I. McKinley, Lorraine Mephram, Christopher Phillpotts, Jörn Schuster, Chris J. Stevens and Sarah Wyles

Illustrations by S.E. James

Two excavations were undertaken between West Thurrock and Purfleet in 2002 in advance of construction of High Speed 1 (formerly the Channel Tunnel Rail Link). At High House, ditches, gullies and pits of mainly late prehistoric and early Roman date were concentrated on the higher ground in the western half of the site. The late prehistoric features may represent two phases of settlement-related activity within an overall Middle Bronze Age – Early Iron Age time span. The Late Iron Age and early Roman features were probably also settlement-related and included a small enclosure, a possible trackway and an unusual group of at least 14 inhumation burials and two cremation burials inserted along the entire exposed length of an earlier, prehistoric ditch. At Stone House, the unexpected discovery of building remains during construction work led to an excavation which revealed a large part of a late 13th / early 14th century stone building of some stature and status, as well a sequence of 11th–13th century features probably associated with stock control, and a small number of late prehistoric pits. The considerable amount of documentary evidence shows that, almost certainly from as early as the beginning of the 14th century, Stone House was the manor house of West Thurrock. The building had been extensively robbed and the finds assemblages were relatively poor, but it represents a significant discovery in the county. New Place, later known as High House, was built in the mid-16th century on higher ground to the north-west and subsequently assumed the position of ‘manor house’, while Stone House became a tenanted farm. In 1683 Stone House was rebuilt on a more modest scale on an adjacent site, and was used as the parish workhouse for a period of about 20 years at the end of the 18th century, with final demolition coming in the 1920s.

INTRODUCTION

Project background

This report incorporates data from two excavations between West Thurrock and Purfleet, both carried out in 2002 as part of the High Speed 1 (HS1, formerly the Channel Tunnel Rail Link) Section 2 works (**Figure 1**). The excavations were commissioned by Rail Link Engineering (RLE) and were undertaken by Wessex Archaeology. The principal discoveries comprised late prehistoric and Romano-British features at High House (site code: ARC PHH01) and the site of the medieval and later manor house of West Thurrock at Stone House (site code: ARC 310T02). The results of HS1 Pleistocene investigations at Purfleet and the Holocene investigations at West Thurrock Marshes will be reported on separately elsewhere.

The High House fieldwork was undertaken on an elongated strip of land situated immediately to the south of the Purfleet By-pass and to the north of High House Farm, a 17th/early 18th century complex of Grade II Listed Buildings (including one structure that is also a Scheduled Monument). At this location (centred on NGR 556696 178101) the route of HS1 passes through

a substantial cutting which required full excavation of archaeological remains in advance of construction.

The Stone House fieldwork was undertaken on the northern edge of West Thurrock Marshes, within an area bounded by the London, Tilbury and Southend railway to the south, London Road to the north, industrial units to the west, and the northern approach to the M25 Dartford Crossing to the east. The site lies approximately midway between the villages of Purfleet and West Thurrock (at NGR 557100 177828), south of the junction of Stonehouse Lane and London Road. HS1 passes across the West Thurrock Marshes on an elevated section at this point, carried on piers supported by reinforced piling. The nature of the construction work precluded any archaeological recording and although limited stripping was carried out in the vicinity of each pile, the depth of Thames floodplain alluvial deposits in these areas ensured that nothing other than relatively recent (i.e. post-medieval) deposits was exposed. A watching brief was undertaken during enablement works for the construction of a substantial temporary site compound, batching plant and haul road in the north part of the site, and the medieval remains at Stone House were first seen during the stripping of topsoil and subsoil

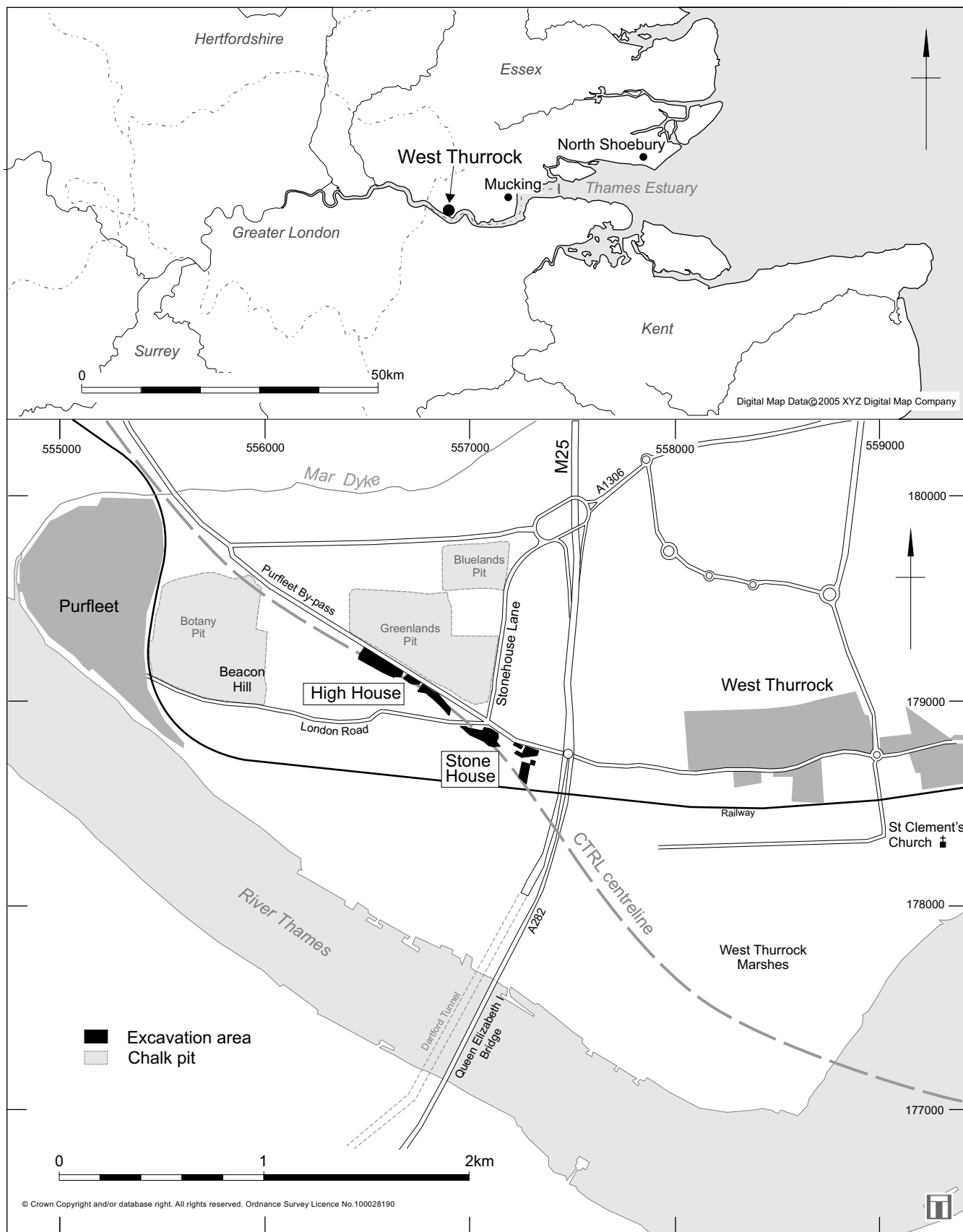


Figure 1 Site location plan, showing excavation areas

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from this area. Following a site meeting which established the importance and vulnerability of the remains, detailed archaeological excavation was undertaken where possible on the exposed remains and available parts of the surrounding area. At the east end of the site, the relatively minimal impact of the ancillary works on the buried archaeological resource required only an archaeological watching brief.

This publication follows a programme of work set out in the project design (Union Railways (North) Limited (URN) 2006). Full details of the features and deposits, along with finds and environmental analyses, can be found in the archive which will be deposited with Thurrock Museum.

Archaeological background

Previous archaeological work in the area has concentrated on the Pleistocene deposits overlying the chalk anticline at Purfleet that contain crucial evidence relating to a former course of the River Thames. These deposits, which are banked against the north face of the anticline, were laid down during alternating cold (glacial) and warm (interglacial) conditions and are associated with large assemblages of Palaeolithic stone tools. Important assemblages of Palaeolithic material have been recorded from the nearby Esso Pit, Botany Pit (including Beacon Hill), Greenlands Pit and Bluelands Pit (**Figure 1**).

In addition, various finds of later date have also been recovered as a result of quarrying and are recorded in the Essex Historic Environment Record (SMR). These include Iron Age/Romano-British material as well as features, such as pits and ditches, from Botany Pit; Neolithic, Bronze Age and Romano-British material from Beacon Hill; and Mesolithic, Neolithic, Iron Age and medieval material from Greenlands Pit immediately to the north of the High House site.

The existing buildings of High House Farm comprise a 17th century octagonal brick dovecote, the 17th century timber-framed and plastered brick farm building, and an early 18th century weather-boarded timber barn. These are Listed Buildings (Grade II) and the dovecote is also a Scheduled Monument (SM 32420).

An Environmental Assessment of the route of HS1 (Union Railways Limited (URL) 1991) collated existing information and highlighted the potential of the area around High House but did not identify an archaeological potential for the Stone House site.

Subsequently, an archaeological evaluation of the Pleistocene deposits immediately to the north-west of High House recorded a substantial ditch and a smaller feature, both of probable late prehistoric date, the former interpreted as possibly part of a Late Bronze Age enclosure or an Early Iron Age boundary ditch. In addition to worked flint, 14 sherds of late prehistoric pottery were recovered, all but two of which occurred residually in later contexts (Oxford Archaeological Unit (OAU) 1995).

A fieldwalking survey at High House recorded a general scatter of nineteen worked flints, including one scraper of possible Neolithic date, and a further five

burnt flints (URL 1995, 22, maps 1a and 1b), two sherds of medieval pottery and thirteen post-medieval sherds (URL 1995, 22, maps 1a and 1b). Following this, a magnetometer survey indicated a series of parallel north/south linear anomalies, considered to have resulted from past cultivation (URL 1996, plans 1.2 and 1.3).

Archaeological evaluation trenches excavated in 1998 at High House (site code: ARC HHP97) (URL 1999) established that the anticipated Pleistocene gravels did not extend this far to the south-east and so the site had negligible potential for Palaeolithic deposits. However, the evaluation demonstrated that Late Bronze Age / Early Iron Age, Romano-British and post-medieval features were present on the site.

Topography and geology

The High House site is located towards the highest part of the Purfleet anticline, between the River Thames approximately 1km to the south and the Mar Dyke channel to the north and west. The edge of the Mar Dyke channel, considered to be an early course for a loop of the Thames (known as the Ockenden Loop), lies less than 500m to the north and less than 100m to the west of the site. The western two-thirds of the site occupies almost level ground on the very top of the anticline, with a very gentle south-east facing slope, descending within the site limits from a height of c. 20.50m above Ordnance Datum (aOD) in the north-west to c. 18m aOD in the south-east. Further to the south-east the slope increases towards the River Thames floodplain, with the lowest part of the site at c. 11.50m aOD.

The Stone House site is located at the very base of the south-facing side of the anticline, immediately above the northern edge of the River Thames floodplain, between about 1m and 2m aOD. The structural remains identified in the excavation were concentrated on a small promontory that extends out into the floodplain, forming a natural focus for activity in the area. The edge of the floodplain was clearly defined within the site, with the lower lying area being covered by a brown organic-rich soil representing the extent of the former marsh.

The solid geology for the area is mapped as Cretaceous Upper Chalk (Ordnance Survey 1998), forming the south-facing side of the Purfleet Anticline extending from the mouth of the Mar Dyke at West Purfleet across to Little Thurrock near Tilbury. The British Geological Survey notes superficial caps of Palaeocene Thanet Beds sand on the surface of the anticline, probably the deposits encountered at Stone House, although no drift geology is mapped in the immediate vicinity of High House. However, the excavation revealed superficial spreads of 'flinty wash'; a sandy silt containing flints and small chalk inclusions, overlying chalk. It is likely that this 'flinty wash' is largely a chalk-derived periglacial deposit.

Excavation methods

All fieldwork was conducted in accordance with a Written Scheme of Investigation (URN 2001). Excavation at High House (see **Figures 1** and **2**) was targeted on three

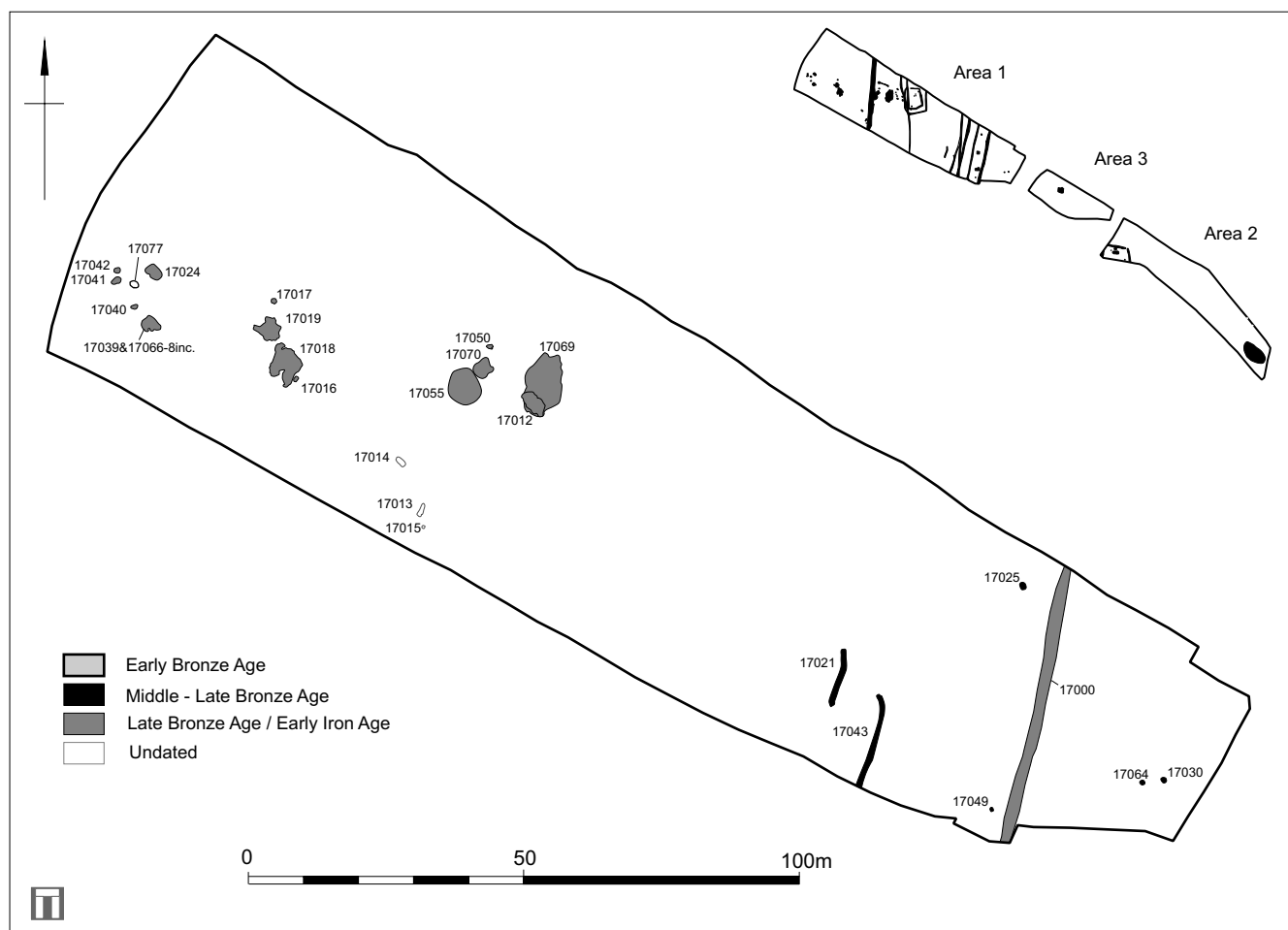


Figure 2 High House: plan (Area 1), Early Bronze Age, Middle Bronze Age – Late Bronze Age / Early Iron Age features

contiguous areas (separated by two access routes to High House Farm) of 12,660m² (Area 1), 6100m² (Area 2) and 1940m² (Area 3), together representing just over 50% of the evaluated area. The site was stripped of c. 0.3 – 0.4m depth of topsoil and subsoil by a 360° tracked excavator, to expose *in situ* chalk-derived and natural chalk deposits. All archaeological features were digitally surveyed and then excavated by hand. Excavation took place from January to March 2002, and an interim report on the results was submitted in 2004 (URN 2004a).

On the Stone House site (**Figure 1**), building remains were discovered unexpectedly in late March 2002 during a watching brief in the northern part of the site and limited excavations were undertaken during a temporary cessation of machine stripping. The exposed building remains and other visible features were digitally mapped and artefact samples retained to ascertain their probable date. In this area, representing approximately half of the area covered by medieval and post-medieval building remains, excavation was only possible to a very cursory level ('salvage recording') prior to the laying of geotextile and crushed concrete and construction of the site compound. Two complexes of building remains were identified, the most northerly of probable post-medieval date and identified as the 'Stone House' shown adjacent to the road to Purfleet (London Road) on the 1st edition Ordnance Survey map (1873). The southern group of

buildings, of flint, chalk and ashlar construction, was identified as of medieval origin, although underlying 11th – 12th century AD and late prehistoric features were also present. The subsequent stripping of topsoil on the southern part of the site exposed further remains of medieval buildings, which were again digitally mapped and sampled for dating. Following a site visit on 9th April 2002 by representatives of Essex County Council and English Heritage, and confirmation of the importance of the building remains, provision was made for excavation of the southern part of the site, which took place during April and May 2002. Additional areas predominantly to the south-east (Zones 1 – 4; see **Figure 16**) but also to the west of the principal excavation area were subject to a watching brief, which concentrated on obtaining a detailed plan of the remains, with focused artefact sampling to obtain dating evidence where feasible. It soon became clear that the features exposed were relatively modern (i.e. 17th / 18th century or later), and as a result little detailed excavation was carried out, particularly as most were to be subject to minimal impact by construction works. The archaeological and historical background of Stone House and its surrounding landscape was subsequently collated in a desk-based assessment (Wessex Archaeology 2003a), whilst the results of the excavation and watching brief have been the subject of a draft interim report (URN 2004b).

In addition to the investigations at High House and Stone House, a continuous watching brief (ARC 310T02) was maintained in the vicinity of Purfleet between April and December 2002, during the preliminary phases of enablement and construction works associated with HS1. This was concerned primarily with the recording of Pleistocene deposits, but a small number of features of late prehistoric, Roman and later date were also identified, most in the immediate vicinity of High House and relating to discoveries made in the excavation there.

RESULTS

Earlier prehistoric

The earlier prehistoric period is represented by finds only. Furthermore, the entire assemblage of worked flint (459 pieces, the majority from High House) is clearly residual, with various chronological components. On the basis of the few tools and the technological indicators it is probable that the earliest piece (from High House) is Lower Palaeolithic, comprising a large, orange, patinated

flake with a concave crescentic retouch on one margin. There is a very small component of blade-like flakes and a broken bladelet which are likely to belong to early technologies, most probably Mesolithic or Early Neolithic. The bulk of the material, however, which includes a pair of piercers, three scrapers and a notched flake, is likely to be Late Neolithic / Early Bronze Age, with a smaller component of later Bronze Age material.

In addition to the worked flint, there are also two sherds of Beaker pottery (**Figure 3, 1 and 2**). These were the only finds from a possibly natural hollow (17077) towards the west end of the High House site (see **Figure 2**).

Middle Bronze Age – Late Bronze Age / Early Iron Age (**Figure 2**)

The High House site appears to have subsequently become the focus of later Bronze Age activity. At least two phases have been distinguished, though phasing within the late prehistoric period is slightly problematic due to the relatively low numbers of intercutting features and the restricted nature of the pottery assemblage. The

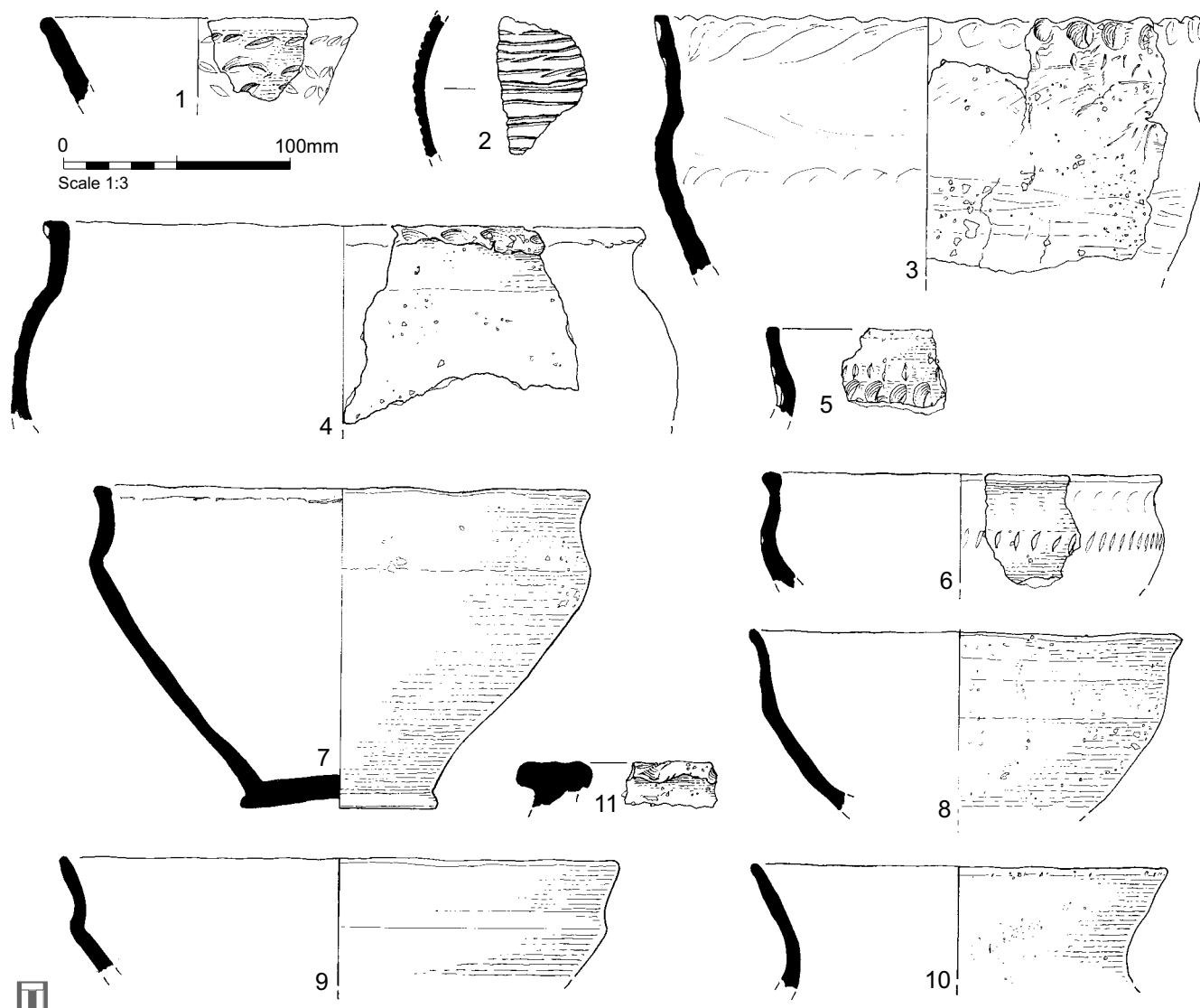


Figure 3 Pottery: Beaker (nos 1–2) and Late Bronze Age / Early Iron Age (nos 3–11)

results from High House can be seen as evidence for sporadic land-use throughout the Middle – Late Bronze Age / Early Iron Age.

Three Middle Bronze Age pits (17030, 17064 and 17049) and two gullies (17021 and 17043) lay at the eastern end of Area 1 at High House, and represent the earliest archaeological features on the site. Pit 17030 and pit 17049 were both approximately 0.2m deep and produced pottery including part of a globular urn. Pit 17064 was heavily truncated and contained no dating material, but it has been provisionally assigned to the Middle Bronze Age on the basis of its proximity to the other two pits. To the west of the pits was a gully 17043, orientated north-south, with a short, slightly sinuous gully (17021) approximately 10m to the north-west and parallel with it. These gullies appear to have been contemporaneous but their function is unclear.

Pit 17025, approximately 0.25m deep, also lay towards the eastern end of Area 1. In addition to Middle / Late Bronze Age pottery, it also produced a small assemblage of briquetage, perhaps deriving from a pedestal (**Figure 4, 2**).

Features assigned to the Late Bronze Age / Early Iron Age were found almost exclusively in the western half of Area 1, along the south-facing brow of the Purfleet anticline. They had a broad east – west alignment and included at least 12 shallow pits and large hollows of variable shape and size, some intercutting, which formed three discrete clusters. They all contained similar, fairly homogeneous, dark fills including burnt flint and small amounts of burnt clay. The most substantial hollow (17069) lay at the east end of the alignment, measured approximately 10m by 6.5m, was 0.6m deep and had been cut by a smaller pit (17012) of similar date. The medium-sized features (17012, 17018, 17019, 17024, 17055 and 17039 / 17066–8) were up to 5m across, between 0.2m and 0.4m deep, and some were very irregular in plan. The small features (17016, 17017, 17040, 17041, 17042, and 17050), most of which lay towards the western end of the alignment, were up to 1.5m across, 0.2 – 0.5m deep, and might best be described as pits. The majority of these pits and hollows contained pottery, sometimes in relatively large quantities, for example hollows 17024 and 17069 producing 165 and 104 sherds respectively from the excavated portions, and pit 17050 being the only feature devoid of pottery. The 104 sherds from hollow 17069 included a significant proportion of finewares (**Figure 3, 8 and 10**), while most of the 106 sherds from pit 17041 came from two vessels (**Figure 3, 7**). Hollow 17024 also contained fragments of as many as six triangular loomweights, while pit 17041 contained one complete triangular loomweight (**Figure 4, 1**), and hollow 17012 and pit 17017 contained fragments of clay blocks or bars, possibly parts of loomweights. Part of a Hertfordshire Puddingstone saddle quern came from pit 17017 and a possible quern fragment of unidentified sandstone from hollow 17018.

Towards the east end of Area 1 was ditch 17000, also assigned to the Late Bronze Age / Early Iron Age, although whether it was contemporary with the features

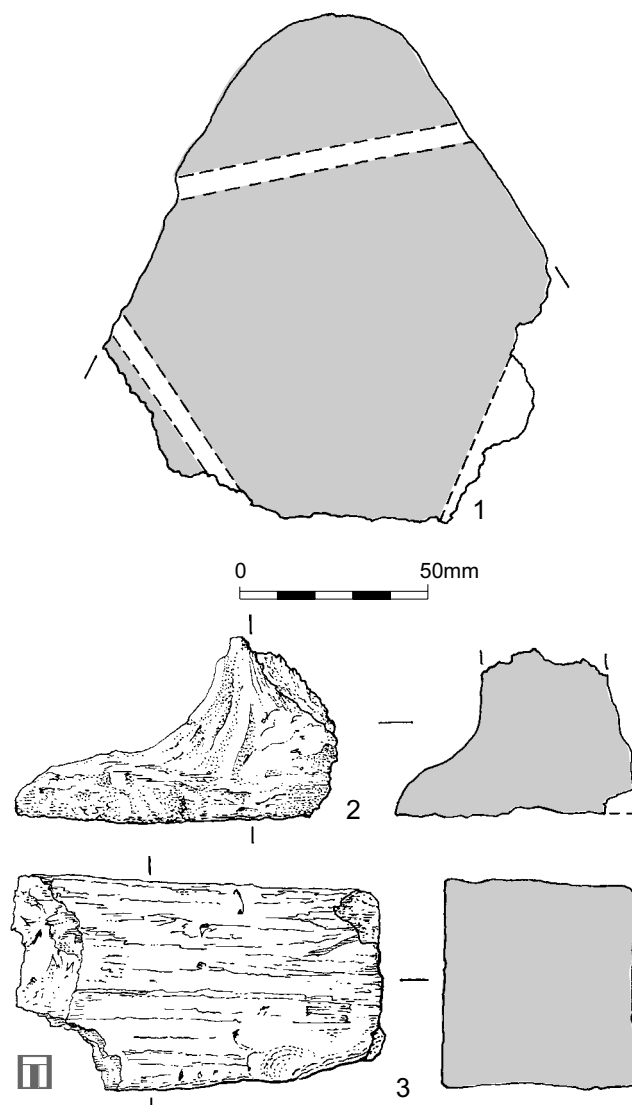


Figure 4 Fired clay objects: Middle – Late Bronze Age / Early Iron Age (nos 1–2) and Late Iron Age / Romano-British (no 3)

to the west could not be ascertained. Aligned approximately north-south, it extended beyond the limits of excavation, and a subsequent excavation undertaken in 2008 has shown it to continue to the south for at least a further 50m, with a single, narrow causeway in this part. It was a relatively substantial feature measuring approximately 2.5m wide and 1.2m deep with a broad U-shaped profile, and produced 81 sherds of late prehistoric pottery. After almost completely silting up, a series of Roman inhumation and cremation burials were inserted along its entire exposed length (see below).

Only nine sherds of pottery from Stone House have been assigned a probable Late Bronze Age / Early Iron Age date, most of them being residual in later contexts, and the only feature tentatively assigned to this period is a short length of gully (not illustrated).

Pottery

by Lorraine Mephram

The total prehistoric (excluding Late Iron Age) assemblage from High House comprises 1051 sherds

(10,990g), virtually all of Middle Bronze Age to Late Bronze Age / Early Iron Age date.

Methods of analysis have followed the standard Wessex Archaeology recording system for pottery (Morris 1994), which accords with nationally recommended guidelines (PCRG 1997). Fabrics have been defined on the basis of dominant inclusion type (for prehistoric fabrics). In this instance, fabrics have been defined on a relatively broad scheme of classification reflecting ‘catch-all’ groups of fine- and coarsewares rather than individual fabric ‘recipes’. Brief fabric descriptions and totals, by both sherd count and weight, are given in **Table 1**.

The earliest element within the assemblage consists of two sherds, both from a single context (hollow 17077) at High House. These are identifiable as Beaker, but of unknown form. Both are in grog-tempered fabrics and both are decorated with impressed motifs – one is a rim sherd (**Figure 3, 1 and 2**).

The Middle Bronze Age to Early Iron Age assemblage from High House comprises 1047 sherds (10,958g). Much of this group comprises sherds in flint-tempered fabrics in varying degrees of coarseness. Amongst this group, fabrics containing frequent but relatively well sorted flint inclusions, either coarse (FL2) or fine (FL4), have been identified as falling within the Deverel-Rimbury ceramic tradition of the lower Thames valley, although only two diagnostic rim forms are present – one from a fineware globular urn and one from a coarseware urn probably of bucket form. None of the sherds are decorated.

A few sherds in coarsely tempered but less well sorted fabrics (FL1) have been broadly dated as Middle / Late Bronze Age; there are no diagnostic sherds. Other flint-tempered fabrics have been dated as Late Bronze Age / Early Iron Age, and include both coarsewares (FL5) and ‘finewares’ (FL3), the latter defined on the basis of the size and sorting of inclusions, and by a generally better surface finish, including burnishing. Alongside the flint-tempered wares, shelly wares are also relatively common, with a much smaller proportion of sandy wares, including some with distinctive glauconitic inclusions.

One sherd has been burnt or overfired to such an extent that the original fabric type is indeterminate; eight other sherds, in both flint-tempered and sandy fabrics, and from several different features, are also burnt. Otherwise condition is fair to good. Some of the more friable coarseware fabrics have suffered some deterioration. Mean sherd weight overall is 10.5g, rising to 11.5g in contexts dated as Middle Bronze Age to Early Iron Age, and falling to 6.1g in residual contexts.

Apart from the Deverel-Rimbury forms already mentioned, three basic vessel forms were recognised. These comprise coarseware shouldered jars with upright or slightly inturned rims, with fingertip or fingernail impressions on the shoulder and/or the rim (**Figure 3, 3–6**); small or medium-sized coarseware convex jars with slightly inturned rims; and carinated or round-shouldered fineware bowls with upright or slightly everted necks (tripartite profile), some burnished (**Figure 3, 7–10**). One rim, from a vessel of unknown form, has a markedly expanded profile, with finger impressions (**Figure 3, 11**), but otherwise most rims have simple rounded or flattened profiles, while some are slightly expanded internally and/or externally. Apart from impressions on rims and shoulders, decoration is entirely absent.

A further 11 sherds (16g) from High House remain undated. These are all in shelly fabrics, none sufficiently distinctive to assign to specific date range – they could be Late Bronze Age / Early Iron Age, Late Iron Age, or even medieval.

The small group of nine sherds from Stone House are less easily tied down chronologically. These are in flint-tempered, shelly and sandy fabrics, but include no diagnostic sherds. The flint-tempered fabrics are likely to date to the Late Bronze Age / Early Iron Age, as at High House, the shelly fabrics could be either Late Bronze Age / Early Iron Age or Late Iron Age; and sandy wares are found throughout this broad period in the region.

Distribution on site

Later prehistoric pottery came largely from contexts in Area 1 at High House; 848 sherds (9753g) derived from

Date range	Fabric type	Description	No. sherds	Weight (g)
EBA	GR3	Grog-tempered Beaker fabric	2	32
MBA	FL2	Deverel-Rimbury coarseware	22	250
MBA	FL4	Deverel-Rimbury fineware	11	256
M/LBA	FL1	Coarse flint-tempered fabric	13	31
LBA/EIA	QU1	PDR coarseware, sandy	11	55
LBA/EIA	QU2	PDR coarseware, sandy with flint	6	85
LBA/EIA	QU3	PDR fineware, glauconitic sandy	4	13
LBA/EIA	FL3	PDR fineware, flint-tempered	204	2295
LBA/EIA	FL5	PDR coarseware, flint-tempered	573	6010
LBA/EIA	SH1	PDR coarseware, shelly	202	1959
LBA/EIA	UNKN	Unknown fabric type (burnt)	1	4
<i>Total</i>			<i>1049</i>	<i>10,990</i>

PDR = post – Deverel-Rimbury

Table 1 Pottery: Early Bronze Age – Late Bronze Age / Early Iron Age fabric totals

contexts which have been dated as Middle Bronze Age to Early Iron Age.

Four features contained only Middle Bronze Age fabrics – pits 17030 and 17049, and gullies 17021 and 17043, all at the eastern end of Area 1. In each instance only small quantities of pottery were recovered.

Of the later features the largest group, 165 sherds from pit 17024, included six coarseware rims, three of them finger-impressed and all probably from shouldered jars (**Figure 3, 4**), as well as one fineware carinated vessel. Pit 17069 (104 sherds) also contained a mixture of coarsewares and finewares, from a number of vessels (a maximum of eight, on the basis of rim sherds). In contrast, the contents of pit 17041 (106 sherds) consisted largely of sherds of just two vessels, one fineware tripartite bowl (**Figure 3, 7**), and the lower part of a coarseware vessel; this pit also contained an almost complete triangular loomweight (**Figure 4, 1**), and its contents could therefore potentially be regarded as a ‘special deposit’, although it should be noted that pit 17024 also yielded fragments from a maximum of six triangular weights. The dating implications of these associations will be discussed further below.

Only one other feature (ditch 17000) contained what appeared to be sherds of a single vessel deposited together, although the ditch also produced a mixture of sherds from other vessels, as seems to be the case for all other context groups. In other words, most of the pottery appears to represent ‘standard’ domestic refuse.

Discussion

The Middle Bronze Age material is too sparse for a detailed consideration of its affinities, but generally it appears to fall within the local Deverel-Rimbury range of south Essex and the lower Thames Valley generally, as seen, for example, at Mucking and North Shoebury (Barrett and Bond 1988; Brown 1995; **Figure 1**). Certainly there is no sign of the more elaborate decoration seen on the Ardleigh group from the north of the county.

North Shoebury also provides good parallels for the Late Bronze Age – Early Iron Age assemblage, although the range seen at West Thurrock in terms of vessel forms is far more limited; using Barrett’s classification (1980), only Class II (coarseware) jars and Class IV (fineware) bowls were identified, although this may be at least partly due to the scarcity of diagnostic sherds. There are other comparable assemblages in the area from Orsett and Mucking (Barrett 1978; Barrett and Bond 1988) and further afield at Springfield Lyons, Chelmsford (Buckley and Hedges 1987), and sites in the lower Blackwater Valley such as Slough Farm and Lofts Farm (Brown 1988; 1998).

Overall the potential date range is Late Bronze Age to Early Iron Age. The Class I coarseware jars with finger impressed rims and shoulders are characteristic of the Late Bronze Age plainware of the region, dating to the early 1st millennium BC. However, these vessels are also seen in Early Iron Age assemblages, and there are other indications that a slightly later date for the assemblage is

perhaps more likely. One is the occurrence of a significant proportion of shelly wares, seen as a ceramic development of the Early Iron Age at North Shoebury (Brown 1995, 83), although interestingly absent from the Early Iron Age assemblages from Orsett and the Grays By-pass (Wilkinson 1988). The second is the presence of a number of tripartite fineware bowls with footring bases, seen at North Shoebury, Rectory Road (Grays By-pass) and Orsett. A date range of 6th to 4th centuries BC was suggested for the North Shoebury Early Iron Age assemblage (Brown 1995, 87).

List of illustrated vessels (Figure 3)

1. Beaker rim sherd, fabric GR3. PRN 217, context 10229, natural feature 17077.
2. Beaker decorated body sherd, fabric GR3. PRN 217, Context 10229, natural feature 17077.
3. Coarseware jar rim, fabric FL5. PRN 224, context 10255, natural feature 17019.
4. Coarseware jar rim, finger-impressed, fabric SH1. PRN 275, context 10326, pit 17024.
5. Coarseware rim, finger-impressed, fabric FL5. PRN 126, context 10157, pit 17069.
6. Coarseware jar rim, fingernail-impressed shoulder, fabric FL5. PRN 91, context 10126, pit 17012.
7. Fineware bowl profile, fabric FL3. PRN 232/238, Obj. No. 19554, context 10260/10261, pit 17041.
8. Fineware bowl rim, fabric FL3. PRN 117, context 10154, pit 17069.
9. Fineware bowl rim, fabric FL3. PRN 141, context 10164, pit 17016.
10. Fineware bowl rim, fabric FL3. PRN 120, context 10156, pit 17069.
11. Expanded rim, fabric SH1. PRN 206, Context 10219, pit 17018.

Fired clay

by Lorraine Mephram

Loomweights

A maximum of eight loomweights are present, seven from High House and one possible example from Stone House. The loomweights are all, as far as can be ascertained, of triangular form, the typical Iron Age form of the region. Only one survives as near complete (**Figure 4, 1**), from pit 17041. This weight has three perforations; only one corner survives intact, but the side length can be extrapolated from the position of the perforations as *c.* 160mm; the thickness is 50mm. Fragments from a maximum of six further weights (identified from corner fragments) came from pit 17024. The fragments from a possible loomweight found at Stone House came from a medieval context. In addition there are three fragments from High House which could derive either from further loomweights, or from slabs/blocks (which have flat surfaces but no edges or corners). These came from gully 17021, pit 17071 and pit 17017.

The fabric of the weights and possible weights varies, but is generally poorly wedged, with a relatively fine matrix, and sparse to common organic inclusions, with occasional detrital flint and quartz. Fabrics are soft, reflecting firing at relatively low temperatures; some fragments are incompletely oxidised, with unoxidised cores.

Triangular loomweights occur from the Early Iron Age onwards in Essex, although are most frequent in Late Iron Age contexts (Major 1998). At Slough House Farm, in the Blackwater Valley, a small quantity was found in Late Bronze Age contexts (*ibid.*, table 11). At High House, all seven probable loomweights were associated with Late Bronze Age / Early Iron Age pottery, in pits 17024 and 17041 (with a suggestion that the date range for the pottery falls relatively late within the sequence; see Pottery). There is some suggestion at Slough House Farm that loomweight dimensions increased between Early/Middle Iron Age and Late Iron Age contexts; only one example from High House had measurable dimensions, but is thinner than the Slough House Farm Early/Middle Iron Age weights (*ibid.*, 161).

Briquetage

Fourteen fragments of briquetage, defined as ceramic equipment associated with salt production, were recovered, all from one Middle – Late Bronze Age context (pit 17025) and probably deriving from a single object; all fragments are in a similar coarse, organic-tempered fabric. Four fragments conjoin and appear to derive from a pedestal (**Figure 4, 2**)

Salt briquetage, frequently in organic-tempered fabrics, has now been recognised on a number of prehistoric and Roman sites in Essex, and salt production is attested in coastal areas (Fawn *et al.* 1990). The High House object could be of similar form to Bronze Age examples from Mucking (Barford 1988, fig. 27, 15–18), or to Late Iron Age/Roman examples from the Red Hills in Essex (Fawn *et al.* 1990, 69, figs. 10–11).

Illustrated objects (Figure 4)

1. Triangular loomweight. Obj. No. 19555, context 10261, pit 17041.
2. Briquetage ?pedestal. Context 10002, pit 17025.

Animal bone

by Jessica Grimm

The majority of what is a rather small animal bone assemblage (all from High House) is in fair to good condition. The results correspond with the wider picture for this period as cattle dominates among the domesticates (**Table 2**) and no wild species were present. The presence of horse bones confirms its reintroduction to Britain in the Early Bronze Age. Cattle and sheep/goat were slaughtered at sub-adult and adult stages indicating mixed husbandry strategies for milk and meat as well as for wool and use as draught animals. Pigs were slaughtered around the ideal age of two after which they do not gain any more meat. The even distribution of skeletal elements suggests that cattle and pig were slaughtered and their products processed on the site. The distribution is less even for sheep and might indicate transport of meat parts from the site. A left sheep metatarsus produced a height at the withers of 0.55m and a right horse metacarpus provided a height at the withers of 1.29m, indicating rather small animals.

Charred plant remains

by Chris J. Stevens

Fourteen bulk samples were taken from Middle Bronze Age to Late Bronze Age / Early Iron Age features at High House. These were processed and assessed and five of the richer samples selected for analysis: one from a Middle / Late Bronze Age pit and four from Late Bronze Age / Early Iron Age pits. All of the samples produced cereal remains, although the material was poorly preserved and specific identifications to species were not always possible (**Table 3**).

In the Middle / Late Bronze Age sample emmer wheat chaff and grains (*T. dicoccum*) are present, along with similar numbers of barley grains. A single possible glume of spelt wheat (*Triticum spelta*) was also recovered. The range of cereals is in keeping with other sites in the region, for example, North Shoebury, where possible spelt was also recovered (Murphy 1991; 1995). It might be noted that assemblages of this period from across the Thames in North Kent have produced spelt wheat in large quantities (Pelling 2003).

The Late Bronze Age / Early Iron Age pits produced evidence for spelt and barley only, although the possibility that emmer was also present cannot be ruled out. A single grain of possible free-threshing wheat (*Triticum aestivum* sl) was also recorded. Wild food remains included a few fragments of hazelnut (*Corylus avellana*) and three stones of sloe (*Prunus spinosa*).

The absence of emmer in the Late Bronze Age / Early Iron Age samples from High House may be a reflection of differential preservation. Other Late Bronze Age sites in south Essex have generally produced evidence for both emmer and spelt alongside barley, as have many recently excavated HS1 sites in Kent. At Rook Hall Farm and Springfield Lyons (Murphy 1991; 1987) spelt wheat predominated, while emmer dominated assemblages at Slough House Farm (Murphy 1998), Fossetts Farm (Wessex Archaeology 2005) and Lofts Farm (Murphy 1988b; 1991).

Seeds of weeds growing within the Bronze Age fields and brought in after harvesting were generally sparse. They included many species commonly found on later prehistoric sites, such as vetches/wild pea (*Vicia / Lathyrus* sp.), knotgrass (*Polygonum aviculare*), oats (*Avena* sp.) and brome grass (*Bromus* sp.). Of more interest were many seeds of black mustard or wild cabbage (*Brassica nigra/oleracea*). Both are common close to the sea, although only black mustard is known as an arable weed inland. However, given the location of the site, either species is possible. The samples also contained many seeds of bulrush or grey club rush (*Schoenoplectus lacustris/tabernaemontani*), as well as a single seed of bur-reed (*Sparganium erectum*), which are also likely to have grown within marshy areas, including brackish conditions. The rushes and reeds may, of course, have had an economic use, for example as thatch.

It is probable that most of the remains derived from charred waste after pounding of hulled wheat spikelets and the separation of the glumes. The poor preservation of the assemblage and the high number of roots in the

Species	LBA/EIA		LIA/ERB		Med		Med/p-med	
	n	%	n	%	n	%	n	%
Mammal								
Horse (<i>Equus caballus</i>)	3	1.3	3	1.1	5	0.9	2	0.9
Cattle (<i>Bos taurus</i>)	58	24.9	61	23.0	75	13.2	47	21.0
Sheep/Goat (<i>Ovis/Capra</i>)	27	11.6	34	12.8	50	8.8	52	23.2
Sheep (<i>Ovis aries</i>)	1	0.4	3	1.1	1	0.2	24*	10.8
Pig (<i>Sus domesticus</i>)	7	3.0	8	3.0	112*	19.8	11	5.0
Dog (<i>Canis familiaris</i>)			56*	21.1	5	0.9		
Cat (<i>Felis catus</i>)					66*	11.6	14*	6.3
Mole (<i>Talpa europaeus</i>)					4	0.7		
Mouse/shrew					4	0.7		
Rabbit (<i>Oryctolagus cuniculus</i>)					2	0.4		
Vole (<i>Cricetidae</i>)			1	0.4	1	0.2		
Water vole (<i>Arvicola terrestris</i>)					1	0.2		
Whale (<i>Cetacea</i>)			1	0.4				
Bird								
Domestic fowl (<i>Gallus gallus dom.</i>)					7	1.2	11	5.0
Goose (<i>Anser anser</i>)					5	0.9	1	0.5
Mallard (<i>Anas platyrhynchos</i>)					1	0.2	1	0.5
Small passerine (<i>Passeriformes</i>)					1	0.2		
Cf. Teal (<i>Anas cf. crecca</i>)					1	0.2		
Thrush (<i>Turdus philomelos</i>)					1	0.2		
Fish								
Cf. ling (<i>Molva molva</i>)							1	0.5
Cf. small cod (<i>Gadus morhua</i>)							1	0.5
Cf. tub gurnard (<i>Chelidonichthys lucernus</i>)					1	0.2		
Amphibian								
Common frog (<i>Rana temporaria</i>)					6	1.1		
Classes								
Large mammal	78	33.5	14	5.3	77	13.6	25	11.3
Medium mammal	59	25.3	84	31.8	112	19.8	23	10.4
Small mammal					3	0.5	5	2.3
Bird					5	0.9	4	1.8
Fish					9	1.6		
Amphibian					10	1.8		
Total	233	100.0	265	100.0	565	100.0	222	100.0

* (partial) skeleton(s)

Table 2 Animal bone: species list and number of identified specimens (all periods)

samples suggest considerable biological activity that will have effected preservation and may have selectively destroyed the more fragile glumes (Boardman and Jones 1990). The small number and dominance of seeds of larger seeded species is seen at many of the prehistoric sites in the region (Murphy 1987; 1988b; 1991; 1998) and would suggest that crops were brought to, and stored at the settlement in a relatively clean state. This storage would occur after they had been threshed, winnowed and sieved and most of the smaller, lighter seeds removed, following harvest in mid to late summer.

It is noted that species of *Schoenoplectrus* spp. have been recorded as weeds of rice fields (Yuan *et al.* 1991). This argument has been used previously to suggest that other wetland species whose seeds are commonly found amongst cereal remains were also once weeds of arable fields (Jones 1988; Stevens 1999). It could be suggested then that during the Middle to Late Bronze Age fields extended onto areas that lay close to the Thames and

were perhaps seasonally flooded. Ard marks sealed by alluvium and dated to the Middle Bronze Age at Southwark certainly suggest that fields were located in such localities in the past (Bates and Minkin 1999).

Late Iron Age (Figure 5)

Late Iron Age features at High House were largely confined to a relatively small area within the central part of Area 1, with two adjacent features almost 400m away towards the east end of Area 2.

The principal feature appears to have been a small, sub-rectangular, partly double-ditched enclosure (17076). The ditches had been heavily truncated, generally being 0.20 – 0.25m deep, but overall they produced 79 sherds of Late Iron Age pottery along with ten residual sherds. The outer ditch enclosed an area approximately 32m by 22m which may have been open on the north side, although it is quite possible that the enclosure extended beyond the limit of excavation. The

	Period	M/LBA		LBA / EIA			M/LIA	ERB
	Feature type	Pit	Pit	Pit	Pit	Pit	Pit	Ditch
	Feature no.	17049	17016	17017	17024	17041	237	17010
	Sample size	10	20	20	20	17	8	20
Cereals								
<i>Hordeum vulgare</i> sl (grain)	barley	4	6	6	-	-	-	22
<i>H. vulgare</i> sl (rachis fragment)	barley	-	-	-	-	-	-	8
<i>Triticum</i> sp. (grains)	wheat	3	11	1	5	6	4	8
<i>T. dicoccum</i> (glume base)	emmer wheat	2	-	-	-	-	1	18
<i>T. dicoccum</i> (spikelet fork)	emmer wheat	-	-	-	-	-	2	9
<i>Triticum spelta</i> (glume bases)	spelt wheat	cf.1	2	4	2	-	2	61
<i>Triticum spelta</i> (spikelet fork)	spelt wheat	-	1	-	-	-	1	-
<i>T. dicoccum/spelta</i> (grain)	emmer/spelt wheat	-	2	-	-	-	4	31
<i>T. dicoccum/spelta</i> (spikelet fork)	emmer/spelt wheat	1	-	1	-	-	2	8
<i>T. dicoccum/spelta</i> (glume bases)	emmer/spelt wheat	11	12	10	8	2	20	393
<i>Triticum</i> cf. <i>aestivum</i> sl (grain)	bread wheat	-	-	-	1	-	cf.4	-
Cereal indet. (grains)	cereal	6	10	7	6	1	10	22
Cereal frag. indet. (est. whole grains)	cereal	7	30	-	6	5	4	20
Cereal (germinated coleoptile)	cereal	cf.1	-	-	-	-	-	16
Cereal indet. (basal rachis fragment)		-	-	-	-	-	-	1
Cereal indet. (culm node)		-	-	-	-	-	1	2
Other crop species								
<i>Prunus domestica</i>	plum	-	-	-	-	-	-	cf.1
Other species								
<i>Fumaria</i> sp.	fumitory	-	-	-	-	-	-	1
<i>Urtica dioica</i>	common nettle	-	-	-	-	-	-	10
<i>Corylus avellana</i> (fragments)	hazel	-	1	-	-	6	-	1
<i>Chenopodium album</i>	fat-hen	-	-	-	-	-	-	5
<i>Chenopodium rubrum/urbicum</i>	red/up-right goosefoot	-	-	1	-	-	-	26
<i>Atriplex</i> sp. L.	oraches	-	-	-	-	-	-	-
<i>Agrostemma githago</i>	corn cockle	-	-	-	-	-	-	1
<i>Montia fontana</i> subsp. <i>chondrosperma</i>	blinks	-	-	-	2	-	-	-
Polygonaceae indet.	knotgrass	-	-	1	-	-	-	-
<i>Polygonum aviculare</i>	knot grass	-	-	1	-	-	-	-
<i>Rumex</i> sp.	docks	-	-	1	-	-	-	1
<i>Rumex acetosella</i> group	sheeps sorrel	-	-	1	1	-	-	cf.3
Large <i>Malva</i> type	mallow	-	1	4	-	-	-	-
<i>Brassica</i> sp. (<i>B. nigra</i> / <i>B.oleracea</i>)	wild mustard/cabbage	-	86	-	-	-	-	-
<i>Prunus spinosa</i>	sloe	-	3	-	-	-	-	-
<i>Vicia</i> / <i>Lathyrus</i> sp.	vetch/pea	1	2	1	1	-	-	23
<i>Medicago lupulina</i>	black medick	-	-	-	1	-	-	-
<i>Trifolium</i> sp.	clover	-	1	-	-	-	-	11
<i>Lithospermum arvense</i>	corn gromwell	-	-	-	-	-	-	5
<i>Verbena officinalis</i>	vervain	-	-	-	-	-	-	1
<i>Hyoscyamus niger</i>	henbane	-	-	1	-	-	-	-
<i>Plantago lanceolata</i>	ribwort plantain	-	-	-	-	-	-	2
<i>Odontites vernus</i>	red bartsia	-	-	2	-	-	-	2
<i>Véronica</i> sp. (flat)	ivy-leaved speedwell	-	-	-	-	-	-	1
<i>Galium aparine</i>	cleavers	1	-	-	-	-	-	-
<i>Tripleurospermum inodorum</i>	scentless mayweed	-	-	-	-	-	-	2
<i>Centaurea</i> sp.	knapweed	-	1	-	-	-	-	-
<i>Schoenoplectris</i> sp.	bulrush/grey club rush	1	10	4	1	-	-	2
<i>Eleocharis</i> cf. <i>palustris</i>	common spike-rush	-	-	-	-	-	-	8
Poaceae (indet.)	grass seed	-	-	1	-	-	-	3
Poaceae (culm node and internode)	grass culm node	-	-	-	-	-	-	13
<i>Poa</i> / <i>Phleum</i> sp.	meadow grass/cats-tails	2	1	-	-	-	2	-
<i>Avena</i> sp. (grain)	oat grain	-	-	-	1	-	1	11
<i>Avena</i> sp. (floret base indet.)	oat floret base indet.	-	-	-	-	-	-	1
<i>Avena</i> / <i>Bromus</i> sp.	oat/brome	-	-	-	3	2	-	20
<i>Bromus</i> sp.	brome	-	-	-	-	1	1	5
<i>Sparganium erectum</i>	bur reed	-	-	1	-	-	-	-

Table 3 Charred plant remains: late prehistoric and Roman

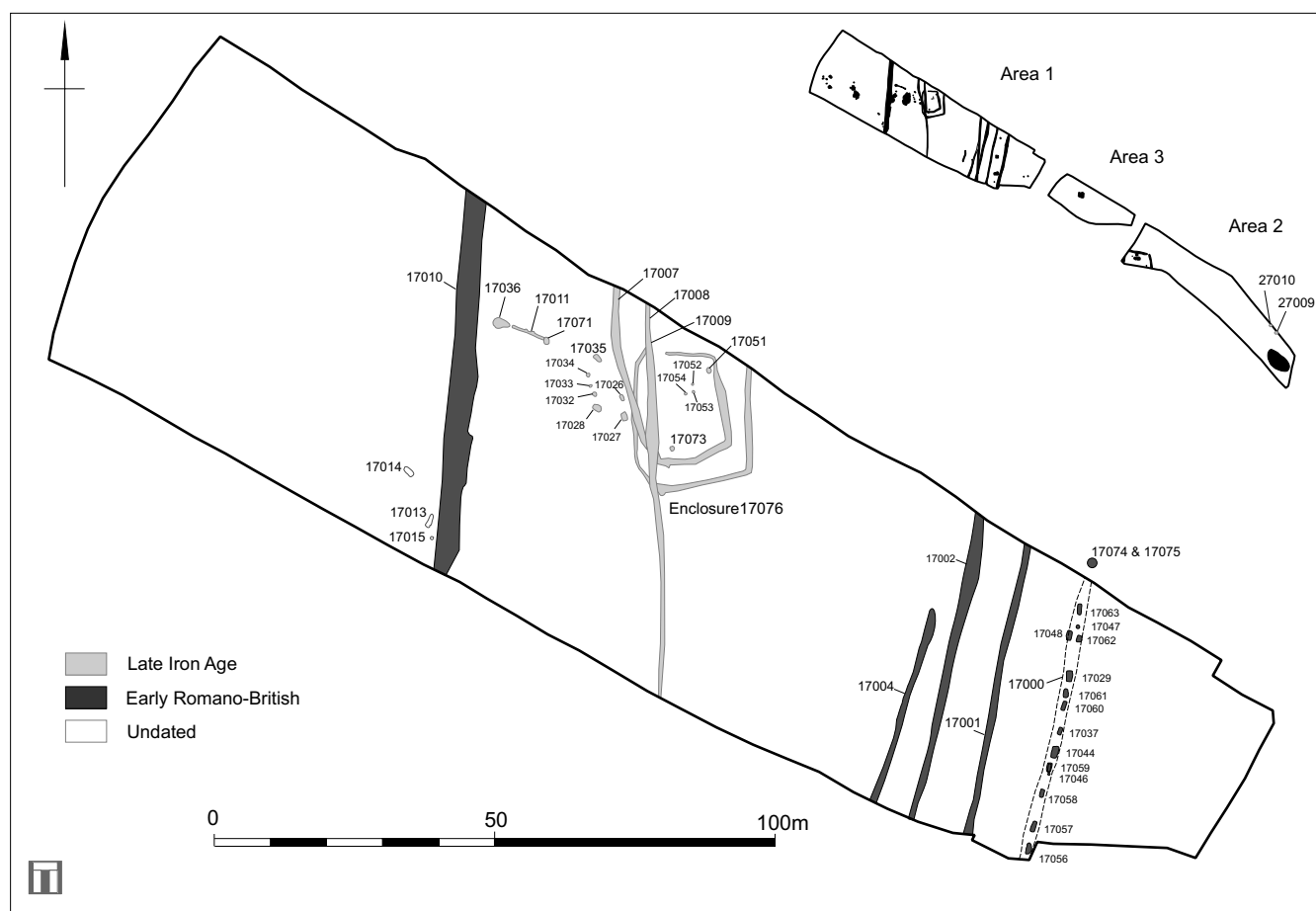


Figure 5 High House: plan (Area 1), Late Iron Age and Romano-British features

inner ditch enclosed an area approximately 20m by 12m and was open to the west. A cluster of five small pits (17051, 17052, 17053, 17054 and 17073) lay within the inner part of enclosure 17076, although only 17051 in the north-east corner produced pottery. It is possible that 17052, 17053 and 17054 were substantial post-holes rather than pits, perhaps belonging to a four-post structure approximately 1.5m square, though no trace of a fourth post was identified.

Immediately to the west of enclosure 17076 was a further cluster of small pits, four of which contained Late Iron Age pottery (17026, 17027, 17032 and 17035) and three (17028, 17033 and 17034) with no datable finds. Further to the west were pits 17036 and 17071 which lay at either end of gully 17011, all of which produced pottery. The relationship between these three features is unclear but gully 17011, which was 6.5m long, may have held a fence or shelter. The majority of the pits were between 0.10m and 0.25m deep although pit 17036, which was slightly larger than the remainder, was 0.65m deep.

Ditch 17007, aligned approximately north/south, was slightly sinuous in plan and extended beyond the limits of excavation. It was only 0.15m deep and appears to have been recut (as 17008) at the north end where it extended across the west side of enclosure 17076, probably after the latter went out of use, although the arrangement was such that it is possible that the enclosure was largely

incorporated within the new ditch system. Ditch 17007 produced a small assemblage of Late Iron Age pottery, and two sherds of Romanised pottery recorded from ditch 17009 may actually have come from ditch recut 17008.

Two further Late Iron Age pits (27009 and 27010) lay towards the eastern end of Area 2, both on the northern edge of the excavated area and perhaps part of a larger group. These pits were similar in morphology and fill to those in Area 1.

A few late prehistoric features were also identified at Stone House. These comprised seven shallow, sub-circular or irregularly-shaped pits (105, 228–31, 237, 312; **Figure 14**), six of which contained very small quantities of Late Iron Age grog-tempered pottery and one of which (pit 237) may have been of slightly earlier, Middle Iron Age date. Part of a possible triangular loomweight was also recovered, and a potin coin (a Kentish Flat Linear 1, dated to the 1st or 2nd century BC) represents an unstratified find. The features were clustered on the spur of higher ground and provide evidence for late prehistoric activity at the edge of the Thames floodplain. Given the conditions of excavation, and the likely effects of intense medieval development, it is possible that other features were removed or went unrecognised, though the recorded distribution is likely to reflect a genuine focus of activity, the nature of which remains unclear.

The Late Iron Age and early Romano-British pottery is discussed together below.

Metalwork

by Jörn Schuster

An Early La Tène-type brooch (**Figure 6, 1**) was found unstratified at Stone House. It is of Hull's type 1Bc and can broadly be dated to the 4th century BC (Hull and Hawkes 1987, 107, pl. 32). The pointed-oval decoration seems to be a south-eastern attribute.

Figure 6, 2 is a small, socketed reaping hook. The missing tip precludes any more detailed typological consideration but a Late Iron Age or early Romano-British date can be assumed (Rees 1979, 464; Manning 1985, 56–58). It is an unstratified metal detector find recovered during the watching brief to the west of High House.

Illustrated objects (Figure 6)

1. Early La Tène type brooch. Incomplete. Leaf-shaped bow has flat cross-section, double-grooved pointed-oval decoration on front. Foot and catchplate form sharp U-bend/return with oval-shaped terminal ending in small snout. Head and pin missing. Copper alloy, Obj. No. 2, unstratified.
2. Small reaping hook, blade set at right angle to open, flanged socket. Tip of blade and base of socket missing. Iron, Obj. No. 134, watching brief, around chainage 29500 (Bronze Shield Yard).

Charred plant remains

by Chris J. Stevens

A single bulk sample from a Middle / Late Iron Age feature (pit 237) at Stone House was analysed (**Table 3**). This contained relatively few remains but it did produce evidence for both spelt and emmer wheat, showing the continued cultivation of the latter crop in the region through from the Middle Bronze Age to the Roman period (see below).

Early Romano-British (Figure 5)

The use of Late Bronze Age / Early Iron Age ditch 17000 at High House as the site of an early Romano-British linear cemetery (see below) is likely to indicate the continuing visibility and significance of this later prehistoric boundary in the early Romano-British period. Certainly the alignment of the ditch and any surviving bank seems to have been influential on the alignment of other ditches dug in the Romano-British period. The earlier ditch may have determined the position of a trackway, which became established during the Roman period. This would be one interpretation of ditches 17001, 17002 and 17004 immediately to the west of ditch 17000, with ditch 17010 forming a more substantial boundary further to the west.

Ditches 17001, 17002 and 17004, each between 0.3m and 0.5m deep and approximately 1.5m wide, lay towards the east end of Area 1. All were aligned approximately north/south and 17001 and 17002 extended beyond the limits of excavation. Ditches 17001 (containing one late prehistoric sherd) and 17002 (one Roman sherd) ran parallel to each other, c. 10m apart, and ditch 17004 (undated) followed the same alignment a short distance to the west.

Ditch 17010 also extended beyond the limits of excavation, and an excavation undertaken in 2008 has shown it to continue for at least a further 50m to the south. This was the most substantial ditch on site, measuring approximately 4.5m wide and 1m deep, with a somewhat irregular, open U-shaped profile. It contained a fairly homogeneous fill with no evidence for recutting, and although only a small volume was excavated it produced a relatively large pottery assemblage (702 sherds). This included, as well as vessels in grog-tempered, shelly and sandy fabrics, one sherd from a Dressel 1 amphora, one sherd of South Gaulish samian (form 27 cup) and two sherds of a fine, wheelthrown, white-slipped, oxidised ware. Most of this group could be accommodated within a 1st century BC date range, but the samian and fine oxidised ware serve to extend the date range (at least for secondary fills 10189 and 10191) into the second half of the 1st century AD. This extended date range would accord with that of the grave goods from inhumation burial 17044 in ditch 17000 (see below) which can be dated to the mid / late 1st century AD. However, it is possible that the early use of ditch 17010 overlapped with the final phase of Late Iron Age enclosure 17076 and the digging of ditches 17007 and 17008. A further ditch (29302; not illustrated) of probable Roman date was recorded approximately 475m to the west of ditch 17010 during the watching brief. This was 3.1m wide and 1.1m deep, with a U-shaped profile, and was aligned approximately north/south.

The most notable discovery was 14 inhumation burials (**Figures 7–11**) – two (17074 and 17075) recorded as part of the subsequent watching brief (ARC 310T02) – and two cremation burials (17046 and 17047; **Figure 12**), all dug into the top of Late Bronze Age / Early Iron Age ditch 17000 at the east end of Area 1, the

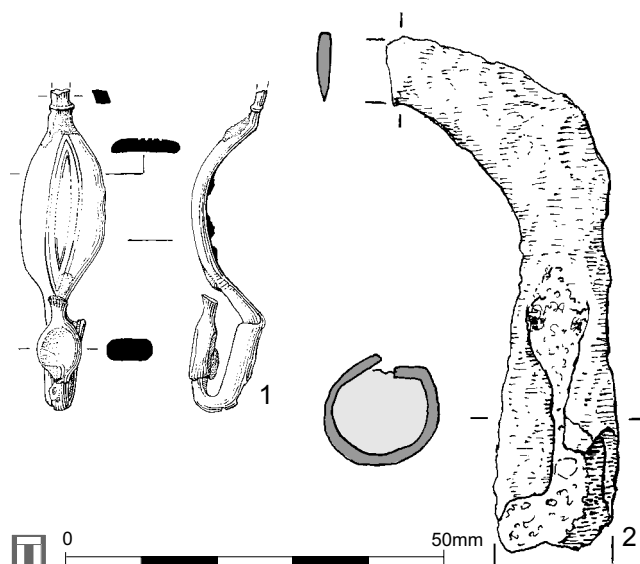


Figure 6 Copper alloy and iron objects

deepest at c. 1m reaching the base of the ditch. The inhumation burials recorded in the excavation comprise 17029, 17037, 17044, 17048, 17056, 17057, 17058, 17059, 17060, 17061 17062 and 17063. The inhumation burials were aligned north/south and, along with the cremation burials, were found along the entire length of the exposed ditch. It is almost certain, therefore, that other burials lie along its continuations to the north and south. Indeed, excavation undertaken in 2008 has revealed two further graves cut into the ditch fills, one approximately 50m to the south, demonstrating that this linear cemetery extended over a distance of at least 100m. None of the inhumation burials intercut and they were fairly evenly spaced, the exception being inhumation burial 17062 (the only infant burial), which lay next to inhumation burial 17048. Both cremation burials lay close to inhumation burials but in neither case did they intercut. Nevertheless, what appears to be redeposited, unburnt bone representing a second individual was recovered from the grave fill of inhumation burial 17037 and a very small quantity of cremated bone came from the grave fill of inhumation burial 17057.

The inhumation burials comprised six adult males, four adult females and one adult ?female, one juvenile / subadult and one infant. One of the cremation burials was that of an adult ?female, the other an adult of unknown gender.

There was clear evidence for coffins in six graves, represented by coffin stains and nails in inhumation burials 17029, 17044 and 17059, and by coffin nails and other fittings in inhumation burials 17057, 17062 and 17063. Human bone generally survived in good condition, the exception being the small quantity of bone from 17062, the one infant burial. All but one of the skeletons were oriented with heads to the north, and the majority were placed in a flexed position on the right side, with one crouched (burial 17061), one loosely crouched (burial 17058) and one extended (burial 17056).

Five of the inhumation burials (all adults) included grave goods, or had items such as brooches that indicate clothed burial or shrouds. The most exceptional was inhumation burial 17044 (a male) which was accompanied by four pottery vessels – a platter, a bowl and a jar at the feet, and a platter in the chest area, the latter containing three copper alloy brooches and a broken glass unguent vessel. A further two brooches and a copper alloy ?brooch pin bent into a loop lay nearby, and there were fragments of copper alloy binding, perhaps from a wooden vessel at the feet. The pottery vessels and brooches from this grave can be dated to the mid / late 1st century AD. Four other inhumation burials included copper alloy brooches: 17029 (female) – one, in the chest area; 17059 (male) – one, in the chest area; 17060 (female) – three, all by the legs; and 17061 (female) – two, both in the chest area. The remaining nine inhumation burials were unaccompanied, but burial 17062 is noteworthy as there were several iron fittings which may indicate that the body (of an infant) was placed in a box with a hinged lid (see below). It is noted here that three of the four unaccompanied burials which

also had no evidence for coffins were adult males and the other was a juvenile / subadult of unknown gender.

Cremation burial 17047 (adult ?female) contained a copper alloy brooch, and what were probably the remains of copper alloy and glass pyre goods came from cremation burial 17046 (adult). Both burials were unurned.

No mid- or late Roman features or finds were identified at High House and there were no Roman features at all at Stone House. However, five sherds of Roman pottery (one early, four late) were found in residual contexts at Stone House, as were two late Roman coins (a Radiate copy of the late 3rd century and a Fel Temp Reparatio ‘Fallen Horseman’ issue of the 350s AD), hinting at activity in the general area, and perhaps a change in focus to the lower lying flood plain area in the later Roman period.

Catalogue of burials

All graves certainly or probably contained articulated skeletons, with the exception of 17046 and 17047 which were unurned cremation burials. Inhumation burials 17074 and 17075 were revealed during the watching brief on a service trench immediately to the north of the site, but full recording and recovery of skeletal remains was not possible; the grave cut only was seen in the case of 17075, and neither grave is illustrated in plan here. The inhumation burials were orientated approximately north – south, following the alignment of ditch 17000; 17057 was the exception, with the head to the south. Virtually all of the graves were sub-rectangular in plan, with moderate to steeply sloping or near-vertical sides, and fairly flat bases.

Age ranges given are approximate, drawn from **Table 4** where fuller osteological details are provided.

Inhumation burial 17029

(Figure 8)

Grave 10033: 1.90m × 1.05m wide, 0.90m deep (base at 15.64m aOD). Coffined (1.40 × 0.60m), in NW corner of grave.

Human remains: 10067; flexed on right side, facing west, body slumped back. Adult female c. 25–30 yr.

Grave goods:

Obj. No. 19507: (below left femur) Nauheim-derivative brooch, Hull Type 11A. Four-coil internal chord spring of subcircular section. Flat bow with very slight ridge down centre and very faint longitudinal lines, tapers to foot. Small, subrectangular, solid catchplate. Copper alloy, context 10035.

Obj. Nos 19501–67 (not illus.): Six iron coffin nails, three at either end of the grave.

Inhumation burial 17037

(Figure 11)

Grave 10076: 1.30m × 0.60m wide, 0.75m deep (base at 15.62m aOD).

Human remains: 10125; flexed on right side, facing west. Juvenile / subadult c. 12–13 yr. Foot bones from a second individual, an adult c. >18yr, came from grave fill.

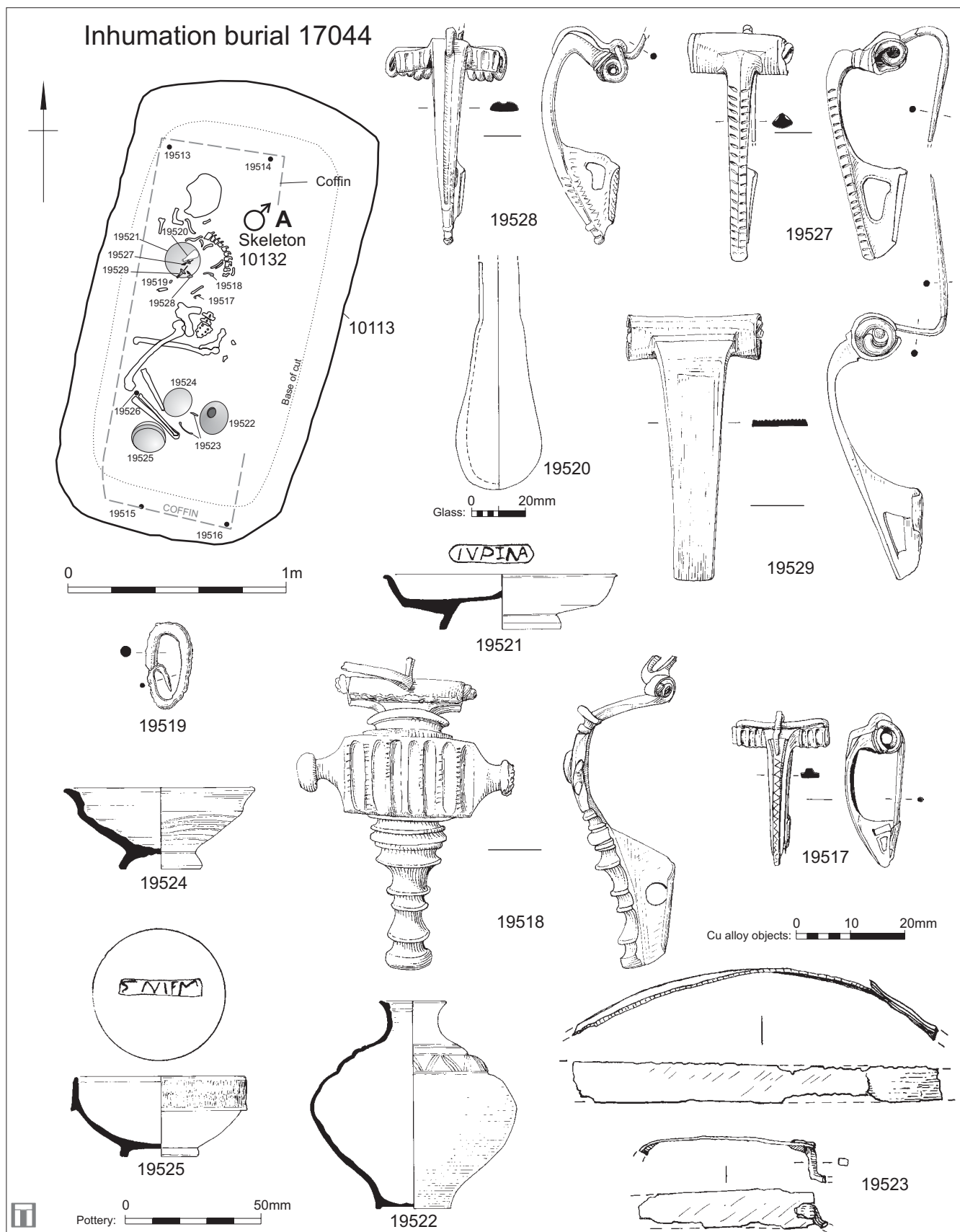


Figure 7 High House: plan, inhumation burial 17044

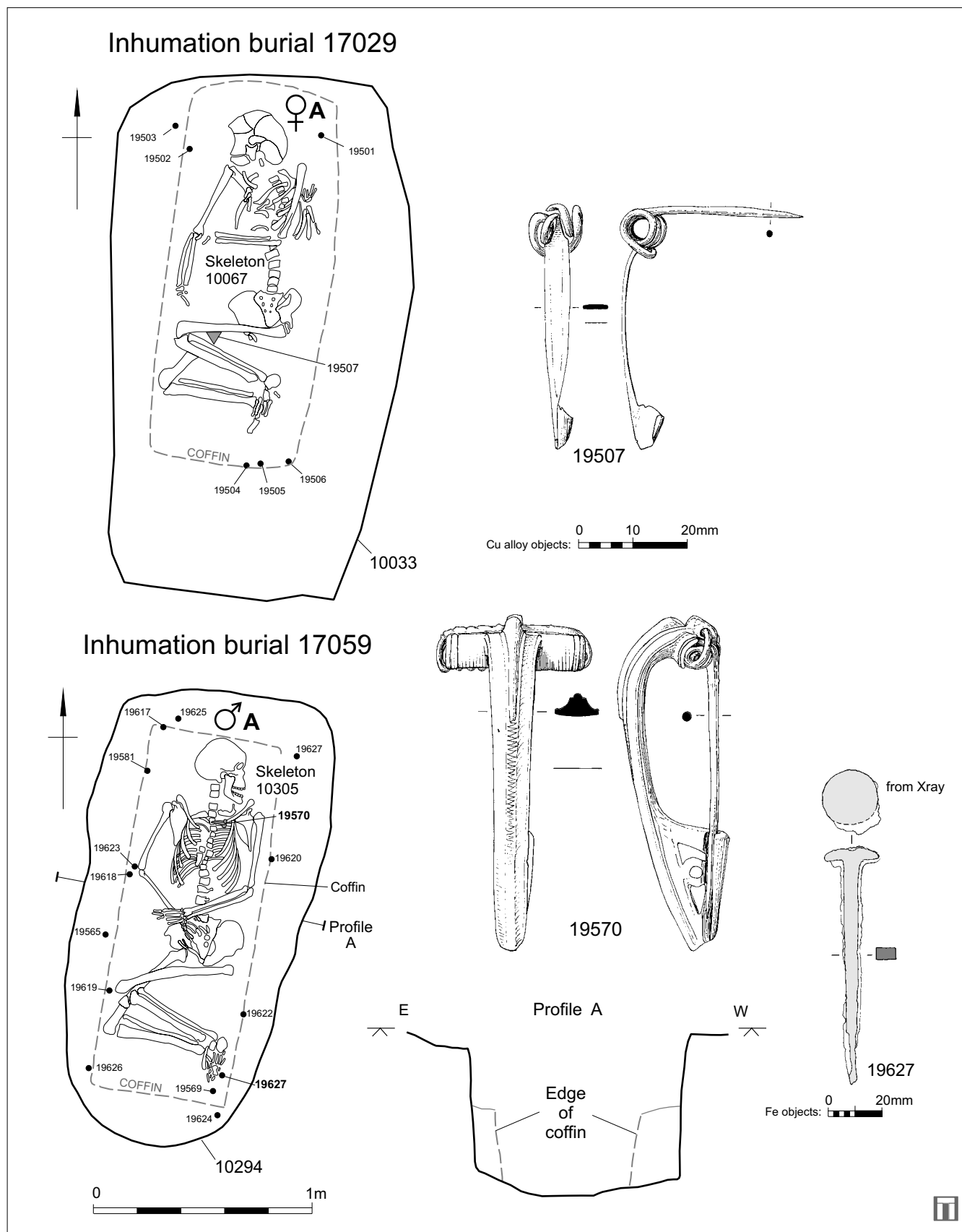


Figure 8 High House: plan, inhumation burials 17029, 17059

*Inhumation burial 17044***(Figure 7)**

Grave 10113: 2.10m × 1.15m wide, 0.90m deep (base at 15.33m aOD). Coffined (1.60m × 0.55m).

Human remains: 10132; flexed on right side, facing west, body slumped forward. Adult male *c.* >50 yr.

Grave goods:

Obj. No. 19517: (at waist) Colchester one-piece brooch. Ten coils, five transverse grooves on wings. Sharp angle at top of rectangular-sectioned bow, tapers towards foot, longitudinal ridge down centre. Perforated, triangular catchplate. Copper alloy, context 10114.

Obj. No. 19518: (at chest) Hod Hill type brooch. Hinged pin (broken), axial rod survives. Very wide subrectangular panel on upper part of bow with moulded lugs either side and transverse groove decoration (ridges beaded). Lower part of bow tapers to footknob with multiple transverse beaded mouldings. Remains of original whitemetal-coating on bow and footknob. Subrectangular catchplate, single circular perforation. Copper alloy, context 10114.

Obj. No. 19519: (above arms) ?Brooch pin, bent into oval-shaped loop. Oval cross-section, tapers to point one end. Copper alloy, context 10114.

Obj. No. 19520: (on platter 19521) Small tubular unguent bottle (neck missing), pale blue glass.

Obj. No. 19521: (above arms) Samian form 18 platter, stamped. PRN 80.

Obj. No. 19522: (at feet) Greyware narrow-mouthed jar. PRN 82.

Obj. No. 19523: (at feet) Binding, in seven fragments, ?all of same object. Rectangular-sectioned strip, severely corroded and bent. One fragment has oval-sectioned rivet attached to one end. Copper alloy, context 10114.

Obj. No. 19524: (at feet) Imitation Cam 56 platter. PRN 81.

Obj. No. 19525: (at feet) Samian form 24/25 bowl, stamped. PRN 85.

Obj. No. 19527: (on platter 19521) Brooch with spring in cylindrical cover with double-groove decoration at tips, sharp right angle at top of head. Bow has D-shaped cross-section with multiple transverse grooves filled with ?niello inlay. Triangular, perforated catchplate, pin broken. Copper alloy, context 10114.

Obj. No. 19528: (on platter 19521) Colchester one-piece brooch. Four transverse grooves on wings, sharp angle from head to bow (also slightly bent post-depositionally). Bow of flat section, tapers slightly towards foot which has small footknob, longitudinal groove down centre. Triangular, perforated catchplate. Copper alloy, context 10114.

Obj. No. 19529: (on platter 19521) Langton Down brooch. Flat rectangular-sectioned bow, straight join to cylindrical spring cover, tapers to foot. Tinned surface with longitudinal groove decoration, starting only after bend of head into bow and faint transverse lines on outside of spring cover. Triangular, perforated

catchplate. Copper alloy, context 10114.

Obj. Nos 19513–16 & 19526 (not illus.): Five iron coffin nails, one at each corner of grave and one by the left knee.

*Cremation burial 17046***(Figure 12)**

Grave 10128: 1.05m × 0.75m wide, 0.28m deep (base at 15.81m aOD). At the base of the grave fill (10129) were three featureless lumps of fired clay, total weight approximately 1.8kg.

Human remains: Fill 10129, adult *c.* >18yr.

Grave goods:

A fragment of copper alloy link and the end of what may have been a pin were recovered by sieving, and a trace of possible melted glass was noted as being fused to a fragment of bone, all possibly representing the remains of pyre goods (not illus.).

*Cremation burial 17047***(Figure 12)**

Grave 10130: 0.50m diameter, 0.50m deep (base at 16.26m aOD).

Human remains: Fill 10149 / 10150 (contained the majority of cremated bone) / 10151, Adult ?female *c.* 35–45yr.

Grave goods:

Obj. No. 19549: Colchester one-piece brooch. Iron axial rod still in place. End half of hook holding external chord split into two strands. Faceted D-sectioned bow, tapers to foot, groove down centre with zigzag decoration. Large perforated triangular catchplate. Tip of pin missing, part (Obj. No. 19551) found in context 10149. Fire patina. Copper alloy, context 10150.

Obj. No. 19552: Copper alloy fragment (unid.) (not illus.)

Analysis of the charcoal from this grave shows that *Quercus* sp (oak) was chosen as the main pyre fuel, its dominance almost certainly reflecting selection for this purpose. Only two other taxa were found, represented by single fragments of *Fraxinus excelsior* (ash) and *Salix* / *Populus* sp (willow / aspen), perhaps incorporated in the fuel or pyre remains by accident, or the remains of small objects or unworked wood included in the cremation for specific properties or associations.

*Inhumation burial 17048***(Figure 11)**

Grave 10146: 1.70m × 0.95m wide, 0.45m deep (base at 16.29m aOD).

Human remains: 10148; flexed on left side, facing east. Adult male 40–50yr.

*Inhumation burial 17056***(Figure 11)**

Grave 10286: 1.90m × 0.90m wide, 0.35 deep (base at 15.32m aOD). A slight step at the north end may have been a deliberate feature created to form a head-rest.

Human remains: 10287; extended on right side, facing west, body slumped forward slightly. Adult male *c.* 22–28 yr.

Inhumation burial 17057

(Figure 10)

Grave 10292: 1.90m × 0.75m wide, 0.75 deep (base at 15.11m aOD). Coffined (unknown dimensions).

Human remains: 10337; flexed on right side, head at south end (the only example with this orientation), facing east. Adult female *c.* 35–40 yr. 0.8g of cremated bone from a second individual, an infant *c.* >5yr, came from grave fill.

Grave goods:

Obj. No. 19561: (south end of grave) Joiner's dog. Rectangular-sectioned bar, widest in middle, arms at approximate right angles, tapering from sides to inward-bent tips. Iron, context 10337.

Obj. No. 19611: (north end of grave, precise location uncertain) Joiner's dog. Rectangular-sectioned bar, both ends tapering, one arm bent at approximate right angle the other at *c.* 60°. Iron, context 10342.

Obj. Nos 19512–15 (not illus.): Four iron coffin nails, three at S end and one at N end. Possibly three more (unlocated) from soil sample.

Inhumation burial 17058

(Figure 11)

Grave 10293: 1.35m × 0.65m wide, 0.60 deep (base at 15.45m aOD).

Human remains: 10320; loosely crouched position on right side, facing west. Adult male *c.* 30–50 yr.

Inhumation burial 17059

(Figure 8)

Grave 10294: 1.70m × 0.80m wide, 0.45 deep (base at 15.41m aOD). Coffined (1.35 × 0.50m).

Human remains: 10305; flexed on right side, facing east, body slumped back. Adult male *c.* 30–40 yr.

Grave goods:

Obj. No. 19570: (above upper chest) Colchester-derivative brooch. Transverse groove decoration on wing tips. Crest at top of head continues as pronounced ridge down centre of bow. Zigzag decoration on ridge. Bow tapers slightly towards foot. Large, elaborately perforated, triangular catchplate. Inside of bow shows transverse lines indicative of removal of central casting flash with hammer or small chisel. Copper alloy, context 10304.

Obj. No. 19627: Nail, flat head, subrectangular-sectioned tapering shaft. Iron, context 10302.

Obj. Nos 19617–26; 19628; 19565; 19569; 19581; 19628 (not illus.): Fifteen iron coffin nails, irregularly spaced around edge of coffin (one unlocated).

Inhumation burial 17060

(Figure 9)

Grave 10295: 1.65m × 0.75m wide, 0.65 deep (base at 15.73m aOD).

Human remains: 10332; flexed on right side, body slumped back? Adult female *c.* 30–40 yr.

Grave goods:

Obj. No. 19557: (lower right leg) Colchester-derivative brooch. Axial bar still in place, transverse grooves on wings tips. Large crest on head and ridge extends down centre of bow. Solid, triangular catchplate. Pin broken (=Obj. No. 19586, context 10331). Copper alloy, context 10332.

Obj. No. 19558: (lower right leg) Colchester-derivative brooch. Axial rod still in place. Wings plain, D-shaped bow, tapers slightly to foot, no decoration visible. Solid, triangular catchplate. Pin separate. Copper alloy, context 10332.

Obj. No. 19559: (lower right leg) Colchester-derivative brooch. Wings plain, D-sectioned bow with pronounced ridge down centre and beading either side. Bow tapers slightly towards foot. Solid, subrectangular catchplate. Pin separate but retained. Copper alloy, context 10332.

Obj. Nos 19566; 19584–5 (not illus.): Three iron ?coffin nails, in N half of grave.

Inhumation burial 17061

(Figure 9)

Grave 10296: 1.45m × 0.70m wide, 0.65 deep (base at 15.78m aOD).

Human remains: 10333; crouched on right side, facing west. Adult female *c.* 40–50 yr.

Grave goods:

Obj. No. 19560: (in front of chest) Colchester one-piece brooch. Spring broken, in two parts – right side of spring and pin separate. Iron axial bar. Transverse groove decoration on wings. Sharp right angle at head to bow. Rectangular cross-sectioned bow, tapers towards foot with double longitudinal grooves down centre. Broken triangular catchplate (originally with opening) has been repaired by fixing subtriangular sheet to old catchplate with two iron rivets. Old part of brooch with blue patina, spring and repaired catchplate with green patina. Copper alloy, context 10333.

Obj. No. 19583: (upper chest) Colchester one-piece brooch. Six-coil spring with outer chord, not attached to head of bow where only small stub remains; may be replacement for original spring. Transverse groove decoration on wings. Sharp angle from head to bow. Rectangular-sectioned bow tapers slightly towards foot; raised ridge down centre of bow with grooves either side filled with faint transverse lines. Triangular catchplate with L-shaped perforation, pin-rest missing. Copper alloy, context 10333. Copper alloy brooch.

Inhumation burial 17062

(Figure 10)

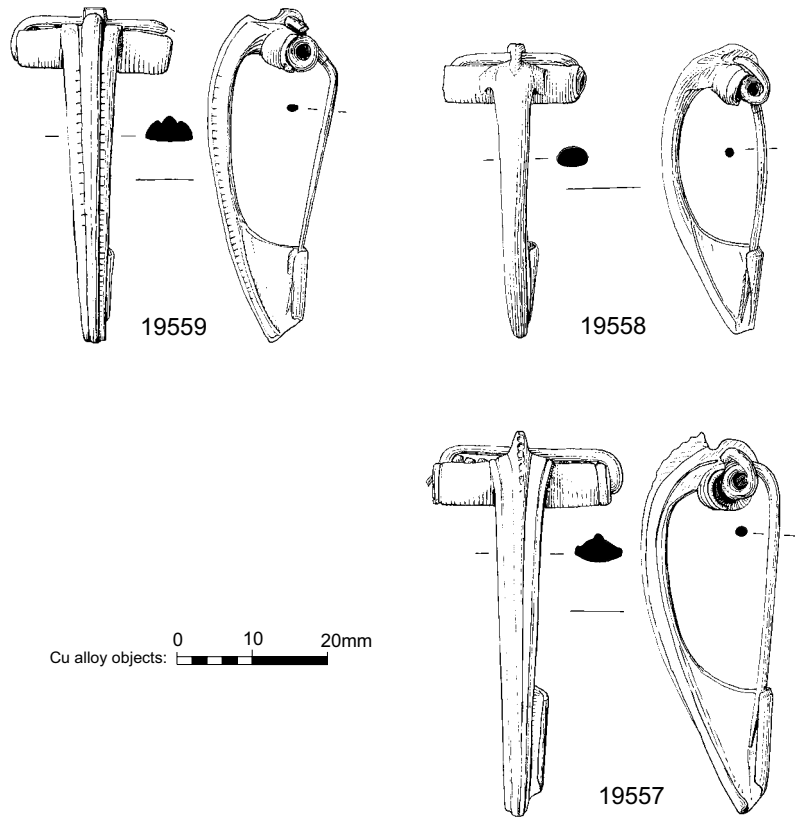
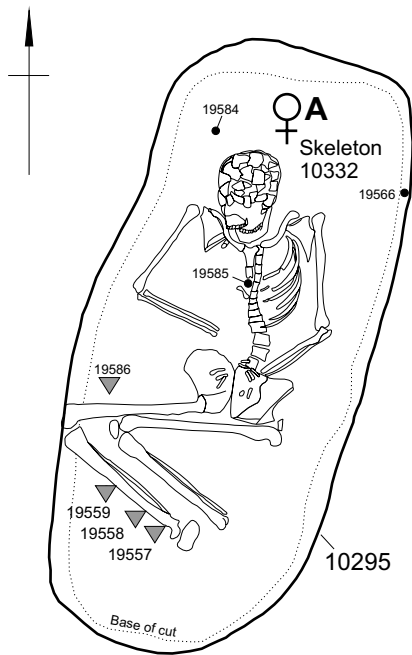
Grave 10297: 1.15m × 0.85m wide, 0.60 deep (base at 16.13m aOD). Coffined (0.99 × 0.55m; see below).

Human remains: 10338. Infant *c.* 1.5 – 2.5 yr.

Grave goods:

Obj. No. 19567: Long triangular ?hinge plate, slightly shorter than triangular, pierced plate of loop hinge

Inhumation burial 17060



Inhumation burial 17061

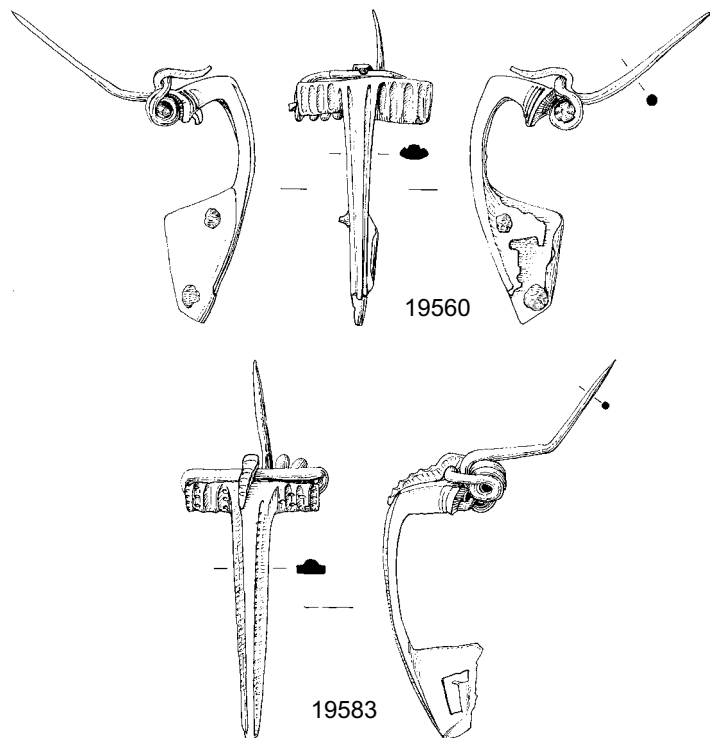
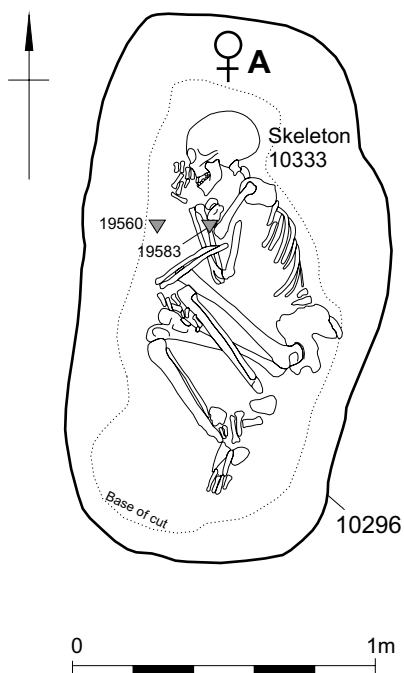


Figure 9 High House: plan, inhumation burials 17060, 17061

19592. (Iron sheet frags 19562, 19587 and 19590 may be part of this). Iron, context 10338.

Obj. No. 19578 (not illus.): Iron sheet fragment, context 10338

Obj. No. 19591: Joiner's dog. Rectangular-sectioned bar, one arm bent twice at right angles, the other is more rounded, both tips pointing slightly inwards. Iron, context 10338.

Obj. No. 19592: Loop hinge. Both parts remaining. Pierced, triangular plate complete with remains of two nails. Looped plate with sides tapering towards missing end, remains of two nail holes, looped end bent at right angles to rest of plate (cf. Manning 1985, fig.31, 2). Iron, context 10338.

Obj. No. 19595: L-clamp. Wide end of rectangular section, tapering just before right-angled bend to width of stem. Iron, context 10338.

Obj. No. 19597: (south-west part of grave) Nail. Spherical head with flattened base, oval cross-section. Square-sectioned shaft tapers to point. Copper alloy, context 10338.

Obj. Nos 19562; 19565; 19574–9; 19580; 19588–9; 19593–4, 19596 (not illus.): Fourteen iron coffin nails. Possibly five more (unlocated) from soil samples.

The iron objects (other than the nails) were concentrated in the north-east and south-east corners of the grave, each group including a hinge and clamp or joiner's dog. Together, these suggest a small coffin or box, with a lid hinged on the east side.

Inhumation burial 17063

(Figure 10)

Grave 10298: 1.80m × 0.65m wide, 1.00 deep (base at 15.80m aOD). Coffined (unknown dimensions).

Human remains: 10341; flexed on right side, facing west.

Adult male *c.* >50 yr.

Grave goods:

Obj. No. 19573 (not illus.): Glass fragment (?melted) (Unlocated)

Obj. Nos 19568; 19571–2; 19598–10; 19616; 19667 (not illus.): Seventeen iron coffin nails, mostly around the edge of the grave, with two nails from the grave fill.

Inhumation burial 17074

The dimensions of the grave were not ascertained in the watching brief. It contained 303006, the skeletal remains of an adult, possibly female, *c.* >45 yr. Only the upper part of the skeleton was recovered, the remainder apparently having been truncated by an earlier service trench, and the burial position could not be determined.

Inhumation burial 17075

Only a small part of the grave cut was seen in the watching brief, and no skeletal material recovered.

Human bone

by Jacqueline I. McKinley

Human bone was recovered from 20 early Romano-British contexts (1st century AD), including the remains of 13 *in situ* inhumation burials (six of which were made

coffined) and two unurned cremation burials. Two inhumation grave fills contained fragments of redeposited bone, unburnt in one instance (10077, burial 17037) and cremated in the other (10337, burial 17057).

Methods

Recording and analysis of the cremated bone followed the writer's standard procedure (McKinley 1994, 5–21; 2000). Age (cremated and unburnt bone) was assessed from the stage of skeletal and tooth development (Beek 1983; Scheuer and Black 2000), and the patterns and degree of age-related changes to the bone (Brothwell 1972; Buikstra and Ubelaker 1994). Sex was ascertained from the sexually dimorphic traits of the skeleton (Bass 1987; Buikstra and Ubelaker 1994). The variable integrity of the attributed sex is denoted in **Table 4** as '??' most likely, '?' probable and un-questioned.

Where possible a suite of measurement was taken from the unburnt bone (Brothwell and Zakrzewski 2004) to enable the calculation of various skeletal indices including stature and cranial index (Trotter and Gleser 1952; 1958; Brothwell 1972, 88; Bass 1987). Non-metric traits were recorded in accordance with Berry and Berry (1967) and Finnegan (1978). The degree of erosion to the bone was recorded using the writer's system of grading (McKinley 2004a, fig. 7.1–7).

Results

A summary of the results from analysis is presented in **Table 4**. Full details are in the archive.

The graves had all cut through the fill(s) of north-south ditch 17000 at the east end of Area 1 (**Figure 5**). The inhumation graves ranged between 0.35m to 1m in depth, with an average of *c.* 0.7m; the cremation graves had a shallower range of 0.3–0.5m. There was no intercutting between the extant graves, nor had they been cut by any other intrusive feature in antiquity. That at least one inhumation grave had been disturbed, however, possibly by the insertion of a later grave, is demonstrated by the recovery of redeposited lower limb elements from the grave fill of burial 17037 in the central area of the ditch. The small quantity of redeposited cremated bone (0.8g) from the grave fill of inhumation burial 17057 may represent material not collected for burial from one of the same cremations as represented elsewhere within the assemblage. Remains within two inhumation graves were subject to some level of modern disturbance; the skull in the shallowest grave (10286 burial 17056; 0.35m deep) was clipped during machine stripping of the site, and the remains from burial 17074, discovered during the watching brief stage of the investigations, were only partially recovered when the grave was truncated by a service trench (it was not possible to excavate the remainder of the grave for health and safety reasons).

The percentage of skeletal recovery from the inhumation graves, which ranged from 2% (infant) to 97% (adult male) with an average of *c.* 78%, is illustrative of variable levels of bone survival rather than any disturbance. All the surviving bone was root marked and eroded to some degree, with that from four graves being

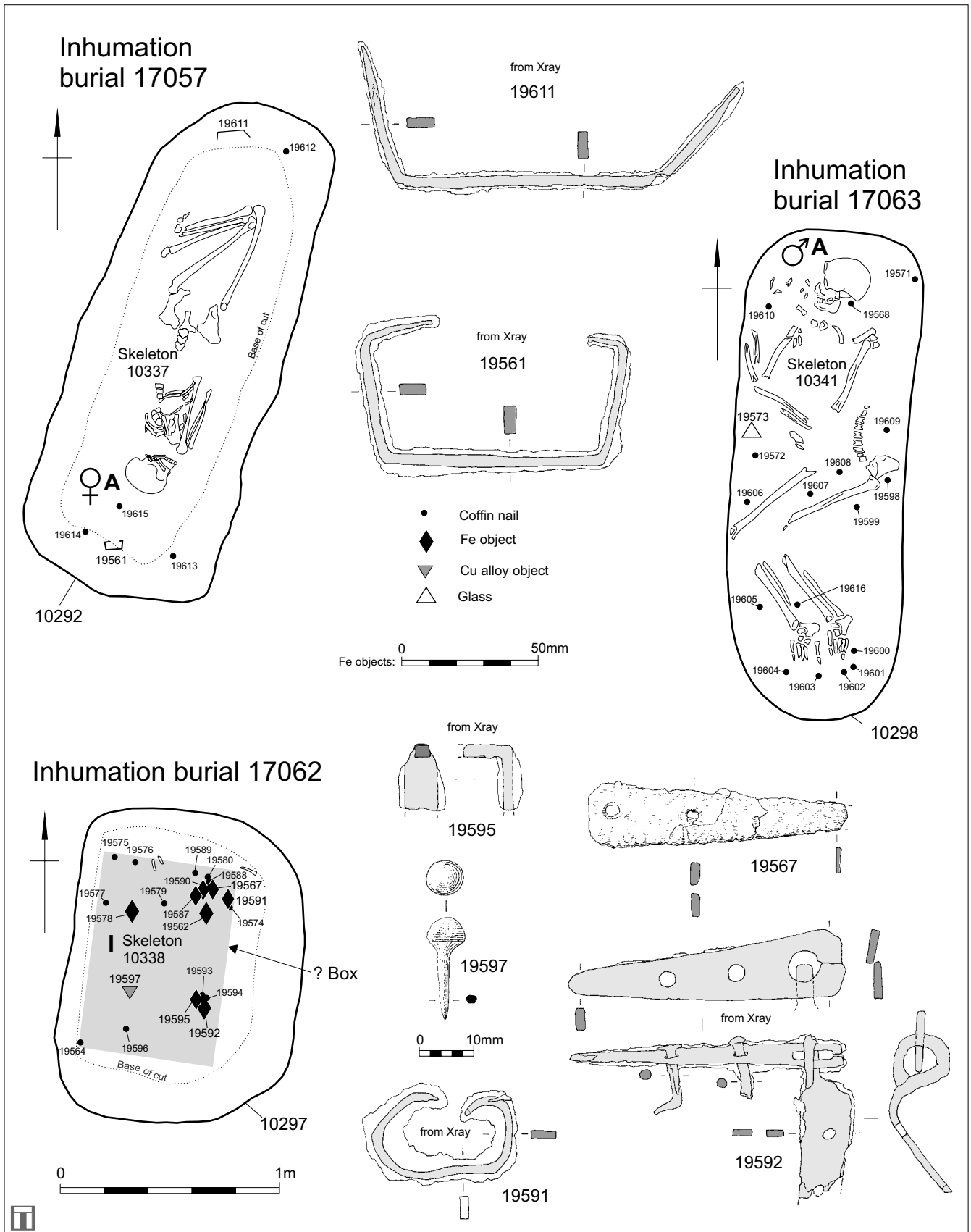


Figure 10 High House: plan, inhumation burials 17057, 17062, 17063

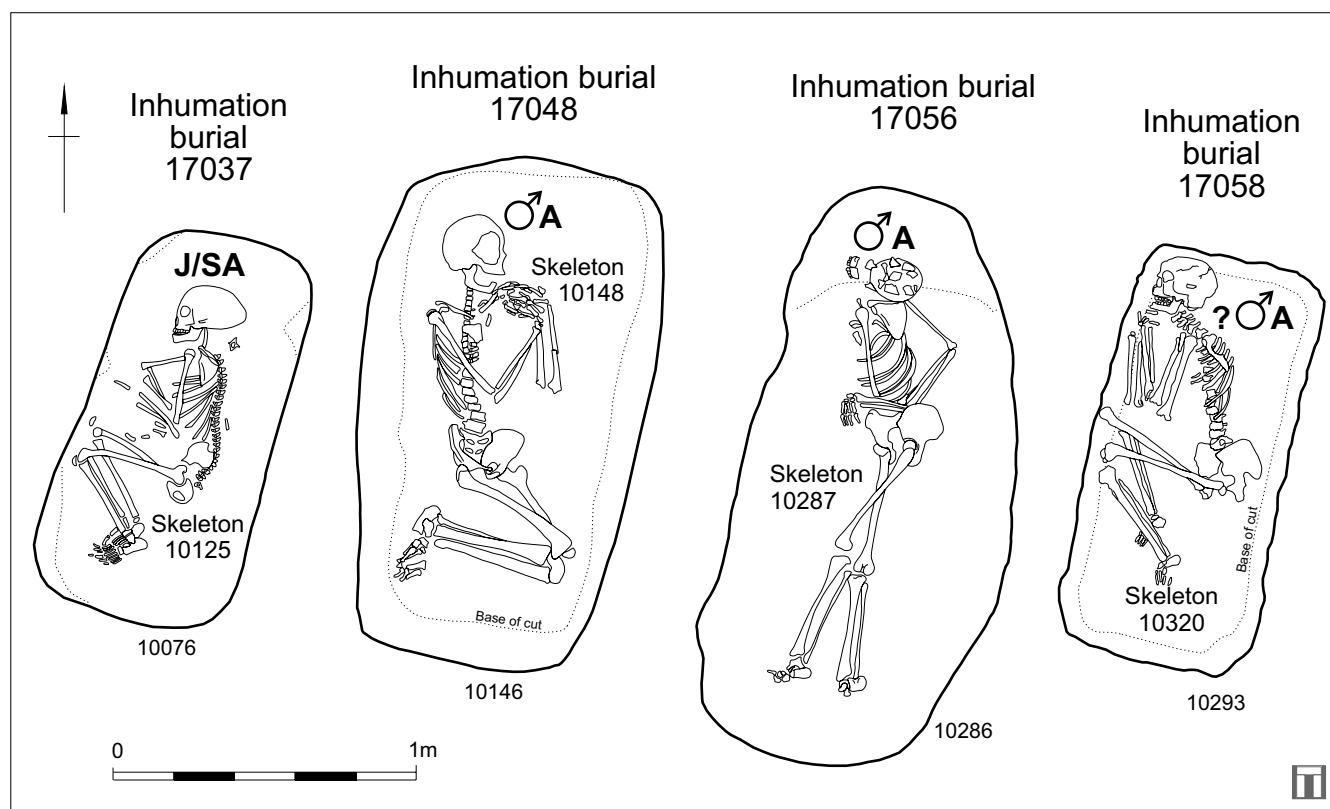


Figure 11 High House: plan, inhumation burials 17037, 17048, 17056, 17058

graded 2–3 (slight/moderately degraded) and that from a further four being graded 4–5 (heavily degraded); the rest was moderately degraded. The trabecular bone of the axial skeleton and articular surfaces tend to be most poorly preserved, there being few complete skeletal elements from those deposits with the least well preserved bone. In some graves certain skeletal areas were better (e.g. feet 10341, burial 17063) or less well (e.g. feet and vertebrae 10320, burial 17058 and right side skull 10125, burial 17037) preserved than others. The best preserved remains were from the coffined burial 17059 (adult male).

A variety of factors may affect bone preservation, the most important of which generally comprise the nature of the soil matrix and water permeability (Henderson 1987; Nielsen-Marsh *et al.* 2000; Millard 2001). The ditch fill (and, consequently, the grave fills) comprised a rich loam which was probably relatively neutral but encouraged extensive root activity – the cause of much of the degradation to the bone. The deeper graves had cut through the ditch base into the underlying natural of sandy silty clay overlying the degraded chalk, representing a more acidic environment with poorer drainage. The most poorly preserved and least well represented adult remains were from the second deepest grave (0.92m; 10113, burial 17044); the average depth of the graves containing heavily degraded bone being *c.* 0.25m greater than the average for those containing the best preserved bone.

There is no consistent pattern in the levels of preservation related to other obvious intrinsic or extrinsic factors, though the bones of the one infant (10338, burial

17062) recovered are very poorly preserved. The sex of the individual – probably related to robusticity – may have been of some significance; half the male remains were amongst the best preserved as compared with only 20% of the female remains, but a higher proportion of the male remains were also amongst the least well preserved. The presence/absence of a coffin and/or grave goods appears to have been of some, though limited significance; a higher proportion of the bone from the coffined burials is poorly rather than well preserved and the bone from the ‘richest’ burial (17044) is amongst the most poorly preserved.

Post-depositional movement – generally slumping back or forward – of the body had clearly occurred in at least four of the six coffined burials 17029, 17044, 17057 and 17063. Three skulls were warped due to soil pressure (in burials 17029, 17058 and 17063; two coffined, one not) and two (in burials 17048 and 17061; un-coffined) were particularly heavily fragmented; both male and female skulls were affected.

Green staining was observed on bone from four graves (**Table 4**). The location of the staining matches that of copper-alloy items in all cases other than burial 17061 where no object was recovered adjacent to the left scapula; this suggest that either one of the brooches from this grave may have moved from its original position subsequent to decomposition of the soft tissues, or that a third copper-alloy item was subject to post-deposition degradation/destruction. The origin of the dark brown, possibly organic (?leather) staining to the skeleton in burial 17074 is unknown since the nature of its recovery means the *in situ* position was not recorded.

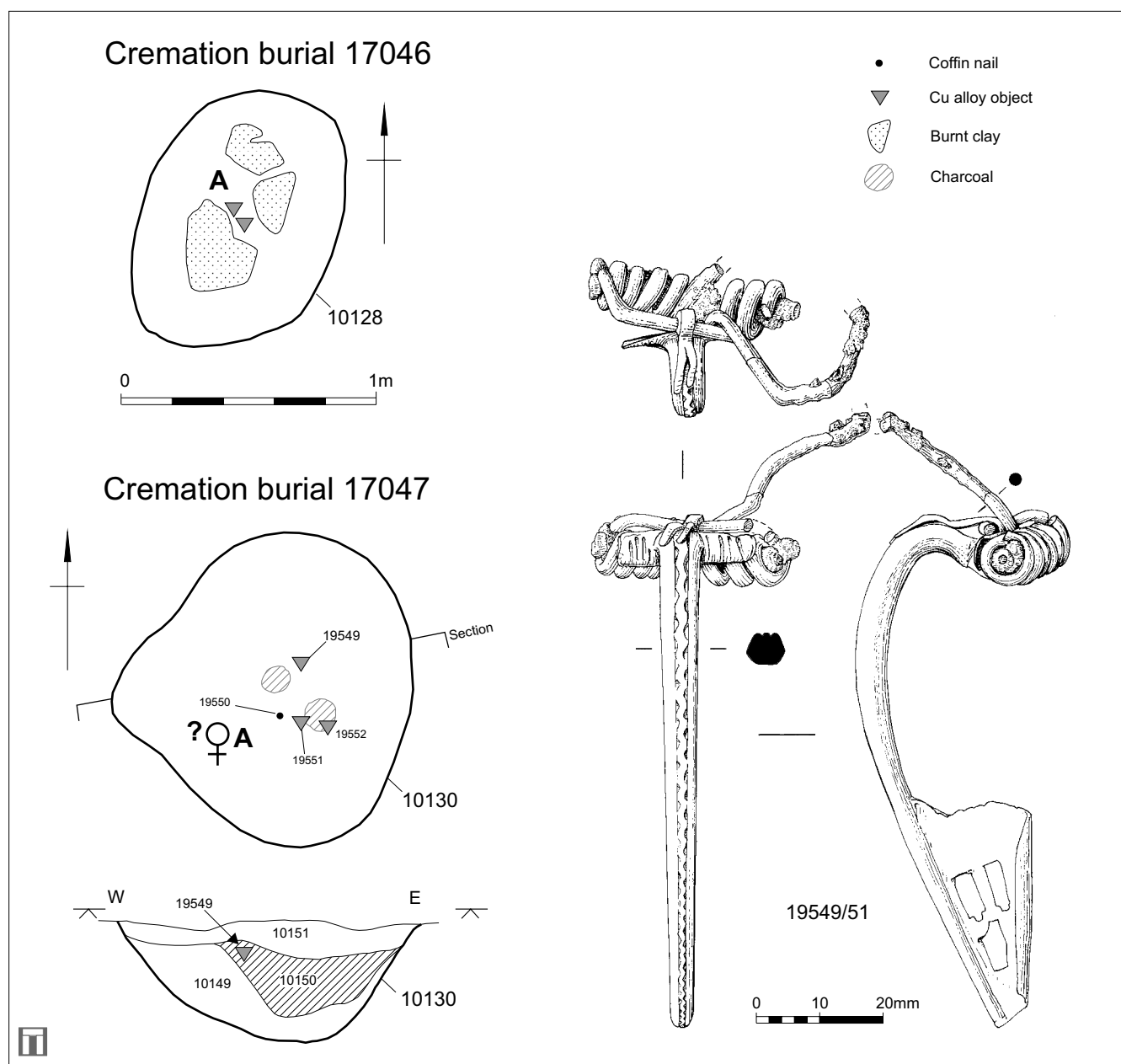


Figure 12 High House: plan, cremation burials 17046, 17047

The cremated bone is in good visual condition and includes a relatively representative proportion of trabecular bone as well as the more taphonomically stable and robust compact bone. The relatively deep surviving depths of the graves render it unlikely that any bone was removed from the burials as a result of disturbance/ truncation.

Demographic data

The unburnt bone assemblage consists of the remains of 14 individuals, comprising two immature (14.2%) and 12 adults (85.7%); the latter comprises a minimum of six males, five females and one unsexed individual (**Table 4**). Adults of both sexes were identified across the age range from *c.* 20 years to over 50 years; the distribution is almost identical between the sexes, with the median around 35–40 years. The two individuals identified within the cremated bone assemblage were both adults, including one probable female.

The pelvic traits and the size and robusticity of the bone generally reflect strong sexual dimorphism, though in one small, gracile female (17075) and one large, robust male (17063) the sub-pubic and greater sciatic notch angles of the pelvis are in the medial range. The sexually dimorphic traits of the skull are not strongly marked and at times are contradictory; the mandibles of both sexes are commonly similarly slightly squared at the mental protuberance and flared at the gonion; the supra-orbital margins are rarely pronounced in the males and the nuchal crest in both sexes are commonly small; the mastoid processes are frequently undiagnostic in size and particularly shape (both between and within individuals, e.g. one side rounded and the other pointed).

It is clear that graves continued to the north of the excavated area, and consequently, an unknown number of individuals are missing from the cemetery population. Although there was a small cluster of female burials in

Burial	Grave	Context	Deposit type	Quantification	Age/sex	Pathology	Grave/pyre goods
Unburnt bone							
17029	10035	10067	coffined burial	c. 93%	adult c. 25–30 yr. female	hypoplasia; calculus; bowing in fibula shafts; mv – shovelling max., I2, enamel pearl I2, 1 wormian	Green staining left distal femur.
17037	10076	10077	redeposited	c. 1% I.	adult >18 yr.		
17037	10076	10125	burial	c. 94%	juvenile/subadult c. 12–13 yr.	hypoplasia; calculus; periosteal new bone – proximal femora; mv – impacted maxillary left P2/retained deciduous m2, multiple wormian bones (37), ossicle at lambda, metopic suture, mastoid suture, coalescence left 3rd metatarsal/lateral cuneiform	
17044	10113	10132	coffined burial	c. 43%	adult >50 yr. male	osteoarthritis – left hip; Schmorl's node – T1; osteophytes – T12 rib, L5 bsm, left temporomandibular, right hip; periosteal new bone – left mandible; enthesophytes – left proximal femur	Fe stained – left distal femur
17048	10146	10148	burial	c. 96%	adult c. 40–50 yr. male	<i>ante mortem</i> tooth loss; caries; dental abscess; calculus <i>cribra orbitalia</i> ; fracture – rib shaft; rickets – tibia and fibula bowed; periosteal new bone – proximal femora, tibiae shafts; ? leprosy – right middle and proximal phalanges; degenerative disc disease – C7; osteophytes – right foot distal IP, right hip, C6 bsm, T6 bsm, L3–4 bsm; calcified cartilage – thyroid, rib; enthesophytes – proximal femora, patella, calcanea; mv – fusing left 5th distal IP	
17056	10286	10287	burial	c. 87%	adult c. 22–28 yr. male	caries; calculus; osteochondritis dessicans – left femoral medial condyle; ?tuberculosis/brucellosis? – T1, T6–8, T10, L5, S1; new bone – right navicular; Schmorl's node – T5, T7–L1; osteophytes – T9–10 bsm; mv – maxillary right M34 absent, mastoid suture, tarsal coalescences	
17057	10292	10337	coffined burial	c. 91%	adult c. 35–40 yr. female	calculus; Schmorl's node – T1, L4; mv – pegged maxillary I2s, sacralised L5 with lateral coalitions	
17058	10293	10320	burial	c. 91%	adult c. 35–45 yr. ?male	caries; abscess; calculus; hypoplasia; periodontal disease; ?tuberculosis/brucellosis? – T7–8, T11; osteoarthritis – right wrist; Schmorl's node – T6–7, T9–11; osteophytes – atlas anterior facet, left hip; pitting – right hip; enthesophytes – right tibia; mv – tooth rotation, wormian bones	

17059	10294	10305	coffined burial	c. 97%	adult c. 30–40 yr. male	caries; dental abscess; calculus; <i>cribra orbitalia</i> ; Schmorl's node – T11, L4; pitting – both acromio- clavicular, 11–12th rib heads, left 9th costo-vertebral; mv – ossicle at lambda, L5–S1 accessory facet	Green staining left clavicle shaft, anterior- lateral (left) T2–3, left 1st–3rd ribs
17060	10295	10332	burial	c. 90%	adult c. 30–40 yr. female	caries; calculus; osteoarthritis – right costo-vertebral; Schmorl's node – T11; enthesophytes – iliac crests; plastic changes – right femur and tibia	Green staining right tibia
17061	10296	10333	burial	c. 94%	adult c. 40–50 yr. female	<i>ante mortem</i> tooth loss; caries; abscess; calculus; periodontal disease; ?tuberculosis – left elbow; osteoarthritis – C3–4, 11th costo-vertebral, L5–6, right shoulder; periosteal new bone – left scapula, left ulna, radius and humerus; degenerative disc disease – C5–6, L5; osteophytes – T5–8 bsm, L2 bsm, S1, right elbow, left 1st and 2 right distal IP (hand), right 1st meta-phalangeal (hand), right 1st proximal IP (hand), hips; pitting – right acromio- clavicular; enthesophytes – calcanea; mv – partially sacralised L6 with S1 coalition, wormian bone	Green staining left scapula, left humerus and anterior of C4
17062	10297	10338	coffined burial	c. 2% s.	infant c. 1.5–2.5 yr.		
17063	10298	10341	coffined burial	c. 63%	adult >50 yr. male	<i>ante mortem</i> tooth loss; caries; dental abscess; calculus; osteoarthritis – 2T, 2L; osteophytes – 2L bsm; pitting – left hip; enthesophytes – left distal fibula, right navicular, 5th metatarsals; mv – wormian bones	
17074	?	303006	burial	c. 25% s.a.u.	adult >45 yr. ??female	<i>ante mortem</i> tooth loss; calculus; periodontal disease; osteophytes – atlas anterior facet, right proximal IP (hand), right 5th distal IP (hand); degenerative disc disease – 2C; osteoarthritis – 2 right costo-vertebral, left shoulder; pitting – left sterno-clavicular	dark staining left 2nd rib and left clavicle
Cremated bone							
17046	10128	10129	?un. burial	188.9g	adult >18 yr.		0.8g unburnt animal bone. Fuel ash slag
17047	10130	10131, 10149–51	?un. burial + rpd	684.8g	adult c. 35–45 yr. ??female	osteophytes – atlas anterior facet, 1L bsm, 1st metacarpal head enthesophytes – distal tibia	0.3g burnt/unburnt animal bone
17057	10292	10337	redep.	0.8g	>infant (>5 yr.)		

KEY: un. – unurned; rpd – redeposited pyre debris; s. – skull; a. – axial skeleton; u; – upper limb;

l. – lower limb; bsm – body surface margins; mv – morphological variation

Table 4 Human bone: summary catalogue

the central area of the ditch, both sexes were found along its length with the few immature individuals recovered dispersed amongst them; this suggests that there is unlikely to be any spatial distribution on the bases of age and/or sex in the ditch external to the excavated segment. The low proportion of immature individuals is not unusual within archaeological populations, with a variety of possible intrinsic (e.g. taphonomic) and extrinsic (e.g. exclusion of young infants) factors having been suggested to explain the occurrence. The very poor bone survival in the one excavated infant grave at High House could mean others in less clearly defined graves (e.g. no goods/coffin or shallower) could have been lost from the assemblage.

Skeletal indices and non-metric traits

A summary of the indices it was possible to calculate is given in **Table 5** and some non-metric traits/morphological variations are indicated in **Table 4**. Further details and discussion regarding these figures have been placed in the archive.

Stature was estimated for eight individuals including four females and four males. Both the male and female means of 1.67m and 1.58m are just below the averages given for the period by Roberts and Cox (2003, 163) of 1.69m and 1.59m respectively.

Pathology

Pathological changes were observed in the remains of 13 individuals including one of the two cremated adults; **Table 4** contains a summary of the pathological lesions observed and the bones affected. All the rates shown below refer only to remains from the unburnt assemblage.

Dental disease

All or parts of 12 erupted permanent dentitions were recovered including from all the sexed adults and the juvenile/subadult.

Dental calculus (calcified plaque/tartar) was observed in all surviving dentitions except 10132 where no teeth were recovered. Slight-moderate deposits were most commonly observed, with the heaviest deposits anterior labial or disto-lingual; heavy deposits, covering the occlusal surface of the teeth, were observed in the right distal mandible and maxilla from the mature adult female

10333. There was no clear correlation between increased severity and the age of the individual.

Periodontal disease (gingivitis) may lead to bone resorption with consequent loosening of the teeth and exposure of more of the tooth surface to caries attack. Slight lesions reflective of the condition were observed around one or two molar sockets in two female and one male dentition (21.4%; scoring according with Ogden 2005).

The *ante mortem* loss of between one and four teeth was recorded in two male and two female dentitions. With the exception of one maxillary incisor possibly lost as the result of trauma, all losses were of distal teeth. All those exhibiting tooth loss were over 40 years of age, the higher rates being seen in the older individuals. The overall rate (**Table 6**) is well below that of 14.1% given by Roberts and Cox for their Romano-British sample of 29 sites (2003, table 3.12), only four sites within which show similarly low rates to those recorded at High House.

Dental caries, resulting from destruction of the tooth by acids produced by oral bacteria present in dental plaque, was recorded in between one and eight (average five) teeth from five male and two female dentitions (**Table 6**). The majority of lesions (c. 63%) were in the molar teeth, with c. 30% in the maxillary premolars and lesions in two maxillary incisors (adult male 10341). Many lesions (41.2%) had resulted in total destruction of the tooth crown, but where the origin of the lesion was apparent there was a close division between occlusal (32.3%) and the contact area (26.5%). The overall rate (**Table 6**) is higher than the 7.5% given by Roberts and Cox for the period (2003, table 3.10); though several individual sites within their sample have closely similar rates. Three of the older individuals with carious lesions had also suffered *ante mortem* tooth loss, most probably as a result of carious destruction. All the affected dentitions had calculus deposits; the female with heavy calculus having carious lesions in six teeth with the *ante mortem* loss of two teeth. There is a clear increase in the frequency of lesions with age but it is not purely incremental.

Infection from gross carious lesions had tracked into the supportive structure resulting in dental abscesses in four male and one female dentition. All but one have a single lesion and all except one lesion is in the maxillary dentition where the infection had, in each case, tracked

	Female		Male	
	Range	Mean	Range	Mean
Estimated stature	1.54 – 1.63m (5' ½" – 5' 4")	1.58m (5' 2¼")	1.61 – 1.75m (5' ¾" – 5' 8¾")	1.67m (5' 5¾")
Cranial index	69.8–73.3	71.7 (SD 1.78)	63.3–76.3	70.3 (SD 6.5)
Platymeric index	71.3–94.6	83.2 (SD 10.3)	73.3–78.1	76.6 (SD 2.0)
Platycnemic index	65.9–87.5	76.3 (SD 10.8)	67.8–81.1	74.6 (SD 5.9)
Robusticity index	114.1–128.8	121.7 (SD 7.36)	121.8–134.1	126.4 (SD 5.36)

(Data derived from left side measurements; SD = standard deviation)

Table 5 Human bone: summary of metric data

through to the buccal surface of the bone. The overall rate is below the mean of 3.9% from Roberts' and Cox's sample (2003, table 3.13).

Very slight dental hypoplasia (developmental defects in the tooth enamel reflective of periods of illness or nutritional stress in the immature individual; Hillson 1979) was observed two dentitions. Both the crude prevalence rate (CPR 14.3%) and the true prevalence rate (TPR 7%) are close to those recorded for the period by Roberts and Cox (2003, table 3.16); 13.5% and 0.1% respectively.

Trauma

Evidence for trauma was limited in both extent and severity. Lesions of probable traumatic origin were observed in two adult males, giving a similar CPR (14.2%) to that of 10.7% reported by Roberts and Cox for the period (2003, 151).

A well-healed, transverse rib fracture with slight dorsal displacement of one half was recorded in 10148 (1/114 ribs; 0.9%). Such fractures are amongst the most common seen in archaeological populations and generally result from a fall against a hard object (Adams 1987, 107).

Although considered an idiopathic metabolic disorder by some workers, osteochondritis dissecans is generally believed to be traumatic in origin resulting in localised bone necrosis (Rogers and Waldron 1995, 28–30; Roberts and Manchester 1997, 87–89; Aufderheide and Rodríguez-Martín 1998, 81–83; Knüsel 2000, 116). A classic, unilateral example was observed in the left femoral medial condyle of 10287 (1/20 distal femora). The apparently high CPR of 7.1% compared with the average for the period of 0.2% (Roberts and Cox 2003, 151) has undoubtedly been skewed due to the small size of the population.

Infections

Tuberculosis is a chronic bacterial infection caused by *mycobacterium tuberculosis/bovis*, infection resulting from either ingesting infected food or by droplet infection from another individual (Ortner and Putscher 1985, 141–176; Roberts and Manchester 1997, 135–142; Aufderheide and Rodríguez-Martín 1998, 118–141). The condition affects the skeleton in a minority of cases – c. 3% in modern populations (Ortner and Putscher 1985, 142) – the spine being affected in c. 25–50% of cases (Roberts and Manchester 1997, 138; Aufderheide and Rodríguez-Martín 1998, 121). Phthisis or pulmonary tuberculosis was recognised by Greco-Roman medical writers as a serious and common problem, particularly amongst the urban poor (Jackson 1988, 180–1). There are relatively

few reported cases from Roman Britain, Roberts and Cox giving a CPR of 0.2% (2003, 119). There are three possible cases from High House, though there are differential diagnoses for each and all are inconclusive.

In two cases – 10287 (young adult male) and 10320 (mature adult male) – lytic lesions in mostly thoracic vertebrae may have been tuberculous in origin and represent an early stage of the disease. Destructive lesions – some representing several coalesced lesions, some with slight sclerosis and one with small spicules of new bone – were recorded in the anterior margins of generally the inferior body surface in a possible seven, mostly adjacent vertebrae from 10287 (**Table 4; Plate 1**). In most cases there is slight loss in the anterior height of the vertebral body. Similar, both in location and form, though slightly more extensive destructive lesions with slight sclerosis were observed in two non-adjacent thoracic vertebrae in 10320, one other adjacent vertebra showing loss in anterior body height and indications of sub-surface lesions in the x-radiograph. In both cases a differential diagnosis of brucellosis may be offered. A recurrent or acute infectious disease caused by any species of *Brucella*, brucellosis is an occupational disease in individuals working with cattle or other animals which may form a host for these intercellular parasitic organisms (interpersonal transmission is uncommon), infection by which, though rarely fatal, can be debilitating and prolonged (Aufderheide and Rodríguez-Martín 1998, 192–193). Destructive and reparative processes tend to occur simultaneously in brucellosis in contrast to the largely destructive processes in tuberculosis, though vertebral body collapse is not normally associated with the former. Spinal tuberculous lesions, however, tend to include a maximum of between two and four adjacent vertebrae, generally in the lower thoracic/lumbar region (Roberts and Manchester 1997, 138–139). Both diseases are more common in males, the onset of tuberculosis tending to be in the young, while brucellosis is usually seen in individuals over 30 years of age (Aufderheide and Rodríguez-Martín 1998, 192–193; Roberts and Cox 2003, 229). The spinal lesions from High House have some characteristics of both conditions but not all of either, consequently diagnosis is inconclusive.

The third possible case of tuberculosis is that of the adult female 10333, who had experienced total destruction of the left elbow joint, with ankylosis of the foreshortened radius (by c. 30mm) and ulna (c. 15mm), and loss of most (c. 100mm) of the distal half of the humerus (**Plates 2 and 3**). There was limited new bone formation resulting in smooth ankylosis of the radius and ulna. Infection of the periosteum had resulted in fairly extensive new bone formation; coarse-grained around

	Teeth	Socket positions	Ante mortem tooth loss	Caries	Abscesses
Female (5 dentitions)	136	149	9 (6.0%)	14 (10.3%)	1 (0.7%)
Male (6 dentitions)	137	145	7 (4.8%)	20 (14.6%)	5 (3.4%)
Total (incl. unsexed)	303	323	16 (4.9%)	34 (11.2%)	6 (1.9%)

Table 6 Human bone: summary of permanent dentitions by sex

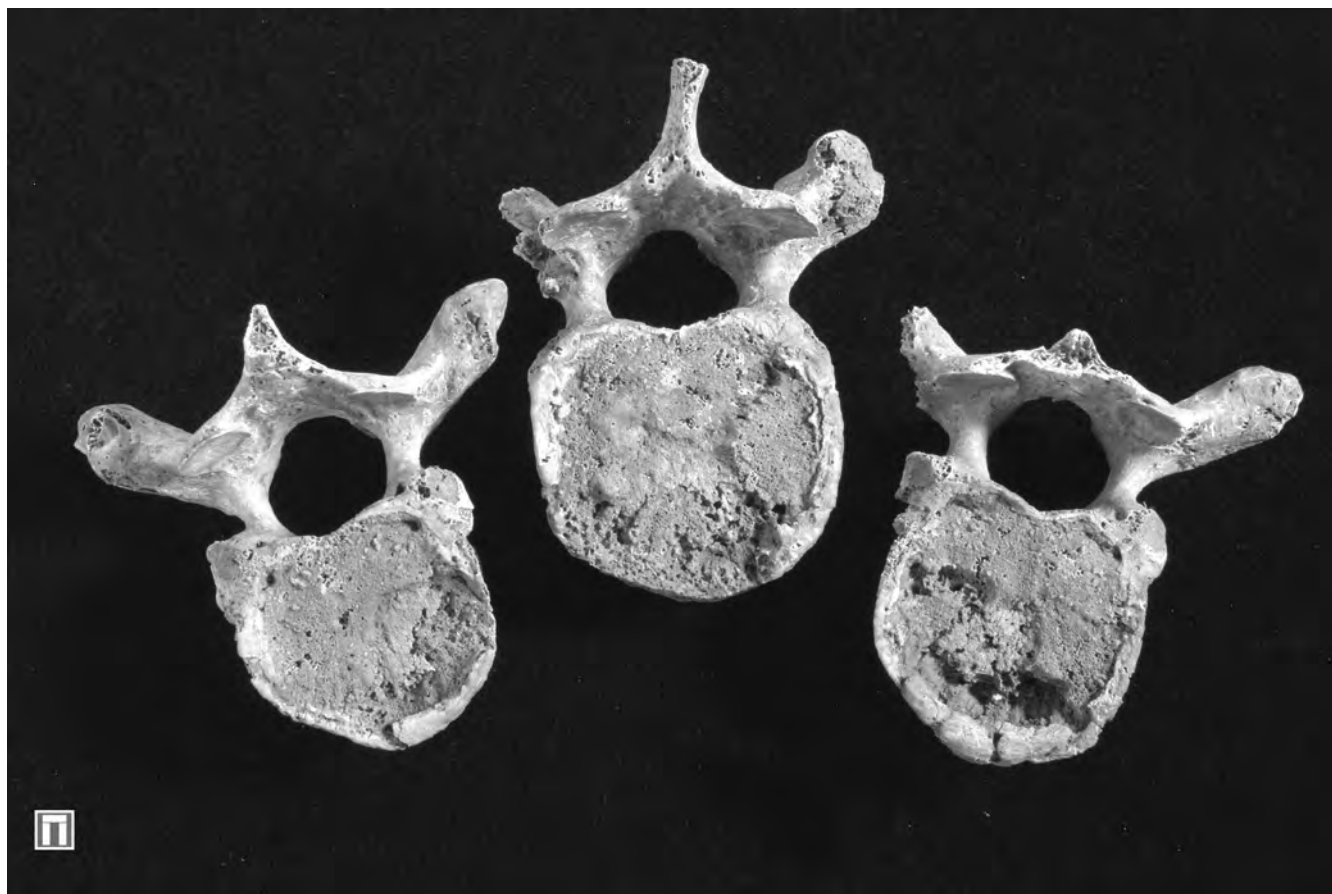


Plate 1 Lytic lesions in anterior margins of three thoracic vertebrae inferior body surfaces (inhumation burial 17056, context 10287, young adult male); possible tuberculosis or brucellosis

the joint area, particularly the *c.* 60mm distal ‘butt-end’ of the humerus shaft and patchy fine-grained new bone across most of the remaining humerus shaft, the proximal shafts of the ulna and radius, and the ventral surfaces of the left scapula. X-radiograph shows retention of original cortex within much of the distal half of the humerus and the proximal ulna, but total destruction of the joint and no internal foci of infection or sinuses. There is little apparent atrophy of the bones of the forearm in comparison with the unaffected right side, suggesting the joint destruction occurred over months rather than years.

The location of the lesions, with marked destruction and limited reparative processes, are characteristic of tuberculous infection, as is the involvement of a single joint, the elbow being a relatively common site where the initial lesion is generally in the humerus – which may be reflected in the comparatively high level of destruction of this bone (Roberts and Manchester 1997, 137–8; Aufderheide and Rodríguez-Martín 1998, 140). A possible differential diagnosis is for septic or pyogenic arthritis, which while it shares many of the characteristics of tuberculosis – single joint, highly destructive – is more rapid, tends to be less destructive (*ibid.* 140), involves the formation of much proliferative new bone and more common ankylosis (Rogers and Waldron 1995, 96). Whatever the cause, this individual would have experienced exquisite pain, with massive inflammation

around the joint which would have rendered most of the arm inoperative, together with the general debilitation resulting from such major infection, and the possible spread of septicaemia which may have been the cause of death.

A possible case of tuberculoid leprosy was recorded from High House, in the remains of a mature adult male (10148). A chronic infectious disease, with a long incubation period and slow progress, leprosy is caused by *mycobacterium lepra*, which may be transmitted by skin contact or droplet inhalation (Roberts and Manchester 1997, 142–150). Infection is mainly of the peripheral nerves, leading to loss of sensation and function, with frequent secondary infection due to insensitive tissue damage. Classic bony changes include absorption of the toe and finger bones and the naso-maxillary area of the face, with common secondary infection in the lower leg (*ibid.*; Aufderheide and Rodríguez-Martín 1998, 145–6). The severity and distribution of the lesions is dependant on the immune status of the individual; higher immunity is more likely to lead to the less mutilating tuberculoid leprosy rather than the more damaging lepromatous form (Roberts and Manchester 1997, 147). Rhinomaxillary features are absent in tuberculoid cases, though the bone lesions occur earlier and more intensively (Aufderheide and Rodríguez-Martín 1998, 145–6). Changes are often bilateral but rarely symmetrical (*ibid.* 151). The disease



Plate 2 Left arm bone from inhumation burial 17061 (skeleton 10333, adult female) showing total destruction of the elbow joint, with foreshortening and ankylosis of the radius and ulna. Possible tuberculosis or septic/pyogenic arthritis.



Plate 3 Inhumation burial 17061 (skeleton 10333, adult female)

was included in the condition referred to as 'elephantiasis' by Greco-Roman writers and was described by Celsus (Jackson 1988, 182–4). Two cases have been described from Late Roman Britain, from Poundbury, Dorset and Cirencester, Gloucester (Reader 1974; Molleson 1993, plate 63; Roberts and Cox 2003, 120); Molleson gave a differential diagnosis of psoriasis for the Poundbury case but the lesions do have the characteristics of leprosy (*ibid.*).

The changes to 10148 were limited to two of the surviving seven right foot phalanges; there were no rhinomaxillary changes nor were any changes observed in the finger phalanges (26 of 28 recovered), or any of the left foot bones (7 of 14 recovered). The distal articular surface of a small (un-numbered) middle phalanx is eroded/ resorbed centrally with micro-pitting in the affected area, and the distal end of the 5th proximal is eroded producing a foreshortened 'pencil' effect with no distal articular surface (**Plate 4**); in at least the latter case the implication would be for similar destruction of the adjacent middle and presumably distal phalanges. The only other possibly associated lesion is fine grained, plaque-like periosteal new bone over the proximal halves of the anterior-lateral tibiae shafts; similar patchy new bone was recorded on the proximal lateral shaft of both femora but the fibulae were devoid of such changes. Although not conclusive, if this were to represent a case of leprosy, the implied low severity of the condition suggests high immunity in the individual which may have been enhanced if the suggested tuberculosis was present within the population; there being a degree of cross-immunity between the two diseases in which the latter would take precedence (Manchester 1983, 44). A possible alternative diagnosis would be psoriatic arthropathy, but there is none of the bony proliferation generally observed in such cases (Rogers and Waldron 1995, 70–77).

Infection of the periosteal membrane covering bone may lead to the formation of periosteal new bone. Infection may be introduced directly to the bone as a result of trauma, develop in response to an adjacent soft tissue infection, or spread via the blood stream from foci elsewhere in the body. It is commonly difficult to detect the causative factors involved in individual cases and the lesions are frequently classified as indicative of a non-specific infection. In addition to the cases outlined above in association with specific infections, periosteal new bone was recorded in the remains of two other individuals. A small area of fine-grained new bone was recorded over the remodelled surface of the left mandibular condyle from 10132 (older adult male) in which other changes indicative of arthritis were also observed. Bi-lateral lesions in the proximal medial femoral shafts from 10125 (juvenile/subadult), just inferior to spiral lines, correspond with a slightly raised oval area in the bony contours on the left side; X-radiographs shows thinning of the cortical bone in this discrete area on both sides but no penetration to medullary cavity.

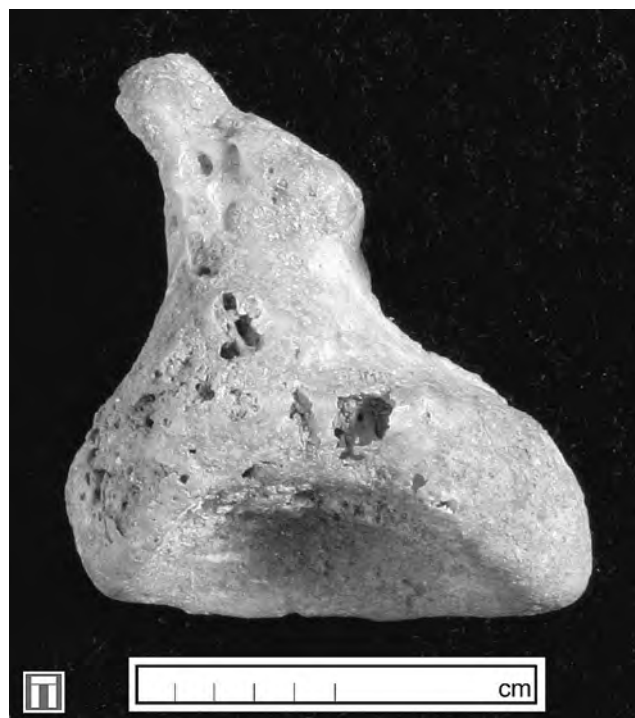


Plate 4 Right 5th proximal foot phalanx from inhumation burial 17048 (context 10148, mature adult male) showing erosion of distal end; possible tuberculoid leprosy

Joint disease

Similar lesions – osteophytes (new bone growth on joint surface margins) and other forms of new bone development, and micro- and macro-pitting – may be formed as a consequence of one of several different disease processes (Rogers and Waldron 1995). Parts of 12 spines were recovered and extra-spinal joints from 13 individuals (**Table 7**).

Schmorl's nodes (a pressure defect resulting from a rupture in the intervertebral disc; Rogers and Waldron 1995, 27; Roberts and Manchester 1997, 107), commonly affect young adult spines. Shallow lesions of limited extent were observed in between one and five vertebrae from two female and four male spines; the largest number of lesions were recorded in the spine of the young adult male (10287). There were no lesions above T5, the majority falling between T9 and T11. The much higher rate amongst the males is commonly observed in archaeological populations and reflects the different, probably occupational stresses incurred by males and females. The overall rate of 8.1% is much lower than the average of 17.7% for the period given by Roberts and Cox (2003, table 3.21).

Degenerative disc disease, resulting from the breakdown of the intervertebral disc and reflecting age-related wear-and-tear (Rogers and Waldron 1995, 27), was recorded in one male and two females spines, in individuals of more than 40 years. Between one and three vertebrae were affected per spine, all but one lesion occurring in the cervical region, with higher rates in the female spines.

	Total no. vertebrae	Osteo- arthritis	Schmorl's nodes	Degenerative disc disease	Lone osteophytes	Lone pitting
Female	89	4	3	5	12	1
(all categories)	38% total	c. 4.5%	c. 3.4%	c. 5.6%	c. 13.5%	c. 1.1%
Male	123	1	16	1	14	2
(all categories)	52.6% total	c. 0.8%	c. 13%	c. 0.8%	c. 11.3%	c. 1.6%
Total	234	5	19	6	26	3
(incl. unsexed)		c. 2.6%	c. 8.1%	c. 2.6%	c. 11.1%	c. 1.3%

Table 7 Human bone: summary of number and rates of spinal lesions by sex

Lesions indicative of osteoarthritis (Rogers and Waldron 1995, 43–44) were seen in the remains of six individuals; spinal lesions in one male and one female, and extra-spinal lesions in two males and three females. Between one and six joints were affected in each case and there is evidence to indicate an age-related increase in the number of sites affected; the highest numbers of sites being in individuals of over 45 years. Spinal lesions were seen in all areas of the spine (**Table 7**). Extra-spinal lesions were seen in c. 0.7% of joint surfaces; c. 1.3% of female joints and c. 0.4% of male. Affected joints included the shoulder (11.8%), wrist (7.1%), hip (4.8%) and costo-vertebral joints (3.5%). Most changes were slight to moderate, with moderate-severe changes only in the case of the left shoulder joint from 303006 where the glenoid surface was flattened and extended (marginal osteophytes) with eburnation and macro-pitting across the whole inferior half. The CPR for spinal lesions is similar to the overall rate of 13% stated by Roberts and Cox, the rate of 35.7% for the extra-spinal lesions being considerably higher than their mean of 11.1% (2003, tables 3.20–21).

Lone osteophytes often appear to be a 'normal accompaniment of age', reflective of 'wear-and-tear' (Rogers and Waldron 1995, 25–26). Lesions were recorded in five male and two female spines (**Table 7**), three males and both females also having extra-spinal lesions (1.7% joint surfaces); between two and 14 sites were affected per individual (**Table 4**). Individuals across the adult age range were affected – particularly in the spinal body surface margins – the greatest number of sites being recorded in those between 40–50 years of age. Some of the lesions may be reflective of the early stages of osteoarthritis. Lesions were also observed at three sites in the remains from cremation burial 17047 (**Table 4**).

As with osteophytes, macro- and micro-pitting in the surfaces of synovial joints may develop in response to a number of conditions and it is not always possible to ascertain the specific cause of individual lesions, though it is probable that they are most commonly reflective of the early stage of osteoarthritis. Lone extra-spinal lesions were seen in the remains of three males and four females, at between one and five sites in each case (c. 1.0%).

Enthesophytes are bony growths which may develop at tendon and ligament insertions on the bone. Causative factors include advancing age, traumatic stress, or various diseases (Rogers and Waldron 1995, 24–25). It is not always possible to be conclusive with respect to the

aetiology of particular lesions, but they are commonly seen in the anterior surface of the patella and posterior surface of calcanea where they reflect activity related stress. Lesions were observed at between one and five sites in the remains of four males and two females (**Table 4**); lesions were also recorded at one site the remains from cremation burial 17047.

Metabolic conditions

Cribra orbitalia (manifest as pitting in the orbital roof) is generally believed to result from a metabolic disorder associated with childhood iron deficiency anaemia, though other contributory factors are also recognised (Molleson 1993; Roberts and Manchester 1997, 166–9). Slight/moderate porotic lesions were recorded bi-laterally in the orbits of two adult males (TPR 25% overall, 50% male orbits). Both this TPR and the CPR of c. 14.3% are higher than the averages for the period of 16.9% and 9.6%, respectively (Roberts and Cox 2003, table 3.17), though the former is taken from only two sites in the overall sample (due to differences in recording) and the latter may not be, by its nature (taken from MNI counts rather than percentage of affected skeletal elements), a representative rate.

Vitamin D enables the body to absorb calcium and phosphorus which are needed for bone mineralization both in the growing child and in adults (Aufderheide and Rodríguez-Martín 1998, 306; Roberts and Manchester 1997, 173–4; Brickley *et al.* 2005, 390–1; Mays *et al.* 2006). The majority of the body's requirements are gained from absorbed solar irradiation with a smaller proportion being supplied by dietary intake of animal and fish oils (Roberts and Manchester 1997, 173–4; Molleson and Cox 1993, 45). Rickets, a deficiency in the early stages of childhood, may reflect a number of factors leading to porosity and deformity of the 'soft', inadequately mineralised bone under mechanical stress, one of the most characteristic features being 'bending' in the weight-bearing bones (Aufderheide and Rodríguez-Martín 1998, 306; Roberts and Manchester 1997, 173–4; Mays *et al.* 2006). Bending lesions were observed in the tibiae and fibula shafts of one adult male from High House (10148), who was also one of the two individuals from the site with *cribra orbitalia*. The bowing in the fibula shaft of the adult female 10067 may have the same origin, but in the absence of similar changes in the tibiae the aetiology is likely to be different. A small proportion of individuals from a minimum of six Romano-British

sites have previously been diagnosed with the condition, with a low CRP of 0.8% (Roberts and Cox 2003, table 3.18).

Pyre technology and cremation ritual

Most of the cremated bone was white in colour indicating a high level of oxidation (Holden *et al.* 1995a and b). Some slight colour variation – hues of grey and blue to black (charred) – indicative of varied levels of oxidation was observed in a few fragments of skull and lower limb bone from burial 17047. Such minor variations are unlikely to be indicative of any unusual aspects in the cremation process or rite, areas of the body peripheral to the pyre and those with dense soft tissue coverage most commonly showing such variation (McKinley 2008).

The weights of bone recovered from the two undisturbed burials (17046 and 17047) were 188.9 and 684.8g respectively, and this is likely to be closely representative of the quantity initially included in the grave though there may have been some slight post-depositional loss of trabecular bone. The quantities represent *c.* 12% and *c.* 43% by weight of the average total expected from an adult cremation (McKinley 1993). Such wide variation in bone weights is common, that from 17046 lying in the lower range of weights for the period and that from 17047 in the median range (McKinley 2004b, 295–8). It currently remains unclear why such great variations existed though the ‘status’ of the individual may have been of some significance (*ibid.*).

As is commonly observed, identifiable fragments from all skeletal areas were included in the burials, the various proportions from burial 17047 fitting within what qualifies as a ‘normal’ distribution. The paucity of skull elements from burial 17046, representing only 0.4% of the identifiable elements, is unusual and suggests deliberate exclusion, or possibly deliberate removal for deposition/distribution somewhere other than within the grave. Such an occurrence is rare but has been observed in some other Romano-British burials (*ibid.* 301).

The relatively frequent recovery of tooth roots and the small bones of the hands and feet, particularly from burial 17047 (21 elements; five in 17046), is believed to be linked with the mode of recovery employed to collect bone from the pyre site for burial, with *en masse* recovery followed by subsequent winnowing rather than the hand recovery of individual fragments (McKinley 2004b, 300–1).

The majority of the bone in both burials was recovered from the 10mm sieve fraction (*c.* 66%) with maximum fragment sizes of 48mm and 70mm. It is likely that the unurned status of the burials may have rendered the bone susceptible to some increased fragmentation but there is no conclusive evidence to suggest deliberate fragmentation of the bone prior to burial.

Metalwork

by Jörn Schuster

Brooches

Of the 13 brooches from the cemetery, 12 came from five inhumation burials and one from a cremation burial.

Nauheim derivative brooch

Obj. No. 19507 from inhumation burial 17029 (**Figure 8**) is of the type with a flat bow which in Britain is confined to the southern counties and commonly dated to the middle decades of the 1st century AD (Stead and Rigby 1989, 109, 123; Bayley and Butcher 2004, 147). Although the catchplates in these brooches are very often lost or damaged, where comparison is possible Obj. No. 19507 has a rather smaller catchplate than the average.

Colchester one-piece brooches

Hawkes and Hull Type III

With a length of 81 mm Obj. No. 19549 from cremation burial 17047 (**Figure 12**) is among the larger examples of its type. Close parallels for its fretted catchplate and the decoration of the bow can be found in graves at Verulamium, King Harry Lane site (KHL), for example graves 205 and 230 (Stead and Rigby 1989, fig. 127, 205:5; fig. 132, 230:2), and at Colchester (Hawkes and Hull 1947, pl. LXXXIX, 9–11). At KHL these brooches occur in graves of phases 1 to 3, spanning the first half of the 1st century AD (Stead and Rigby 1989, 89). The patina of Obj. No. 19549 is markedly different to all other brooches from the small cemetery assemblage at High House, which suggests that it had been placed on the pyre, either as a pyre good or dress accessory. Furthermore, it is distinguished by its split chord hook; whether this is intentional or the result of distortion due to the heat of the fire remains uncertain.

Obj. Nos 19517 and 19528 from inhumation burial 17044 (**Figure 7**), and Obj. Nos 19560 and 19583 from inhumation burial 17061 (**Figure 9**), are smaller examples of Colchester one-piece brooches, all with fairly flat-profiled bows displaying a sharp angle between head and bow. All have strongly grooved side wings and perforated catchplates; that in Obj. No. 19560 has been skilfully repaired by attaching a copper alloy sheet to the broken remains of the old catchplate with two iron rivets. Equally, Obj. No. 19583 may have a replaced spring, as the beginning of the spring is not attached to the head of the bow, where only a small stub remains of the possibly original spring. A small moulding at the foot end of Obj. No. 19528 is a feature more commonly found on some Colchester two-piece brooches, where it is more pronounced, for example Richborough groups aiii and dii (Bayley and Butcher 2004, fig. 64; fig. 68). Equally, the rocker-mark on a ridge rather than in a groove on Obj. No. 19517 is a trait pointing towards the two-piece variants (e.g. Hawkes and Hull 1947, pl. XCI, 36–38; Bayley and Butcher 2004, fig. 63, 167; Stead and Rigby 1989, fig. 43, 69–73). A Claudio-Neronian date for the group of brooches from inhumation burials 17044 and 17061 is therefore suggested.

Brooches with cylindrical spring cover

The only two brooches of this construction were placed on a samian platter (Obj. No. 19521) in inhumation burial 17044 (**Figure 7**). Although both brooches appear to belong to Hawkes and Hull Type XII B, the very

different treatment of the bow allows some more detailed typological discussion.

Obj. No. 19527 is of Riha's type 4.2.3 which is distinguished from other variants by its niello-inlayed bow. These inlays can take various forms like triangles, wavy hook motives, thin crescent-shaped lines or, as here, straight lines set at an angle either side of the ridge (Riha 1979, Taf. 17, 454). The dated examples from Augst on the Upper Rhine provide Claudian dates, with some extending to the Flavian period. A more elaborate example of this type from grave 157 at KHL has a bow with a curved-hook inlay of copper (Stead and Rigby 1989, 95, fig. 116, 157:4). The grave belongs to period 2 of the cemetery, providing a date range of AD 30–55. Hawkes and Hull (1947, pl. XCV, 108) show one example of Riha's type 4.2.3 from a period IV context, thus giving a Claudio-Neronian date.

Obj. No. 19529 is a variation of the Langton Down type. The straight join of the bow to the cylindrical spring cover, combined with an outer profile of the bow tapering towards the foot with only a very gentle curve, can be found in Feugère's type 14b1a which has a plain bow. In contrast to the Langton Down type as a whole, Feugère's type 14b1a is rather uncommon, both on the continent and in Britain, but British parallels exist for the shape of the bow at Baldock (Stead and Rigby 1986, fig. 45, 92), Colchester (Hawkes and Hull 1947, pl. VCIV, 97), Maldon (*ibid.*, pl. XCV, 103) and Verulamium (Stead and Rigby 1989, fig. 99, 68:6). In contrast to other types of Langton Down brooches which have bows with multiple parallel grooves, in Obj. No. 19529 these take the form of faint lines, only starting after the transition from head to bow. The few dates Feugère (1985, 266) could find for his type 14b1a range between the Tiberian and Claudio-Neronian periods. Bayley and Butcher (2004, 150) suggest that Langton Down brooches were going out of use by the time of the Roman Conquest but some cherished specimen may have continued in use. However, this seems less likely for Obj. No. 19529 as it exhibits signs of only moderate wear.

Hod Hill brooch

Hawkes and Hull type XVIII B

Obj. No. 19518 from inhumation burial 17044 (**Figure 7**) has a bow with a subrectangular panel with centrally placed knobs either side, details characteristic of Riha's type 5.7.6. At Colchester, similar brooches were found in Claudio-Neronian contexts (Hawkes and Hull 1947, pl. XCVII, 147–149). The best parallels can, however, be found at Augst, where some examples even match the beading on the longitudinal ridges of the central panel (e.g. Riha 1979, Taf. 33, 892–6; Riha 1994, Taf. 25, 2406; Taf. 26, 2410, 2412), as does one at Baldock (Stead and Rigby 1986, 118 fig. 47, 119) found in a context with a date range of AD 90 to 120. Hod Hill type brooches are thought to have gone out of general use by about AD 70 (Bayley and Butcher 2004, 152–3).

Colchester-derivative brooches

Hawkes and Hull type IV

Four brooches belong to this type which is a development of the Colchester one-piece brooch. The change to two-piece construction has recently been linked to a change in metal availability: Colchester one-piece brooches were made of brass, while the two-piece brooches were predominantly leaded bronze (Bayley and Butcher 2004, 155). Based on the study of the Richborough assemblage (*ibid.*, 82–9), the treatment of the bow in the examples from High House allows two variants to be distinguished.

Obj. No. 19570 from inhumation burial 17059 (**Figure 8**) has a central rib down the whole length of the bow. A zigzag line on the rib starts behind the plain crest on the head of the brooch. Its length of 62 mm places it in Bayley and Butcher's group ai. Obj. Nos 19557 and 19559 from inhumation burial 17060 (**Figure 9**) belong to the same group, although the rib of the former becomes very faint towards the foot. Group a is especially common in the south-eastern counties of England (Bayley and Butcher 2004, 157).

It has been suggested that the plain, arched bow as seen in Obj. No. 19558 from inhumation burial 17060 (**Figure 9**) is a western variant (Butcher 2001, 49, 53; Bayley and Butcher 2004, 157), but the transition from bow to catchplate in this example is markedly stepped rather than the flowing treatment of this detail seen in the brooches from, for example, Wanborough, Wiltshire.

The date range of the Colchester two-piece brooches overlaps with the end of the one-piece type, mainly dating to the early second half of the 1st century AD as at Colchester (c. 50–65 AD. Hawkes and Hull 1947, 310–11). The plain version can also occur slightly later (Butcher 2001, 53).

Repaired brooches

Repairs as on Obj. No. 19560, and possibly Obj. No. 19583, both from inhumation burial 17061 (**Figure 9**), are generally very rare on Roman period brooches. Where considered during analysis, their occurrence is frequently well below 1% as, for example, at Richborough (three of at least 445 brooches; Bayley and Butcher 2004, 34) or Augst and Kaiseraugst in Switzerland (0.07 %; Riha 1979, 37; Riha 1994). In Germanic contexts beyond the *limes*, however, levels of repairs have been reported at between 6–14 %, which was considered to reflect the greater difficulty in replacing a broken piece with an entirely new object (Schuster 2006, 131–2).

Observations regarding the placement of brooches in the graves

Brooch Obj. No. 19570 from inhumation burial 17059 was found above the left clavicle (collarbone) in a position in which it might have been worn as a dress accessory by the male individual buried in that grave. In the four other inhumation burials which contained brooches, the function of the brooches is not always related to the garment worn by the deceased. The three brooches from inhumation burial 17060 were found in a line along the right tibia where they might have closed a

shroud rather than an item of clothing. In inhumation burial 17029, the only brooch (Obj. No. 19507) lay near the lower left femur, and in the crouched burial 17061 one brooch lay above the pathologically deformed left elbow, while the other was found further away from the body at the edge of the grave cut. In both graves the brooches were not closed, which may indicate that they were not used to close a garment but were perhaps rather included in the burial as a gift or grave good. This aspect is certainly true for the three brooches placed on the samian platter (Obj. No. 19521) in inhumation burial 17044. All were lying with their springs and catchplates facing more or less upwards, a position which can only be achieved if propped up in some way. As none of the brooches was closed, it may be that they were attached to, or stuck into, some kind of textile which was then placed on the platter with the brooches below it. The other two brooches lay in more ambivalent positions, nearer the body of the male individual buried in the grave: Obj. No. 19517 – which was closed – in the lower abdomen area and Obj. No. 19518 in the upper abdomen area.

Fixtures and fittings

The thin copper alloy strip Obj. No. 19523, found at the foot end of inhumation burial 17044 between a platter (Obj. No. 19524) and a jar (Obj. No. 19522), could perhaps be the rim reinforcement binding of an organic or wooden vessel (**Figure 7**). The diameter of the object indicated by the position of its fragments in the grave precludes an interpretation as a bracelet or other such personal ornament.

All but one of the 73 iron nails were found in seven inhumation burials in ditch 17000. The number of nails by grave ranged from two to 19; the largest groups came from inhumation burials 17059 (16 nails), 17063 (17 nails) and 17062 (19 nails). Of the identifiable nails the most common type (37 examples) had a square shaft and a flat head (Manning 1985, fig. 32, Type 1b). Obj. No. 19627 from inhumation burial 17059 is a typical example (**Figure 8**). Only two nails with a domed or pyramidal head like Manning Type 1a were found, one in inhumation burial 17062, the other in ditch 17002. Three nails with a triangular head like Manning Type 2 all come from inhumation burial 17059.

While it is likely that most, if not all, of the iron nails were structural parts of the respective coffins, a small copper alloy nail with a spherical head (Obj. No. 19597) appears to have been deliberately placed within the coffin or 'box' in inhumation burial 17062 (**Figure 10**). Crummy (1983, 115) has suggested that nails of this form could have been used for furniture upholstery, but this seems less likely for a single copper alloy nail inside a coffin or 'box' as here. The placing of a single nail or a small number of nails in graves has been considered in the context of ritual, magic or the warding-off of evil (e.g. Black 1986, 223; Dungworth 1998, 153), and this might also provide a possible explanation in this instance.

Other coffin furniture was also found in two graves: two joiner's dogs (Obj. Nos 19561 and 19611) in inhumation burial 17057, and one joiner's dog (Obj. No.

19591), an L-clamp (Obj. No. 19595) and one loop-hinge (Obj. No. 19592) in inhumation burial 17062 (**Figure 10**). A second loop-hinge was probably fitted at the north-western corner of the coffin or box in inhumation burial 17062; however, only one of the triangular straps (Obj. No. 19567) could be identified, but the sheet fragments (Obj. Nos 19562 and 19587) may be part of it.

Glass

by Lorraine Mephram

A small tubular unguent bottle (Obj. No. 19520), almost complete, was found as a grave good accompanying inhumation burial 17044. It survives to a height of 80mm, and has a conical body with slightly flattened base, and a cylindrical neck; the rim is missing (see **Figure 7**). The colour is pale blue. The type is well known (Isings 1957, form 8; Price and Cottam 1998, 169–71), and is found in both settlement sites and burials. They are common finds on mid 1st century AD sites in Britain, for example from Colchester, Essex, where they occur in both domestic and funerary contexts (Cool and Price 1995, 159–60), but their date range extends to the late 2nd/early 3rd century AD. More precise dating would be provided by the rim form if present, rolled rims succeeding sheared rims, but in this instance independent dating is provided by other grave goods (pottery vessels and copper alloy brooches) from the same grave, indicating a date in the mid/late 1st century AD.

A small piece of greenish melted glass, or glass waste, came from inhumation burial 17063. This is assumed to be of Romano-British date; fragments of melted glass, presumably representing pyre goods, are occasionally found associated with cremation burials of this date. This fragment is likely to be an incidental incorporation into the grave backfill, perhaps a remnant from an earlier cremation episode.

Pottery

by Lorraine Mephram

Pottery from High House dated as Late Iron Age to early Roman amounts to 950 sherds (12,937g). These sherds have a potential date range of 1st century BC to late 1st century AD. The assemblage includes one group of mid 1st century AD grave goods, comprising four vessels, which were associated with one glass vessel and five copper alloy brooches.

Methods of analysis have been outlined above and, in addition, Roman fabrics have been defined on the basis of known type / source. Brief fabric descriptions and totals, by both sherd count and weight, are given in **Table 8**.

Fabrics

The bulk of the Late Iron Age/Romano-British assemblage comprises sherds in coarse shelly wares (SH2), which as body sherds are visually very similar to the Late Bronze Age / Early Iron Age shelly wares (SH1). Shell-tempered wares appear sporadically from the Early Iron Age in Essex, but are particularly common in the

Date range	Fabric type	Description	No. sherds	Weight (g)
LIA	GR2	Coarse grog-tempered fabric	283	2883
LIA	QU4	Coarse sandy fabric	63	1015
LIA	SH2	Coarse shelly fabric	557	7599
LIA	GR1	Fine grog-tempered fabric, including wheelthrown examples	20	357
RO	GREY	Coarse greyware	13	430
RO	OXID	Coarse oxidised ware	5	106
RO	SAM	Samian	8	526
RO	AMPH	Amphora	1	21
		<i>Total</i>	950	12,937

Table 8 Pottery: Late Iron Age / early Romano-British fabric totals

Late Iron Age, as they are in Kent. Scientific analysis of sherds from the Grays By-pass has shown that the shell inclusions derive from the Woolwich Beds of the south of the county (Hamilton 1988), with additional sources potentially provided by the shell banks along the Thames estuary (Wilkinson 1988). Shell-tempered wares were certainly produced here in the early Roman period, when kilns are known from Mucking and Tilbury (Jones and Rodwell 1973; Drury and Rodwell 1973).

Alongside these are coarse sandy and grog-tempered fabrics (QU4, GR2), and finer grog-tempered fabrics, some of which may be wheelthrown, in the 'Belgic' tradition (GR1). Sandy fabrics, as the shelly-tempered wares, were in use throughout the Iron Age in Essex, but the grog-tempered wares of 'Belgic' tradition mark an intrusion into the indigenous ceramic production of the region, appearing no earlier than *c.* 50 BC in the county (Sealey 1996, 55).

'Romanised' wares, some of which could be pre-conquest, occur in very small quantities, including a single sherd from a Dressel 1 amphora, and a few sherds of South Gaulish samian, and wheelthrown sandy greywares and oxidised wares, the latter mostly white-slipped.

Vessel forms

Bead rimmed jars and bowls dominate the assemblage; these are found mainly in shelly fabrics (36 examples: **Figure 13, 1, 2**), with one coarse grog-tempered example. Bead rims are either internally thickened, horizontally flattened, or internally ledged or grooved; one vessel of the latter type has a scored graffiti below the rim (**Figure 13, 2**). The internally thickened bead rim emerged in the 1st century BC, and continued in use until the mid 1st century AD, at which time it was superseded by the internally ledged bead rim (Going 2004, 141). The latter form, including examples with scored graffiti, was amongst the products of the Mucking kilns (Jones 1972), and was the dominant shell-tempered form at Chelmsford in mid to late 1st century AD contexts (Going 1987, type G5).

The grog-tempered fabrics occur more frequently in necked jar forms, frequently cordoned (23 examples; **Figure 13, 3**); there is one example in a sandy fabric. One grog-tempered necked jar has a series of post-firing perforations below the rim, perhaps for the purpose of

securing some form of (organic?) lid. There are also two everted rim jars, in grog-tempered and shelly fabrics respectively, and a rather crudely made copy of a Gallo-Belgic Cam. 56 platter in a coarse sandy fabric (**Figure 7, Obj. No. 19524**). One jar base in a coarse sandy fabric has multiple post-firing perforations.

As well as the single sherd from a Dressel 1 amphora, 'Romanised' vessel forms include samian forms 18, 24/25 (platters) and 27 (cup), and a greyware narrow-necked jar.

Distribution on site

Late Iron Age/early Romano-British pottery was found in 19 features across the site: ditches, pits, graves and one post-hole; a further nine features (all graves), assigned to

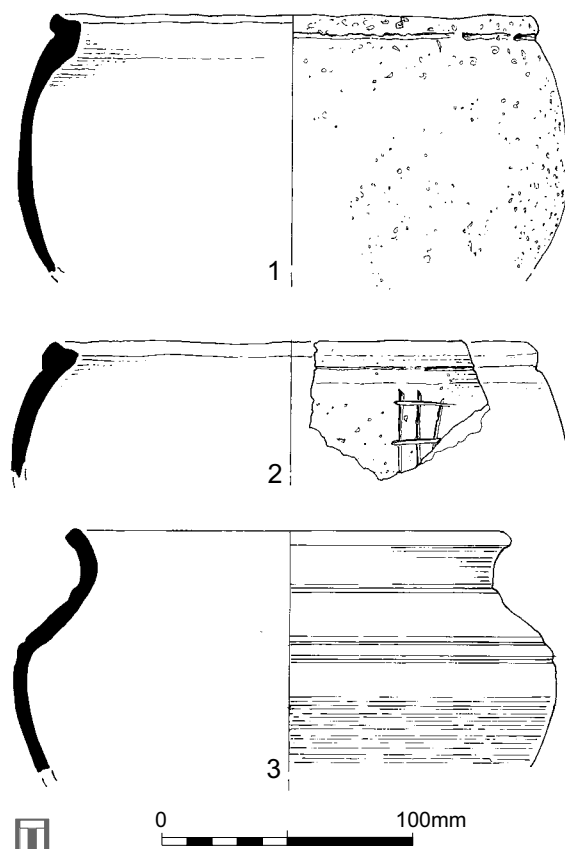


Figure 13 Pottery: Late Iron Age / early Roman

this phase on stratigraphic and artefactual grounds, contained only residual early 1st millennium BC pottery.

The largest feature group derives from ditch 17010 (702 sherds) and this contained, as well as a number of vessels in grog-tempered, shelly and sandy fabrics, one sherd from a Dressel 1 amphora, one sherd of South Gaulish samian (form 27 cup) and two sherds of a fine, wheelthrown, white-slipped, oxidised ware. Coarseware vessel forms from this ditch include 20 grog-tempered necked jars (mostly cordoned), one grog-tempered bead rim bowl, one shell-tempered neckless, everted rim jar, and a maximum of 19 shell-tempered bead rim jars, of which one rim is internally ledged, six horizontally flattened, and 12 internally thickened.

Only three other features yielded more than 50 sherds: ditch 17009 (=17008, 76 sherds), gully 17011 (56 sherds), and pit 17036 (52 sherds). All three produced a similar range of fabrics (largely shelly wares) and vessel forms, although only ditch 17076 contained 'Romanised' wares, in the form of wheelthrown greywares and oxidised wares. Of a maximum of eight bead rim jars (all shell-tempered) from ditch 17009, all have internal ledges or at least vestigial grooves on top of the rim, and one has a scored graffito below the rim (**Figure 13, 2**). Sherds from gully 17011 are almost entirely shell-tempered and may derive from a single vessel, with a flattened bead rim. Pit 17036 contained only shell-tempered wares, including two bead rim bowls, both with internally thickened rims.

Also of interest is the group of grave goods from inhumation burial 17044 (**Figure 7**), which comprise a samian platter (form 18; Obj. No. 19521), a samian rouletted bowl (form 24/25; Obj. No. 19525), a handmade copy of a Gallo-Belgic platter in a coarse, sandy fabric (form Cam 56; Obj. No. 19524), and a narrow-necked, wheelthrown greyware jar (Obj. No. 19522). The samian platter was found to contain a broken glass unguent bottle and three copper alloy brooches of mid 1st century AD date.

Three other graves produced pottery (17029, 17047, 17063), but only in the form of incidental, residual sherds incorporated within the grave backfills.

Discussion

The shelly, grog-tempered and sandy wares quite clearly fall within the well documented Late Iron Age ceramic traditions of the region, the sandy and shell-tempered wares developing from earlier Iron Age antecedents in the county, while the grog-tempered wares represent an intrusive tradition, appearing no earlier than *c.* 50 BC. According to Thompson (1982), south Essex lies within zone 2 of the grog-tempered 'Belgic' tradition, an area characterised by a predominance of non-grog-tempered fabrics and the common use of shell for coarseware jar forms, although Belgic pottery was invariably used for funerary vessels (nearly all cremations), as at the nearby site at Ardale School on the Grays By-pass (Thompson 1988).

Parallels for the West Thurrock assemblage within the county are not numerous, and are perhaps more usefully

provided by assemblages from north Kent (Pollard 1988, 31, fig. 12). Within Essex comparanda may be sought, for example, in the latest phases at Little Waltham (Drury 1978), in the important and well dated mid/late 1st century BC assemblage from Stansted Airport, which also produced a large group of Dressel 1 amphorae (Going 2004), and in mid to late 1st century AD groups from Chelmsford (Going 1987).

While the West Thurrock assemblage as a whole could be broadly dated within the period of mid 1st century BC to mid/late 1st century AD, certain characteristics suggest that some context groups at least can be dated relatively late within this range. The grave group from 17044 can most obviously be dated to the mid/late 1st century AD, on the presence of samian and wheelthrown greyware vessels, contemporary with the group C cremation burials at Stansted Airport (Havis and Brooks 2004, fig. 138; Wallace 2004); Wallace notes the potential significance of the appearance of samian vessels as grave goods at this period (*ibid.*, 241–2).

The pottery from ditch 17010 can also be seen as mid/late 1st century AD, containing, as well as grog-tempered, sandy and shelly coarsewares and a Dressel 1 amphora, a samian form 27 cup and wheelthrown 'Romanised' sandy wares. The shell-tempered bead rim jars include examples with internally ledged rims, and these are also seen (including one with scored graffito) amongst the shell-tempered wares from ditch 17009 alongside wheelthrown 'Romanised' sandy wares.

Of the other context groups, only three produced such chronologically distinctive material, in the form of two internally ledged bead rims from pit 17051, a single tiny sherd of samian from pit 17020, and a single sherd of wheelthrown greyware from inhumation burial 17063. Other features, none of which yielded more than 11 sherds, cannot be dated so closely within the overall potential date range.

List of illustrated vessels (**Figure 13**; see **Figure 7** for grave-goods)

1. Bead rim jar, fabric SH2. PRN 12, context 10004, ditch 17009.
2. Bead rim jar, scored graffito, fabric SH2. PRN 12, context 10004, ditch 17009.
3. Cordoned jar, fabric GR2. PRN 128, context 10159, ditch 17010.

Fired clay and ceramic building material

by Lorraine Mephram

There are at least two slabs or blocks, of uncertain function. Both positively identified examples came from ditch 17010, associated with Late Iron Age/early Roman pottery (fragments of other possible examples came from ditch 17007, ditch / gully 17011, and pits 17071 and 27009, all dated to the Late Iron Age). They appear to have been rectangular, although only one of the two has any measurable dimensions (60mm wide by 50mm thick, surviving length 95mm); this example is slightly tapering (**Figure 4, 3**). Fabrics are similar to those used for the loomweights – poorly wedged, and generally containing sparse organic inclusions.

They may fall into the same class of object as the rectangular ‘Belgic bricks’, identified elsewhere in Essex and with a possible association with pottery production. One example is illustrated from Slough House Farm (Major 1998, fig. 113, 14). These are superficially similar to the prefabricated ceramic bars seen in Late Iron Age kilns (Swan 1984, pls. 18, 20). A group of broadly similar objects, although seemingly thinner, and frequently flanged, described as ‘slabs’, is known from Stansted Airport in mid 1st century AD contexts, although more probably connected with domestic hearths than with pottery production (Major 2004).

One Roman tile fragment was identified, from High House (residual in a medieval pit), with a finger smeared ‘signature’. Two other fragments from Stone House could also be of Roman date, but are completely undiagnostic (tentative identification on fabric grounds).

Illustrated objects (Figure 4)

3. Slab or block. Context 10179, ditch 17010.

Animal bone

by Jessica Grimm

The majority of the small assemblage of animal bone from Late Iron Age and early Romano-British contexts (all from High House) is in good to fair condition. In contrast to the earlier period, sheep is now dominant (see **Table 2**). This fits the picture of Late Iron Age husbandry in Britain, where a fair proportion of the sheep are killed young, indicating a mixed economy based on milk, meat and wool. The proportion of cattle is still fairly high, with pigs generally only present in small numbers. On sites elsewhere, fewer sheep bones and more pig generally reflect a greater degree of Romanisation. However, the assemblage from West Thurrock, most from early Roman contexts, is rather small which limits its usefulness in this matter. A cut mark on a horse calcaneus is the only evidence for skinning, but there is no evidence from any of the periods that horse meat was eaten.

The skeletons of two dogs were also found. The dog from ditch 17002 was not fully recovered, but was older than 18–24 months and, with a height of 58cm at the withers, was quite a large dog. The other, from ditch 17010, was male, at least 18 – 24 months old when it died, and a medium-sized dog with a height at the withers of 52cm. This dog had suffered from a limp in the left hind leg as the femur was broken diagonally above the articular surface and had healed at an inward angle causing bowing and shortening. X-radiography of the bone revealed that the fracture resembles a greenstick fracture. Greenstick fractures occur in young individuals where the bone does not break through, but bends. The irregular bone structure on the distal articular surface might be the result of this trauma or might result from a separate inflammation. There was also some new bone formation below the *trochanter majus*, indicating an inflammation. The proximal articular surface of the left tibia showed some pathological change due to the different strain put on the joint after the femur broke and

healed. The trauma occurred long before the dog died as the fracture is completely healed. However, the patches of new bone formation (inflammation) on the proximal part of the shaft show that the dog was probably not too healthy when it died.

An unusual find, from ditch 17010, is the unfused epiphyseal plate of a probable thoracic / lumbar vertebra from the mid-torso of a medium-sized whale. It is possible that this young whale swam up the Thames and stranded, as happened in 2006 when a juvenile female bottlenose whale swam up the river and died after a rescue attempt. The carcass would have been valuable and was most likely exploited by the people living in the vicinity West Thurrock.

Charred plant remains

by Chris J. Stevens

Only two samples were taken and assessed from non-burial features, both from Early Romano-British ditch 17010. The two samples were similarly rich in remains and only one (from context 10191) was fully analysed (**Table 3**). This sample was dominated by glumes of hulled wheats. About two-thirds of the identifiable glumes and spikelet forks were of spelt wheat (*Triticum spelta*), with the remaining third being identifiable as emmer (*T. dicoccum*). Grains of hulled wheats and barley (*Hordeum vulgare* sl.) were also well represented with the former predominating. While emmer does not dominate the assemblage it still forms a significant proportion. Spelt is certainly dominant by the Romano-British period at North Shoebury, Stifford Clays, Chigborough, Mucking and Slough House Farm, but small amounts of emmer wheat are present (Murphy 1988a; 1991; 1995; 1998). This is in contrast to more Romanised settlements to the south in Kent where only spelt is found (Stevens 2006; Smith and Davies 2006). However, it is noted that the earlier Roman phases at Springhead in the Ebbsfleet Valley in north Kent also contained a significant proportion of emmer wheat (Stevens 2006; in press).

There were also several barley rachis fragments, some of which could be identified as coming from six-row barley. Two of the barley grains could be seen to have germinated and a number of germinated coleoptiles were also recovered.

The dominance of glume bases indicates that the assemblage came from fine-sieving of pounded spikelets to release the grain. Although the coleoptiles could not be identified to species, the assemblage is similar to that from Springhead in north Kent which may relate to the malting of barley and probably spelt wheat for beer (Stevens 2006; forthcoming).

While seeds of larger seeded species, such as vetches/wild pea (*Vicia/Lathyrus* sp.), corn gromwell (*Lithospermum arvense*), fumitory (*Fumaria* sp.), corncockle (*Agrostemma githago*), oats (*Avena* sp.), ribwort plantain (*Plantago lanceolata*) and brome grass (*Bromus* sp.) predominated, seeds of smaller seeded species were well represented. This latter group included many seeds of orache (*Atriplex* sp.), although it might be noted that seeds of orache are released in more grain-sized persistent

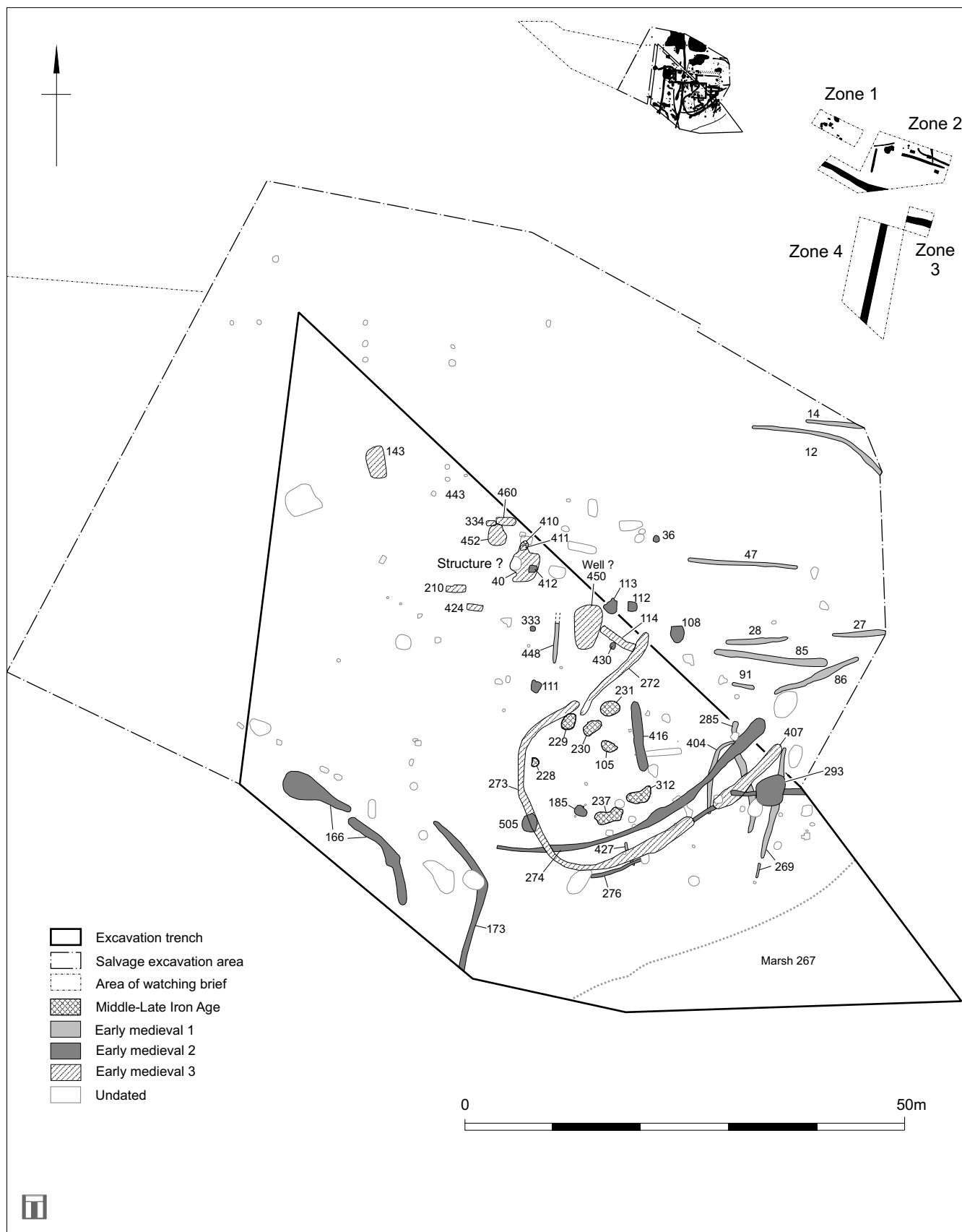


Figure 14 Stone House: plan, early medieval (and earlier) features

bracteoles. Other seeds included those of common nettle (*Urtica dioica*), fat-hen (*Chenopodium album*), red bartsia (*Odontites vernus*), clover (*Trifolium* sp.) and scentless mayweed (*Tripleurospermum inodorum*). As with the late prehistoric samples bulrush/club-rush (*Schoenoplectus lacustris/tabernaemontani*) was also present, along with seeds of spikerush (*Eleocharis palustris*), another wetland species.

There is some indication of the cultivation of a fairly wide range of soil types. As seen in the Bronze Age, the presence of bulrush/club-rush along with spikerush (*Eleocharis palustris*) indicates the cultivation of fields adjacent to the marshland. The presence of vervain (*Verbena officinalis*) is of some interest as the species grows mainly on calcareous dry soils and is generally uncommon in charred samples. Although not confined to drier calcareous soils, fumitory, ribwort plantain, corn gromwell, brome grass and red bartsia are commonly also associated with such soils. Given the location of the site upon a chalk ridge overlooking the Thames marshes, it would appear that the inhabitants probably cultivated fields situated on drier soils close to the settlement itself, as well as those that were probably marginal to the marshland to the south.

Early medieval (11th – 13th century) (Figure 14)

Neither site produced any features that could be dated to the Saxon period. However, five pottery sherds in a hard, sandy fabric have been identified as early / mid-Saxon, all probably part of a single vessel, a fairly crudely made, hemispherical bowl (Figure 15). The sherds derived from three separate fills of enclosure ditch 407, a probably 13th century feature at Stone House (see below). Neither fabric nor form are particularly chronologically distinctive and have a superficial resemblance to Iron Age wares from the region, but have been dated as Saxon largely on the grounds of the hard-fired nature of the fabric.

Other Saxon sites are known in the vicinity of the site, of which the best known, and from which the largest published pottery assemblage derives, is at Mucking (Hamerow 1993). This provides parallels for both fabric and form of the Stone House vessel. While no firm conclusions as to date should be based on a single vessel, sandy fabrics are more common amongst the 5th and early 6th century assemblage from Mucking, organic-tempered fabrics predominating later (*ibid.*, 31). The small assemblages from nearby sites at Stifford Clays and Ardale School, for example, are exclusively organic-tempered and have been dated on that basis to the late 6th / 7th century (Wilkinson and Lee 1988).

In addition to the single vessel discussed above, the date range of the early medieval pottery (see below) does not preclude a pre-Norman Conquest origin for the earliest medieval activity at Stone House.

Three phases of early medieval activity have been identified at Stone House, separated on the basis of stratigraphic relationships where these could be established. It should be emphasised here that there is

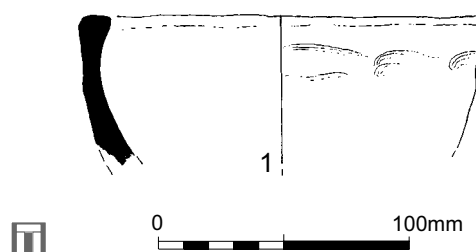


Figure 15 Pottery: Saxon

uncertainty over the attribution of some of the elements to these phases, partly due to the similarity of their fills, truncation resulting from machining and the fact that most of the features falling within the northern part of the site (in the area occupied by the construction compound) were not excavated. The phasing presented here is considered to represent the most likely sequence, although others are possible. Pottery recovered from features assigned to this period (and also as residual material in later contexts), though not large in overall terms, accounts for 58% by weight of the total medieval assemblage, and has a date range of 11th to 13th century, but little finer chronological distinction has been possible (see below).

Phase 1 (11th – 12th century)

The earliest phase was represented by a series of often short, sometimes discontinuous gullies or shallow ditches between 3.5m and 15m long. Three of these gullies / ditches were aligned approximately north – south (269, 285 and 404), with a further five running east – west (27 with 28, 47, 85, 86 and 91). They may all have been broadly contemporary, but it is suggested that it is more likely that they represent a sequence of perhaps three or four pairs of gullies forming a succession of funnel-shaped arrangements on a broad, south-east to north-west aligned axis. The narrower opening(s) lay to the north-west, and where measurable would indicate widths in the order of 6 – 7m. They may have held fences and a likely association with stock control can be suggested. Perhaps contemporary with these were gullies / ditches 12 and 14 to the north and a similar feature, 448, to the west, possibly evidence for an enclosure, but nothing further can be surmised on such slender evidence.

Phase 2 (12th – 13th century)

The phase 1 system of gullies was replaced by a new layout, perhaps representing two or more sub-phases. The major element comprised two, shallow curvilinear ditches which are interpreted as forming the southern part of an enclosure with a south-facing entrance. The eastern ditch (comprising 173 and probably 274) was approximately 40m in length and ran broadly parallel to the edge of the marshy ground to the south. The precise layout of the enclosure entrance had been obscured by later features, but it was approximately 8m wide and had either a kinked arrangement or was slightly funnel-shaped in plan, narrowing to the south. Ditch 166 to the



Plate 5 Stone House: Manor House under excavation (view from west)

west of the entrance had a terminus at the west end, and ditch 274 to the east also appeared to terminate, at its eastern end. However, it is possible that continuations of both ditches had been truncated by machining.

On the southern side and approximately parallel to the eastern arm (274) of the enclosure was gully 276, partly cut away by phase 3 features; this has also been assigned to phase 2, though the relationship between ditch 274 and gully 276 is unclear. Pit 293 further to the south may also have belonged to this complex of features, but the precise details of the phasing in this area are difficult to disentangle and an alternative possibility is that pit 293 was later and belonged to phase 3. To the north of enclosure ditch 274 was a scatter of features (most undated) including a 10m long, north-south aligned shallow ditch (416), and several small, shallow, sometimes irregular scoops of uncertain function. However, it is not certain that all were contemporaneous or indeed belong to this phase.

Phase 3 (13th century)

The final phase assigned to this period was represented by a further change in the layout of features. The phase 2 enclosure was replaced by a small U-shaped enclosure (represented by ditches 272, 273 and 407), aligned south-west to north-east and measuring approximately 28m by 22m, possibly open at the north-east. However, this possibility should be tempered by the fact that the open end coincides very closely with the limit of controlled excavation (see above) and there is a strong

likelihood, therefore, that the north-west part of the enclosure was not visible or had been entirely truncated during machining. There was a 3m wide entrance in the south side and a narrower, staggered entrance arrangement in the north side. No contemporary structural remains were identified within the enclosure, though some of the few features assigned to phase 2 may belong to phase 3. There were few finds, but ditch 273 produced 54 sherds of pottery, probably all from the same shelly ware jar.

A possible well (450) lay just outside the northern entrance to the enclosure, with a short length of gully (114) extending northwards up to the edge of it. The interpretation as a well is equivocal for the central part appears to have been at least partly dug-out and packed with chalk prior to the construction of the medieval manor house, presumably to avoid any subsidence of the walls.

A few post-holes and slots in this area have been assigned an early medieval date, and several (eg slots 210, 334, 424, 460) were clearly sealed beneath the later wall foundations or robber trench fills at the western end of the manor house. In addition, there were the remains of a possible hearth (452) and an adjacent spread (40), possibly an 'occupation deposit', with a pit (143) to the north-west. Although no clear pattern could be discerned in their layout, the slots were aligned east – west and raise the possibility of an early medieval timber structure standing here before the medieval stone manor house was built around the end of the 13th century.



Plate 6 Stone House: Manor House under excavation (view from north)

Saxo-Norman and early medieval landholding and land use

by Christopher Phillpotts

The history of the sites and surrounding area has been investigated from a variety of printed primary and secondary material, manuscripts and maps. Manuscript evidence has been accessed by references culled from the printed material and from catalogues to the relevant document classes and collections in the record repositories visited. Maps, illustrations and manuscripts have been consulted at the National Archives in Kew, the British Library in Euston, and Essex Record Office in Chelmsford. The collections of London Metropolitan Archives in Clerkenwell were consulted without positive result. Full references to the source material are set out in the Bibliography.

Part of the upland area of West Thurrock parish to the north-east of the Stone House site was divided into the cultivation strips of open-field agriculture in the medieval and post-medieval periods (**Figure 21**). Field systems of this type were formed in Essex in the late Saxon period, and were associated with the nucleation of settlement and the manorialisation of the agricultural economy. They consisted of large open fields divided into rectangular furlongs of individual parallel cultivation strips, worked in common by the lord and tenants, whose strips were dispersed evenly in the fields. These strips were orientated and designed to provide the best drainage. The fields were planted in sequences of crop rotation, and

depended on manuring by communal sheep flocks during fallow periods. Stock enclosures developed at the same time, and enclosed meadows were also allotted to tenant households.

The earliest known reference to Thurrock dates to *c.* 1040–1042, when Wulfstan the Wild Priest, with the consent of his lord King Harthacnut, granted to the Abbey of Christchurch in Canterbury the land which he had inherited called Thurrock. This charter appears to be genuine, but Christchurch did not retain its property in Thurrock, and Wulfstan's holding cannot be certainly traced in *Domesday Book*. It may be identified with the small manors of Bishop Odo of Bayeux at Thurrock, since he had also despoiled Christchurch of its lands at Vange (Hart 1957, 22 Appendix A no II; Sawyer 1968, 452 no 1644).

Landholding across the transition of the Norman Conquest was recorded by the *Domesday Book* survey of 1086. At the end of the reign of King Edward the Confessor in 1066 the most substantial manor in Thurrock was held by Earl Harold Godwineson and assessed at thirteen hides. It is to be identified with West Thurrock and comprised most of the parish. The other manors in Thurrock were small landholdings held by various freemen, including sokemen, and probably lying in Grays Thurrock and Little Thurrock. After the conquest Harold's manor was granted to Count Robert of Eu, who held it in demesne, and some of the smaller manors were taken over by followers of the Bishop of

Bayeux. The steep rise in the number of bordars (low status manorial peasants) from 16 to 45 on the Count's manor is probably to be associated with the reclamation of marshland along the shores of the Thames and the Mar Dyke, as this class of manorial tenant is often connected to the extension of the area of cultivation and pasture. This also might account for the rise in the annual value of the manor from £12 to £30, although this figure also includes the rent from seven houses in London which belonged to it. Most of the reclaimed marshland was used as pasture for the demesne flock of 550 sheep recorded there, although there was also an increase in the amount of land under the ploughs of the tenants. One fishery had become two since 1066; these probably consisted of sets of fish-traps on the Thames shore. There were also 40 acres of meadow and sufficient woodland to feed 200 pigs (Williams and Martin 2002, 977, 987, 1016, 1038, 1045; *VCHE* viii 59, 64).

The use of the marshes as sheep pasture was a common feature of *Domesday* Essex. These sheep pastures and large flocks of demesne sheep lay in a broad belt along the coastline of the county from West Thurrock eastwards. They were important for the large-scale production of cheeses. There was also a concentration of fisheries along the Thames estuary shoreline (Darby 1971, 241–2, 245–6, 257–8, 261–2). *Domesday* woodland in Essex and other counties was generally measured by the number of pigs it had the capacity to support; it is questionable whether these numbers represented real pigs or were a notional measurement. The round figures of some of the larger entries indicate that they are estimates. The number of demesne pigs recorded on a manor was usually less than the stated capacity of its woodland; there were sixteen at West Thurrock (Darby 1971, 232–3, 256). However, this does not take into consideration the much larger numbers of tenants' pigs, which were not counted by the *Domesday* surveyors, and which would also have been fed in the manorial woodlands.

In the late Saxon and early Norman period there was a tendency by manorial lords to impose heavier burdens on their tenants and to reduce the status of those who were counted as free (Williamson 2004, 45). By 1086 there was little mention in Thurrock of the freemen and sokemen who were holding manors or parts of manors in 1066, except for five sokemen surviving on William Peverel's manor at Grays Thurrock. The others had presumably been downgraded or had been driven from the area. Many freemen and sokemen disappeared between 1066 and 1086 in Essex, accounting for only 7% of the population at the time of the *Domesday* survey. Some evidence from the county suggests that they became villeins (manorial peasants bound to pay services and dues to their lord) and lower status bordars (Darby 1971, 225–6).

There is no mention in *Domesday Book* of a church at West Thurrock, although that does not mean that the parish church did not already exist; the survey only mentioned churches as sources of revenue, and they are seriously under-represented in Essex (Darby 1971, 249–

51). In the 11th and early 12th centuries manors often built proprietary churches close to their manor houses, and these developed into parish churches. The limits of their emerging parishes were based on the boundaries of the manors, and the church-manor complexes might be expected to form the main bases of settlement. The parish church of St Clement was built on a gravel promontory in the marshes, well to the south of the road from Purfleet to Grays Thurrock and just over 2km to the east of the Stone House site (**Figure 1**). This prominent location overlooking the river can be compared to the dramatic placing of the church of St Nicholas at Deptford on a low gravel cliff dominating the Thames marshes further up the river. It was isolated from the later medieval settlement it served, which implies that there was a shift in the settlement pattern in the early medieval period.

The church certainly existed by c. 1090, when Count Robert of Eu granted it to the College of St Mary in Hastings Castle. The rectory thereby became a prebend of Hastings and the duties of the prebendary included keeping the grammar school in the castle (*VCHE* viii 70). The gift of the church of *Turock* to the College was later confirmed by Robert's grandson Count Henry of Eu, who died in 1140 (*CAD* iii 532 no D1073). By this time the church probably had a circular nave.

The tenancy in chief of the manor of West Thurrock (its direct tenure from the Crown) descended with the honour of Hastings. In the course of the 12th century the demesne tenancy of the manor descended to a branch of the Counts of Eu which bore the family name of Brinson, Brianzon, Briazoun or Breauzon. The first of the family to hold the manor was Thomas Brinson, nephew of Count Henry of Eu. He was followed by Robert de Brianzon in the reigns of Henry II and Richard I, and his son Bartholomew, who was in possession in 1198–1212. Bartholomew was a minor in the guardianship of John de Bassingbourne, who received a grant of a weekly market here in 1207, but this does not appear to have developed. Later in the 13th century the lord of the manor was another Bartholomew Brianzon, who held one knight's fee there in 1262, and died in 1286 leaving as heir his infant son William. The family also held the adjacent manor of Aveley (Morant 1768, i 91; *VCHE* viii 59, 66; *CChR* ii 42, 44).

The manorial rights claimed by the Brianzons in the 13th and 14th centuries included assize of bread and ale (regulating measures and prices), view of frankpledge (a court ensuring good conduct in the community), waifs and strays (right to take lost or unclaimed goods), the keeping of a gallows, the right to shipwrecks on the Thames shore, and a ferry across the river. Labour was also provided on their demesne lands by the unfree customary tenants. These rights were administered in the manorial courts held in their manor house. A number of sub-manors developed in the parish of West Thurrock in the 12th and 13th century, including Bayhouse, Michelsland, Purfleet, Tendrings and Torrells Hall, which were all tenurially dependent on the main manor (*VCHE* viii 61–4, 69). Manorial lords appear to have created sub-manors by sub-infeudation to pass on the burdens of

military tenure. They also added to their local political support and most immediately produced money fines (Williamson 2004, 46). Some of these so-called manors may never have held courts of their own, and were therefore not true manors in the legal sense. The parish church also expanded at this time, with added aisles, chancel and chapels, acting as a staging post for pilgrims to Canterbury, who crossed the river by the manorial ferry to Greenhithe.

The fundamental feature of the history of all the manors and parishes along the banks of the Thames below London in the medieval and early modern periods was the struggle to reclaim or *inn* the marshes from the river. Earthen banks or *walls* were constructed along the riverside, and the land behind was drained by ditches. This was enclosed and drained in series of *parcels* divided by cross-walls or *counter walls*, which were built out from the chalk and gravel *uplands* and ran perpendicularly to the river, advancing the river front over a period of time. Along some of the counterwalls roads called *manorways* provided access into the marshes. The reclaimed land behind the walls was utilised for meadow and pasture, and also for sowing corn. The unenclosed salt marshes in front of the walls were used for fishing and fowling (Phillpotts 1999, 63).

It is not known at what date the lower Thames was embanked but it may have been as early as the late Saxon period. It is possible that the reclamation of Essex marshland from the Thames did not require the construction of embankments before the 11th century because of a lower sea level. By the early 13th century this was rising, and embankments were certainly in place. A law of the marsh in Essex in 1210 required landowners to maintain their sections of the river walls. From 1280 onwards periodic royal commissions reviewed the state of the shoreline defences and compelled their upkeep. Nevertheless storms and tides overwhelmed the defences from time to time, as in 1251 and 1296 (Hunter 1999, 18, 76).

The excavations recovered evidence of a sequence of three phases of possible stock funnels and enclosures on the Stone House site, and also evidence for crop processing, dated to the 11th to 13th centuries. There is some evidence for a timber building on the site, but there is no certainty that this was the site of the manor house at this period, which might be expected to have been adjacent to the parish church and controlling the route to the Greenhithe ferry. However, the various remains are indicative of a settlement controlling access to the marshland pastures, and there may have been a driveway running north-south through the site linking Stonehouse Lane to the north with a manorway leading into the marshes (see below).

The Stone House stock funnels and enclosure(s), and the possible timber building, were located immediately to the south of the junction of Stonehouse Lane with the Purfleet to Grays road, on a small brickearth promontory extending into the marshes, lying above the level of flood waters. This was a typical location for medieval farmsteads exploiting the landscape of both the chalk

uplands and the reclaimed marshes. In 1375 there was conveyance of a farmstead called *Goodgroynstement* to the south of the main road in West Thurrock with a strip of upland to its north (BL Egerton Charter 2905). Similarly in Barking parish to the west, farmsteads were strung along the south edge of the gravel terrace on the south side of Ripple Road. Each farm had a narrow piece of marshland pasture running to the Thames on the south side, and strips of arable land in the open fields of the upland zone on the north side (Lockwood 2006, 87). Some of these developed into estate centres.

The medieval and post-medieval village of West Thurrock grew up along the line of the road from Purfleet to Grays Thurrock (now London Road; **Figure 1**), which ran at the foot of the south slope of the chalk ridge and along the north side of the marshes at about 4m aOD. Stonehouse Lane ran northwards from this road as far as Causeway Bridge, and was the main route from the parish through Aveley to London until the late 19th century. Southwards from the Purfleet to Grays Thurrock road two manorways led into the marshes, a third led to the Greenhithe ferry at the southernmost point of the parish, and a fourth led to the parish church (Hunter 1999, 21; *VCHE* viii 57–8). As late as 1777 the sale of Stonehouse Farm included the obligation to maintain Stonehouse Manorway as an access route into the Middle Level of the marshes (ERO D/DU 453/3 bundle 1).

Medieval (late 13th – 15th century) (**Figure 16; Plates 5 and 6**)

Two principal phases have been identified, clearly separated within the structural sequence established for the medieval manor house. Phase 1 of the manor house, probably constructed between *c.* 1291 and 1305 (see below), includes all of the surviving remains other than the rooms added to the west end. These rooms, built before 1339, have been collectively assigned to phase 2, and appear to have continued in use later, following demolition and robbing of the earlier (and larger) part of the manor house. Other phases may not have been recognised, particularly because of the very limited investigation undertaken on the north-east part of the building.

It should be noted here that the quantities of finds associated with both the medieval and post-medieval phases of the manor house are very low, hampering dating and restricting conclusions that can be made about its changing economic and social status. This paucity is likely to be a reflection of the small number of pits recorded (no garderobes or cess pits were identified), the lack of midden deposits and the general cleanliness of the extensively robbed building where few floor levels and associated deposits survived. Apart from very moderate assemblages of pottery and ceramic building material, and a small quantity of animal bone, there were few metal finds, virtually no glass, two elephant ivory knife handles (both post-medieval) and only a single coin (a silver farthing of Edward I minted AD 1302–1310). In terms of surviving remains and the paucity of finds,

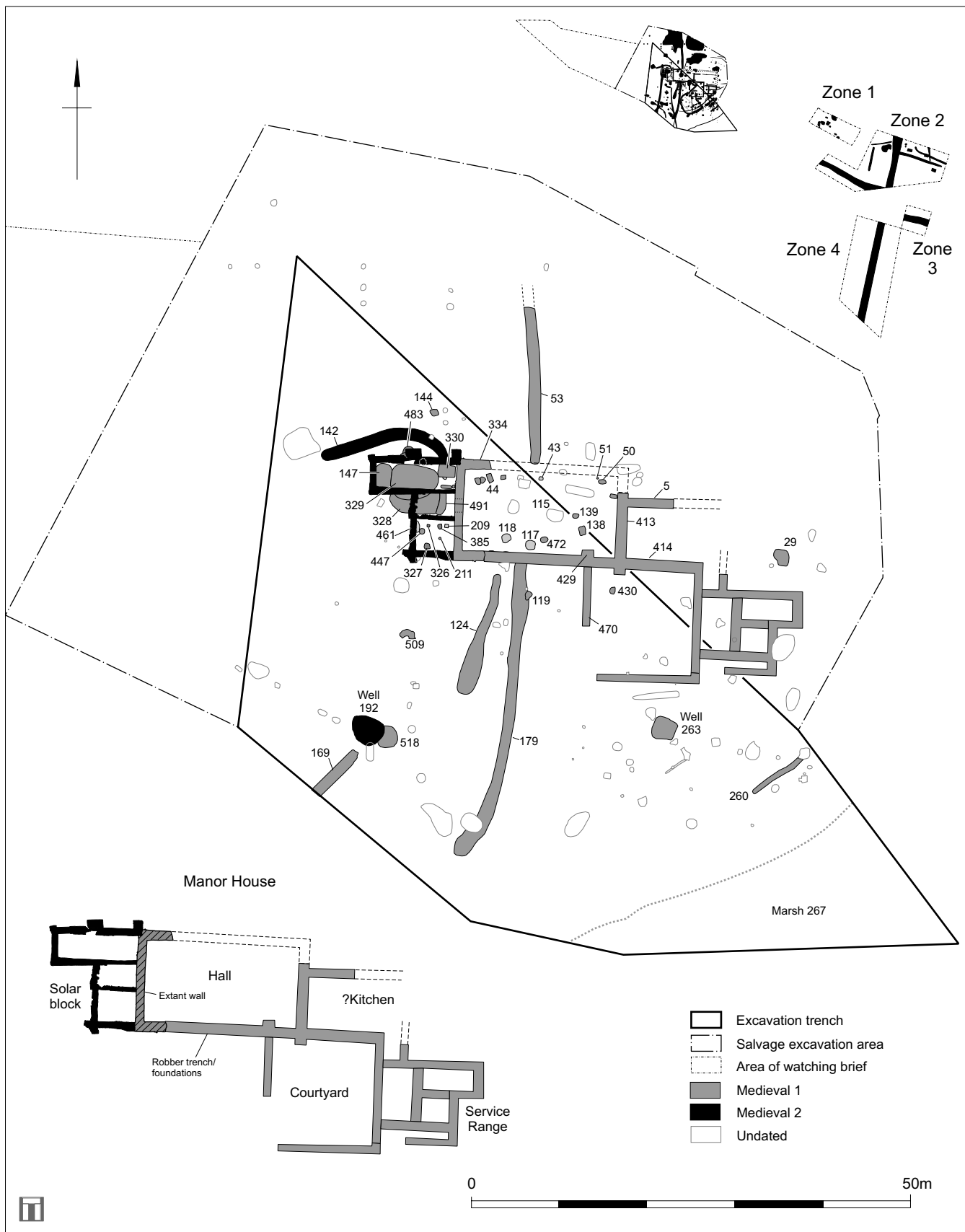


Figure 16 Stone House: plan, medieval manor house and associated features

Stone House is similar to Low Hall, Walthamstow, of which little other than the footings survived and where there was a notable lack of medieval finds (Blair 2002).

As in the preceding, earlier medieval sequence, the structural remains and associated features were largely confined to a small ‘tongue’ of slightly higher ground which projected southwards into the marshes. It is possible that the construction of the manor house blocked a pre-existing trackway which continued south from what later became Stonehouse Lane, forcing its diversion to the east, along the Purfleet to Grays Thurrock road (now London Road), to form a dog-leg around the manor house. The manor house may thus have occupied an important position, on an east-west land route along the north side of the Thames, with a road (now Stonehouse Lane) leading to the north and a trackway (*manorway*) providing access to the land reclaimed from the marshes to the south (see below).

Phase 1

The precise layout of the north-eastern part of the medieval manor house is unknown. The overall plan that has been established on the basis of the survey details incorporates a certain amount of reconstruction of elements that appear to be ‘missing’. This is likely to be largely explained by parts of them having been extensively robbed and the robber / foundation trenches not being readily visible and, therefore, not surveyed. Because of the uncertainty about the layout and extent of this part of the building, some aspects of the plan presented here are always likely to remain conjectural.

The reconstructed ground plan of the manor house indicates an originally rectangular or perhaps L-shaped building, aligned east-west, measuring a maximum of approximately 24m long and 11.5m wide (externally). Given the ground plan and location, it is perhaps most likely that the house faced northwards, away from the marshes and river, with the hall in the centre and the (later) solar block at the west end, an arrangement confirmed in a document of 1339 (see below). Whether there was an original solar block at the east end is not known, but it is possible that some of the wall foundations and robber trenches recorded in that area do represent such a structure. The document of 1339 also mentions a chapel, gardens to the south, and a kitchen and small buildings to the east and south-east of the hall respectively. The location of the chapel is unknown; it may have been within the manor house or detached, perhaps to the north or north-west in a part of the site subject to minimal investigation.

The walls where not robbed-out were approximately 1.2m wide and generally survived to a maximum height of three courses, essentially representing the footings and part of the core rather than the walls themselves. The west wall of the hall was much better preserved because it was retained during a post-medieval stage of rebuilding when most of the remainder was demolished and robbed. The footings were set in shallow foundation trenches and comprised flint and chalk rubble bonded with a sandy mortar, with some evidence for Greensand ashlar on the

rubble that formed the core of the walls. The footings were substantially deeper where they had been built across the top of an earlier well (450) beneath the south wall, and what appears to have been a small buttress had been built in to the north side wall here, perhaps to restrict any movement or subsidence; possibly there was an entrance from the courtyard at this point.

Only the western half of the hall could be investigated in detail, but this showed it to be approximately 12m long by 9m wide internally, with the high end perhaps to the west. There were no surviving floor levels, hearths or other such internal features and it is likely that these had been robbed-out, possibly as early as the 16th century when it was leased out to farmers. However, fragments of plain and decorated floor tiles from various contexts, most notably pit 329 to the west (below the phase 2 extension), indicate the presence of at least one high quality floor within the manor house, possibly in the hall or the chapel. There is likely to have been a central hearth, but no trace of this survived, unless undated scoop 115 represents the robbed remains of such a feature. Several post-holes lay within the area of the hall and may have been contemporary with it, but no pattern was discernible. However, it seems clear that the hall was not aisled. The location of entrances and doorways must remain entirely conjectural, but it is reasonable to assume external access to the hall from the north and south, and internal access to the solar at the west end and perhaps to the kitchen / service room(s) at the east end. The presence of the kitchen in this location is suggested on the basis of the documentary evidence, specifically the document of 1339 (see below), and the excavation did reveal one or more rooms at ground floor level to the east of the hall. These perhaps formed part of an original solar block, the function changing with the construction of a new block at the west end in phase 2. Unfortunately the layout and arrangements here are far from clear, though the rooms appear to have occupied an area measuring at least 9m by 6m.

To the south of the east end of the house was a complex of possibly three or more smaller rooms, though their layout and phasing remain particularly conjectural as no detailed investigation of this area was possible. This might seem a more likely location for a (?detached) kitchen, rather than to the east of the hall as the documentary evidence appears to suggest, but it seems more probable that they represent a separate suite of service rooms or ancillary structures (including possibly a bakehouse), which documentary sources indicate lay to the south of the kitchen (see below).

Whether there were ever any rooms or structures within the north-east angle between the hall / kitchen and this possibly detached suite of rooms / ancillary structures to the south is unknown. No wall footings or robber trenches were recorded here, and the presence of pit 29 of probable late medieval date might suggest that this area did remain open.

The ephemeral remains of two less substantial walls in the external angle between the hall / kitchen and the possible service range enclosed a courtyard measuring

approximately 14m square, with a probable entrance at the south-west corner, though this area had suffered some disturbance. Dating the construction of these walls is problematic and no surfaces survived within the courtyard, but a small pit (430) did contain medieval pottery. A short distance to the south of the courtyard was a well (263), probably one of those mentioned in documentary sources (see below). This was sub-square in plan and there was evidence for a square, timber-lined shaft, although no timber or other waterlogged remains survived as a result of a lowered water table.

A relatively substantial north-south aligned ditch (179), approximately 1.5m wide and 1m deep with a U-shaped profile, ran for 30m from the south wall of the manor house before terminating. A further ditch (53), of similar dimensions and profile, continued to the north of the manor house for at least 15m, the northern extent obscured by a spread of post-medieval demolition debris. The north terminus of ditch 179 underlay the southern edge of the foundations for the south wall of the manor house, and the southern terminus of ditch 53 lay immediately to the north of the projected line of the north wall. The deposits filling the ditches were of medieval date and it is likely that these two features were drainage ditches associated with the manor house. Ditch 124 was shallower than the others but may also have been a drainage ditch, of late medieval or possibly post-medieval date. A short length of gully (260) to the east may have been a part of a fence line along the edge of the marsh, perhaps enclosing an outer yard or garden to the north.

Immediately to the west of the manor house were several pits (147, 328, 329, 330 and 491) – some intercutting, and a further pit (518) lay to the south. The pits adjacent to the manor house formed a cluster and all were cut by the foundation trenches for the walls of the phase 2 extension in this area. The pits were mostly oval in plan, less than 1m deep, and the two largest examples (328 and 329), which lay adjacent to each other and intercut, each measured *c.* 6.6m by 4.6m; the smallest was only 1.5m in diameter. The purpose of these pits is unclear, but it might be noted that in addition to some pottery and animal bone they (particularly 329) also contained fragments of plain and decorated floor tiles, assigned a late 13th century date (see below), probably representing paviment's waste left over from the laying of a floor in the manor house. Pottery recovered from pit 328, which produced most finds overall, amounted to 130 sherds and included Mill Green slip-decorated jugs.

Phase 2

This phase was marked by the addition of a further, L-shaped suite of rooms at the west end of the phase 1 manor house. While it is possible that the three rooms were constructed at different times, it is more likely that they represent a single building campaign, probably dating to before 1339 according to documentary evidence, which saw the addition of a solar block. They comprised a cellar – perhaps a ground floor space or sub-basement, apparently divided into three

rooms, and a solar and chambers above at first floor level. Together this addition was 11.5m wide, the same width as the house, and extended its length by a further 10m. All of the walls belonging to this phase of construction survived to a far better degree than those in the main, phase 1 part of the house, and had not been so extensively robbed. The reason for this, it is suggested below, is that this later element of the manor house was retained after the remainder had been demolished in probably the late 17th or early 18th century.

The external walls were constructed in very similar fashion to the earlier, phase 1 walls, with buttresses at the north-east corner (at the junction with the corner of the phase 1 building), at the south-west corner, and probably also at the north-west corner, though little evidence of the latter survived. A projection midway along the north wall represented a stack which appears to have been an original feature; there is likely to have been a fireplace on the first floor heating the solar, and another on the ground floor. The two internal walls on the ground floor were slightly narrower, and like the external walls had been built across the top of the earlier pits of phase 1; here the foundation trenches had been dug deeper in order to create more substantial wall footings. The northernmost of the two internal walls may have been subsequently modified or rebuilt, but when was not clear from the surviving remains.

The three additional ground floor rooms were all aligned east-west, with the largest room to the north measuring *c.* 9.5m by 2.8m, the central room 4.5m by 2.1m and the southern room 4.3m by 3.3m. As noted above, only the northern room contained evidence for having been heated, with the remains of a recessed fireplace centrally placed within the north wall, a slab of greensand forming the base of the hearth. There may have been a doorway to the exterior at the west end of the north wall, and possibly others between the northern and central rooms and between the central room and the hall, but the surviving evidence was insufficient to be certain. No evidence of any contemporary floor levels or access to the upper floor solar and chambers was identified, and no trace of any internal decoration survived.

Outside, at least one new ditch was dug in the vicinity of the phase 2 extension to the manor house. To the north lay a curvilinear ditch (142) running approximately east-west and some 17m in length. This ran from the junction of the phase 1 and 2 elements of the house, terminated to the west, and was probably a drain. A longer ditch (163; **Figure 18**) to the south is also likely to have been a drain, but was perhaps not dug until the post-medieval period (see below).

To the south-west of the manor house was a well (192), 1.80m deep, the mortared flint lining set within a larger, sub-oval construction pit *c.* 4.5m across. The stone lining did not extend to the bottom of the shaft, which was cut into the underlying chalk, and it is probable that the lower part had a timber lining or framework that supported the upper, stone lining. The

bottom of the well was dry and contained no preserved timber or organic remains and few finds. The upper fill contained rather more finds, including two elephant ivory knife handles of probable 16th century date, which confirmed that the well probably remained in use into the early post-medieval period. However, a late medieval origin is quite likely, probably succeeding well 263 to the east, the evidence provided by 48 sherds of medieval pottery from the construction cut for the well. A shallow ditch (169) to the south-west may have been an associated feature.

High House

At High House, three relatively large pits (17020, 17023 and 17038) have been assigned to the later medieval period, all lying to the north of High House Farm and providing archaeological evidence for the probable existence of a farmstead here at this time (**Figure 19**). Pit 17020 was sub-rectangular, 4.5m long by 2.6m wide and 0.65m deep, pit 17023 was *c.* 3m square and 1m deep, and pit 17038 sub-rectangular measuring 2.5m by 1m and 1.1m deep. All three produced small quantities of 13th / 14th century pottery but no other finds, and whether any had a specific function is unclear. Two further, intercutting pits of broadly the same size, but perhaps slightly later in date, were found to the south during excavations in 2008. In addition, a shallow north-south aligned ditch, 17003, 15m to the west of pits 17020 and 17038, may have been a medieval or later feature and appears to continue the line of an existing field boundary to the south. It cut two Roman ditches and contained one Roman and two medieval pottery sherds.

Ceramic building material

by Lorraine Mephram with Paul Drury

The total assemblage from West Thurrock comprises 1294 fragments (149,808g), 94 fragments (8175g) from High House and 1200 fragments (141,633g) from Stone House. The majority of the assemblage comprises fragments of flat roof (peg) tiles and bricks, with other types less frequently represented. All of the High House material was redeposited in later features and most of the larger assemblage from Stone House came from robbing or demolition contexts associated with the manor house and its successor. Differentiating between late medieval and early post-medieval CBM is difficult and, for this reason, the entire assemblage is considered together here.

Peg tiles

Peg tiles make up the bulk of the CBM assemblage. No complete tiles were recovered, but the few surviving widths range from 145mm to 160mm. A small proportion of tiles (52 pieces) are glazed; this glaze is generally confined to the lower part of the upper surface (the visible part once the roof was laid), although a few tiles with glaze spots on the underside were observed. Fabric types do not show a great deal of variation in either colour or coarseness; most are relatively fine with few prominent inclusions, although some pieces are from tiles which are obviously less carefully formed and softer fired.

Other roof tiles

Three other types of roof tile were recorded – hip tiles, pantiles and other curved tiles which may be ridge tiles. One complete hip tile was recovered, and the bottom edge of a second example. There are two pantiles, a form introduced in the later 17th century. Seven other curved fragments include five glazed examples, one with a centrally placed nail hole on one end, which probably derive from ridge tiles, while two unglazed fragments could represent either hip or ridge tiles. There are no examples of more elaborate roof furniture such as louvers or finials.

Bricks

All standard bricks recovered are handmade, unfroged types. Only three are complete (235 x 120 x 55mm; 230 x 110 x 60mm and 220 x 105 x 50mm); other widths range from 100–130mm and thicknesses from 55–60mm. Fabrics vary, distinctive types including a pale-firing (cream/buff) fabric, dense but soft-fired; and a fairly hard fired but friable fabric, dark red/brown and with an ‘open’ texture and prominent inclusions/impurities. Two bricks have vitrified surfaces; these may have been deliberately selected to form decorative patterns in brickwork. Only one complete example came from an *in situ* context, from a later internal wall (503) within the west extension to the manor house. Bricks are notoriously difficult to date (and are frequently reused) but this group appears to fall within an early post-medieval date range (16th/17th century?) on the grounds of size, fabric and manufacture.

As well as the standard bricks, there are three ‘specials’ (all from one context), two with ovolo mouldings, perhaps from a window mullion, and the third with chamfered long edge and drip, perhaps from a string course. All of these came from the backfill of well 192. As for the standard bricks, these are not particularly closely datable, but a similar early post-medieval date range (16th/17th century) seems likely.

Floor tiles, by Paul Drury

Both plain and decorated floor tiles were recovered, in small quantities. As well as plain tile fragments, there is a small group of tiles, all from Stone House, including decorated tiles and plain, glazed tiles. These tiles belong to a group otherwise only known from St Clement’s church, West Thurrock, and defined as ‘Late Wessex’ (LW) types. The decorated tiles are of two designs (LW1, LW2), and the plain tiles comprise scored segmented quarters (LW15), triangular eighths (LW16) (**Figure 17, 1, 2**) and one rectangular border (LW14). The triangular segments are white-slipped with a yellow glaze; others are green glazed. The plain tiles of types LW15 and LW16 occur only at Stone House, while LW14 and the decorated tiles occur also at St Clement’s.

The tiles belong to the ‘Wessex School’, which originated at Clarendon Palace in Wiltshire *c.* 1250, and later focused on Wiltshire and Hampshire, although the use of slip decoration rather than inlay places them in a London/south-east/East Anglian tradition. The Thurrock

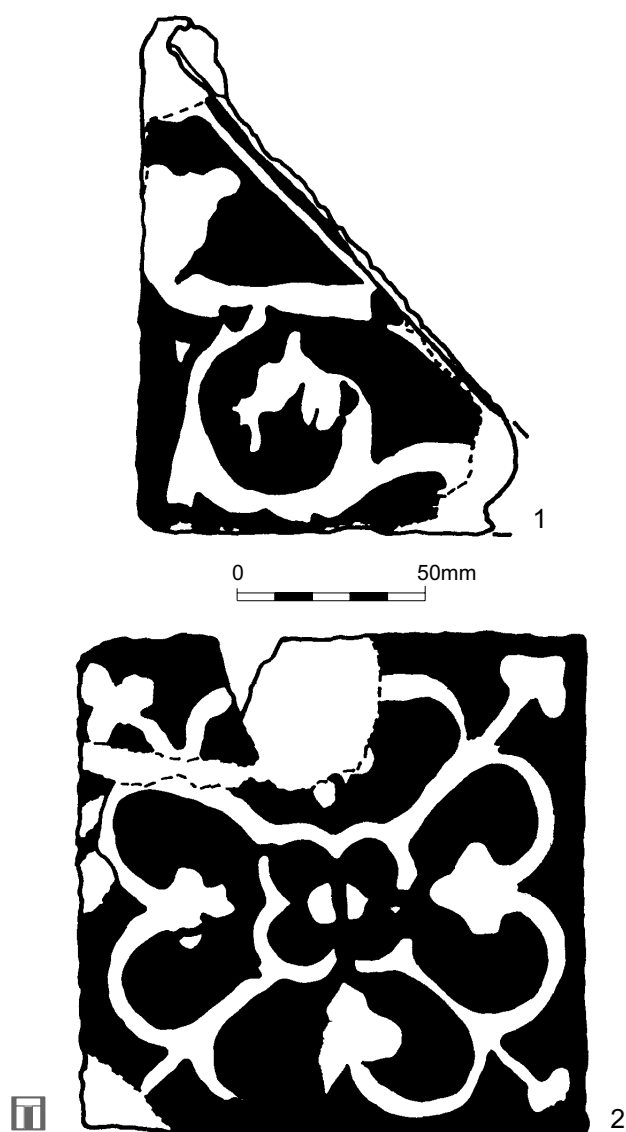


Figure 17 Stone House: medieval floor tiles

designs derive directly from those of the Wessex School of c. 1260–80, and may have been products of a small and probably short-lived tiliary to the east of London.

The tiles provide important evidence in support of the likely date of construction of the manor house at around the end of the 13th century, with the likelihood that at least some with little or no mortar adhering represent waste left over from the laying of a floor, perhaps within the hall or chapel. The tiles came from a variety of contexts, but none was found *in situ*, perhaps the most significant group being from pit 329 beneath the phase 2 western extension to the manor house.

Pottery

by Lorraine Mephram

The post-Roman assemblage recovered from West Thurrock amounts to 930 sherds (11,682g), of which the overwhelming majority (868 sherds; 10,817g) came from contexts at Stone House, the remaining 62 sherds deriving from High House. The assemblage has a potential date range spanning the medieval and early

post-medieval periods from the 11th to the 17th century, with small quantities of Saxon (see above) and later post-medieval material. In general the condition of the pottery is fair to good; overall mean sherd weight is 11.2g for the medieval assemblage, and 14.6g for the harder fired post-medieval wares.

The pottery was recorded using the standard Wessex Archaeology pottery recording system (Morris 1994), focusing on analysis of fabric and form. Fabric types have been correlated with the regional fabric type series for post-Roman pottery in Essex (Cunningham 1985). A type series was created for rim, base and handle forms, and this was linked where possible to vessel forms whose definition follows nationally recommended nomenclature (MPRG 1998), but also using the Essex type series for rim forms (Cunningham 1985; Drury 1993). Details of decoration, surface treatment, and manufacture were also recorded. Quantification in all cases is by both number and weight of sherds. All data are held in the project archive (Excel spreadsheet).

Omitting modern wares from the analysis, sixteen fabric types were identified: one Saxon, nine medieval and six post-medieval. Apart from the Saxon sandy ware, all are well known types within the Essex type series. Quantities by type are presented in **Table 9**, and the post-medieval pottery is discussed in the appropriate section below.

Medieval fabric types

Fabric 12: Shelly and sandy/shelly wares (50.3 % of total by weight)

The earliest fabrics represented are the early medieval shelly and sandy/shelly wares (12A, 12B and 12C), which make up just over half of the total medieval assemblage by weight. The three wares are obviously related, and vary only in the relative proportions of crushed oyster shell and sand inclusions. All three wares are conventionally dated as ?early 11th century to the later 12th century (Drury 1993, 78–80). There is, however, some suggestion that they continued in use into the early 13th century, occurring on such sites as King John's Hunting Lodge at Writtle, near Chelmsford (Rahtz 1969, 106), but in general these wares were in decline by the later 12th century.

Vessel forms appear to be confined to jars, of which the most common rim form is the simple, slightly developed, everted type (Drury 1993, type B2: 15 examples). Two of these are finger-impressed. There are only two examples of the squared rim above necked profile, characteristic of the 13th century (*ibid.*, type H1), which tends to confirm the date range suggested above. Apart from the finger-impressed rims, the only evidence for decoration is in the form of applied, thumbled strips, seen on two vessels.

Fabric 13: Early medieval sandy ware (1.1% of total)

Given the predominance of the early medieval shelly and sandy/shelly wares, the relative scarcity of early medieval sandy ware amongst the assemblage is surprising. This has a very similar date range, of ?early 11th century to c. 1200

Fabric		No. sherds	Weight (g)
Q400	Saxon sandy ware	5	186
12A	Early medieval shelly ware	174	1945
12B	Early medieval shelly/sandy ware	96	1310
12C	Early medieval sandy/shelly ware	23	118
13	Early medieval ware	6	75
20	Medieval coarse ware	32	418
21	Medieval sandy orange ware	109	1176
23A	Surrey whitewares	5	49
35	Mill Green fineware	41	189
36	London-type wares	112	1432
	<i>sub-total medieval</i>	598	6712
40	Coarse redwares	234	3391
42	Border ware	4	37
45C	Raeren stoneware	6	143
45D/E	Cologne/Frechen stoneware	4	42
46	Tinglazed earthenware	1	8
48B	Creamware	1	8
-	Modern stonewares	7	505
-	Modern refined whitewares	70	650
	<i>sub-total post-medieval</i>	327	4784
	Overall total	930	11,682

Table 9. Pottery: Saxon, medieval and post-medieval fabric totals

(Drury 1993, 80), although more recent excavations at Stansted yielded early medieval ware in association with early to mid 13th century fine wares (Walker 2004). This would fit with the evidence of the only diagnostic vessel form here – a necked, squared rim jar (type H1).

Fabric 20: Medieval coarseware (6.2% of total)

This ware encompasses all grey sandy coarse wares not assigned to specific types, and as such could represent the products of several different sources. Greywares were produced, for example, at several centres within Essex as well as across neighbouring Hertfordshire. Some definite examples of Hedingham coarseware are included here, but have not been separately quantified. The ware has a broad date range of 12th to 14th century. There are three diagnostic forms here, two necked, squared rim jars of 13th century type, and a jug neck with curvilinear combed decoration.

Fabric 21: Sandy orange ware (17.5% of total)

Sandy orange ware, described by Cunningham (1982, 359), comprises all oxidised sandy wares not otherwise assigned to specific types. It has a broad date range of 13th to 16th century, and can be difficult to distinguish from the later redwares (fabric 40, see below). As well as jars, all examples of which have developed, squared rims of 13th century or later type, vessel forms include jugs and one flanged dish of later medieval type.

Fabric 23A: Surrey whitewares (0.7% of total)

The five sherds of Surrey whiteware identified include examples of Kingston and Cheam types, which have

a date range of 13th century or later. There is one jar rim.

Fabric 35: Mill Green fine ware (2.8% of total)

Mill Green fine ware is dated in London to the late 13th to mid 14th centuries (Pearce *et al.* 1982), but is present by the mid 13th century at some sites in Essex, e.g. North Shoebury. Its distribution covers south Essex. The examples seen at West Thurrock are generally white-slipped, and often glazed with an even, slightly mottled green glaze; two sherds bear slipped decoration. Most if not all sherds are likely to derive from jug forms, although none are of known overall profile.

Fabric 36: London-type ware (21.3% of total)

Finewares were also supplied by the London industry (Pearce *et al.* 1985). The relatively high proportion of London-type ware here, however, is biased by a group of 62 sherds from one context (pit 328) which probably represent just two jugs, both white-slipped and glazed, one with applied decoration, probably from a design in the North French or highly decorated style of the 13th or early 14th century. Other sherds probably also come from decorated jugs with applied or slipped decoration, although no profiles were reconstructable. Included in this category are two sherds of London-type coarseware (LCOAR), one from a jug rim.

Ceramic sequence

The ceramic sequence potentially ranges from the 11th century, through the medieval period and at least until the end of the 17th century, with sporadic activity

thereafter. Phasing of features on the site has relied partly on ceramic evidence, and partly on stratigraphic relationships – phasing on ceramic grounds alone is hampered by the small quantities of pottery involved, since only three features produced more than 25 sherds.

Pottery from early medieval phases 1–3 (pre-manor house activity) is on the whole limited to shelly wares (fabric 12) of 11th / 12th century date. Early medieval phase 3, however, did produce a few sherds of sandy fabrics 20 and 21 (pit 210, ditch 272), of which the latter ought to be no earlier in date than 13th century.

Features attributed to medieval phase 1, the first phase of the manor house, produced an assemblage including a significant proportion of fine glazed wares, predominantly London-type wares but also including Mill Green wares. Although the earliest date for these wares is 13th century, there is nothing here to contradict the suggestion, based on the documentary sources, that the manor house was built between 1291 and c. 1305. The largest feature group came from pit 328 (140 sherds), which also produced a small group of post-medieval sherds, considered to be intrusive as the pit was well stratified below the phase 2 extension to the manor house.

Only three features containing pottery belong to medieval phase 2, and of these well 192 yielded a chronologically mixed assemblage (including post-medieval wares), largely from the upper fills of the shaft. Only minimal quantities were otherwise recovered, which do not in any way aid the close dating of this phase, suggested by documentary evidence to date to after 1339.

Animal bone

by Jessica Grimm

Virtually all of the animal bone from medieval / early post-medieval contexts was in good to fair condition, and represents well over half (>60%) of the total assemblage from all periods (**Table 2**), with most coming from Stone House. In general, the medieval – post medieval assemblage has slightly higher species richness, perhaps reflecting better preservation conditions and / or the higher status of the site. However, there is no clear evidence for the latter, though this might be attributed to the relatively small size of the animal bone assemblage and the likelihood that waste material was disposed of away from the site, rather than in nearby pits and middens.

Sheep/goat remains dominate, probably more so than in earlier periods, followed by cattle. The cattle and sheep/goat were slaughtered at an older age than in the earlier periods, reflecting a rise in sheep keeping for wool production, with milk and meat being of secondary importance. Cattle became more important as draught animals and for supplying milk and, as a result, the meat would have been older, tougher and therefore of lower quality. Cattle heights at the withers of 1.11 and 1.12m respectively, calculated from two metacarpal, indicate small medieval animals.

Pit 128 contained the un-butchered skeleton of a 6–7 month old pig. Its left metatarsi III and IV show callus

forming and a slight bend forwards, and X-radiography of the bones revealed a mid-shaft fracture. Extra bone nodules around the proximal articular surface of the metatarsus III indicates the change of stress on this bone due to the forward bending.

The foot of a dog found in early medieval pit 293 belonged to a large dog with a height at the withers of 0.55m. Several partial cat skeletons, mainly adults, two from well 192, might represent pets from the manor house.

All domestic fowl bones came from medieval and post-medieval contexts, and as 28% of the bones belonged to juvenile birds, it is clear that fowl were kept on site. Although it is impossible on the basis of morphological characteristics to tell greylag goose from domestic goose, and mallard from domestic duck, the size of the bones make it likely that they belong to domestic goose and mallard respectively. The nearby river marshes would have been an ideal place to go wildfowling and capture ducks such as mallard and teal.

The caudal vertebra of a probable very large tub gurnard indicates that this marine species was eaten, but virtually no other fish bones were recovered.

Marine shell

by Sarah F Wyles

The marine shell assemblage consists of 520 shells, representing a minimum number of 341 individuals (MNI), and was retrieved from 73 medieval and post-medieval deposits at Stone House. The predominant species is oyster (*Ostrea edulis*), with the remaining 10% (by MNI) of the assemblage comprising, in descending frequency, whelks (*Buccinum undatum*), mussels (*Mytilus edulis*), cockles (*Cerastoderma edule*), carpet shells (*Veneridae*), saddle oysters (*Anomia ephippium*) and periwinkles (*Littorina* sp.). These other species were all mainly recovered from medieval and post-medieval contexts, and this was also the case for the oysters, with 87% of the shells coming from deposits assigned to these two periods.

There were no apparent differences between the disposal of the 249 right oyster valves and the 233 left valves, and so no indications of areas of preparation or consumption can be detected for any period of the site. In general the oyster shells represent an addition to the basic diet rather than a significant part of it.

The oyster shell from two deposits was analysed in more detail, from shallow pit 430 of medieval date and from pit 178 of late post-medieval date.

Within pit 430, shells of small size were generally absent, possibly indicating some form of selection before they were brought to site, and most of the shell had a maximum width of between 50mm and 95mm. Approximately 10% of the shells had traces of a small amount of infestation by the polychaetic worm *Polydora ciliata* and 30% of the shells were flaky or worn.

The oyster shells from pit 178 were a little smaller than those from 430, with the majority of the shell having a maximum width of between 40mm and 85mm. Traces of mild infestation on 32% of them was again caused by

Polydora ciliata and also by the sea mat *Polyzoa*. Over half of the shells were misshapen and/or had other oysters attached, possibly an indication of competition for space in a less well managed oyster bed.

The proportion of unmeasurable to measurable shells is an indication of the degree of post-depositional damage and wear. In this case a relatively high degree is indicated, with just over half of the shells from the selected deposits unmeasurable and a number worn and flaky.

The oyster shells examined in more detail were mainly healthy with only low levels of infestation caused by *Polydora ciliata* and *Polyzoa*. The polychaetic worm, *Polydora ciliata*, is widespread and is most prevalent on hard, sandy or clay grounds (particularly in warm shallow water). The sea mat *Polyzoa* may be found on all types of hard substrate and generally favours shallow water. The oyster shells themselves were slightly elongated, indicative of softer substrates, and it is likely that they came from a nearby estuarine or east coast source.

There were few changes between the examined shells over time. However, the assemblage is small, and there is an indication that the oyster beds, although still being managed, were relatively more cramped during the post-medieval period. Furthermore, a less rigorous selection procedure may be reflected in the fact that slightly smaller shells were exploited during this period.

Charred plant remains

by Chris J. Stevens

Fifty-eight bulk samples were taken and processed from early medieval, medieval and post-medieval deposits at Stone House, and 12 of these subsequently chosen for analysis (Table 10). Two came from early medieval features, four from medieval deposits and four from early post-medieval deposits. The final two came from post-medieval features of 18th to 19th century date, long after the manor house became a tenanted farm, and are discussed further below.

The main cereal represented was free-threshing wheat (*Triticum aestivum turgidum*). Along with grains, chaff was recovered from several deposits, and three rachises of tetraploid wheat (*Triticum turgidum*) were identified from the late medieval/early post-medieval well (192). Both grain and chaff of rye (*Secale cereale*) were well represented across all periods, while grains of barley were less common.

Emmer glumes were present in an early medieval feature (pit 307965 / 273), although generally hulled wheats are seen to be replaced by free-threshing wheats and rye in the Saxon period, while the cultivation of six-row hulled barley continued throughout. Emmer wheat radiocarbon-dated to the Saxon period is known from several sites in the Thames Valley (Pelling and Robinson 2000), although such remains are usually interpreted as having been reworked from earlier deposits (Greig 1991).

Other crops included both garden pea (*Pisum sativum*) and broad bean (*Vicia faba*), represented in

several samples from the early medieval period onwards.

Grains dominated all the samples, and weed seeds were scarce in all but those from the lower fill of the medieval well (263). In all the samples the same large-seeded weed species as seen in the Roman sample from High House dominated the assemblages. More unusual elements included numerous seeds of corn gromwell (*Lithospermum arvense*) in well 263.

Seeds of elder (*Sambucus nigra*) and fragments of hazelnut (*Corylus avellana*) were present in several of the samples, and generally commoner in the later samples.

Discussion

The samples indicate the cultivation of free-threshing wheat, rye and hulled barley, along with pea and bean, for some 700–800 years from the 11th to the 18th/19th century. From the range of weed species it would appear that these crops were grown on a wide range of soils, including drier chalk soils, clay soils, wetter soils close to the marsh, as well as drier, acidic soils, the latter on the evidence of a single seed of corn-spurrey (*Spergula arvensis*). Given the status of the site during much of the medieval period it is possible that some of these crops were brought from further afield. However, as this range of species is also seen in the samples from the period after Stone House ceased to be the manor house there is no reason to suspect that the full suite of soils in the area was not utilised throughout the entire period of occupation.

The composition of the samples is curious in that they are dominated by grain and large weed seeds, suggesting that they derived from waste generated during the final stages of processing (Hillman 1984, fig. 4, stages 13–14). Yet it is noticeable that all the samples still contain more rachis fragments than might be expected if just the final stages of crop-processing were represented.

In the harvested ear the number of grains to each rachis fragment varies for each of the free-threshing cereals. For free-threshing wheat the ratio of grain to rachis fragments is between 2:1 to 6:1, for rye it is 2:1 to 3:1 and for barley it is 3:1 (van der Veen 1992, 82). Rachis fragments rarely survive charring compared to grain (Boardman and Jones 1990), and the majority of rachises are usually removed in the earlier processing stages (Hillman 1984, fig. 2, stages 3–6). For many of the samples for rye and free-threshing wheat the ratio of grain to rachises was higher than expected in the ear and this suggests the burning of waste rather than the burning of sheaves, although this was not the case for barley. Rachises not removed during threshing are usually subsequently removed along with small weed seeds by fine-sieving (Hillman 1984, fig. 2, stage 7), yet the general absence of smaller weed seeds in the samples precludes removal of the rachises during this stage.

One explanation is that the assemblages derive from the harvesting of wheat and rye ears. These may have been fine-sieved removing any smaller weed seeds prior to being stored as ears. However, given the obvious mixing of different crops grown on different soils it is possible that the larger weed seeds arrived with crops stored as relatively clean grain, while the rachises come

Period		Early medieval			Medieval			Med+		Post-medieval			Post-medieval C18-19		
Feature type		ditch	layer	well	pit	F-T	well	pit	slot	layer	pit	slot	pit	pit	pit
Feature no.		273	452	263	430	479	192	128	495	128	178	99	20	190	20
Sample size		10	5	20	19	8	20	20	10	20	20	10	20	20	20
Cereals															
<i>Hordeum vulgare</i> sl (hulled grain)	barley	5	-	-	1	2	-	-	-	-	60	-	-	-	-
<i>Hordeum vulgare</i> sl (grain)	barley	8	-	-	5	19	cf.1	6	18	-	100	3	100	28	28
<i>Hordeum</i> sp. (tail/wild)	barley	-	-	-	1	-	-	-	-	-	-	-	-	-	-
<i>H. vulgare</i> sl (rachis fragment)	barley	-	-	-	-	-	cf.1	-	-	-	-	-	-	est.8	est.8
<i>Triticum</i> sp. (grains)	wheat	-	-	-	-	-	1	-	-	2	-	-	-	-	-
<i>Triticum dicoccum</i> (glume base)	emmer wheat	5	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>T. dicoccum</i> (spikelet fork)	emmer wheat	1	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>T. dicoccum/spelta</i> (spikelet fork)	emmer/spelt wheat	-	-	-	-	-	-	1	-	-	-	1	-	-	-
<i>T. dicoccum/spelta</i> (glume bases)	emmer/spelt wheat	-	-	-	-	-	-	-	-	-	-	1	-	-	-
<i>T. cf. aestivum turgidum</i> (grain)	free-threshing wheat	25	-	21	98	123	7	43	-	4	1900	2	1900	est.20	est.20
<i>T. cf. aestivum turgidum</i> (rachis fragment)	free-threshing wheat	9	-	10	47	14	6	19	-	-	est.3432	1 est.	est.2584	est.2584	est.2584
<i>T. aestivum</i> (hexaploid rachis)	bread wheat (type)	-	-	-	-	-	-	-	-	-	est.80	-	est.80	est.59	est.59
<i>T. durum/turgidum</i> (tetraploid rachis)	durum/rivet wheat	-	-	-	-	-	-	3	-	-	-	-	-	-	-
<i>Secale cereale</i> (grains)	rye	2	cf.1	10	12	33	8	10	cf.4	3	44	2	44	29	29
<i>Secale cereale</i> (rachis)	rye rachis	2	3	3	9	27	-	-	-	3	est.604	-	est.604	est.114	est.114
Cereal indet. (grains)	cereal	14	4	14	40	123	11	20	16	8	est.800	12 est.	est.800	est.84	est.84
Cereal frag. indet. (est. whole grains)	cereal	10	3	15	30	95	8	50	6	5	est.320	- est.	est.320	est.88	est.88
Cereal indet. (basal rachis fragment)	cereal base of ear	-	-	-	-	-	-	-	-	-	1 est.	1	est.32	2	2
Cereal indet. (culm node)	cereal straw node	-	1	2	7	-	-	-	1	-	est.164	1 est.	est.164	33	33
Cereal indet. (basal culm node)	cereal rootlets	-	-	-	-	-	-	-	-	-	est.16	-	est.16	3	3
Other crop species															
<i>Pisum sativum</i>	pea	-	-	-	1	-	cf.2	-	-	-	3	-	3	-	-
<i>Vicia faba</i>	broad bean	-	2	-	3+cf.3	-	1	-	-	-	2	1	2	9	9
Species															
<i>Ranunculus</i> type	buttercup	-	-	-	-	-	-	-	cf.1	-	-	-	-	-	-

[illegible]

Table 10 Charred plant remains: medieval and post-medieval

from the processing of crops stored in the ear. Fitzherbert (c. 1523) in his *Boke of Husbandrie* implies different practices around the country for harvesting rye and wheat including the separate cutting of the ears, and the cutting of the crop low to the ground then the cutting off of the ears rather than threshing in order to utilise the straw. Perhaps significantly, he makes no mention of such harvesting practices for oats or barley.

It is possible that these practices are responsible for the nature of the assemblages seen at Stone House. Such practices appear to have continued for the entire span of medieval and later occupation at the site, from the period prior to the construction of the manor house c. 1300 until after its demise in the 17th century and its later use as a farm.

The medieval manor house, its occupiers and its setting

by Christopher Phillpotts

The programme of documentary research has not been exhaustive, but sufficient work has been done to trace the ownership and main development phases of the two manor houses at Stone House and High House. There are a large number of deeds in Essex Record Office relating to the manor of West Thurrock and the two houses in the post-medieval centuries, including two maps of 1646 and 1777. However, the medieval documentation of the manor is rather more sparse. An inquisition post mortem gives some indication of the layout of the buildings at Stone House, but there are no manorial accounts extant which record episodes of construction and repair. Nor are there any records of the manorial courts which were undoubtedly held in the two houses. The construction of the High House complex did not begin until the 1550s. The two manor houses form a coherent group with Low House further to the east, a site subject to an earlier desk-based assessment (WA 2003b).

At the end of the 13th century the demesne tenancy of the manor of West Thurrock was held by the Brianzon family. The heir in 1286 was William Brianzon, a minor who was placed in the wardship of his feudal superior. In 1291 his wardship was acquired by Walter Langton, the rector of West Thurrock who later became Treasurer of England and Bishop of Lichfield. Langton was closely associated with the Brianzon family in both Aveley and West Thurrock. William came of age in c. 1305, but died in 1310 and was followed as lord of the manor by his brother John. John died in 1315 and was succeeded by his son Sir John Brianzon. They held the manor as one knight's fee from the Honour of Richmond. Sir John died in April 1339 leaving a widow Margery, who was pregnant. She gave birth to an heir called Joanna, but the child died in August 1339. Two-thirds of the manor belonged to Joanna, and the remaining third had been assigned to Margery in dower, including a third share of the profits of the ferry to Greenhithe. A custom called *Londonfares* was attached to the manor, perhaps a toll for passage along the Thames. The reversion of West Thurrock then passed to Sir William Wauton under a

previous arrangement made by Joanna's grandfather in 1314, whilst Aveley was separated from it (Morant 1768, i 91; *VCHE* viii 59–60; *CIPM* viii 171–3; NA C135/60/7 and 8; C143/97/19; C143/240/10).

William Wauton was followed at West Thurrock by his son William in 1346, and his grandson William, who sold the manor to Edward fitzSymonds in 1390. Within a few years it had been purchased by Richard II's uncle Thomas of Woodstock, duke of Gloucester, who was building a power base in Essex centred on his castle at Pleshey. The manor was in the hands of his feoffees by March 1394, when they used its income to guarantee a grant by the duke of two manors in Kent and a manor in Hertfordshire to the College at Pleshey (NA DL25/753). They passed the manor onto the duke in October 1395 (ERO D/DAC 247; D/DU 264/1; NA C143/426/35). After the murder of Gloucester at Calais in 1397, the manor passed to his widow Eleanor until 1399, and then to his daughter and heiress Anne. She married successively Edmund earl of Stafford (died 1403) and William Bourchier count of Eu (died 1420) (Morant 1768, i 91; *VCHE* viii 60).

In about 1428 Anne sold the manor of West Thurrock to Henry VI's uncle John duke of Bedford. On his death in 1435 he left it for life to his widow Jacquette of Luxembourg, who remarried to Richard Wydeville, Earl Rivers. The manor was due to revert to the Crown on Jacquette's death, but in 1448 Henry VI granted the reversion to Rivers and his descendants in the male line. Earl Rivers and Jacquette had to petition Chancery to recover rents received from the manor by the Duke of Bedford's panel of feoffees, which was headed by Sir John Fastolf (NA C1/31/365). Jacquette died in 1472, and the manor was seized by the Crown; in 1478 her son Anthony Earl Rivers was making a claim to the manor in the court of Exchequer. By this time the manor was alternatively known as West Hall (ERO D/DAC 248). Anthony died in possession in 1483 and was followed by his son Richard Earl Rivers, who died without direct male heirs in 1491. The manor was in the hands of Henry VII from at least 1491 to 1505. It was acquired from the Crown in 1511 by the descendant of Anthony and Richard's sister Elizabeth (Edward IV's queen and Henry VII's mother-in-law) by her first marriage, her grandson Thomas marquis of Dorset (Morant 1768, i 91–2; *VCHE* viii 60; BL Harley Roll N12; NA SC6/HENVII/157 and 158).

From the early 1390s, therefore, the manor of West Thurrock was held by prominent aristocrats as one component of large landholdings. They would not have been resident here and visited seldom, if at all. Their interest was in revenue derived from the manor, collected by their local officers. The bailiff of the manor in 1491–1505 was John Frensshe, who was appointed to the office by Henry VII in 1491 under the same terms as he had held it under Jacquette, Countess Rivers (BL Harley Roll N12; NA SC6/HENVII/157 and 158). He had therefore been in post since at least 1472. He is the most likely occupant of the manor house at the Stone House site in this period.

The excavations at the Stone House site recovered part of the plan of the stone-built medieval manor house, including the hall with rooms at the east end and in what is interpreted as a southern service wing; later rooms added at the west end with a chimney stack on the north side; and a courtyard, a well and enclosures to the south on the edge of the marshes. The initial phase of the stone hall is probably to be associated with an assemblage of glazed and decorated floor-tiles, dated to the last quarter of the 13th century and with close parallels to a group in West Thurrock church. The pottery assemblage included a significant proportion of fine glazed wares, the earliest date for which is 13th century.

It is likely that the tiled floor was laid at the time Walter Langton held the wardship of William Brianzon as lord of the manor between 1291 and c. 1305, when he was also rector of the parish church, and he may therefore also have been the builder of the first phase of the stone hall. The chosen site was at the junction of the main road dividing the marshes from the uplands and the route to Aveley, also in the Brianzons' lordship and Langton's wardship.

The inquisitions post mortem of Sir John Brianzon and his daughter Joanna in May and August 1339 state that the manor house was "worth nothing beyond reprises", indicating that it was occupied by the family and not leased out. Joanna's inquisition also states that there was a ruined dovecote, worth nothing. The assignment of dower to Margery Brianzon in May 1339 gives some indication of the layout of buildings in the manorial complex. She was assigned the use of the solar with chambers, and the cellar under it, at the west end of the hall. These must be the structures of the second phase, the chimney stack providing the heating for the first-floor solar, with the two chambers adjoining. The cellar beneath need not have been a sub-surface room, but may have been a ground-floor space or sub-basement accessed from above. Margery was also to have the kitchen near the hall and two other small buildings nearby on the south side of the kitchen, with access to well water there. This appears to indicate the room(s) at the east end of the hall range and the (?detached) service rooms / ancillary structures in the 'southern wing', with access through the courtyard to the well to its south. She was also to have an area enclosed with a tiled wall on the north side of the solar (not present in the archaeological record), a grange called *Litleberne* and part of an ox-house on the south side of it as divided by a partition, with a small stable for two cart-horses, with certain marked-out areas adjacent to the chamber, the grange, her part of the ox-house and the stable, with access to the well water there. This description suggests that these agricultural buildings lay to the west of the manor house, beyond the area of controlled excavation, and were perhaps served by the western of the two excavated wells (well 192). Margery was also to have free entry and exit through the great door of the manor and access to the chapel through the door at its west end. The position of the great door and chapel are not stated, but it may be surmised that the former lay on the north side of the

manor house. Chapels were generally placed close to the hall and solar, normally on the first floor, but the door at the west end makes it difficult to see how this could have been accommodated within the plan, as far as is known, at Stone House. The chapel may, therefore, have been detached, built at ground level and standing to the north of the hall and solar block, perhaps on the site of the post-medieval Stone House and its demolition spreads, or further to the north beyond the edge of excavation. No archaeological evidence for a detached chapel was found, though little investigation was possible in this area, and it might be significant that later documents make no reference to a detached chapel. Its location is not easily resolved. Also assigned to Margery were the part of the manor garden to the south of the path that ran through it, the area of the garden on the south side of the bakehouse (which was to remain to the king as guardian of Joanna), and the dovecote and the remainder of the garden around it. The second of these may refer to the area to the south of the hall range delimited by the edge of the marshes to the south and the excavated ditch (179) to the west, the others perhaps to areas immediately north and east of the manor house. She also received a croft of enclosed land called Havekynes Croft on the west side of the manor house, and a third share of the bercary (sheep-house) which lay on the east side. This must have been beyond the excavated area (NA C135/60/7 and 8).

The medieval phase 1 of the manor house therefore most probably dates to c. 1291–1305, and the extensions of phase 2 were in place before 1339. The period in which the three William Wautons held the manor from 1339 to 1390 coincided with widespread agricultural decline, the Black Death and later visitations of the plague. These were times of difficulty for small-scale landowners like the Wautons, because of falling rental incomes and the general shortage of labour, and it is less likely that further investment was made in the manorial buildings at this period. It is also most unlikely that further major works were done at the manor house after it came into the hands of absentee landlords in the 1390s; only routine maintenance work can be expected from the 15th century.

The layout of the manorial buildings can be compared to the excavated moated manor house site at Low Hall in Walthamstow, built by the Bedyk family in the early 14th century. Here also a rather smaller hall was flanked by a solar and a service wing projecting to the rear, but the kitchen was a detached structure with an external oven. Further rooms and a cellar were later added to the solar end, and a gatehouse was built at the end of the bridge across the moat, probably in the 1350s by the new owner, the London merchant Simon Fraunceys (Blair 2002, 192–3, 195, 198–200). Fraunceys also acquired another moated manor house which has been excavated, at Northolt in Middlesex. Here a manor house of the late 13th century had a hall range, a chamber block and a detached kitchen with an external oven, all based on stone and flint foundation walls with timber superstructures. In the mid 14th century Simon Fraunceys rebuilt the hall in stone with two-storey solar

blocks rising over cellars at each end, and the kitchen was extended into a long range which probably included a bakehouse and a brewhouse. The main buildings were linked by pentries and continuous ranges of outbuildings around the courtyards (Hurst 1961; Lancaster 1975; Phillpotts *et al.* 2002).

The establishment of the West Thurrock manor house complex on the Stone House site entailed the diversion of the putative drove road into the marshes around its eastern and south-eastern sides to link to its former course (**Figure 21**). Throughout the 14th and 15th centuries the embankments of the marshes required increasing levels of maintenance to defend them against the rising sea levels in the lower Thames, and low-lying land became too wet for arable cultivation (Hunter 1999, 18; Phillpotts 1999, 64). The responsibility for maintenance lay with the landowners of the various sections of river wall; it was overseen in the parish by wall-reeves and occasionally by royal commissioners (*VCHE* viii 68). An agreement for the upkeep of the river walls at West Thurrock was made as early as 1322 (Grieve 1959, 20). The embankments were breached with increasing frequency and areas of farmland were lost to the waters. In 1339 the pastures of the manor of Aveley called *les Fennis* or *Fannis* could not be measured because they were under the floodwaters; the manor of West Thurrock included 41 acres of salt marsh in front of the embankments (*CIPM* viii 172; NA C135/60/7). In 1462 a dispute between John Torrell and Philip Lowes about repairs to the *Temmys Walles* at West Thurrock led to the written record of the accustomed procedure, by which landowners were to provide workmen and earth to repair the walls whenever needed, without contradiction. One copy of the agreement remained with the churchwardens of the parish, and another with the wall-reeves (ERO D/DP/O15/1). In c. 1475 a list was drawn up of about forty landowners responsible for specified lengths of river wall in the parish. The document mentions fish-traps on the Thames shore and a sluice-gate of Earl Rivers called *Westhallthrough* (ERO D/P O15/2). In 1491–5 the manor bailiff John Frensshe spent £23 11sh 4½d, and in 1503/4 £13 3sh 1½d, on repairs to defective parts of the Thames walls; the meadow called *Fannes* was still drowned by the river at this time (BL Harley Roll N12; NA SC6/HENVII/157). The method of constructing the river walls is not known with any certainty, but they are likely to have consisted of simple earthen banks, perhaps founded on hurdles. By the 14th century embankments up to a height of 2.75m aOD were required. By the 16th century timber groynes probably formed the foundation, and the earth may have been mixed with reeds taken from the marshes in front of the wall (Phillpotts 1999, 63).

Between the 13th and the 16th centuries arable and pasture land were equally as valuable in the parish of West Thurrock. There were arable strips belonging to the main manor and the sub-manors mingled in the open fields. Strips or doles of common meadow may have lain in the marshes at Purfleet. Sheep were pastured in the marshes and on the chalk uplands. There was a vineyard

at Purfleet until the early 14th century, when John le Vynter was holding land there, but it was inactive by 1324 (*VCHE* viii 64–5; *CIPM* viii 171). By the late 15th century all the demesne lands of West Thurrock manor were leased out (NA SC6/HENVII/157).

Post-medieval and modern (1500 onwards) (Figure 18)

The 1646 estate map (**Figure 21**) shows the buildings at Stone House in elevation at a small scale in a somewhat schematic fashion, but the medieval manor house is still clearly extant, and several elements can be reconciled with the archaeological evidence. The hall lies centrally with a range to the north-west which is likely to be the solar block. Perhaps the latter is shown as a distinct structure as it was by now leased out separately. An apparent change in the roof line at the east end of the hall may reflect the location of the kitchen and service room(s), while the southern extension to this can be equated with the ?detached service rooms / ancillary structures in this area. A smaller southern extension at the west end of the hall has not been accounted for in the archaeological record. Further to the west lies a substantial barn, but no other structures are depicted. A document of 1561 (see below) mentions a dovecote (one is shown at High House) and a sheephouse, the latter to the west of the barn, but perhaps these had gone by 1646.

The archaeological sequence for the post-medieval period Stone House is less clear than in the preceding period, though documentary evidence suggests that the manor house remained in use (as part of a farm complex) until perhaps the late 17th or early 18th century, and following this all but the solar block was demolished. This might account for the relative paucity of structural remains, other than those of the manor house itself, prior to the construction of a new house (*Stone House*) approximately 20m to the north in 1683. Indeed, many of the post-medieval and undated features might be assigned to the late 17th century or later, and given that these have survived it is considered unlikely that any significant post-medieval evidence has been lost, at least within the southern part of the site. Probably all of the features recorded in the watching brief to the east and the west of the central part of the site are likely to be of post-medieval or modern date and are briefly described below.

Within the manor house solar block there is some indication of modifications in the post-medieval period. In the northern room were traces of a brick partition running north – south and dividing the space into two equal-sized and smaller rooms. Associated with this partition were remnants of a beaten chalk floor. Several bricks were built into the fireplace and suggest that this was modified at the same time and subsequently served to heat only the westernmost of the two newly created rooms in what may have been a cottage created out of the former solar block. Around the west end were several deposits (e.g. 494) of building debris derived from the demolition of this cottage which probably survived until around the middle of the 19th century, perhaps 150 years

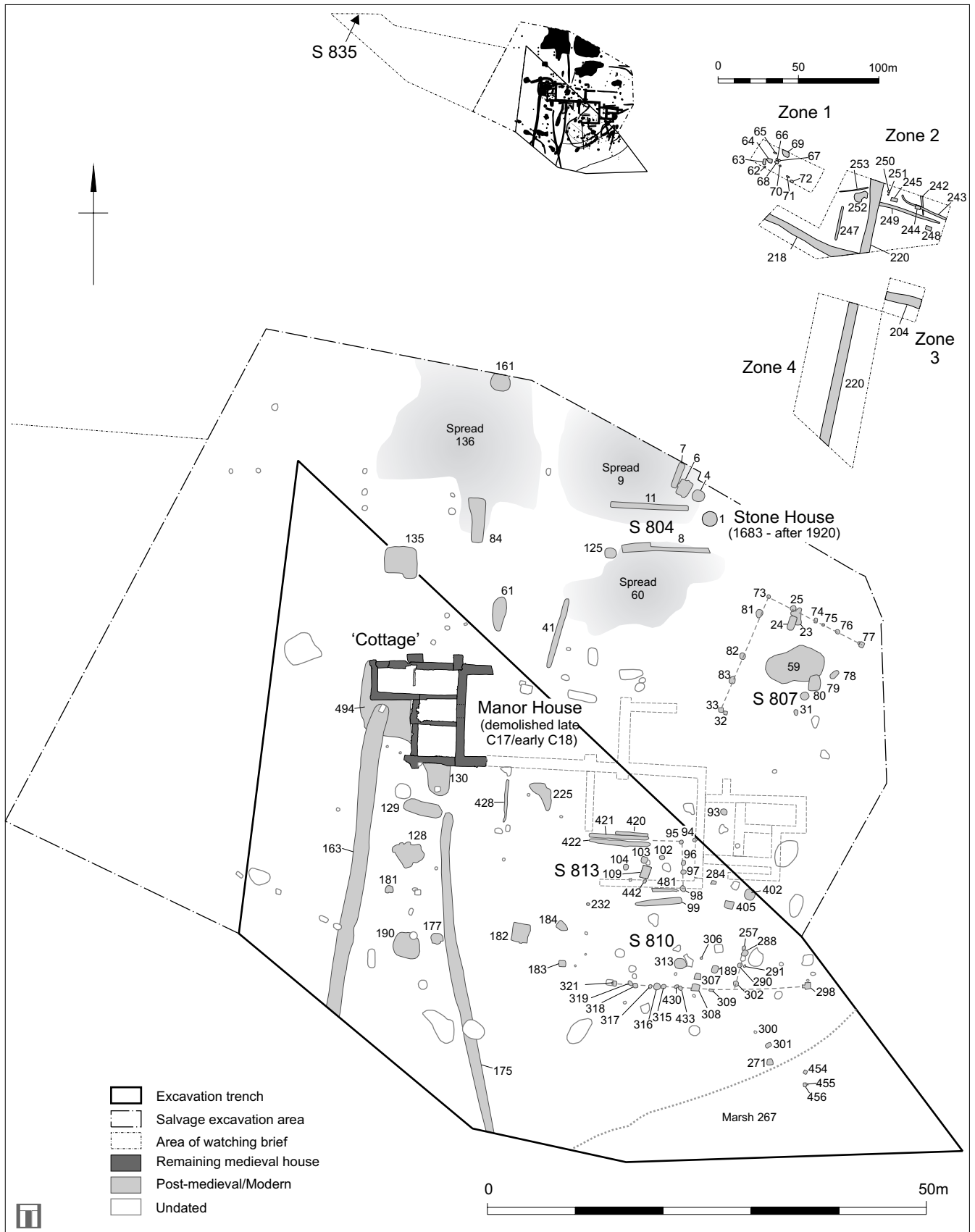


Figure 18 Stone House: plan, post-medieval features

after the remainder of the manor house had been demolished. Of relevance here is a lease of 1574 which refers specifically to the western part of the manor house (see below), implying that this part of the house – the solar block – was by this time regarded as a separate entity from the remainder. It may also be noted here that a document of 1561 refers to a building called the ‘Westhall Kytchyn’ in addition to the manor house (see below), implying a separate structure, perhaps the detached suite of service rooms / ancillary structures (including possibly a bakehouse) to the south of the east end of the manor house.

Aligned with the west end of the earliest part of the manor house, and running north – south, was ditch 175, a relatively shallow feature which extended just over 45m to the south as far as the edge of the marsh. This cut across the top of the southern end of medieval ditch 179, interpreted as a drain, and is likely to represent a late medieval or more probably early post-medieval boundary feature. A gap of 6.5m between the south-west corner of the manor house and the northern terminus of ditch 175 would have provided access to what, initially at least, may have been an enclosed area to the rear of the house, perhaps an outer service yard. A further ditch, 163, at least 50m in length and up to 2.5m wide, ran southwards from the south-west corner of the northern of the three rooms in the western extension to the manor house and probably served as a drain. This has been assigned a post-medieval date but may have originated in the late medieval period.

Further to the west, the watching brief on the relatively large area at the west end of the site revealed, in section, two parallel brick footings approximately 10m apart and aligned north-south (structure 835) which it is suggested belonged to the large barn shown on the 1646 Estate map (see above).

Within the northern part of the site lay the fragmentary remains of the later Stone House (structure 804), built in 1683 and demolished sometime after 1920 (demolition debris 9, 60 and 136). These remains were surveyed though not further investigated, and comprised parts of at least three brick walls (8 and 11, with 84 further to the west). In addition to these walls were approximately half a dozen circular or square pits, at least two of which were brick-lined wells and one a brick-lined probable cess pit.

Across the remainder of the site were at least two concentrations of post-holes of varying sizes, probably representing fence lines though conceivably more substantial structures. At least one east-west alignment could be identified within the southern group (structure 810), whereas the northern group (structure 807) appeared to form a right-angled arrangement. Between these two groups were several shallow gullies aligned east-west, with a north/south line of possibly associated post-holes at the east end, providing evidence for a structure c. 6m wide and at least 12m long (structure 813).

A plan of Stone House Farm in 1777 (**Figure 23**) appears to show that all but the solar of the medieval

manor house had been demolished by this date, with a barn (possibly structure 813) now occupying the site just to the south of the former hall and the solar block, retained as a cottage, standing on its own a short distance to the west. The new Stone House building of 1683 lies to the north, and probable ancillary buildings to the north-east and south-west, no evidence of which was identified in the excavation. The large barn at the west end of the plot had also disappeared by this date. The 1838 tithe map (**Figure 24**) shows a very similar arrangement except that the ancillary building to the north-east no longer appears.

The watching brief to the east of the main area excavation (Zones 1 – 4) exposed a number of pits, ditches and spreads, most if not all of post-medieval or modern date, and maps of the area from the mid-17th century onwards demonstrate a high degree of correlation with the archaeological remains. The 1646 Estate Map (**Figure 21**) also clearly indicates feature 220 as a major property boundary extending from the road between Thurrock and Purfleet (London Road) towards the Thames foreshore; the map of 1777 (**Figure 23**) shows this ditch as the boundary between property assigned to *Mr Horncastle* to the west and *Mr Winters* to the east, with rear boundaries to these plots which can be correlated with ditches 218 and 204 respectively. The 1838 Tithe Map (**Figure 24**) again demonstrates the principal property boundaries outlined above, together with a building indicated at the approximate location of rubble spread 252.

There were few post-medieval features at High House (**Figure 19**). At the east end of Area 2 was a large oval pit (27008), most probably a small chalk quarry dug for agricultural purposes, and in the south-west corner of this area was a group of three ditches defining the northern part of a small enclosure (27011) which extended outside the limit of excavation. There was a gap between the ditches at the north-east corner, and within the enclosure were several pits containing post-medieval and modern pottery and several animal burials. It is clear from cartographic evidence that this enclosure belonged to an extant cottage to the south which forms part of the High House Farm complex, and is of relatively recent date.

Metalwork

by Jörn Schuster

All of the objects described below are from Stone House; only the buckles are illustrated.

Personal items

Three pins were found in well 192: Obj. No. 124 is a plain 16mm-long shaft. Obj. No. 29 with wire-wound spherical head can be classed as Margeson Type 1. These pins were in widespread use from the 15th to the late 17th century (Margeson 1993, fig. 5, esp. 32 and 34). Although slightly corroded, Obj. No. 25 probably belongs to this type too, while Obj. No. 56, found in wall foundation 34, has a cast double-conical head with a central moulding reminiscent of a wound wire.

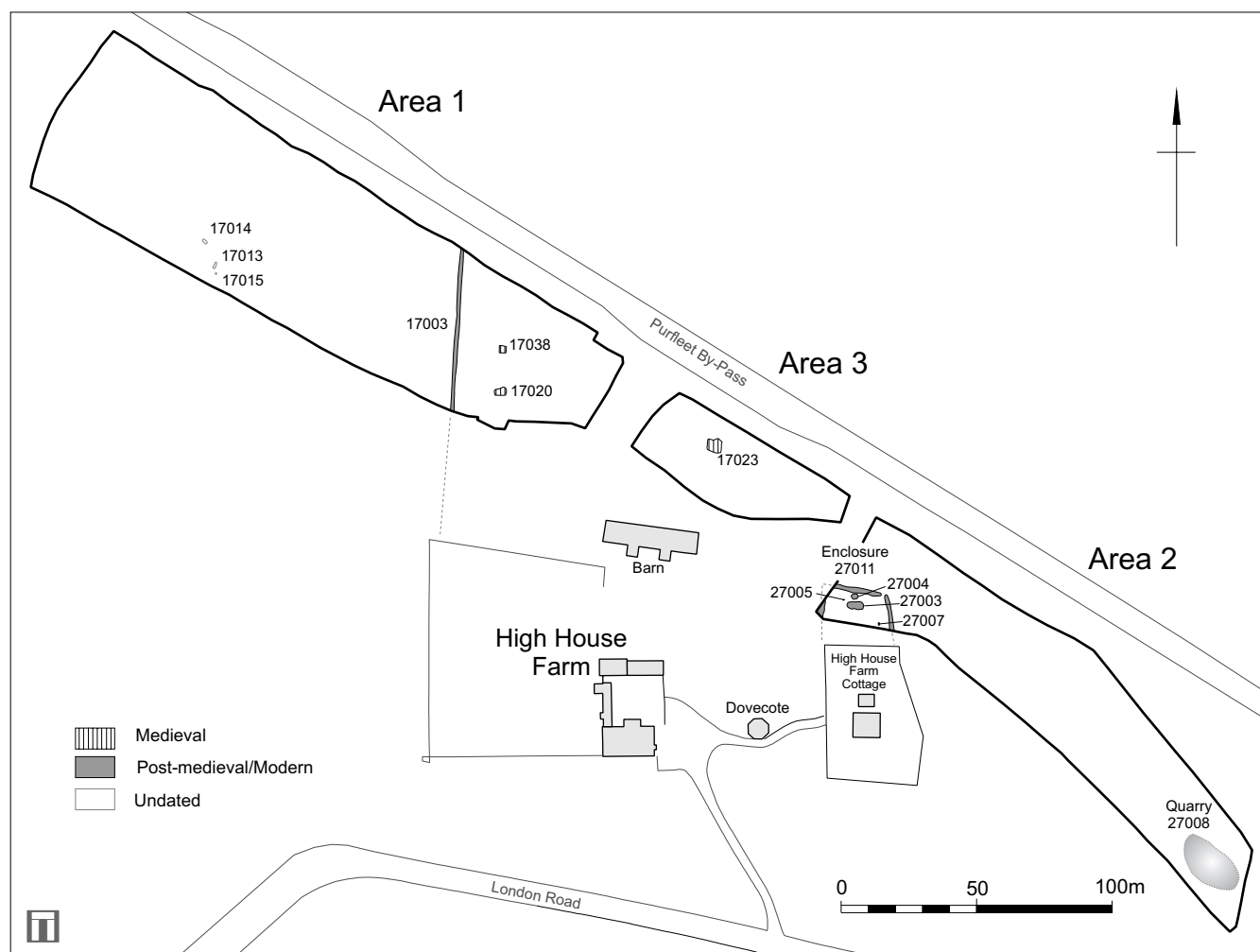


Figure 19 High House: Plan, medieval and later features

An unstratified cast copper alloy hooked tag (Obj. No. 9) has an exact parallel from a context dated c. 1530 – 1550 at Rosary Moat, London (Egan 2005, fig. 25, 155).

Of the five buckles, only the small buckle Obj. No. 144 (**Figure 20, 1**) was retrieved from a secure context: medieval well 263. A similar buckle was found at Swan Lane, London in a context dated c. 1270 to c. 1350 (Egan and Pritchard 1991, 68, fig. 42, 274). Small double-oval buckles like Obj. No. 12 (**Figure 20, 2**) are frequent finds on late medieval and early post-medieval sites. Parallels are known from Trig Lane, London (Egan and Pritchard 1991, fig. 50, 337 and 339), Canterbury (Blockley *et al.* 1995, fig. 455, 620) and Norwich (Margeson 1993, fig. 16, 163–5). Obj. No. 146 (**Figure 20, 3**) is of a well known 16th – early 17th century type. Similar buckles with double-looped frames have been found at Canterbury (Blockley *et al.* 1995, fig. 455, 616), Norwich (Margeson 1993, fig. 17, 174) and on the Mary Rose (Klein 2005, fig. 2, 83, 82A5069). No comparison is known for belt buckle Obj. No. 4 (**Figure 20, 4**) which is probably of late medieval or early post-medieval date. The shoe buckle Obj. No. 14 (**Figure 20, 5**) is of an – often tinned – late Jacobean form with separate bar and frame-like plate with a single internal spike (e.g. Whitehead 1996, 103, no. 662). This example has a maker's mark which reads [J]ESSON, but it was not possible to link it to a

known buckle maker. These buckles, which were quite common both in England and on the continent (Opgravingen in Amsterdam 1977, Afb. 229–230), could easily be swapped from one shoe to the next (Goubitz 1987, fig. 33; Goubitz 1993, 531–32, fig. 11).

Textile working

A machine-made copper alloy thimble (Obj. No. 30) with two bands of square indentations, a heart-shaped stamp below the shoulder and a bare crown was found in the upper fill of well 192. The indentations and bare crown suggest a date in the first half of the 17th century (Holmes *nd*, 3). An unmarked lead cloth seal (Obj. No. 11) and a sewing pin (Obj. No. 23) were found unstratified.

A triangular iron blade (Obj. No. 128), with a fragmented, rectangular-sectioned arm continuing along the line of the back, was found in medieval layer 328. It is likely to be part of a pair of shears. Shears with blades of similar shape are known from 12th – 13th century contexts from London (e.g. Egan and Pritchard 1991, fig. 70, 311, 315–7), although with more rectangular arm sections. A blade of a pair of shears from Norwich, dated to the first half of the 17th century provides a better parallel, both for the shape of the blade and the arm (Margeson 1993, fig. 99, 901).

Structural and other fittings

Two iron keys were retrieved from post-medieval ditch/pit 129. Obj. No. 112 is a very simple L-shaped slide key and Obj. No. 113 is a rotary key with an oval bow and subcircular-sectioned shank. Comparable keys have been found elsewhere in both late medieval (e.g. Egan 1998, fig. 91, 327–9) and post-medieval contexts (e.g. Margeson 1993, fig. 119, 1294–6).

Other objects, almost all from post-medieval contexts, include an iron hinge pivot (Obj. No. 131), part of an iron chain (Obj. No. 76) and 83 nails. There are several unstratified lead strips, of which Obj. Nos 19 and 135 are certainly lengths of window came with H-shaped sections where the lateral flanges are relatively wide and malleable. Faint striations along their length suggest they were milled using a vice as described by Egan (1998, 51), and therefore of likely mid-16th century or later date.

Other

A small number of other objects included complete or fragments of at least four horse shoes and one ox shoe, and what may be a rake prong, all from medieval and post-medieval contexts.

Two unstratified lead objects are likely to have been used for some kind of measurement activity. Obj. No. 10 is a 33mm-long cone with a hole through the centre and weighs 112 g. It could have been used either as a plumb bob or a steel yard weight. Obj. No. 36 is a roughly circular disc with an uneven surface but no obvious marks on either side, weighing 47g. Such discs have been in use at least since Roman times (e.g. Crummy 1983, fig. 105, 2512), but continued in use in the Saxon and medieval periods (e.g. Egan 1998, fig. 234, 1001; fig. 235, 1010).

Illustrated objects (Figure 20)

1. Small, oval buckle frame, bar offset and narrowed. Oval cross-section. Pin missing. Copper alloy, Obj. No. 144, context 307989, well 263.
2. Buckle. Double-looped oval frame, D-shaped cross-section. Iron corrosion attached to central bar (remains of pin). Copper alloy, Obj. No. 12, unstratified.
3. Buckle. Double-looped oval frame. D-shaped cross-section. Central bar, cast with frame, extends beyond sides, petal/rose-like motifs on both edges. Copper alloy, Obj. No. 146, context 307969.
4. Buckle. D-shaped single loop frame with symmetrical decorative transverse mouldings, narrow bar, pin missing. Part of folded sheet plate survives with single rivet still intact. All slightly bent. Copper alloy, Obj. No. 4, unstratified.
5. Buckle. Rectangular-shaped angled frame with rounded corners, outside and inside edges are slightly swollen, D-shaped cross-section. Triangular-shaped, rectangular-sectioned pin. Secondary frame is almost D-shaped with triangular spike facing inwards; on the base of the second frame is a makers stamp: [J]ESSON, in a rectangular field, its lower base following the curve of the frame. Copper alloy, Obj. No. 14, unstratified.

Pottery

by Lorraine Mephram

The post-medieval assemblage, almost all from Stone House, is dominated by coarse earthenwares, mainly redwares (including a few slipwares), with a few sherds of Border Wares from the Surrey/Hampshire industry (**Table 9**). Redwares in Essex (fabric 40), representing the products of several sources, mark a development from the later medieval sandy orange wares (fabric 21), and the distinction between the two is not always clearcut, as already mentioned. Redware forms here are strictly utilitarian – jars, bowls, dishes and jugs. The date range potentially extends at least to the 18th century.

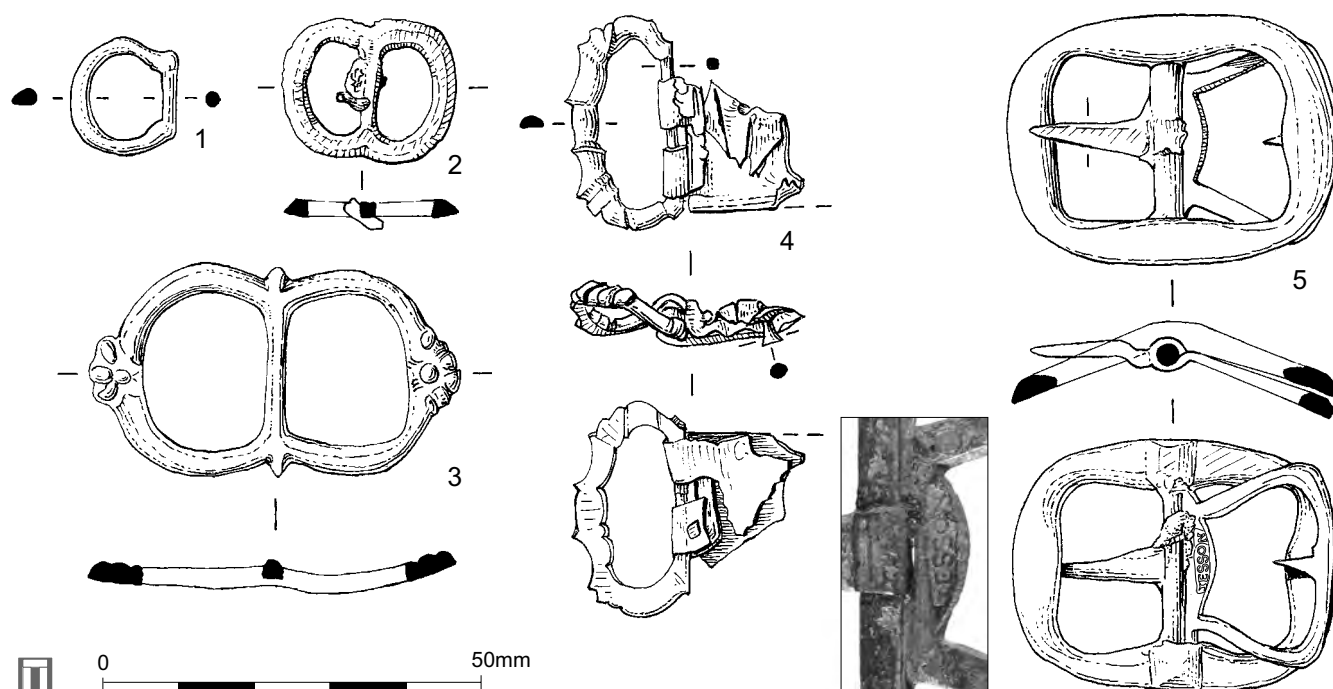


Figure 20 Copper alloy and iron objects

Other early post-medieval wares include imported Raeren and Cologne/Frechen stonewares, and one sherd of tinglazed earthenware, but later post-medieval wares (post c. 1700) are notable by their absence – just a single sherd of creamware, and a handful of modern stonewares and industrial wares. This is likely to be partly a result of the pits around the 1683 Stone House, in the northern part of the site, not being excavated. The post-medieval wares from High House comprise coarse redwares, modern stonewares and industrial wares, all of which could fit within a date range of 18th to 20th century.

Quantities of pottery recovered from post-medieval features are low; about one-third of the post-medieval assemblage derived from the upper fills of well 192. Coarse redwares are most common, and cannot in general be more closely dated, although the presence can be noted of a black-glazed jar of 17th or early 18th century date in pit 61. Other datable wares (German stonewares and tinglazed earthenwares) are very scarce, occurring only in pits 61, 128 and 129, and post-hole 77. Some modern sherds are also present, confirming a continuation of activity at Stone House into the 19th century, as is also the case at High House.

Charred plant remains

by Chris J. Stevens

Two samples were analysed from post-medieval features of 18th to 19th century date at Stone House (pit 178 and pit 190; **Table 10**), by which time the manor house had become a tenanted farm.

As in the medieval features, the main cereal represented was free-threshing wheat (*Triticum aestivum sensu lato*), but in the later period grains and chaff of this crop dominated the assemblages, and it was possible in these to identify the hexaploid bread wheat type (*Triticum aestivum*).

Both grain and chaff of rye (*Secale cereale*) were present and rye rachis fragments were particularly abundant, along with high numbers of straw nodes and internodes. Grains of barley were less well represented. Other crops included both garden pea (*Pisum sativum*) and broad bean (*Vicia faba*).

Weed seeds were more common than in the earlier features, with large-seeded weed species dominating the assemblages. More unusual elements included capsule tops of poppy. The number of rays was on average five to eight, suggesting long-headed poppy (*Papaver dubium*), although capsules of prickly poppy (*Papaver argemone*) or common poppy (*Papaver rhoeas*) might also be represented. The two samples also contained seeds of knapweed/cornflower (*Centaurea* sp.), stinking mayweed (*Anthemis cotula*), and corn marigold (*Chrysanthemum segetum*). It is also notable that seeds of bulrush/grey club rush were only recovered from these two late deposits.

Seeds of elder (*Sambucus nigra*) and fragments of hazelnut (*Corylus avellana*) were generally commoner in the later samples, and a single seed of wild madder (*Rubia perigrina*) was recovered from one of these. This plant whose root provides a red dye is usually found on drier,

rocky scrubland often close to the coast. A further interesting find were seeds of probable gorse or broom (*Ulex/Genista*), though a single seed was also recovered from a medieval sample. Both species are still found today on local patches of well-drained soils, and probably came to the site with scrub collected for fuel from such areas.

Discussion

The two samples from the 18th/19th century occupation of the site, while similar in many respects to the earlier samples, are different in that they are much richer and contain culm nodes, basal culm nodes (the root fragment) and straw waste suggesting that crops were harvested close to the ground by scythe that may bring with it the basal rachis. In addition they are very high in rachis fragments compared to grain. The assemblages are highly suggestive of waste from the coarse sieving stage conducted just after threshing (Hillman 1984, fig. 2, stage 6), in that there are few smaller weed seeds that pass with threshed grain through the sieve. It is possible such waste was kept for winter-fodder and became burnt, either by accident, or after stored fodder was cleaned.

The eclipse of Stone House and the development of High House

by Christopher Phillpotts

(**Figures 21–24**)

The sixteenth century

In 1517 the Marquis of Dorset sold the manor of West Thurrock to Sir John Spencer. On Spencer's death in 1523, it passed to his widow Isabel for life. His son William Spencer sold the reversion in May 1530 to Sir William Hollis, alderman of London, but Hollis was soon holding the manor on lease. He died in November 1542 and his son Thomas Hollis sold the manor in 1547 to Henry Herdeson. By now the manor was called "West Thurrock or West Hall or the Vineyard", having apparently absorbed the vineyard at Purfleet which had previously belonged to the manor of the Knights Hospitaller there, prior to the dissolution of the monasteries. Herdeson sold it on to Robert Long, mercer of London, and his wife Cicely in November 1548. After Robert's death in January 1552, Cicely continued to hold the manor until her death in October 1559 (Morant 1768, i 92; *VCH* viii 60, 62; ERO D/DAc 247, 249, 250; D/DWh/1; NA C142/68/20). An inventory of the house and its contents made at this time (Shropshire Archives 6000/9479) is presented in **Appendix 1**.

The family property was then divided between Robert and Cicely's three daughters and their husbands by an agreement in February 1561. Mary and Henry Vyner took the lands and property in Shropshire, Surrey and London; Magdalene and Roger Sadler took half of the manor of West Thurrock, including the manor house called the Stone House, and a half share of Cicely's new house called the New Place and its grounds; Martha and William Meredith took the other half of the manor and the other half of the New Place (ERO D/DWh/2). Magdalene died in 1575, leaving her lands to her son

John Sadler. John conveyed his half of the manor in February 1584 to Thomas Owen, the prominent Shropshire and London lawyer, who also acquired the Merediths' half of the manor in 1589. However, this appears to have been a trust or mortgage arrangement, since Thomas Owen leased half of The Place back to the Merediths in September 1589, and his sons conveyed the whole manor in 1607 to Martha Meredith's daughter Mary and her husband Christopher Holford of West Thurrock. The Holfords were already in possession in May 1601 (Morant 1768, i 93; *VCHE* viii 60; ERO D/Dac 250, 251, 253–6, 304; D/DWh/10, 11, 13, 14, 17, 18, 22, 23, 29, 30, 47, 51).

By the early 16th century the manor house at the Stone House site and its lands had been leased out to farmers. It was leased as “the farm called Westhall” by William Hollis to Robert Mason, husbandman, in 1533 for 25 years, in succession to his father John Mason, yeoman. Mason was to do the repairs (ERO D/Dac 291; D/DU 264/2). It was therefore no longer serving as the manor house of West Thurrock. In 1561 the Sadlers' share of the manor included “the tenement called the Westhall alias the Stonehouse, whereat the site of the manor heretofore has been situate”, the building there called the Westhall Kytchyn, the barn, the sheephouse to the west of the barn, and a yard adjoining these buildings which measured 6 acres 1 rood in extent. The yard was separated from the yards of tenements called Harmans and Newhouse (part of the share of the Merediths) by a large elm tree, which stood about two poles (10.06m) to the west of the sheephouse (ERO D/DWh/2). Since 1339 therefore, the kitchen had become a separate structure and the sheephouse had been moved from the east side of the complex to the west side, close to the western boundary. In December 1574 Roger Sadler made a lease for 21 years to John Steven of Dagenham, husbandman, of the western part of the “manor house or capital messuage of Westhall”, as it was then enclosed with a stone wall and in the occupation of John Doe, with the northern half of the barn, and various pieces of marshland and salt marsh. Steven was to be responsible for the repairs, except for the “principalls and principal timber only”, indicating that part of the structure was of wood (ERO D/Dac 295).

During Cicely Long's tenure of the manor in 1552–9 a new house called the New Place was built on a plot of demesne land measuring 2 acres 1 rood. Both the house and its grounds were divided between the Merediths and the Sadlers in 1561 (ERO D/DWh/2). In mortgages of the Meredith's half of the manor in 1581, and the Sadlers' half in 1580 and 1583, and in conveyances of 1589–93, it is called The Place. George Harriot was occupying the Sadlers' half of the house at this time (ERO D/Dac 253, 304, 309; D/DWh/11, 22, 23). Thomas Owen leased the Meredith's half of the manor to Thomas Gyles, yeoman, in 1589 for 21 years, presumably including half of this house (ERO D/Dac 252). Cicely Long's new house is to be identified with the site of High House, which stands on the southern slope of the chalk ridge, overlooking the marshes and the Thames.

The village of West Thurrock appears on the earliest map of Essex in 1594 by John Norden. By the second half of the 16th century the West Thurrock marshes were subject to the jurisdiction of a court of sewers which oversaw the coast from West Ham to Mucking. In 1563 the largest landowners were the Sadlers and the Merediths, who between them held 300 acres of marshland as parts of the manor of Westhall, and maintained 506½ rods (2.55km) of river wall. They also maintained two sluices and two flood ditches (*VCHE* viii 68; ERO D/SH7, 103–4, 117). Leases of marshland at West Thurrock in 1564 and 1576 allowed the tenants to dig out the earth needed to maintain the river walls, but in 1586 another tenant was prosecuted and deprived of his land for digging out 40,000 cartloads of clay and selling it, whilst allowing the river walls to fall into disrepair. Leases of chalk cliffs at Purfleet in 1574 and 1594 included the obligation to deliver chalk between April and June each year for the repair of the river walls of West Thurrock “according to th'olde custome” (Grieve 1959, 20–1). Similarly in Thomas Owen's lease to Thomas Gyles in 1589 he was obliged to make an annual payment of 12 *fares* of chalk (at ten cartloads in each *fare*) at the farmhouse of Harmans, for the repair of the river walls (ERO D/Dac 252).

The marshlands were still principally used for sheep pastures and meadow lands (Grieve 1959, 21). Roger Sadler's lease of part of Westhall to John Steven in 1574 obliged him to plant 200 willow trees on the marshes (ERO D/Dac 295). In Barking in the 1580s the local farmers had increased their hay crops by “floating” their marsh meadows as water meadows (Lockwood 2006, 89).

The seventeenth century

Christopher Holford was lord of the manor of West Thurrock until his death in 1608. He was followed by his eldest son Christopher, who died in *c.* 1612 leaving an infant daughter and a widow, both called Mary. The widow remarried to Sir Peter Heyman of Canterbury, who held the manor as the guardian of the child while she lived, and then part of it as the jointure of Holford's widow. The jointure lands included Stone House, as noted on the manorial map of 1646 (see **Figure 21**). The rest of the manor passed to the second Christopher's brother Daniel until his death in 1630. The manor was then divided again between his two daughters and co-heiresses, Martha the wife of Sir Cranmer Harris of Creeksea, and Mary, who later married Sir Henry Heyman of Selling in Kent, the son of Sir Peter. The Harrisses and the Heymans agreed a new allocation of the manor lands and rents. The first half of the manor, including the house now called the Great Place, passed to Martha's daughter Anne, the wife of Charles Mildmay; the second half descended to Mary's son the second Sir Peter Heyman (Morant 1768, i 93; *VCHE* viii 60; ERO D/Dac 258–9, 313–314, 320–1, 345–6, 355–6; D/DWh/59, 180).

The manor was again reunited by purchase. Robert Clayton bought Sir Peter's half share in 1670, of which he



Figure 21 Map of the manor of West Thurrock 1646 (extract, from ERO D/DU 15)

already held the mortgage, and Anne Mildmay's half share in May 1684. In 1683 he agreed to sell the whole manor to the London merchant Cornelius Vandenanker, but he died before the transaction could take place. The purchase was therefore completed by Vandenanker's widow Sarah in September 1684. She was remarried to Colonel Benjamin Desborough by 1685, and their children Cornelia Vandenanker and Cromwell Desborough also married. Desborough got into financial difficulties over the draining of the marshlands of the manor (see below), and sold the uplands to Captain Caleb Grantham in 1697 (Morant 1768, i 93; *VCHE* viii 60; ERO D/DAC 267–9, 353; D/DFa/T28; D/DU 435/2 bundle 1; D/DWh/59, 68, 70, 72, 73, 76, 86, 87, 94, 94).

Sir Peter and Mary Heyman made a lease of the Stone House and its lands at an unknown date in the reign of Charles I (the date is blank in the indenture) to John Broman of South Ockenden, yeoman, for 21 years at an annual rent of £57 15sh. The property included barns, stables, outhouses, a dovehouse, three yards adjoining the house, orchards and gardens, six acres of upland, and various pieces of marshland totalling 102 acres. The lease may never have come into effect (ERO D/DAC 320). There was a dispute in 1631 between the Harrisses and the Heymans over the repair of some of the manorial property, including Stone House and its ancillary buildings. Sir Peter Heyman agreed to do the repairs, using timber taken from the demesne lands of the manor (ERO D/DAC 346). In July 1639 Sir Peter Heyman made a conveyance in trust of "the capital messuage called Westhall alias Stonehouse", which was then in the occupation of John Swallow (ERO D/DAC 321). When the manor of West Thurrock belonged to Sir Cranmer Harris and Sir Henry Heyman in February

1646 a map was drawn of the whole manor (**Figure 21**). This shows the buildings at Stone House in elevation, consisting of the medieval hall range with two southward extensions, a range to its north-west, and a barn or other agricultural building lying towards the west side of the plot. It is noted as part of the jointure lands, and in the tenancy of John Swallow.

When the Harrises and the Heymans redivided the manor, "Stone House Farm" was in the Harrises' part, comprising a house, yards, orchards and "backsides" in an enclosure measuring 4 acres 2 roods 2 perches. John Swallow had been followed as tenant by John Tibballs (ERO D/DAC 354). Tibballs paid Hearth Tax on four hearths in the house in 1671 (ERO Q/RTh5 f2).

Stone House was rebuilt in brick and flint in 1683, according to a date stone on its front, approximately 20m to the north of its predecessor, the former manor house (Thorne 1876, 18). The building work cost £500. Shortly afterwards Ralph Everard junior was the tenant of the "Stone House farm house, new built upon the last division", in succession to John Tibballs (ERO D/DAC 355). The sales to Robert Clayton in May 1684, Sarah Vandenanker in September 1684 and Caleb Grantham in 1697 specifically included the Stone House with its barns, stables, yards and gardens (ERO D/DAC 269; D/DU 435/2 bundle 1; D/DWh/70, 72–4). The reconstruction at Stone House can be compared to the development of Low Hall manor house in Walthamstow, where a new cross wing was added to the solar end in the 16th century, and was extended to become a new smaller manor house in the 17th century, after the demolition of the medieval structures (Blair 2002, 202, 204–5, 207–9).

To the east of Stone House, and also on the south side of the Purfleet/Grays road, there was another house

belonging to the manor by the 17th century. This was later known as Low House, but its earlier name has not been identified (Wessex Archaeology 2003b, ii). The house also appears on the map of February 1646 in a large enclosure, without a tenant's name.

In 1610 half of the house called The Place, its rooms and half its two-acre plot were leased by Christopher Holford to his mother, and back to him, in a family settlement (ERO D/DAC 313 and 314). In December 1615 Sir Peter Heyman and his wife Mary leased the house, then called New Place, to John Murfitt of Wenington, gentleman, for ten years at annual rent of £68 16sh. The property included barns, stables, outhouses, a dovehouse, yards, gardens and orchards. A schedule sewn into the lease details the rooms of the two-storey house as the kitchen (with a chimney), the pantry, the wet larder, the dry larder, the spicery, the parlour, the buttery, the cellar, the larder chamber, the maid's chamber, the maid's gallery, the dining room, the spicery chamber, the chamber over the parlour and buttery, the long gallery, the little gallery, the court, the still-house, the wash-house, the dairy, the brewhouse, the chamber over the brewhouse, the wood house and the iron house. There were glass windows, and locks and keys, and a lead water pipe descending from the eaves in the court by the kitchen door (ERO D/DAC 315). After the division of the manor between the Harrises and the Heymans, it lay in Sir Peter Heyman's part of the manor (ERO D/DAC 353). In 1671 Ralph Everard paid Hearth Tax on houses containing six hearths and four hearths here (ERO Q/RTh5 f2). In a mortgage of 1677 the house was known as the Great Place, and was still tenanted by Ralph Everard (ERO D/DAC 323; D/DWh/68). It was rebuilt in brick at about this date at a cost of £1000; in the 1680s it was still held by Everard as a "capital messuage or farm house with a malting and dove house" (ERO D/DAC 355). It was later rendered in stucco. From 1684 it was known as Little Place or High House, a name transferred from an adjacent house (VCHE viii 61). Under these names it was occupied by Elizabeth Swinnerton in 1684 and 1697 (ERO D/DU 435/2 bundle 1; D/DWh/70).

A smaller adjacent house was built by 1601, when it was described as a "new messuage... lately erected" with a dovehouse, held by Christopher and Mary Holford along with The Place built by Cicely Long (ERO D/DWh/47). Mary Holford still held both these houses in 1611 (ERO D/DWh/180). The new house was known as Little Place by 1631, when three-quarters of it was held by Anthony Sadler (ERO D/DAC 345). It was later called High House, tenanted by Francis Read in the 1680s (ERO D/DAC 355). It is not clear what became of this house; it may have been removed by 1684 (VCHE viii 61). The map of February 1646 shows two structures (as well as the dovecote) in the High House plot, a large house to the west and a small house to the east (see **Figure 21**). These presumably represented Great Place and Little Place respectively.

In Sir Peter Heyman's leases of New Place to John Murfitt in 1615, and of Stone House to John Broman in the reign of Charles I, Heyman undertook to maintain

the river walls of the properties (ERO D/DAC 315, 320). It was still important to keep these in repair in the 17th century. In December 1690 during high winds and tides there was a disastrous breach in the West Thurrock river walls on the land of Francis Moore of Bayhouse, causing extensive flooding of the marshlands to the south-east of Stone House. Morant states that subterranean trees were washed out by the action of the river, presumably from layers of peat (Morant 1768, i 93). The breach grew to 100 yards wide and 24 feet deep at high tide, and deposited a sandbank in the Thames. The remnants of this intrusion by the Thames can still be seen in a map of 1749 in the stretch of water called The Breach (**Figure 22**). There was a similar flood lake in the Ripple Marshes in Barking parish, called the Rant (Lockwood 2006, 88–9). A special commission of sewers, promoted by the City of London, was appointed to deal with the West Thurrock breach. Benjamin Desborough spent £1,500 on building counter walls to reclaim his part of the marshes, which totalled 309 acres. However, it proved impossible to collect a rate for the necessary repairs from any of the other local landowners except Sir Robert Clayton. A consortium of London merchants and sea captains offered to undertake the reclamation work, and in 1694 the marshlands were confiscated by the commission and granted to the consortium, which closed up the breach by 1696. Colonel Desborough contended that the confiscation was illegal, and fought a series of court cases against the consortium's title to the land until his death in c. 1708. His financial difficulties forced him to sell the upland parts of the manor in 1697; the marshlands he had previously mortgaged to Slingsby Bethell. The heirs of the members of the consortium also fell out, and litigation between them continued until 1750 (VCHE viii 60, 61, 68; Grieve 1959, 24; ERO D/DFa/T28; D/DHt/T270/9; NA C225/2/60).

The eighteenth century

Caleb Grantham died in 1699 and was succeeded as lord of the manor of West Thurrock by his brother Nathaniel, who died in 1723. He was followed by his widow Mary, and in 1738 by his son, the second Caleb Grantham. All three of the Granthams were sailing captains in the East India Company. The second Caleb bought back the marshlands of the manor from the heirs of the consortium in 1750, forming the land-units of Stonehouse Farm and Tunnel House Farm. His will of 1762 left his manors to his daughter Mary, the wife of John Seare of Tring in Hertfordshire. In 1777 the Seares sold the manor to Samuel Whitbread, the brewer of Cardington in Bedfordshire, and also sold Stonehouse Farm and Tunnel House separately to John Button of Grays Thurrock. The Whitbread family were lords of the manor until its estate was broken up in 1920 (VCHE viii 60–1; Morant 1768, i 93; ERO D/DU 435/2 bundle 1; D/DWh/103–4, 108–110, 212).

By the 18th century High House was regarded as the main house of West Thurrock manor. It was also sometimes called West Hall or Le Vyneyard, names transferred from the alternative names of the manor

(*VCHE* viii 61). Nathaniel Grantham and the second Caleb Grantham lived there after the occupancy of Elizabeth Swinnerton (ERO D/DU 435/2 bundle 1). In 1738 it was noted as having barns, outbuildings and backsides (ERO D/DWh/103). The eight-bay timber-framed weather-boarded barn which survives on the site is of an early 18th century date. The late 17th century house appears on a map of West Thurrock Level in 1749 as a two-storey structure of two wings, occupied by Captain Grantham. After Caleb Grantham's death in 1762 it was occupied by Edward Percivall and Gerard Lake. In May 1766 John and Mary Seare leased it to John James, Lord Percivall, for eleven years. A schedule of contents mentions the kitchen, the larder, the pantry, the rooms over the kitchen and drawing room (which both had chimneys), the room over the best parlour, the back stairs, the garret over the best room (with steps up the lead roof), the brewhouse with a room over it, the dairy, the yard, the stables, the garden and the vineyard. There was a drawing of High House in a black frame in the room over the best parlour. There was a pump in the brewhouse, a lead cistern in the yard, and a sundial and three seats in the garden. Percivall assigned the remainder of his lease to Zachariah Button in June 1769 (ERO D/DWh/108). The house is named on Chapman and André's map of Essex in 1777. In this year John and Mary Seare sold it with the manor to Samuel Whitbread, with its courtyards, backsides, stables, coach houses, carhouses, brewhouse, barns, granary, pigeon house, gardens and orchards. The most recent tenant was called Tibbald (ERO D/DWh/109). Two effigies of a knight in armour and his wife were removed from the parish church to form supporters of a gateway at High House. They were supposed to be of the Desborough family, but as the costumes were of the 16th century they presumably represented earlier lords of the manor. The effigies were returned to the church in the 19th century (Thorne 1876, 611).

The rebuilt Stone House of 1683 is conventionally represented on a map of 1749 as a single-storey building with a gabled roof (**Figure 22**). In a trust document of 1767 it is described as having barns, stables, yards, a garden and orchards. Since the tenancy of Ralph Everard junior it had been in the hands of Nathaniel Grantham (ERO D/DU 435/2 bundle 1). The house is named on Chapman and André's map of Essex in 1777, which also shows Low House but does not name it. In January of the same year John and Mary Seare sold Stonehouse Farm to John Button for £9,550, with its outhouses, barns, stables, granaries, sheds, yards, gardens and orchards (ERO D/DU 435/3 bundle 1; D/DWh/220). The farm totalled 370 acres and a map of it is attached to the sale (**Figure 23**). It shows the main house close to the road junction, with four agricultural buildings and a complex of yards to the south, and a long pond lying alongside the driftway into the marshes. One of the buildings may represent the medieval manor house, or a barn built close to its site. The western barn of 1646 was no longer present. In March 1798 John Button's son John married Francis Freeman, and his father leased

Stonehouse and Tunnel House farms to him. Stonehouse Farm is noted as having one barn, a stable and a cowhouse. A plan shows the layout as slightly different to that of 1777 and more like the layout depicted on the later tithe map (ERO D/DU 453/3 bundle 2).

By this time Stone House was no longer used as the farmhouse. John Button leased it to the parish of West Thurrock to be used as the workhouse in 1778. It was shared with the parishes of Stifford from 1788 and Aveley from 1792. The parishes were responsible for the repairs, including the windows and fences around the garden. In June 1791 an inventory of goods in the house mentions the brewhouse, the kitchen, the lower room, the pantry, the cellar, Kate's room, two back rooms, Mrs Drabble's room, two front garrets and two back garrets. This suggests a square-built two-storey house with attics. In 1802 it contained 15 paupers from West Thurrock, mostly children. It continued in this usage until the lease expired in 1802, when the frequent repairs required to the building made the scheme uneconomic and it was terminated (*VCHE* viii 61, 70; ERO D/P 330/8/2 ff 88v, 161).

By the 18th century the majority of the farmland in the parish was arable. The farms on the uplands still had plots of pasture on the marshlands (*VCHE* viii 64; Lockwood 2006, 87; **Figure 22**). A lease of Stonehouse Farm and Tunnells Farm from John Button to his son in 1798 specified that every three years the fields were to be left fallow and planted with rye grass and clover (ERO D/DU 453/3 bundle 2).

The nineteenth and twentieth centuries

The Ordnance Survey map of 1805 shows both High House and Stone House, the latter as a complex of three buildings. John Button mortgaged Stonehouse Farm and Tunnel House Farm in January 1805 and March 1809 (ERO D/DU 453/4). There was a scheme in 1811 to extend the marsh pastures of Stonehouse Farm, which was restricted by a lack of fresh water for cattle (*VCHE* viii 65).

On the tithe map of West Thurrock parish in 1838 there are four buildings at Stone House (**Figure 24**), the easternmost building of 1777 having been removed. The pattern of yard and garden boundaries has also been altered, but the long pond is still shown. John Freeman of Stifford Lodge was the owner and occupier. Low House is shown as three buildings and a pond at the head of short driftway leading into the marshes (ERO D/CT 357A no 122; WA 2003b, 13–14). In 1845 Freeman leased Stone House and Tunnel House farms to Robert Thomas Barry of Woolwich. Stone House had been converted into three cottages, the granary was converted into another, and there were four other cottages on the plot. A lease of 1857 repeats the same description (ERO D/DU 435/4). Part of the Low House complex was similarly divided into dwelling houses in the later 19th century (Wessex Archaeology 2003b, 14). According to the date stone on the front of Stone House it was repaired in 1856 (Thorne 1876, 18). It was demolished in the 1920s when the junction of Stonehouse Lane and London Road was realigned (*VCHE* viii 59).

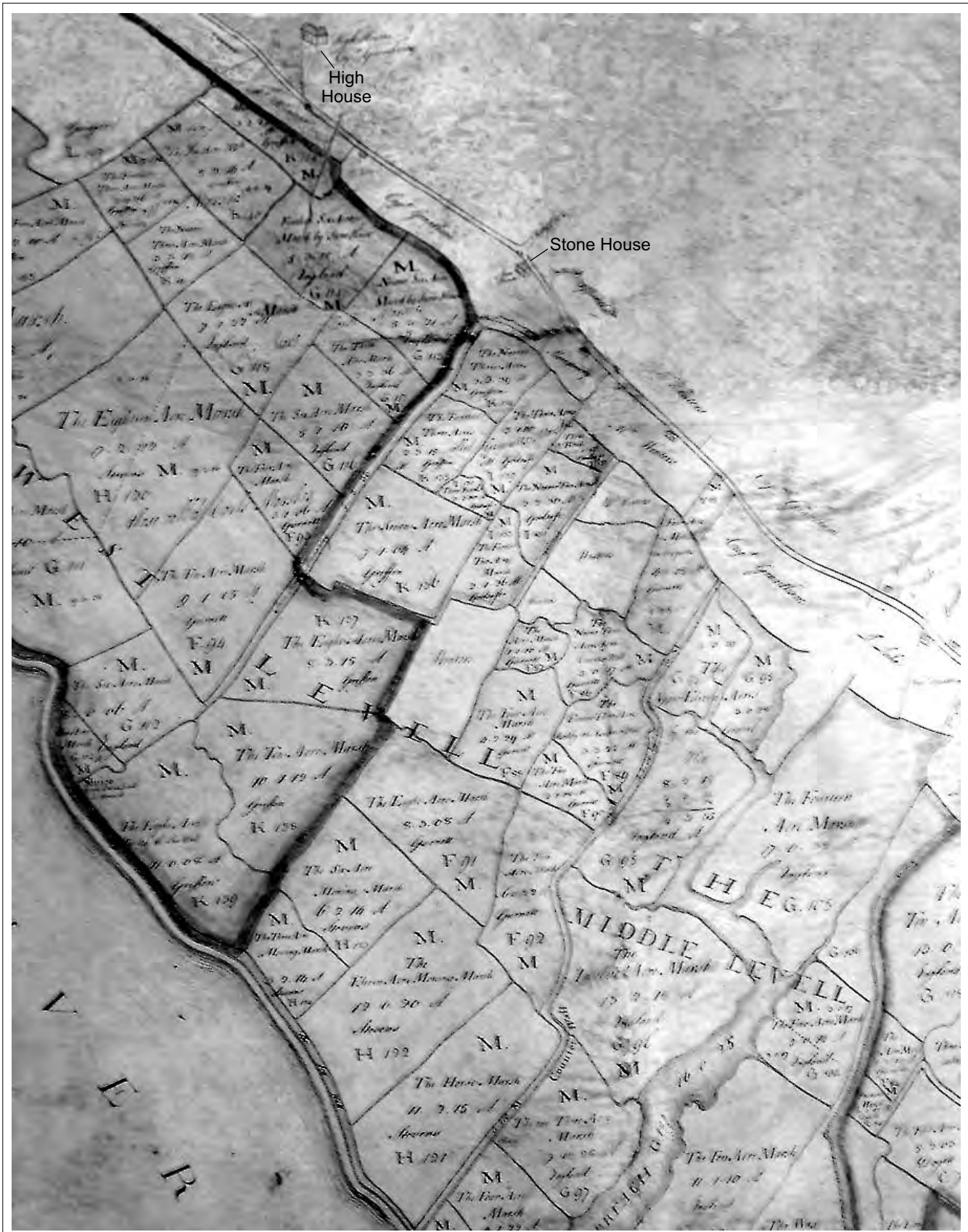


Figure 22 Map of West Thurrock Level 1749 (extract, from NA MR1/639)

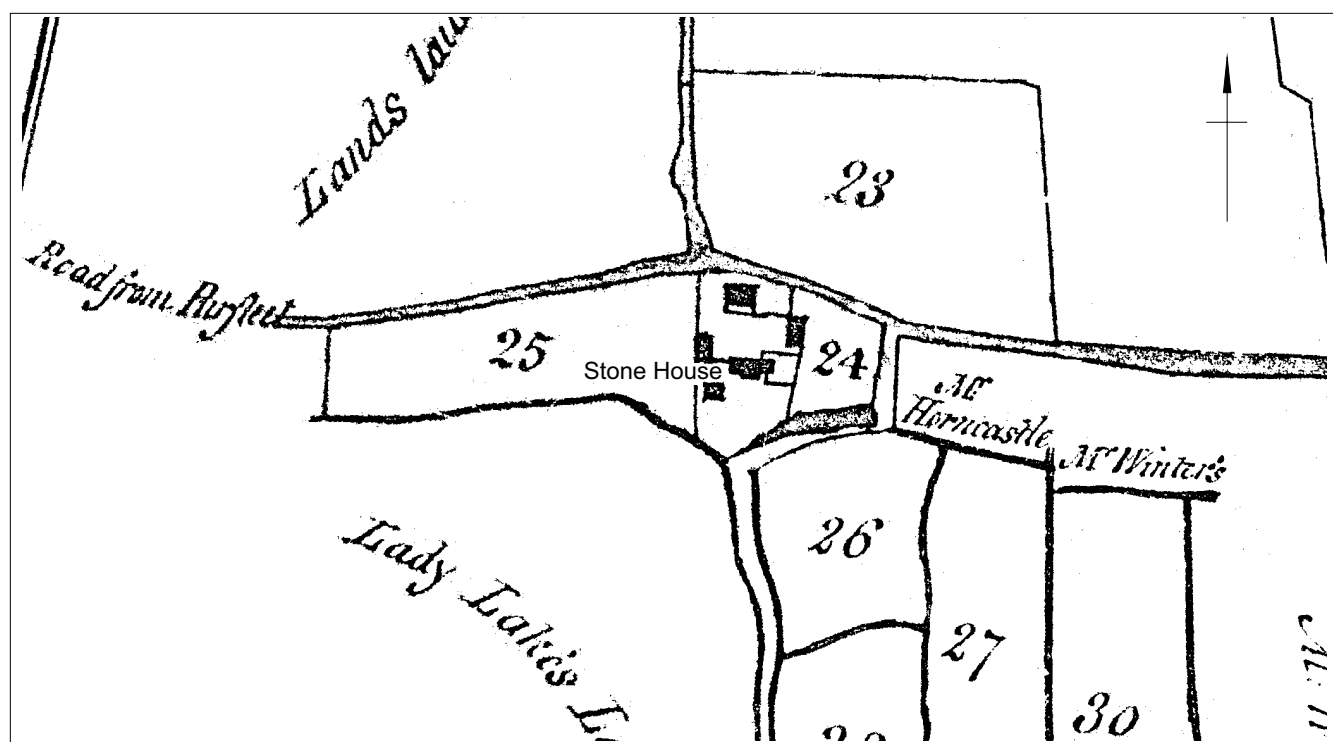


Figure 23 Plan of Stonehouse Farm 1777 (extract, from ERO D/DWh/220)

In 1835 High House belonged to John Freeman (Wright 1835, ii 519). The High House plot had developed into a complex of seven buildings by 1838 (**Figure 24**). The owner and occupier was William Henry Whitbread (ERO D/CT 357A no 94). By 1954 it had been divided into flats and it still stands, along with the dovecote and early 18th century barn (VCHE viii 58, 61).

DISCUSSION

Previous investigations between Purfleet and West Thurrock have focussed almost exclusively on the nationally important Pleistocene deposits exposed in the surrounding chalk quarries, but little was known of the later settlement history. This situation has been redressed to some degree by the recent HS1 excavations which have investigated a transect across the landscape, from the higher ground on the chalk ridge at High House to the lower lying marsh at Stone House.

Little can be deduced from the small assemblage of worked flint of probable Neolithic and later date and the two sherds of Beaker pottery from High House, although the latter are likely to attest to settlement in the vicinity at this time. The scatter of small Middle Bronze Age pits at High House reflects the picture elsewhere in Essex where 'settlement sites [of this period] ... remain elusive and are still largely confined to sites with occasional pits' (Brown 1996, 25). Structural evidence has proved difficult to find, but probable Middle Bronze Age field systems have been recorded at Mucking (Bond 1988) as well as at North Shoebury (Wymer and Brown 1995), both to the east of High House on the north side of the Thames estuary (**Figure 1**). Perhaps the two gullies at High House

belonged to such a system, possibly part of a droveway

There is more substantial evidence for Late Bronze Age / Early Iron Age (the pottery hints towards Early Iron Age) settlement, confined to the highest point of the site at High House and overlooking the Thames to the south. This settlement appears to have been unenclosed, one of a variety of such settlements which are known in Essex including, for example, North Shoebury (Wymer and Brown 1995) and Whitehall Wood, Upminster (Greenwood 1986), the latter less than 10km to the north-west of High House. Although ditch 17000 at High House appears not to have been part of an enclosure, it certainly formed a boundary of some sort, with a concentration of irregular pits to the west. A Late Bronze Age / Early Iron Age ditch of broadly similar size (and possibly similarly aligned) recorded approximately 300m to the north-west of ditch 17000 in an earlier evaluation (OAU 1995) may also have been part of a linear boundary rather than an enclosure. No structural remains were identified in the High House excavation, probably not a reflection of poor survival as Late Iron Age post-holes were found in this area. Nevertheless, the relatively large quantities of pottery and loomweights (but no spindle-whorls or perforated clay tablets) do suggest that there were structures nearby and subsequent excavation (in 2008) has revealed a scatter of small pits and post-holes, including at least one four-post structure, less than 100m to the south. The faunal and charred plant remains attest to agricultural intensification in the Late Bronze Age / Early Iron Age, in common with the evidence from other sites in Essex and further afield, and indicate the exploitation of a variety of soils and habitats in the vicinity of High House. In this respect, the briquetage from one Middle / Late Bronze

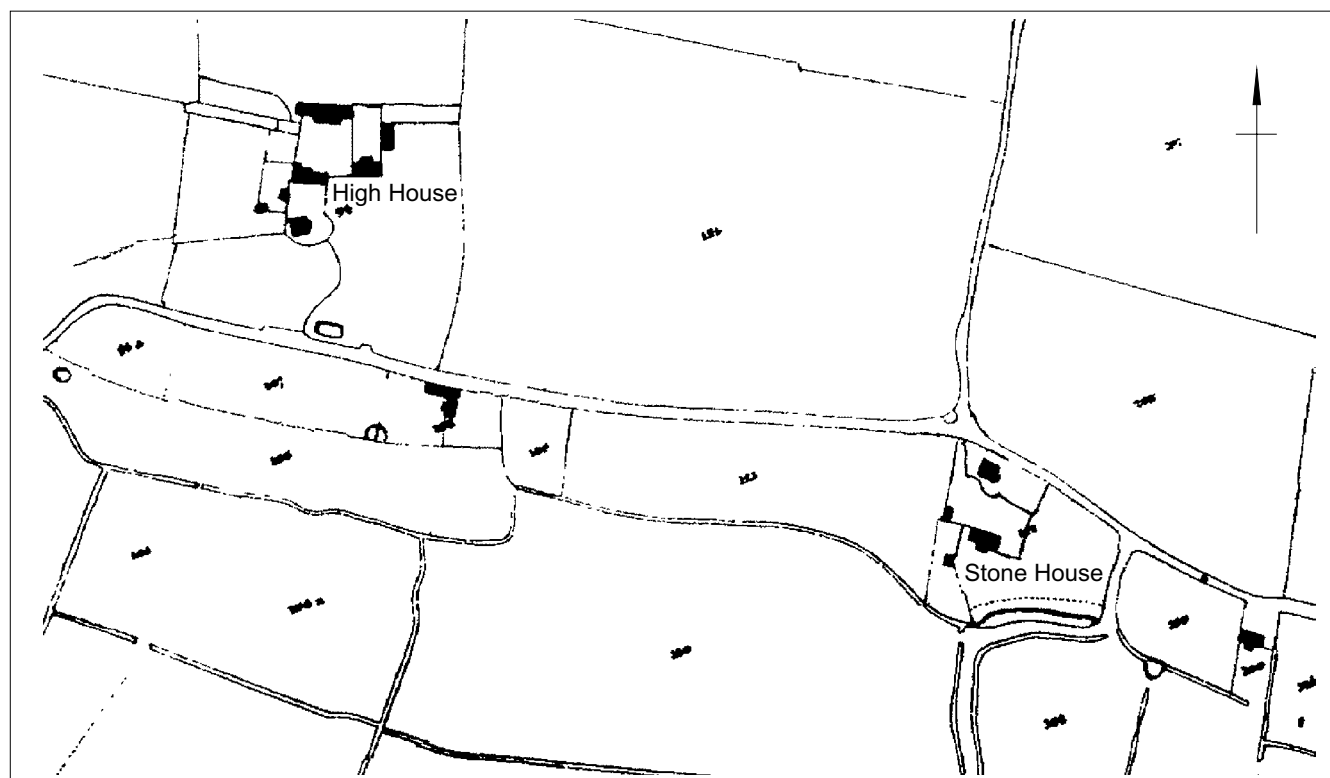


Figure 24 Tithe map of West Thurrock parish 1838 (extract, from ERO D/CT 357B)

Age pit should also be noted as it reflects salt production in the nearby marshes.

No Middle Iron Age features or finds were present at High House and there was only one feature of possible Middle / Late Iron Age date at Stone House, in addition to an unstratified 4th century BC brooch, supporting the current perception in the region of discontinuity in settlement sites between the Early Iron Age and the Late Iron Age, with a localised shifting of settlement foci (Brown and Glazebrook 2000, 31).

In contrast to the lack of evidence for Middle Iron Age settlement, Late Iron Age features were found at both High House and Stone House. The function of the cluster of shallow pits at Stone House is difficult to ascertain, particularly in the absence of any structural evidence, but the small enclosure, ditches, pits and post-holes at High House probably represent part of a more extensive complex, possibly a farmstead, of at least two phases. The enclosure may have contained a four-post structure, perhaps a granary, but no round-houses were identified within the excavated area and it must be assumed that such structures lay elsewhere. It should be emphasised that the excavation exposed only a small part of a much larger landscape, such as has been revealed at Mucking about 10km to the east.

The Late Iron Age settlement at High House was succeeded within a decade or so of the Conquest by a new layout of features representing what is interpreted as a trackway with a relatively substantial boundary ditch to the west. It is possible that the Roman layout utilised various elements of the pre-Conquest landscape, and this is most clearly demonstrated by the use of Late Bronze

Age / Early Iron Age ditch 17000 for burial, creating a linear cemetery immediately to the east of the postulated trackway. Although no settlement evidence of this date was recovered in the excavation, the cemetery is likely to have served a small rural settlement within close proximity; the burial grounds associated with such settlements were often located close to boundaries (Esmonde Cleary 2000, 132–133, 137–8). In addition, one might note the relatively large quantity of pottery from ditch 17010, perhaps an indicator of a settlement nearby; the charred plant remains which, as in the late prehistoric period, reflect the utilisation of a fairly wide range of soil types; and the dominance of sheep in the faunal assemblage. Ditch 17010 may have been a significant boundary feature, as may ditch 29302 recorded further to the west in the watching brief. Unfortunately, the absence of any known settlement nucleus in the vicinity prevents a coherent picture of the local rural landscape being developed, as has been possible on a large-scale at Mucking, and the extent of chalk quarrying means that much evidence will have been lost. Nevertheless, the evidence from High House does confirm the picture of continuity from the Late Iron Age to the Early Roman period seen elsewhere in the region (Brown and Glazebrook 2000, 31).

The mixed-rite cemetery represents a significant discovery and it might partly reflect an impetus in rural development in the area which appears to have occurred in the Flavian period (Going 1996, 103), though several of the brooches appear to indicate a slightly earlier, Claudian / Neronian date. Burial in ditches is not a common feature of Early Roman rural cemeteries and

this example, apparently extending over a distance of at least 100m, exhibits a number of unusual characteristics which make it of considerable interest. Cremation was the predominant rite in the late pre-Roman Iron Age in South-East England but there is growing evidence, mostly from rural sites, that inhumation was occasionally practiced before and after the Conquest, following which cremation was again the usual funerary rite in the early Roman period. The inhumations at High House were perhaps part of a localised, minority rite which may also be represented at Ardale, near Grays, approximately 7.5km to the north-east, where eight Late Iron Age inhumation burials were identified (Wilkinson 1988, 27–8, 58), and a little further away at Mucking where another group of eight inhumation burials have been assigned to this period (Going 1993, 19; Clark 1993, site atlas plan 12; Jones and Jones 1975). No human bone survived at Ardale and only two graves contained possible grave goods – one a pot and a La Tène 3 brooch, the other a pot (Wilkinson 1988, 58), while at Mucking the silhouettes of flexed inhumations in coffins were recorded, and one grave contained a pot (Jones and Jones 1975). The disposition of the bodies and the presence of coffins at Mucking provide further parallels with the inhumations at High House (see below).

At High House, the brooch from cremation burial 17047 may be the earliest from the cemetery and a pre-Conquest date for this and, therefore, the beginning of burial there is possible. However, all of the burials could be Romano-British. If the two cremation burials did pre-date the inhumation burials then it seems that it cannot have been by long, and it is likely that the two rites were broadly contemporaneous. Being unurned, they do not follow what is usually thought of as the usual Iron Age tradition of urned burial, though in the mid and later 1st century AD this quite often saw the deposition of a single brooch as part of the rite (Philpott 1991, 47, 129).

In the earliest Romano-British cemetery at Mucking (cemetery 3; Clark 1993, site atlas plan 17), four of the eleven cremation burials were unurned, and of probably similar Conquest-period date were several extended, uncoffined and unaccompanied inhumation burials (cited in Philpott 1991, 45). This may also provide a parallel for the cemetery at High House, though here only one body was extended and the majority were flexed, with two being crouched or loosely crouched. The inhumation burials at High House are also distinguished by the presence of coffins in at least six of the graves, as well as brooches in five – in one case (inhumation burial 17044) along with pottery vessels and possibly one wooden vessel. The use of coffins was not unknown in the early Roman period (Philpott 1991, 53), but the number identified at High House does appear to be unusual, as does the number of early inhumation burials recorded. The coffins include what appears to have been a more elaborate, hinged box (inhumation burial 17062), box burial being an early Roman introduction in the South-East, though other recorded examples are all associated with cremation rather than inhumation burials (Philpott 1991, 17).

Philpott (1991, 137) notes occasional examples in the South-East of probable 1st century burials accompanied by brooches only, the most commonly occurring type of personal ornament. Against this background, the five burials (>40% of the fully excavated examples) at High House with one or more brooches must represent an unusual group, particularly inhumation burial 17044 with five brooches. This was the only grave to contain other grave goods, comprising four pots, possibly one wooden vessel with a copper alloy binding strip and one glass unguent bottle, and these appear to make it a uniquely well-furnished mid-late 1st century inhumation burial in the South-East. The range of vessels is likely to represent a 'table set', though no food remains were present or survived. Single pottery vessels occur with three early inhumation burials at Guilden Morden, Cambridgeshire, and there were two vessels in each of two graves at Julliberries Grave, Chilham, Kent, but it is only at the latter site that pottery (a beaker and a dish) occur alongside a brooch (and also a bracelet) in a single grave, this example being dated to *c.* AD 50 (Philpott 1991, 137). It might be noted here that in addition to the two inhumation burials at Julliberries Grave there were also two cremation burials, another similarity that might be drawn with High House. Philpott (1991) records no examples of surviving evidence for wooden vessels (other than caskets), and although unguent bottles are present in cremation burials he does not cite any as early as the 1st century AD in inhumation burials. The deposition of the broken example at High House may reflect an amuletic property.

The burials from High House provide a useful addition – particularly given the early prominence of the inhumation rite – to the known burials of this date from the South-East. Despite the numbers recovered over the last decade from rural contexts, for example, excavations along the route of the A120 (Timby *et al.* 2007) and from Stansted (Cooke *et al.* 2008) both in Essex, the majority of the burials derive from urban cemeteries (Going 1997; Going and Plouviez 2000). Overall, therefore, the mixed-rite cemetery at High House, which might have been established around the time of the Conquest and remained in use for perhaps two or three decades, represents an unusual rural and relatively richly-furnished example, with few parallels in the South-East.

Osteological analysis has demonstrated comparatively low levels of dental hypoplasia which suggest relatively well-nourished children, though the occurrence of *cribra orbitalia* and at least one case of rickets suggest potential dietary problems for some individuals. The generally fairly slight calculus deposits suggest a moderate self-cleaning diet, potentially reasonably high in meat protein, though the high caries rate implies a carbohydrate-rich diet. It is interesting to note the apparent predominance of occlusal caries which are generally considered more characteristic of later periods (medieval/post-medieval) where the diet contained more refined foods and a higher sugar content. Trauma rates are very low and this, together with the levels of joint disease suggests the general

lifestyle was not markedly physically strenuous. The possible occurrence of either tuberculosis or brucellosis may be indicative of lives lived in close proximity to cattle. The possible case of leprosy, if a correct diagnosis, would render this potentially the earliest recorded case of the disease from the country.

There is no evidence for the Roman activity at High House continuing beyond the end of the 1st century AD, and the only indication of a Saxon presence were sherds of a bowl of probable 5th / 6th century date found redeposited in a later ditch at Stone House. If the suggested dating is correct, then the vessel could be broadly contemporary with the earliest phases of Anglo-Saxon settlement at Mucking.

Probably the most significant discovery of HS1 excavations at West Thurrock was the medieval manor house at Stone House. This was not the first, and there was a sequence of manor houses in West Thurrock which reflect the changing relationship of the manor to its landscape dominated by the chalk ridge of the Purfleet anticline and the marshes of the Thames shore. The first manor house of the 11th century was probably located close to St Clement's church on a promontory in the marshes, controlling its valuable asset of the route by ferry across the Thames to Greenhithe. The grazing of sheep on the marshes was already a significant part of

the manorial economy, and it was early in the 12th century that the circular nave of St Clement's church was constructed (Harrold 1998, 4–6). The ferry became increasingly important in the late 12th century when it became the route of pilgrimages to Canterbury.

Around the end of the 13th century the Brianzon lords of the manor probably relocated their manorial centre to a place previously occupied by stock enclosures at the Stone House site. Here they built a new stone manor house, one of a very small number of medieval, rural, domestic stone buildings known from Essex (**Figure 25**). The site, on the south side of the road from Purfleet to Grays Thurrock which ran along the edge of the marshes, reflected the balance of value of the uplands and marshlands in the agricultural economy. It controlled a manorway stock route into the marshes, but was sufficiently high above them to avoid flooding by the rising waters of the Thames, which now had to be held back by embankments along the river shore. Immediately to the north was the junction of the marsh-edge road with the route (Stonehouse Lane) to the other Brianzon manor at Aveley, and on to London. The manor house was extended in the early 14th century and served as the central point of the manor until the 16th century.

Finds as well as faunal and plant remains from this period were very sparse, but a reasonably coherent

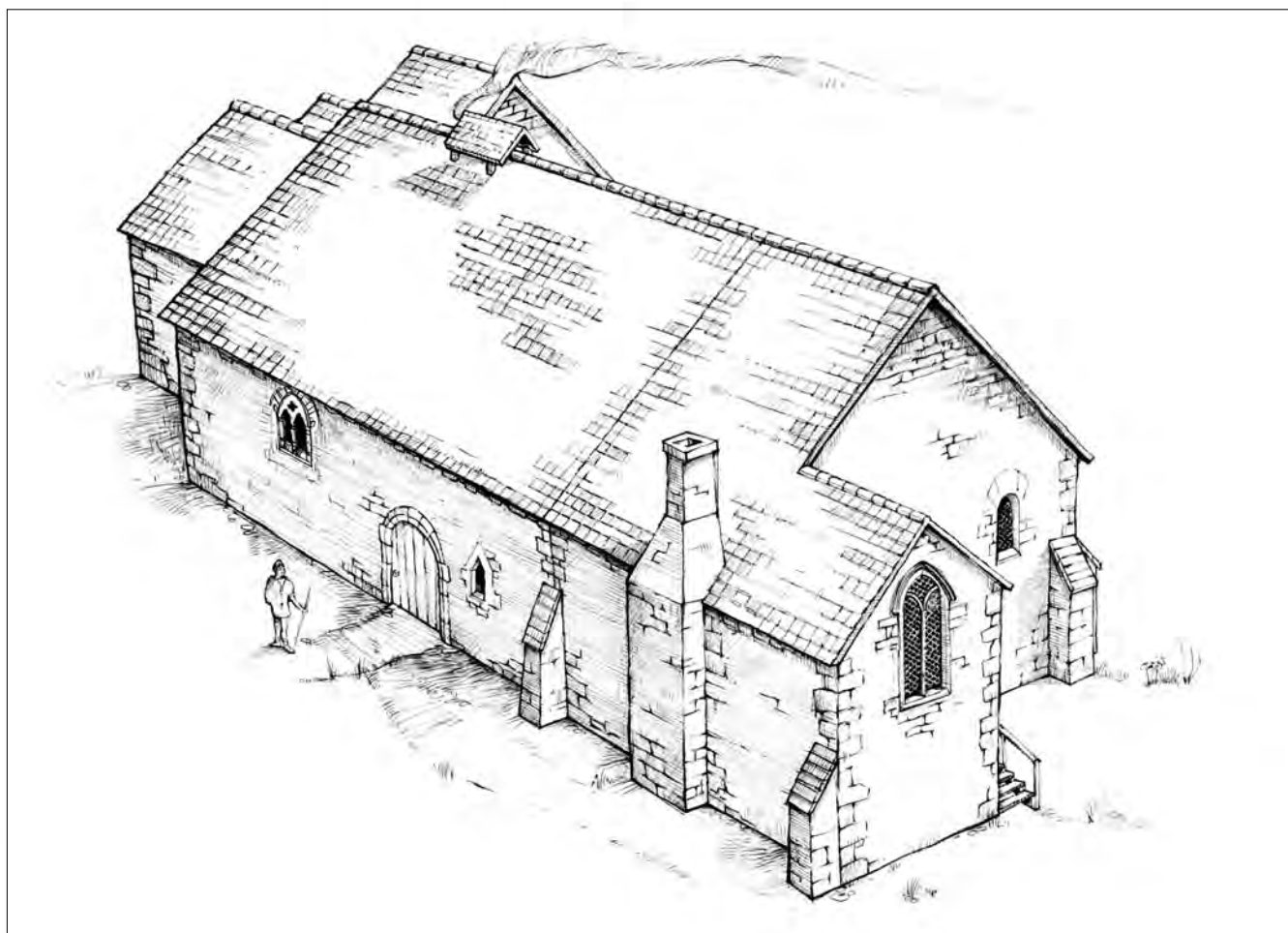


Figure 25 Reconstruction drawing of Stone House, viewed from the north-west (by Mark Gridley)

ground plan of the manor house was obtained, despite the entire building not being available for detailed excavation and it having been extensively robbed. This has allowed comparisons with other manor houses of this period in Essex, for example Southchurch Hall (Jackson 1987, 34–8) and, in particular, Low Hall, Walthamstow (Blair 2002). Furthermore, documentary research has enabled many details of the ownership, layout and use of the houses at Stone House and High House to be established, particularly in the post-medieval period, as well as providing useful background information on the environment and economy of the area, and the continuing efforts to reclaim land along the edge of the Thames estuary (cf. Glazebrook 1997, 52–3; Brown and Glazebrook 2000, 49).

The opportunities for excavation and documentary research at Stone House have a wider importance as there has been a generally low level of excavation of rural medieval sites in the region, and a need has been identified to research and date settlement patterns (Glazebrook 1997, 52–3). The evolution of the medieval house and farmstead is also an important research topic (Brown and Glazebrook 2000, 48), with few recorded rural medieval house plans and, as noted above, stone-built rural medieval buildings are almost unknown.

In the 1550s the Stone House was superseded by the construction of a new house by Cicely Long at the New Place, later known as High House. Its more elevated position to the north of the road to Purfleet (London Road) reflects the increasing importance of arable land in the agriculture of the period. Stone House became a tenanted farm from the 16th century onwards, whilst High House was regarded as the main house of the manor when it was held by Cicely's descendants and their successors until the 19th century. During the divisions of the manor between absentee landlords in the mid 17th century and the 1760s it was often in the hands of tenants. It is not known where the courts of the manor were held at any period in its history, and it is therefore difficult to say which house functioned as the manorial centre. Stone House was rebuilt in 1683 and most of the medieval manor house was demolished at the same time or shortly after, the solar block probably being converted to a cottage which may have survived for another 150 years. Stone House continued as a tenanted farm, except for a short period at the end of the 18th century when it was used as the parish workhouse. All buildings at Stone House had gone by the 1920s but the High House complex remains, the sole survivor, along with St Clement's church, of old West Thurrock.

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APPENDIX 1: HIGH HOUSE, INVENTORY
OF OCTOBER 1559

Transcribed by Christopher Phillpotts (Shropshire Archives 6000/9479)

Herafter ensuythe the inventorye indented of all the goods, cattalls, debts, household stuff, plate, jewells and redye money which late were of Cycely Long wedowe deceased, viewed and preysed by Richard Pye leatherseller, Mathewe Colclough draper, Christofer Dymitesey mercer, Citezenes of London, and John Gilman of Weste Thurrock in the countie of Essex yoman, the furste daie of October 1559...

Att her howsse in Essex

In the Parlor

Item j square table of wayneskott	viijs
Item j forme of wayneskott	viijd
Item vj stoles of wayneskott	vijs
Item j carpett of dorney old	xijd
Item vij cusskens	vijs
Item ij smale chayres with yelow fustyan	iiijs
Item j chaire of walnutte tree	iiijs
Item j old turned chayre	vijs
Item j cubborde of waynskott	xs
Item j dorney carpett to the same cuborde	xiiijd
Item j litle tabull of wayneskott	vs vjd
Item j corte coberd for a paier of virginalls	iiijs iiijd
Item ij litle dorney carpetts to the same	ijs viijd
Item j jack of wood for a bason	xd
Item j skerne of wyker sett in wayneskotte	xvjd
Item j paier of andirons of yron	iiijs viijd
Item j paier of tongs of yron	viijd
Item j back of yron in the chymney	iiijs
Item vj fote stoles	xviijd
Item j paier of tabulls	ijs
Item the hanging of paynted clothe	xvjs viijd
Item a portall with other drawing wyndowes	xxvs
Summa	vjli

In the Hall

Item the hangings of paynted clothe	xiijs iiijd
Item j tabull with a frame of wayneskotte	vjs viijd
Item vj stoles of wayneskott	vijs
Item iij formes of oke	ijs viijd
Item j cubborde of wayneskott	xs
Item j paier of playeing tabulls	xxd
Item ij brusses	xvjd
Summa	xlijs viijd
In her owen Chamber	
Item j bedsted of wayneskott	xiijs iiijd
Item v curtaynes of yelow and blewe say and frynge to the same about the bedd	xxs
Item iij curtayne roodds	ijs viijd
Item j litle settell of wayneskott at the bedds fote	iijs
Item j fetherbedd	xls
Item j flock bedd	viijs
Item j paier of white blanketts	vs
Item j redd coverlett	viijs iiijd

Item j bolster of fethers with the bed &	
Item j bolster of flock with the flockbed &	
Item ij pillowes of downe	iiijs
Item j cubborde of wayneskott	xs
Item j smale quysshens of white silk	xijd
Item j smale ____ of blewe and yelow with a fringe for a bedd	ijs
Item j smale pece of grene and redd saye for a bedd	iiijs vjd
Item j cheste of oke	xvd
Item j smale stole of waynskott	viijd
Item j bound close chayre of wood	ijs
Item j paier of andyrans of yron	ijs
Item j curtayne in the wyndowe of grene and redd buckeram	ijs
Item the hangings of the chamber of paynted clothe	xiijs iiijd
Item vj bedstaves, a white brushe of hare and a come	iijs
Summa	vijl iiijs iiijd

In Mr Vyners Chamber

Item a bedsted of waynescott	xiijsiiijd
Item iij curtaynes of green and redd buckeram	vs
Item a settell of waynescott	iiijs
Item vj bedstaves	vjd
Item j flock bedd	viijs
Item j bolster of flock &	
Item j bolster of fethers	ijs vjd
Item j white blankett	ijs viijd
Item j redd coverlett	vjs viijd
Item j olde cheste of oke	xxd
Item j cubborde	iijs iiijd
Item j smale presse for glasses	iijs iiijd
Item vij drinke glasses in the same presse	vijs
Item j owre glasse	xvjd
Item j dosen of rownde trenchers with a case	xijd
Item ij urrenalls	iijd
Item iij glasses for Rose Water	xijd
Item the paynted clothes of canvas	xvs
Item iij curtayne rodde	ijs
Summa	iiijl xviijs vjd

In the Chamber next the Servants

Item j bedsted of waynescott	xs
Item v curtaynes of grene and redd buckeram	vs
Item j settell att the bedds fote	iiijd
Item fringe abowte the bedd of grene and redd crewell &	
Item iij curtayne rodde	xxd
Item j flock bedd	iiijs
Item j white blankett	ijs
Item j close chaire of waynescott	xxd
Item the paynted hangings about the Chamber	xs
Summa	xls

In the Mylke House

Item ij bolting tubbes, j mele tubbe, j kneding troughe	vs vjd
Summa patet	

The Pewter				In the Mayds Chamber	
Item iij pewter candelsticks	vs	iiijd		Item j bedsted of wayneskott, j trundell bedd, j testerne	
Item ij porringers of pewter	vij	iiijd		of redd and grene buckeram,	
Item j pewter bole for a possett	iijs	iiijd		iij curtayn rodde, v curtaynes of redd and grene	
Item vj platters	xiijs	iiijd		buckeram, j old smale trundell bedd,	
Item iij chargers		vij		j old settell, j grete bell for a howse	xs
Item ij bason, a grete and a litle		iijs		Item the hangings of paynted clothe	vjs viijd
Item v rownd disshes	vjs	viijd		Item j paier of tressells and a litle long settell	xvjd
Item iij square dysshes	ijs	iijd		Summa	xvijs
Item x rownde sawcers	iijs	iiijd			
Item vj square sawcers		iijs		In the Buttrye	
Item j custerd molle	ijs	iiijd		Item j smale cubborde	ijs vjd
Item j plate for a tarte		vjd		Item j byn and iij bottells	xxd
Item v chamber potts	iiijs	ijd		Summa patet	
Item j quarte pott and j pottell pott		ijs			
Item iij pewter potts for vergis, vynegar and musterd		xxd		In the Kytchen	
Item x pewter spones		xiiijd		Item j jack of yron with a leden waight	xiijs iiijd
Item v potts of stone with pewter covers		xviijd		Item j chopping knyfe of yron	viijd
Item j salte of pewter		xd		Item j pele to sett pies on	ijd
The buckett of the well		xiiijd		Item j grate for brede	vjd
Item ij flower potts		xd		Item j chopping borde for erbes	vjd
Summa	iiij	xjs		Item j wasshing bole	xxd
				Item j bucking tubbe, j ryensing tubbe and j ley tubbe	iijs
The Brasse				Item j paier of bellows	iiijd
Item iij brasse potts		xs		Item ij grete racks for spytt	vjs viijd
Item iij pannes and j kettal		xs		Item ij crepers	ijs
Item j dripping pann		xijd		Item j gridyron and a fleshe hoke	viijd
Item j fryeng pann		xijd		Item j paier of pothoks	vjd
Item j chafer of brasse	iiijs	iiijd		Item ij trevetts of yron wherof j smale and j grete	xxd
Item j brasse skumer		vjd		Item ij paier of tongs and a fier shovelle	xxd
Item v candelsticks		vs		Item j spytt	xd
Item j fote for a chafing dysse		ijs		Item ij racks to hang potts and j long barre of yron which they hang on	vs
Item j litle skellet		viijd		Item a cope for capons	viijd
Item j olde kettell		xijd		Item ij smale stoles	iiijd
Summa	xxxvs	vjd		Item a rack for cheses	viijd
				Summa	xls xd
The Lynnen					
Item iiij paier of fyne shetes		Ls		In the Chamber over the Kytchen	
Item j corse canvas shete		iijs iiijd		Item j bedsted of wayneskott	xiijs iiijd
Item iij long tabull clothes		vij	iiijd	Item v curtaynes of yelowe and blewe say, fringe of the same	xvijs
Item v shorte tabull clothes		vs		Item iij curtayn rodde	ijs
Item vj long towells		vs		Item j fetherbedd and j bolster of fethers	xxxvjs viijd
Item iiij coberd panes wrought with blewe	xiijs	iiijd		Item ij white blanketts	iijs
Item j coberd paine corse		xd		Item j coverlett of tapistry, lyned with canvas	vjs viijd
Item v pillowkeces		vs xd		Item j settell att the bedds foote and vj bedstaves	iijs vjd
Item iij shorte towells		xd		Item j courte cubborde of oke	ijs
Item iiij dosen and v napkins		xxs		Item ij crepers of yron in the chymney	xiiijd
Item ij pillowes of downe		iijs		Item j smale wayneskott stole	vjd
Summa	vl	xvjs	vjd	Item j smale iij foted stole	ijd
				Item the hangings of paynted clothe	xvs
Mr Meredethes Chamber				Summa	vl iijs
Item j flock bedd		vs			
Item a bolster of fethers		ijs vjd		In Mr Meredethe Chamber	
Item a covering lyned olde		ijs		Item j bedd of wayneskott	xiijs iiijd
Item a dorney covering		ijs iiijd		Item v curteyns of blewe and yelowe say	xvijs
Item other lumber about the howse		vs		Item j settell of wayneskott with vj bedstaves	iijs vjd
Summa		xiijs	xd		

Item j courte cubborde of oke	ijs
Item the hangings of paynted clothe	xiijs iiijd
Item j cheste of wayneskott wherin is certeyn lynnen	iiijs
Summa	liiijs ijd
In the Servaunts Chamber	
Item ij old bedstaves of oke or elme	iijs iiijd
Item j flock bedd	vs
Item ij bolsters of flock	ijs
Item ij old formes	viijd
Item j old shorter lader	xijd
Summa	xijs
In the Brusshing Chamber	
Item j presse of wayneskott	xs
Item iij litle quissbens for wemen peynes	xviijd
Item ij quysshens	xvjd
Item j curteyn of yellowe and blewe saye	xxd
Item Flaskett	vjd
Item j testor which is old for a bedd	xvjd
Item j tabull with ij tressells, ij driffatts and j greate cheste	vs
Item j olde chest of bords	
Summa	xxjs iiijd

Bibliography

Primary sources and abbreviations

BL British Library
CAD Catalogue of Ancient Deeds
CChR Calendar of Charter Rolls
CIPM Calendar of Inquisitions Post Mortem
ERO Essex Record Office, Chelmsford
NA National Archives, Kew

Secondary sources

Adams, J.C., 1987, *Outline of Fractures*, London: Churchill Livingstone
Aufderheide, A.C. and Rodriguez-Martin, C., 1998, *The Cambridge Encyclopaedia of Human Palaeopathology*, Cambridge University Press
Barford, P.M., 1988, 'Salt production equipment', in Bond, D., *Excavation at the North Ring, Mucking, Essex*, E. Anglian Archaeol. 43, 39–40
Barrett, J.C., 1978, 'The EPRIA prehistoric pottery', in Hedges, J.D. and Buckley, D.G., 'Excavations at a Neolithic causewayed enclosure, Orsett, Essex, 1975', *Proc. Prehist. Soc.* 44, 268–88
Barrett, J.C., 1980, 'The pottery of the Later Bronze Age in lowland Britain', *Proc. Prehist. Soc.* 46, 297–319
Barrett, J.C. and Bond, D., 1988, 'The pottery', in Bond 1988, 25–37
Bass, W.M., 1987, *Human Osteology*, Columbia: Missouri Archaeological Society
Bates, J. and Minkin, J., 1999, 'Lafone Street, Southwark – prehistoric farming and a medieval Bridge', *London Archaeologist* 8, 325–330
Bayley, J. and Butcher, S., 2004, *Roman brooches in Britain: a technological and typological study based on the Richborough Collection*, London: Soc. Antiq. Monog. 68
Beek, G.C. van, 1983, *Dental Morphology: an illustrated guide*, Bristol, London, Boston: Wright, PSG
Berry, A.C. and Berry, R.J., 1967, 'Epigenetic variation in the human cranium', *J. Anatomy* 101(2), 261–379
Black, E.W., 1986, 'Romano-British burial customs and religious beliefs in South-East England', *Archaeol. J.* 143, 201–39
Blair, I., 2002, 'A moated manor at Low Hall, Walthamstow', *Essex Archaeol. Hist.* 23, 191–221
Blockley, K., Blockley, M., Blockley, P., Frere, S. and Stow, S., 1995, *Excavations in the Marlowe car park and surrounding areas. The archaeology of Canterbury 5, Part 2: The finds*, Canterbury: Canterbury Archaeological Trust

Boardman, S. and Jones, G., 1990, 'Experiments on the effects of charring on cereal plant components', *J. Archaeol. Sci.* 17, 1–11
Bond, D., 1988, *Excavations at the North Ring, Mucking, Essex: a Late Bronze Age Enclosure*, E. Anglian Archaeol. 43
Brickley, M., Mays, S. and Ives, R., 2005, 'Skeletal manifestations of vitamin D deficiency osetomalacia in documentary historical collections', *Internat. J. Osteoarchaeol.* 14, 389–403
Brothwell, D.R., 1972, *Digging Up Bones* London: British Museum (Nat. Hist.)
Brothwell, D. and Zakrzewski, S., 2004, 'Metric and non-metric studies of archaeological human remains', in Brickley, M. and McKinley, J.I. (eds), *Guidelines to the Standards for Recording Human Remains* British Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology, 24–30
Brown, N., 1988, 'A Late Bronze Age enclosure at Lofts Farm, Essex', *Proc. Prehist. Soc.* 54, 249–302
Brown, N., 1995, 'Later Bronze Age and Early to Middle Iron Age pottery', in Wymer and Brown 1995, 77–88
Brown, N., 1996, 'The archaeology of Essex c. 1500 – 500BC', in Bedwin, O. (ed.), *The Archaeology of Essex. Proceedings of the Writtle Conference*, Essex County Council, 26–37
Brown, N., 1998, 'Prehistoric pottery', in Wallis, S. and Waughman, M., *Archaeology and the Landscape in the Lower Blackwater Valley*, E. Anglian Archaeol. 82, 132–41
Brown, N. and Glazebrook, J., 2000, *Research and Archaeology: A Framework for the Eastern Counties 2: Research Agenda and Strategy*, E. Anglian Archaeol. Occ. Paper 8
Buckley, D.G. and Hedges, J.D., 1987, *The Bronze Age and Saxon settlement at Springfield Lyons, Essex: an interim report*, Essex County Council Archaeol. Section Occ. Paper 5
Buikstra, J.E. and Ubelaker, D.H., 1994, *Standards for data collection from human skeletal remains*, Arkansas Archaeological Survey Research Series 44
Butcher, S., 2001, 'The brooches', in Anderson, A.S., Wachter, J.S. and Fitzpatrick, A.P., *The Romano-British 'small town' at Wanborough, Wiltshire*, Britannia Monog. 19, London: Society for the Promotion of Roman Studies, 41–74
Clark, A., 1993, *Excavations at Mucking. Volume 1: The Site Atlas*, English Heritage
Cooke, N., Brown, F. and Phillpotts, C., 2008, *From hunter gatherers to huntsmen – A history of the Stansted landscape*, Framework Archaeology Monograph
Cool, H.E.M., and Price, J., 1995, *Roman vessel glass from excavations in Colchester, 1971–85*, Colchester: Colchester Archaeol. Rep. 8
Crummy, N., 1983, *The Roman small finds from excavations in Colchester 1971–9*, Colchester: Colchester Archaeol. Rep. 2
Cunningham, C.M., 1982, 'Medieval and post-medieval pottery', in Drury, P.J., 'Aspects of the origin and development of Colchester Castle', *Archaeol. J.* 139, 358–80
Cunningham, C.M., 1985, 'A typology for post-Roman pottery in Essex', in Cunningham, C.M. and Drury, P.J., *Post-Medieval Sites and Their Pottery: Moulsham Street, Chelmsford*, Chelmsford Archaeol. Trust Rep. 5 / Counc. Brit. Archaeol. Res. Rep. 54, 1–16
Darby, H.C., 1971, *The Domesday Geography of Eastern England* (3rd edition)
Drury, P.J., 1978, *Excavations at Little Waltham 1970–71*, Chelmsford Excav. Comm. Rep. 1 / Counc. Brit. Archaeol. Res. Rep. 26
Drury, P.J., 1993, 'The later Saxon, medieval and post-medieval pottery', in Rodwell, K.A. and Rodwell, W.J., *Rivenhall: investigations of the villa, church and village 1950–77*, Chelmsford Archaeol. Trust Rep. 4.2 / Counc. Brit. Archaeol. Res. Rep. 80, 78–95
Drury, P.J. and Rodwell, W.J., 1973, 'Excavations at Gun Hill, West Tilbury', *Essex Archaeol. Hist.* 5, 48–112
Dungworth, D., 1998, 'Mystifying Roman nails: *clavus annalis*, *defixiones* and *minkisi*?', in Forcey, C., Hawthorne, J. and Witcher, R. (eds), *TRAC 97: proceedings of the Seventh Annual Theoretical Roman Archaeology Conference, which formed part of the Second International Roman Archaeology Conference, University of Nottingham, April 1997*, Oxford: Oxbow, 148–159
Egan, G., 1998, *The medieval household: daily living c. 1150 – c. 1450*, Medieval finds from excavations in London 6, London: HMSO

- Egan, G., 2005, *Material culture in London in an age of transition: Tudor and Stuart period finds c. 1450–c. 1700 from excavations at riverside sites in Southwark*, MoLAS monograph 19, London: Museum of London Archaeology Service
- Egan, G. and Pritchard, F., 1991, *Dress accessories: c. 1150 – c. 1450*, Medieval finds from excavations in London 3, London: HMSO
- Esmonde Cleary, S., 2000, 'Putting the dead in their place: burial location in Roman Britain', in Pearce, J., Millet, M. and Struck, M. (eds), *Burial, Society and Context in the Roman World*, Oxford: Oxbow, 127–142
- Fawn, A.J., Evans, K.A., McMaster, I. and Davies, G.M.R., 1990, *The Red Hills of Essex: salt-making in antiquity*, Colchester: Colchester Archaeol. Group
- Feugère, M., 1985, *Les fibules en Gaule Méridionale: de la conquête à la fin du Ve siècle après J.-C.*, Revue Archéologique de Narbonnaise, Supplément 12, Paris
- Finnegan, M., 1978, 'Non-metric variations of the infracranial skeleton', *J. Anatomy* 125(1), 23–37
- Fitzherbert, J., c. 1523, *Boke of husbandrie* (Eds N.J. Norwood and W.J. Johnson, 1979). Amsterdam: Theatrum Orbis Terrarum
- Glazebrook, J., 1997, *Research and Archaeology: A Framework for the Eastern Counties 1: Resource Assessment*, E. Anglian Archaeol. Occ Paper 3
- Going, C.J., 1987, *The Mansio and other sites in the south-eastern sector of Caesaromagus: the Roman pottery*, Chelmsford Archaeol. Trust Rep. 3.2 / Counc. Brit. Archaeol. Res. Rep. 62
- Going, C.J. 1993, 'The Iron Age', in Clark 1993, 19–20
- Going, C.J., 1996, 'The Roman countryside', in Bedwin, O. (ed.), *The Archaeology of Essex. Proceedings of the Writtle Conference*, Essex County Council, 95–107
- Going, C., 1997, 'Roman', in Glazebrook 1997, 35–45
- Going, C.J., 2004, 'Pottery', in Havis and Brooks 2004, 139–65
- Going, C. and Plouviez, J., 2000, 'Roman', in *Research and Archaeology: A Framework for the Eastern Counties 2. Research Agenda and Strategy*, E. Anglian Archaeol. Occ. Paper 8, 19–22
- Goubitz, O., 1987, 'Calceology: a new hobby: the drawing and recording of archaeological footwear', in Friendship-Taylor, D.E., Swann, J.M. and Thomas, S. (eds), *Recent research in archaeological footwear*, Association of Illustrators and Surveyors. Technical Papers 8, 1–28
- Goubitz, O., 1993, 'Leder', in Lenting, J.J., van Gangelen, H. and van Westing, H. (eds), *Schans op de Grens. Bourtanger bodenvondsten 1580–1850*, Selligen, 525–536
- Greenwood, P., 1986, 'A Late Bronze Age – Early Iron Age field system and settlement at Whitehall Wood, Upminster', *The London Archaeologist* 5, 171–5
- Greig J., 1991, 'The British Isles', in van Zeist, W., Wasylikowa, K. and Behre, K-E. (eds), *Progress in Old World Palaeoethnobotany*. Rotterdam: A.A. Balkema, 229–334
- Grieve, H., 1959, *The Great Tide. The story of the 1953 flood disaster in Essex*, Chelmsford
- Hamerow, H., 1993, *Excavations at Mucking. Volume 2: The Anglo-Saxon settlement*, English Heritage Archaeol. Rep. 41
- Hamilton, S., 1988, 'Fabric analysis of selected 1st millennium BC pottery types', in Wilkinson 1988, 75–6
- Harrold, C., 1998, *The Story of St. Clement's* (3rd edition)
- Hart, C.R., 1957, *The Early Charters of Essex. The Norman Period*, Leicester University, Department of English Local History, Occ. Paper 11
- Havis, R. and Brooks, H., 2004, *Excavations at Stansted Airport, 1986–91*, E. Anglian Archaeol. Rep. 107
- Hawkes, C.F.C. and Hull, M.R., 1947, *Camulodunum. First report on the excavations at Colchester 1930–1939*, London: Soc Antiq. Monog 14
- Henderson, J., 1987, 'Factors determining the state of preservation of human remains', in Boddington, A., Garland, A.N. and Janaway, R.C. (eds), *Death, decay and reconstruction*, Manchester University Press, 43–54
- Hillman, G.C., 1984, 'Interpretation of archaeological plant remains. The application of ethnographic models from Turkey', in van Zeist, W. and Casparie, W.A. (eds), *Plants and Ancient man: Studies in the palaeoethnobotany*, Rotterdam: A.A. Balkema, 1–42
- Hillson, S.W., 1979, 'Diet and dental disease', *World Archaeology* II (2), 147–162
- Holden, J.L., Phakley, P.P. and Clement, J.G., 1995a, 'Scanning electron microscope observations of incinerated human femoral bone: a case study', *Forensic Sci. Internat.* 74, 17–28
- Holden, J.L., Phakley, P.P. and Clement, J.G., 1995b, 'Scanning electron microscope observations of heat-treated human bone', *Forensic Sci. Internat.* 74, 29–45
- Holmes, E.F., nd, *Sewing thimbles*, Finds Research Group 700–1700, Data Sheet 9
- Hull, M.R. and Hawkes, C.F.C., 1987, *Corpus of ancient brooches in Britain by the late Mark Reginald Hull*, Oxford: Brit. Archaeol. Rep. (Brit. Ser.) 168
- Hunter, J.M., 1999, *The Essex Landscape: a study of its form and history*
- Hurst, J.G., 1961, 'The Kitchen Area of Northolt Manor, Middlesex', *Med. Archaeol.* 5
- Isings, C., 1957, *Roman Glass From Dated Finds*, Groningen
- Jackson, J.R., 1987, 'Excavations at Southchurch Hall. An Interim Report', *Essex Archaeol. and Hist.* 18, 34–8
- Jackson, R., 1988, *Doctors and Disease in the Roman Empire*, London: British Museum Press
- Jones, M.K., 1988, 'The arable field: A botanical battleground', in Jones, M.K. (ed.), *Archaeology and the Flora of the British Isles*, Oxford: Oxford University Committee for Archaeology, 86–91
- Jones, M.U., 1972, 'Potters' graffiti from Mucking, Essex', *Antiq. J.* 52, 335–8
- Jones, M.U. and Rodwell, W.J., 1973, 'The Romano-British pottery kilns at Mucking', *Essex Archaeol. Hist.* 5, 13–47
- Jones, M.U. and Jones, R.T., 1975, 'The cropmark sites at Mucking, Essex, England', in Bruce-Mitford, R. (ed.), *Recent archaeological excavations in Europe*, London, 133–87
- Klein, K. L., 2005, 'Buckles' in Gardiner, J. and Allen, M.J. (ed.), *Before the mast: life and death aboard the Mary Rose*, The Archaeology of the Mary Rose 4, Portsmouth: Mary Rose Trust, 99–105
- Knüsel, C., 2000, 'Activity related changes', in Fiorato, V., Boylston, A. and Knüsel, C. (eds), *Blood Red Roses: The archaeology of the mass grave from the battle of Towton AD 1461* Oxford: Oxbow Books, 103–118
- Lancaster, R., 1975, 'Northolt Manor', *London Archaeologist* ii (13)
- Lockwood, H.H., 2006, *Tithe and Other Records of Essex and Barking*, Chelmsford
- Major, H., 1998, 'Objects of baked clay', in Wallis, S. and Waughman, M., *Archaeology and the Landscape in the Lower Blackwater Valley*, E. Anglian Archaeol. 82, 160–3
- Major, H., 2004, 'Baked clay', in Havis and Brooks 2004, 173–6
- Manchester, K., 1983, *The Archaeology of Disease*, Bradford University Press
- Manning, W.H., 1985, *Catalogue of the Romano-British iron tools, fittings and weapons in the British Museum*, London: British Museum Publications
- Margeson, S., 1993, *Norwich households: medieval and post-medieval finds from Norwich Survey excavations 1971–78*, E. Anglian Archaeol. 58
- Mays, S., Brickley, M. and Ives, R., 2006, 'Skeletal manifestations of rickets in infants and young children in a historic population from England', *American J. Physical Anthropol.* 129, 362–374
- McKinley, J.I., 1993, 'Bone fragment size and weights of bone from modern British cremations and its implications for the interpretation of archaeological cremations', *Internat. J. Osteoarchaeol.* 3: 283–287
- McKinley, J.I., 1994, *The Anglo-Saxon cemetery at Spong Hill, North Elmham Part VIII: The Cremations*, E. Anglian Archaeol. 69.
- McKinley, J.I., 2000, 'The Analysis of Cremated Bone', in Cox, M. and Mays, S. (eds), *Human Osteology*, London: Greenwich Medical Media, 403–421
- McKinley, J.I., 2004a, 'Compiling a skeletal inventory: disarticulated and co-mingled remains', in Brickley, M. and McKinley, J.I (eds), *Guidelines to the Standards for Recording Human Remains*, British Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology, 13–16
- McKinley, J.I., 2004b, 'Human remains, pyre technology and cremation rituals', in Cool, H.E.M., *The Roman Cemetery at Brougham Cumbria: Excavations 1966–67*, Britannia Monograph 21, 283–308

- McKinley, J.I., 2008, 'In the heat of the pyre: efficiency of oxidation in Romano-British cremations – did it really matter?', in Schmidt, C. (ed.), *The analysis of burned human remains*, Academic Press, 163–84
- Millard, A., 2001, 'The deterioration of bone' in Brothwell, D.R. and Pollard, A.M., *Handbook of Archaeological Sciences*, Chichester: Wiley, 637–648
- Molleson, T.I., 1993, 'The Human Remains', in Farwell, D.E. and Molleson, T.I., *Poundbury Volume 2: The Cemeteries*, Dorset Nat. Hist. and Arch. Soc. Monog. 11, 142–214
- Molleson, T. and Cox, M., 1993, *The Spitalfields Project. Volume 2: the anthropology. The Middling Sort*, York: Counc. Brit. Archaeol. Res. Rep. 86
- Morant, P., 1768, *History of Essex*, vol i
- Morris, E.L., 1994, *The Analysis of Pottery*, Salisbury: Wessex Archaeology Guidelines, 4
- MPRG 1998, *A Guide to the Classification of Medieval Ceramic Forms*, Medieval Pottery Research Group Occ. Paper 1
- Murphy, P.J., 1987, 'Environmental Evidence', in Buckley, D.G. and Hedges, J.D. (eds), *The Bronze Age and Saxon Settlements at Springfield Lyons, Essex: An interim report*, Essex County Council Occ. Paper 5, 12, 23 and 30
- Murphy, P., 1988a, 'Cereals and crop weeds', in Wilkinson 1988, 99–100
- Murphy P.J., 1988b, 'Plant macrofossils', in Brown, N., 'A late Bronze Age enclosure at Lofts Farm, Essex', *Proc. Prehist. Soc.* 54, 281–93
- Murphy, P.J., 1991, 'Early crop production and wild plant resources in the coastal area of Essex, England', in Renfrew J.M. (ed.), *New Light on Early Farming*, Proceedings of the 7th Symposium of the International Work Group of Palaeoethno-botanists, Edinburgh: Edinburgh University Press, 329–348
- Murphy, P., 1995, 'Botanical evidence', in Wymer, J.J. and Brown, N.R. (eds), *North Shoebury: settlement and economy in south-east Essex 1500BC – AD1500*, E. Anglian Archaeol. 75, 146–150
- Murphy, P., 1998, 'Charred Plant remains', in Wallis, S. and Waughman, M. (eds), *Archaeology and the Landscape in the Lower Blackwater Valley*, E. Anglian Archaeol. 82, 196–204
- Nielsen-Marsh, C., Gernaey, A., Turner-Walker, G., Hedges, R., Pike, A. and Collins, M., 2000, 'The chemical degradation of bone', in Cox, M. and Mays, S. (eds), *Human Osteology in Archaeology and Forensic Science*, London: GMM, 439–454
- Ogden, A.R., 2005, 'Identifying and scoring periodontal disease in skeletal material' Biological Anthropology Research Centre, University of Bradford
- Ortner, D.J. and Putscher, W.G.J., 1985, *Identification of Pathological Conditions in Human Skeletal Remains*, Washington: Smithsonian Institution Press
- Opravingen in Amsterdam, 1977, *20 jaar stadskernonderzoek*, Amsterdam
- Ordnance Survey 1998, *Geological Survey of Great Britain (England and Wales), Sheet 271 – Dartford*
- Oxford Archaeological Unit [OAU] 1995, *Channel Tunnel Rail Link. Purfleet, Thurrock, Essex. Archaeological Evaluation Report*, Oxford Archaeological Unit report ref. 192/84 – 10411, unpub.
- PCRG, 1997, *The Study of Later Prehistoric Pottery: General policies and Guidelines for analysis and publication*, Prehistoric Ceramics Research Group Occ. Paper 1 / 2 (revised ed.)
- Pelling, R., 2003, 'Charred plant remains', in Hutchings P., 'Ritual and riverside settlement: a multi-period site at Princes Road, Dartford', *Archaeologia Cantiana* 123, 73–76
- Pelling, R. and Robinson, M., 2000, 'Saxon emmer wheat from the upper and middle Thames valley, England', *Environmental Archaeology* 5, 117–119
- Pearce, J.E., Vince, A.G., White, R. with Cunningham, C.M., 1982, 'A dated type series of London medieval pottery. Part One: Mill Green Ware', *Trans London Middlesex Archaeol. Soc.* 33, 266–98
- Pearce, J.E., Vince, A.G. and Jenner, M.A., 1985, *A Dated Type-Series of London Medieval Pottery. Part 2: London-type ware*, London Middlesex Archaeol. Soc. Special Paper 6
- Phillipotts, C., 1999, 'Landscape into townscape: an historical and archaeological investigation of the Limehouse area, east London', *Landscape History* 11
- Phillipotts, C., Mepharm, L., and Seager Smith, R., 2002, *Northolt Manor House Excavations 1950–1974. Post-excavation assessment and project design for publication*, unpub. report for London Borough of Ealing
- Philpott, R., 1991, *Burial Practices in Roman Britain. A survey of grave treatment and furnishings AD 43–410*, Oxford: Brit. Archaeol. Rep. (Brit. Ser.) 219
- Pollard, R.J., 1988, *The Roman Pottery of Kent*, Maidstone: Kent Archaeol. Soc.
- Price, J. and Cottam, S., 1998, *Romano-British Glass Vessels: A Handbook*, York: Counc. Brit. Archaeol. Practical Handbook in Archaeology 14
- Rahtz, P., 1969, *Excavations at King John's Hunting Lodge, Writtle, Essex, 1955–57*, Soc. Medieval Archaeol. Monog. 3
- Reader, R., 1974, 'New Evidence for the Antiquity of Leprosy in Early Britain' *J. Archaeol. Sci.* 1, 25–7
- Rees, S.E., 1979, *Agricultural implements in Prehistoric and Roman Britain* (2 vols), Oxford: Brit. Archaeol. Rep. (Brit. Ser.) 69
- Riha, E., 1979, *Die römischen Fibeln aus Augst und Kaiseraugst*, Forschungen in Augst 3, Augst
- Riha, E. 1994, *Die römischen Fibeln aus Augst und Kaiseraugst. Die Neufunde seit 1975*, Forschungen in Augst 18, Augst
- Roberts, C. and Manchester K., 1997, *The Archaeology of Disease*, Stroud: Sutton
- Roberts, C. and Cox, M., 2003, *Health and Disease in Britain from Prehistory to the Present Day*, Stroud, Sutton
- Rogers, J. and Waldron, T., 1995, *A field guide to Joint Disease in Archaeology*, Chichester: Wiley
- Sawyer, P.H., 1968, *Anglo-Saxon Charters: An Annotated List and Bibliography*, London: Royal Historical Society Guides and Handbooks 8
- Scheuer, L. and Black, S., 2000, *Developmental Juvenile Osteology*, London: Academic Press
- Schuster, J., 2006, *Die Buntmetallfunde der Grabung Feddersen Wierde. Chronologie – Chorologie – Technologie, Probleme der Küstenforschung 30 = Feddersen Wierde 6*, Oldenburg: Isensee
- Sealey, P.R., 1996, 'The Iron Age in Essex', in Bedwin, O. (ed.), *The Archaeology of Essex*, 46–68
- Smith, W. and Davies, A., 2006, 'Charred Plant Remains from Roman Deposits at Thurnham Roman Villa', in Giorgi, J. (ed.), *Palaeoenvironmental Evidence from Section 1 of the Channel Tunnel Rail Link, Kent*, CTRL Scheme-wide Specialist Report Series, Archaeology Data Service
- Stead, I.M. and Rigby, V., 1986, *Baldock: the excavation of a Roman and pre-Roman settlement, 1968–72*, Britannia monograph series 7, London: Society for the Promotion of Roman Studies
- Stead, I.M. and Rigby, V., 1989, *Vérulamium: The King Harry Lane site*, HBMCE Archaeol. Rep. 12, London: English Heritage
- Stevens, C.J., 1999, 'Plant Remains', in Broomhead, R.A., 'Ilchester, Great Yard Archaeological Excavations 1995', *Proc. Somerset Archaeol. Nat. Hist. Soc.* 142, 156–165
- Stevens, C.J., 2006, 'Charred plant remains from Bower Road', in Giorgi, J. (ed.), 2006 *Palaeoenvironmental Evidence from Section 1 of the Channel Tunnel Rail Link, Kent*, CTRL Scheme-wide Specialist Report Series, Archaeology Data Service
- Stevens, C.J., in press, 'Charred plant remains from Springhead', in Andrews, P., Biddulph, E. and Hardy, A. (eds) *Settling the Ebbsfleet Valley, CTRL Excavations at Springhead and Northfleet, Kent. Volume 3, Late Iron Age-Roman human and environmental remains*. Oxford, Salisbury: Oxford-Wessex Archaeology
- Swan, V.G., 1984, *The Pottery Kilns of Roman Britain*, London: RCHME Supp. Series 5
- Thompson, I., 1982, *Grog-Tempered 'Belgic' Pottery of South-eastern England*, Oxford: Brit. Archaeol. Rep. (Brit. Ser.) 108
- Thompson, I., 1988, 'Late Iron Age pottery from Ardale Area B', in Wilkinson 1988, 86–8
- Thorne, J., 1876 (reprinted 1970), *Handbook to the Environs of London*, Bath
- Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A., 2007, *A slice of rural Essex. Recent archaeological discoveries from the A120 between Stansted Airport and Braintree*, Oxford Wessex Archaeology Monograph No. 1

- Trotter, M. and Gleser, G.C., 1952, 'Estimation of stature from long bones of American whites and Negroes', *American J. Physical Anthropol.* 10(4), 463–514
- Trotter, M. and Gleser, G.C., 1958, 'A re-evaluation of estimation of stature bases on measurements of stature taken during life and of long bones after death', *American J. Physical Anthropol.* 16(1), 79–123
- URL 1994, *Channel Tunnel Rail Link. Assessment of Historic and Cultural Effects – Final Report*, (4 volumes)
- URL 1995, *Channel Tunnel Rail Link. Assessment of Historic and Cultural Effects – Supplementary Fieldwork Report* (2 volumes)
- URL 1996, *Channel Tunnel Rail Link. Assessment of Historic and Cultural Effects – Report on Geophysical Survey*, (2 volumes)
- Union Railways Limited [URL] 1999, *Channel Tunnel Rail Link. Archaeological Evaluation at High House, Purfleet, Essex (ARC HHP97)*, Wessex Archaeology report, unpub.
- Union Railways (North) Limited [URN] 2001, *Channel Tunnel Rail Link: Minor Works Contract URN / 310 / ARC / 0029. Archaeological Works at Purfleet*
- Union Railways (North) Limited [URN] 2004a, *Channel Tunnel Rail Link. Archaeological Works at Purfleet, Essex. High House Farm Interim Fieldwork Report*, Wessex Archaeology report, unpub.
- Union Railways (North) Limited [URN] 2004b, *Channel Tunnel Rail Link. Archaeological Works at Purfleet, Essex. Stone House Interim Fieldwork Report*, Wessex Archaeology draft report, unpub.
- Union Railways (North) Limited [URN] 2006, *Channel Tunnel Rail Link. West Thurrock Project Design*, Oxford-Wessex Archaeology report, unpub.
- van der Veen, M., 1992, *Crop husbandry regimes; An archaeobotanical study of farming in northern England 1000 B.C. – A.D. 500*, Sheffield Archaeological Monographs 3, Sheffield: University of Sheffield, J.R. Collis Publications
- Victoria County History of Essex [VCHE]*, vol viii (ed. W.R. Powell, 1983)
- Walker, H., 2004, 'The medieval pottery', in Havis, R. and Brooks, H., *Excavations at Stansted Airport 1986–91*, E. Anglian Archaeol. Rep. 107, 398–435
- Wallace, C., 2004, 'Pottery from DFS and DCS cremations', in Havis and Brooks 2004, 238–42
- Wessex Archaeology [WA] 2003a, *Channel Tunnel Rail Link. Archaeological Works at Purfleet, Essex. Stone House Desk-Based Assessment*, Wessex Archaeology report, unpub.
- Wessex Archaeology [WA] 2003b, *West Thurrock Riverside Regeneration Access Road. Desk-Based Assessment*, Wessex Archaeology report, unpub.
- Wessex Archaeology [WA] 2005, *B&Q and Link Road, Fossett's Farm, Southend-On-Sea, Essex, Assessment Report on Archaeological Excavation*, Wessex Archaeology report ref. 58810.01, unpub.
- Whitehead, R. 1996, *Buckles 1250 – 1800*, Chelmsford: Greenlight
- Wilkinson, T.J., 1988, *Archaeology and Environment in South Essex: rescue archaeology along the Grays By-pass, 1979/80*, E. Anglian Archaeol. 42
- Wilkinson, T.J. and Lee, J., 1988, 'Fabrics', in Wilkinson 1988, 93
- Williams, A. and Martin, G.H., (eds), 2002, *Domesday Book. A Complete Translation*, London
- Williamson, T., 2004, *Shaping Medieval Landscapes*
- Wright, T., 1835, *History and Topography of Essex*
- Wymer, J.J. and Brown, N.R., 1995, *North Shoebury: settlement and economy in south-east Essex 1500BC – AD1500*, E. Anglian Archaeol. 75
- Yuan, H. G., Xu, Z. H., Qiao, J. X. and Yin, X. C., 1991, 'Preliminary report of weed control experiments with various new herbicides including nc-311 in direct sowing and seedling transplanting rice fields', *Journal of Weed Science* 5, 17–23

Iron Age and early Roman settlement at the former Rainham Squash and Snooker club: excavation 2004

Alexandra Grassam

With contributions from Peter Thompson, Andrew Peachey, Nina Crummy, Jane Cowgill, Carina Philips and Val Fryer.

Archaeological excavation at the Rainham Squash and Snooker Club revealed evidence for two phases of human activity, dating from the early/middle Iron Age and later Iron Age/early Roman period. The remains consisted of enclosure ditches, gullies, and refuse pits. A number of undated post-holes representing the remains of timber structures were recorded, although it is not possible to determine to which phase of activity they belonged. The site appears to lie at the periphery of the core settlement area, based further up the gravel terrace, and may have been occupied periodically. The archaeological remains correspond well to those revealed at the adjacent site of Rainham Football Club and the pattern of settlement previously attested in the region.

INTRODUCTION

In October and November 2004, Archaeological Solutions Ltd (AS) carried out an archaeological excavation at Rainham Squash and Snooker Club, Ferry Lane, Rainham, Essex (TQ 5520 8198). The work was preceded by a geotechnical and environmental assessment (Vertase Ltd 2003), a desk-based assessment (Grassam 2004) and a trial-trench evaluation (Williamson and Grassam 2004). The evaluation revealed a medieval ditch and a line of post-holes of prehistoric date, located in the eastern part of the site. The excavation recorded evidence for activity during the Iron Age and later Iron Age/early Roman period, in the form of two parallel ditches, gullies, pits and post-holes.

SITE LOCATION, TOPOGRAPHY, GEOLOGY AND SOILS (Fig. 1)

Site Description

The site is situated within the historic core of Rainham, in the London Borough of Havering. It was previously within the county of Essex. It is bounded to the west by Ferry Lane, to the north by properties fronting onto Wennington Road and Anglesey Drive and to the south-east by the car park for Rainham Station. The London to Tilbury/Southend railway line runs along the south-western edge. The Ingrebourne River lies c. 400m to the west and the Thames between c. 1.6 and 3.1 km to the south and south-west.

The recently demolished Rainham Squash and Snooker Club building, thought to date to the 1960s, had previously occupied the majority of the site. An asphalt car park in the north-western area, and an area of scrub comprising small bushes and mature trees, along with mounded spoil was located in the north-eastern corner of the site.

Topography, Geology and Soils

The site is situated on level ground at c. 3–4m aOD. The land rises gradually to the north and the east beyond the

limits of the site. The underlying solid geology consists of London Clay, located c. 5.5 to 6.2m beneath the modern ground surface (Vertase Ltd 2003). It is overlain by river terrace gravels and sand deposits, at the junction with the marshy floodplain of the Thames. The railway line appears to respect the boundary of the former wet and dry land.

The site is located on the boundary of two soil associations, reflecting its location on the junction of two drift geologies. The soils overlying river terrace gravels are of the Hurst Association, described as a coarse to fine loamy soil variably affected by groundwater and suitable for permanent grassland, deciduous woodland and rough grazing, along with the growing of cereals and horticultural crops in the Essex region. To the south, the soil is of the Wallasea Association, described as deep stoneless non-calcareous and calcareous clayey soils, overlying marine alluvium (Soil Survey of England and Wales 1983). Deposits of peat associated with the marshy floodplain have been recorded in the proximity of the site, beside the railway line.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND (Fig. 2)

The river terrace gravels and the Thames floodplain have long been recognised for the potential for prehistoric archaeological remains, although the fluctuations in the level of the Thames can result in their remains being sealed by thick deposits of peat. Palaeolithic remains have been recovered from the vicinity of the site, comprising three flint hand axes (GLSMR 060603) found c. 200m to the south and two retouched flakes (GLSMR 060044), c. 600m to the west. Human activity during the Mesolithic period is attested by a small number of possible Mesolithic flints at the Brookway Allotments site, c. 300m to the south-east. The site also yielded evidence for a Neolithic settlement, comprising pits, post-holes, a possible hearth, flint knapping debris and domestic remains (GLSMR 062153). A background noise of Neolithic activity has also been observed at South Hall

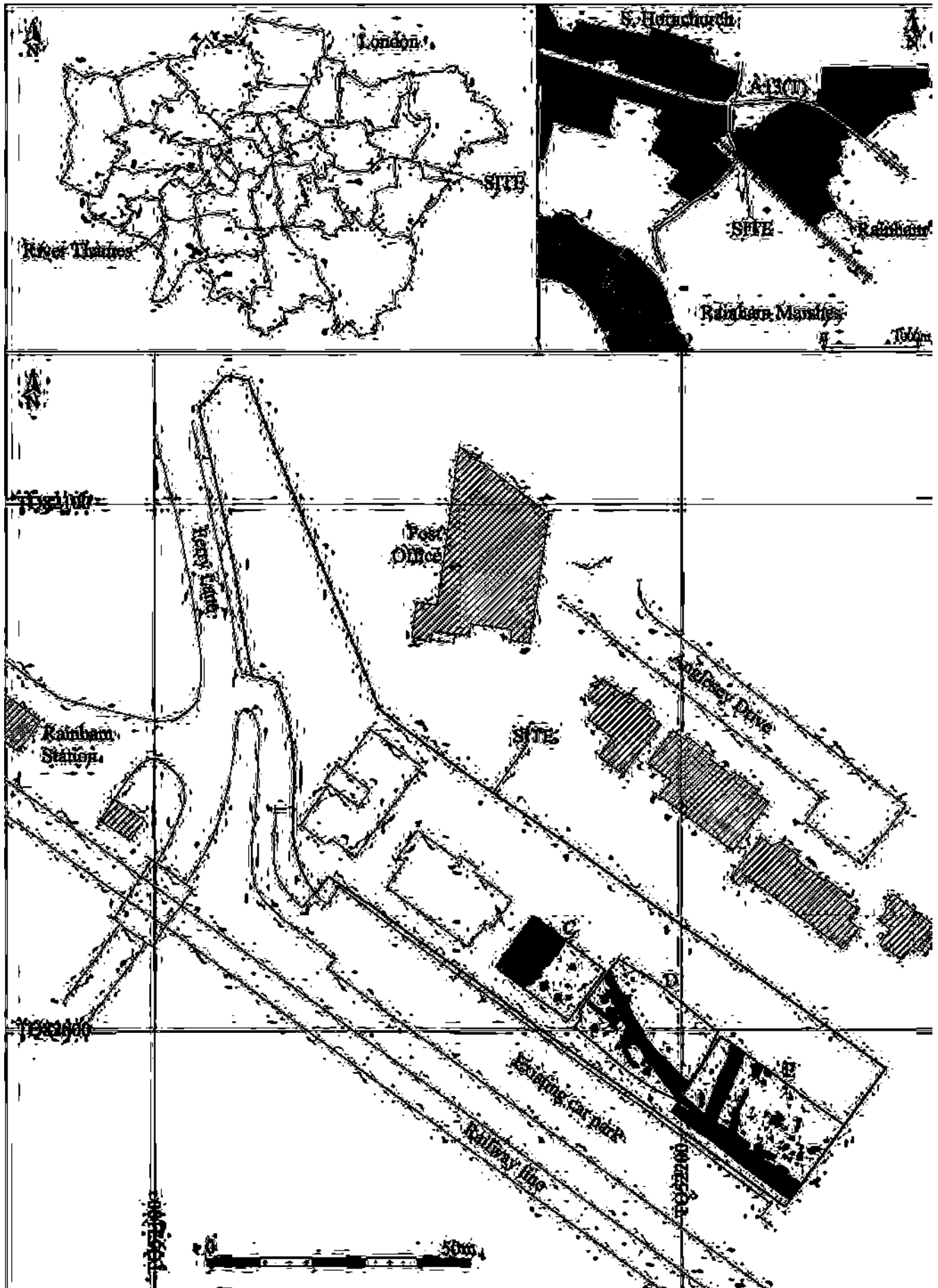


Fig. 1 Site location plan © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

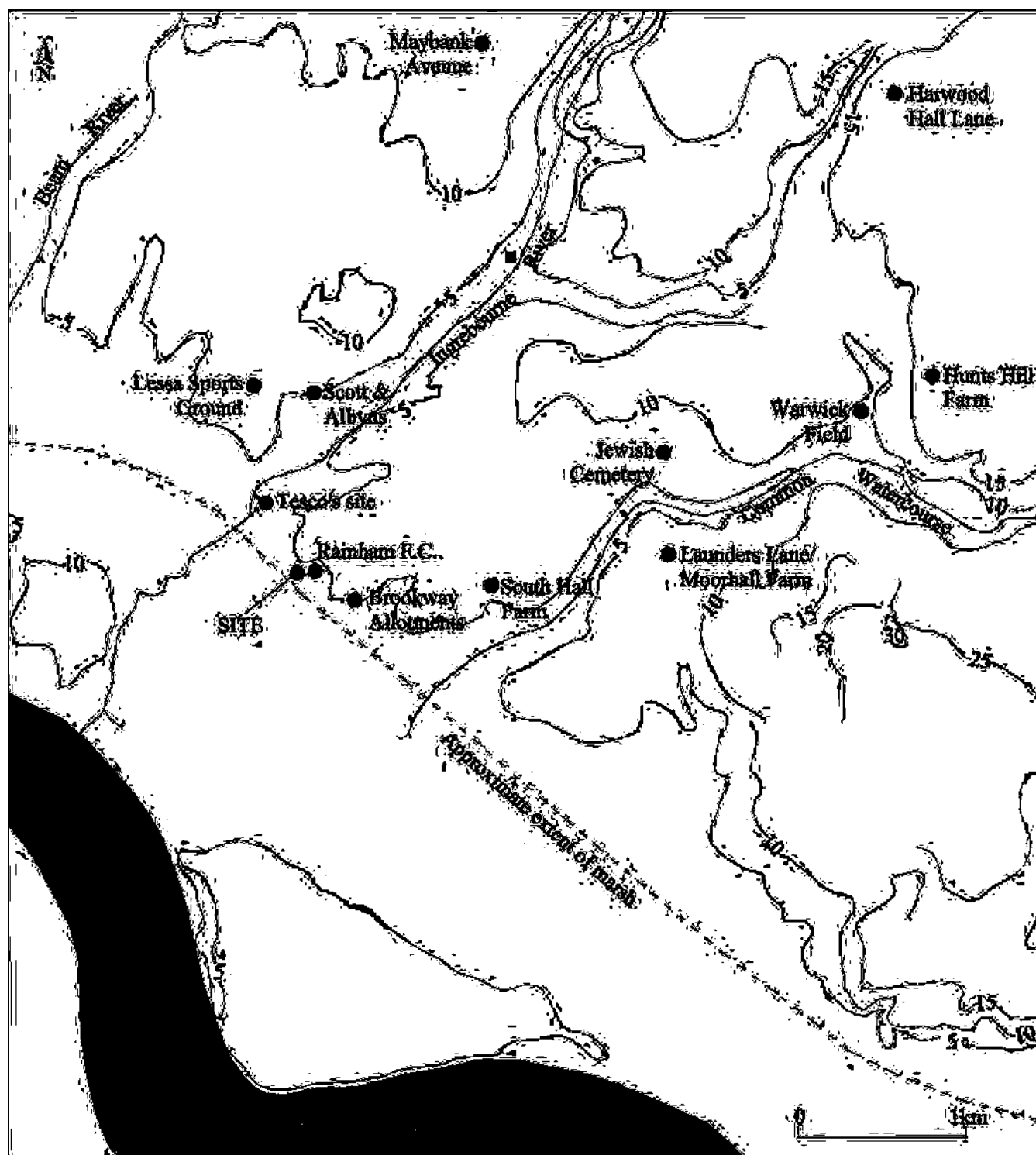


Fig. 2 The site in relation to other notable archaeological sites in the area © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

Farm site, c. 1km to the south south-west and at Launders Lane, c. 2.3km to the east.

Little evidence for early Bronze Age occupation has been noted regionally, although a number of pits containing early Bronze Age finds, including beaker pottery, were excavated at the Rainham Football Club site (Costello 1997), which lies adjacent to the excavation site, and a single early Bronze Age flint tool was found at the Brookway Allotments. However, the pollen record

demonstrates an increase in settlement and agricultural activity during the middle Bronze Age, represented by a decline in the number of trees and an increase in grass and cereal species. The remains of a wooden trackway and a possible enclosure formed by a series of stakes, dated to this period, were recorded at the Tesco site, c. 500m to the north-west (GLSMR 061690 and 061689).

Human activity during the later Bronze Age and Iron Age is well represented in the vicinity of the site. A large,

late Bronze Age settlement was recorded at Scott and Albys Farm, c. 900m to the north (Guttmann and Last 2000) and a number of features, including possible cremation burials, were recorded c. 2.3km to the east. Evidence for small scale occupation is also attested c. 2.8km to the north-east, near Moor Hall Farm (Launders Lane) (MoLAS 2000), close to the remains of a possible later Iron Age fort, represented by a triple ditched enclosure (MoLAS 2000; GLSMR ELO4378). Early to middle Iron Age structures, ditches and a possible enclosure were recorded at the adjacent site of Rainham Town Football Club (Costello 1997) and at South Hall Farm, a number of Iron Age features, including a probable interrupted ditch was recorded during archaeological works (GLSMR 062231). The remains of three to four roundhouses from the later Bronze Age/early Iron Age period have been recorded at Hunts Hill Farm (GLSMR ELO4777) and a middle Iron Age settlement site was located at Maybank Avenue (GLSMR ELO3634). A number of middle to late Iron Age features were recorded at Berwick Ponds Farm, c. 2.75km north-east and late Iron Age to early Roman period pottery and building material has been collected from the Jewish cemetery, c. 1.9km to the north-east.

Despite lying some distance from the urban Roman settlements, such as London and Chelmsford, human occupation after the Conquest is well represented in the region. A possible Roman ring gully was noted at the Rainham Football Club site (Costello 1997) and a ditch was excavated at the Brookway Allotment site (GLSMR ELO4379). A shallow pit and a large ditch were noted at South Hall Farm (GLSMR ELO77) and a large number of Roman features were recorded at Berwick Ponds Farm (Crank and Hounsell 2001). A cemetery containing both cremations and inhumations was excavated at Manser Street South, c. 1.4km to the north-east (Perring and Brigham 2000). Fieldwalking at Warwick Field (GLSMR ELO535) indicates the presence of a Roman occupation site in the vicinity.

Archaeological investigations in the area have noted that much of the evidence for Roman activity is sealed under a layer of peat, indicating a rise in river levels in the later or post Roman period (Perring and Brigham 2000). This may explain the paucity of evidence for early Medieval activity in the area, although extensive Saxon occupation was recorded at Berwick Ponds Farm to the north of the excavation, located higher up the gravel terrace.

The settlement of Rainham itself probably dates to the later Saxon period and the Domesday survey records the presence of four manors in the parish, comprising Rainham Manor, Berwick Manor, Launders Manor and South Hall Manor. The Domesday survey also noted the presence of a church, which may lie under the present parish church (GLSMR 060994). During the Middle Ages, the settlement activity was focussed around the manor houses, the church and wharf, indicating that the site is located at the southern periphery of the medieval settlement. The prosperity of medieval Rainham was based on its proximity to the River Thames and the rich

agricultural potential from the fertile soils, which sustained it through to the later post-medieval period. A network of trade in vegetables (particularly cabbages) to London and the movement of manure from the capital in order to maintain the quality of the soil is well documented, as is the smell at the wharf where the barges were unloaded.

The reliance on agriculture was maintained until the later 19th century when the area began to attract more industrial outlets. The railway linking London to Tilbury and later to Southend was opened in 1854 and a ferry provided a link to Gravesend. From 1880, the construction of residential buildings increased alongside employment opportunities associated with the growth of local industries. In 1906, the marshes to the south of the site were sold to the War Office and were used as a shooting range. The development of the extensive Ford Motor Company Works at the nearby Dagenham Breach ensured large-scale local employment from the 1930s onwards.

THE EXCAVATION

Excavation and Recording Methodology

EH GLAAS required an open area archaeological excavation of the footprints of proposed Blocks C, D, and E. The three areas were stripped of overburden under close archaeological supervision, using a 360° tracked mechanical excavator fitted with a smooth-bladed ditching bucket. The excavated area and the spoil-heaps were investigated using a metal detector to enhance the recovery of finds.

Discrete archaeological features (such as pits and post-holes) were half-sectioned. Ditches were excavated in segments up to 2m long, providing 20% coverage. These segments were placed to establish inter-feature relationships, and to obtain finds and samples. All features were recorded on *pro-forma* recording sheets and photographed. All sections were drawn at 1:10 and the site plan was surveyed using a total station theodolite (Nikon NPL 820).

Summary of the Results of the Excavation

A full description of the features and deposits revealed by the excavation is given in the site interim report (Doyle *et al.* 2005), and what is presented below is a summary. Where possible, features were assigned to a phase (see Table 1 and Figs 3, 4 and 6) based on the finds recovered from the fills or the stratigraphic and/or physical relationship with other phased features.

Phase	Description
Phase 1	Palaeochannels
Phase 2	Iron Age
Phase 3	Late Iron Age/ early Roman (LIA/ER)
Phase 4	Modern
	Undated

Table 1 Phasing

Phase 1

Phase 2: early to middle Iron Age

and F1017 are likely to represent enclosure boundaries and are possibly contemporary. The north-eastern and south-western extent of the enclosure lay beyond the limits of the investigation. It is not clear whether Gully F1205 was directly contemporary with Ditch F1202 or if it represents a re-working of the boundary.

Ditch F1099 (Area E) was also assigned to Phase 2 as it was cut by the early to middle Iron Age Ditch F1017, although no finds were recovered from it (Fig. 6). F1099 ran on a north-south axis and its southern terminus appears to have coincided with F1017. It does not appear to be associated with any other feature on the site, and therefore may represent a very early or pre-Iron Age boundary.

82

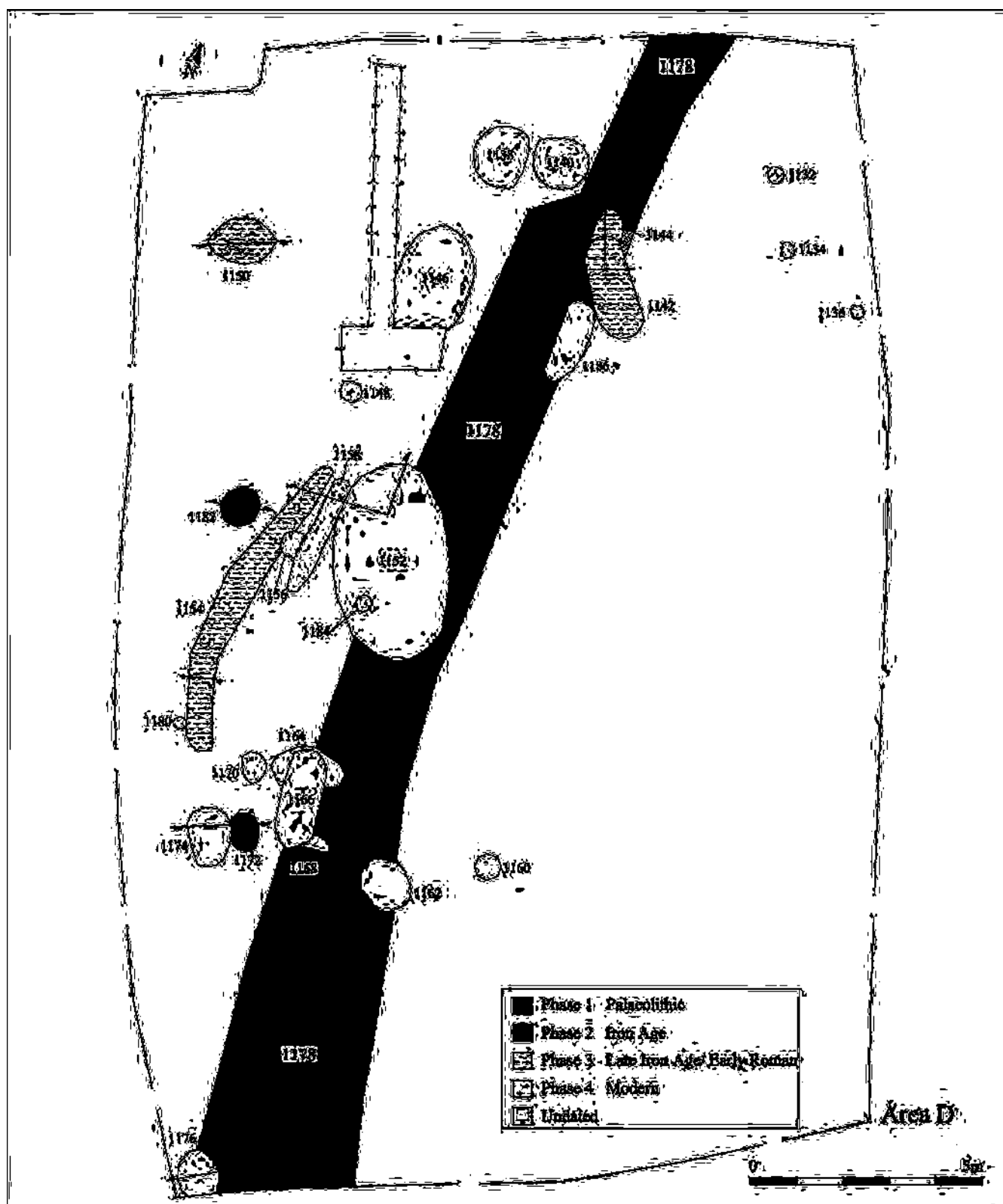


Fig. 4 Area D phase plan

boundary or part of a structure. A further gully or elongated pit F1028 (Fig. 6), contained a large quantity of mid to late Iron Age pottery and may also represent part of a structure.

The rest of the Iron Age activity is represented by pits and/or post-holes, which were located across the whole site. Most appear to have been used for the deposition of

domestic waste and contained fragments of pottery, burnt or struck flint, animal bone and building materials. A series of intercutting pits were recorded in Area E, suggesting the site was utilised over a period of time, rather than in a single episode. A single complete bowl had been deposited in Pit F1028, located in Area E, close to the eastern limit of excavation (see Thompson, *below*).

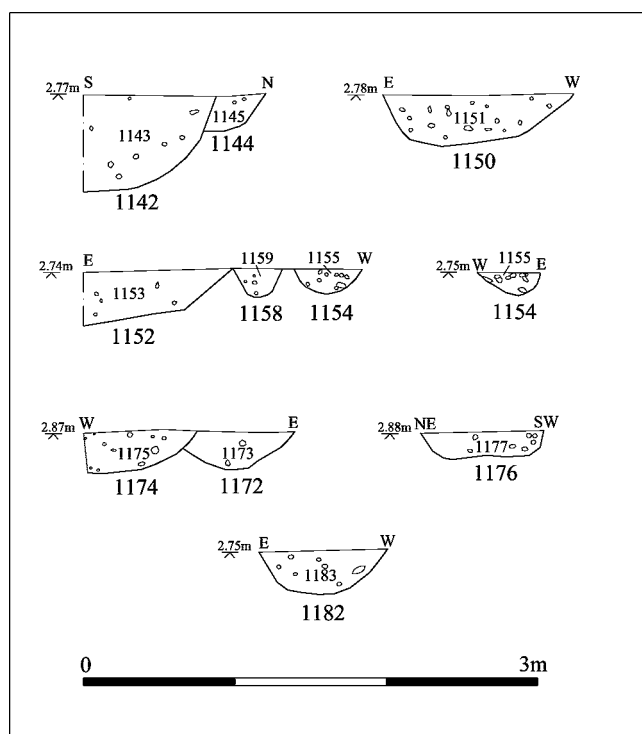


Fig. 5 Area D sections

Pit F1182 (Area D) was possibly part of north-west to south-east alignment with Phase 3 Pit F1150 and undated Pits F1174 and F1176; all had a similar profile and were spaced between 5 and 6m apart. The alignment of these features may represent a field boundary, or mark the route of a driveway. If the latter, then a parallel row of pits/post-holes may be located to the west. The presence of later pottery in Pit F1150 may indicate that the feature is associated with late Iron Age/early Roman activity, rather than the earlier Iron Age.

Pits F1069 and F1071 (Area E) were rectangular in plan, in contrast to the others which were a more circular shape. The reason for this variance in the shape is not obvious and they may have been created to serve a different function.

Phase 3: late Iron Age/early Roman

Archaeological remains from Phase 3 are represented predominately by pits containing domestic refuse, although a single gully F1154 (Fig. 4) is assigned to this period of activity. Late Iron Age/early Roman features occurred just in Areas C and D, suggesting a shift in the focus of activity in a westerly direction.

Three large pits (F1190, F1192 and F1213; Area C; see Fig. 3) were cut across Phase 2 Ditch F1202 and Gully F1205, indicating an abandonment of these enclosure boundaries. No replacement enclosures were encountered during the excavation. The largest and stratigraphically latest pit (F1190) contained two hearth bottoms (see Cowgill, below) and a sample of soil taken during the excavation contained fragments of 'cokey' and tarry material, burnt/fired clay and vitrified remains (see Fryer, below). This may indicate industrial activity in the vicinity of the site, but the hearth bottoms were in poor

condition (one encrusted and abraded, one disintegrated into many pieces) and their original point of deposition may not have been particularly close to F1190. It is possible that an undated pit containing the remains of burning (F1215), located c. 7m to the east may also be associated with the putative industrial activity.

Two further Phase 3 pits were located in Area C; F1196 contained a complete late Iron Age/ Roman vessel while F1188 yielded a high quantity of fragments from a single pot of a similar date. They were possibly used for storage, although they may have also formed part of a ritual deposit (see *Discussion*).

Three Phase 3 pits were identified in the northern part of Area D (Fig. 4). One (F1150) is part of the possible north-west to south-east pit alignment mentioned above, with F1174, F1176 and F1182. Pits F1142 and F1144 contained pottery, struck and burnt flint, suggesting that they were used for the disposal of rubbish.

Phase 4: Modern

Just two features associated with modern activity were identified during the excavation. F1217 (Area C) and F1109 (Area E) may be associated with the Squash and Snooker Club building that previously occupied the site.

Undated/Unphased

A number of pits and post-holes were excavated across the whole site that yielded no diagnostic finds. Many of these were probably associated with Iron Age or late Iron Age/early Roman activity given their proximity to datable features. This supposition is supported by the lack of any remains, including residual objects, from any other period.

The fill of Pit F1215 (Area C) was considerably darker in comparison to the other features excavated, and it may have contained the remains of a hearth. It is located in close proximity to Phase 3 Pit F1190 which contained pieces of slag and burnt material; it is possible that the two are contemporary.

A number of the undated pits and post-holes may have represented the remains of timber-built structures, some possibly circular and others square/rectangular, which may have been associated with agricultural activity. However, given the lack of clear association between sets of features and datable evidence, no specific structure can be outlined.

SPECIALIST REPORTS

The Flint

By Martin Tingle

Introduction

The assemblage is composed of thirty-three pieces weighing 666.5g, although if natural flint is excluded, the worked flint totals twenty pieces weighing 210g. The whole assemblage was recovered from contexts forming components within a series of late Iron Age and Roman features.

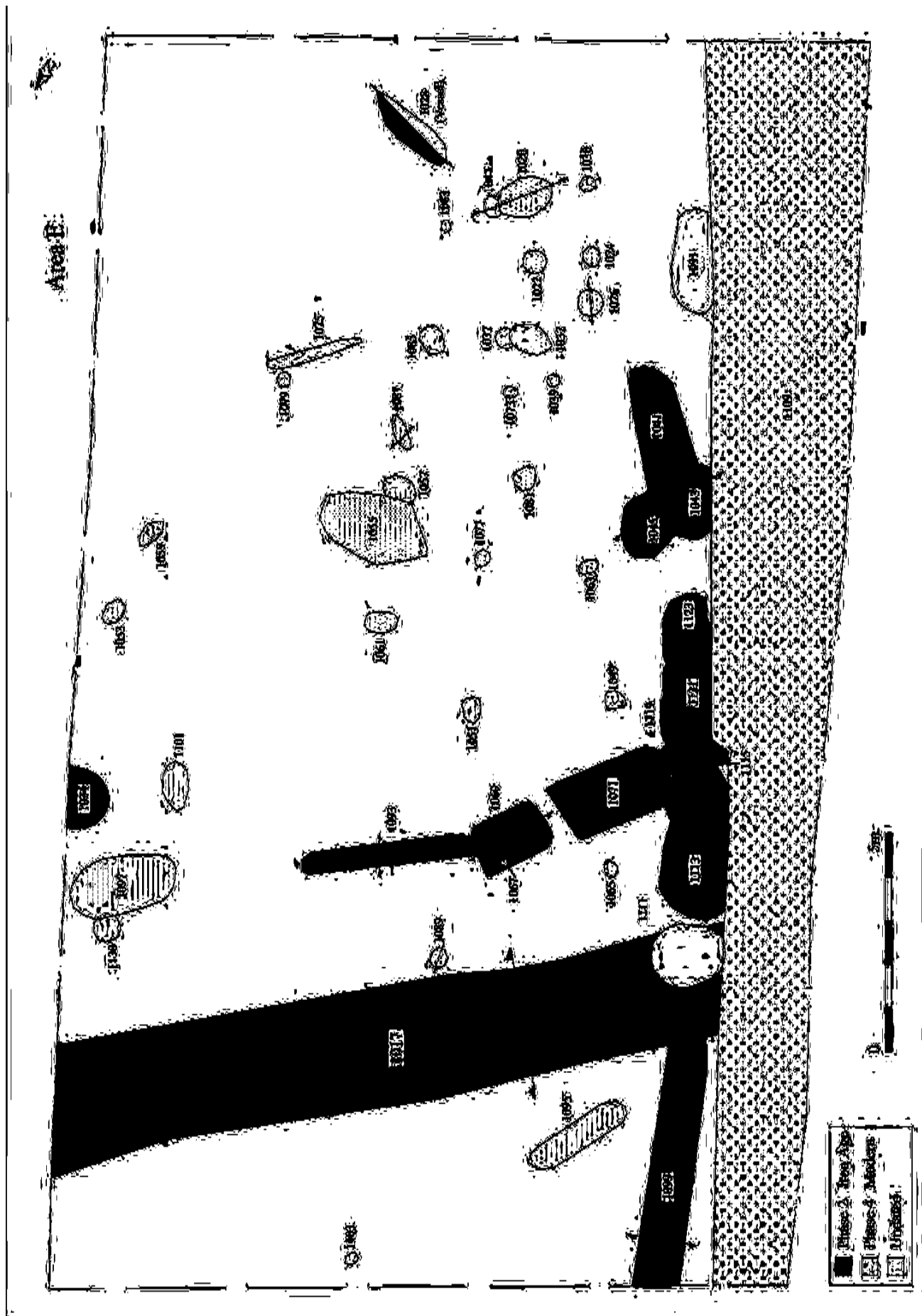


Fig. 6 Area E phase plan

Raw Materials

Distribution

Dating

Conclusion

Find	No.	Weight (g)	Mean weight
Broken Flakes	4	16	4
Secondary Flake	3	40	13.3
Tertiary Flake	10	88	8.8
Uncorticated Flake	2	15	7.5
Core Fragment	1	25	25
Retouched	1	7	7
Scraper	1	23	23
Natural	13	456.5	35.1
Total	35	670.5	

Table 2 The composition of the assemblage

Terminology

A blade is defined as an elongated flake whose length is at least twice as great as its breadth. These often have parallel dorsal flake scars, a feature that can assist in the identification of broken blades that, by definition, have an indeterminate length/breadth ratio.

The Pottery

By Peter Thompson

The two dominant fabrics are shell tempered ware, comprising 45% of the assemblage and flint tempered ware, sometimes also containing a little grass tempering, which accounts for 32%. In addition there is a lesser amount of sand, grass and grog tempered fabrics; the majority of this grog tempered ware comprises a single complete bowl with upright rim from Pit F1028. These fabrics are all handmade and of Iron Age type with the exception of one sherd of shell temper which is wheel-made and therefore late Iron Age to early Roman. This predominantly calcareous fabric is mainly vesiculated but originally contained white shell and is probably akin to Essex Shell-Tempered Ware which reached its peak at the end of the middle Iron Age and continued into the Roman period when it began a wheel-made tradition (Sealy 1996, 54, 57). The profile types of the aforementioned fabrics can broadly be split into two groups; the first comprising simple upright or

occasionally everted rims, sometimes flattened to fairly weak-shouldered bowls and jars. The second type found exclusively among the shell-tempered wares comprises a distinctive slightly inturned beaded rim (of up to eleven examples). Vessels of similar form, but of flint and grog tempering, were found at the Doucecroft Site in Kelvedon, Essex. These were manufactured throughout the 1st century AD (Clarke 1988, 33). Only four sherds contained finger tip or nail decoration but several were of a 'finer ware' with smoothed, sometimes almost burnished surfaces.

The third main group of fabrics is a predominantly sandy ware comprising mainly wheel-made 'Belgic' wares which displayed traits including burnishing, cordons and grooves. Also present was a large pedestal base with evidence of burning underneath. These fabrics also include a grey ware component, some being wheel-turned and some handmade. These are likely to date to the period between the later 1st century BC and the end of the 1st century AD. As the handmade Iron Age fabrics, including a beaded shell tempered jar rim, appear in contexts with wheel-made material from Pit F1190, it is clear that while some contexts containing only shell and flint could be earlier, the focus of these fabrics is the late Iron Age and they might have continued to be manufactured alongside wheel turned wares into the Roman period.

Baked Clay and Ceramic Building Materials (CBM)

By Andrew Peachey

Excavations produced thirty-one fragments (606g) of prehistoric baked clay and seven fragments (138g) of 19th–20th century CBM. The baked clay comprises small fragments of silty clay (average weight 19.55g) that are probably sun-baked (or possibly bonfire fired) and are consistently oxidised to shades of pale orange-brown. The baked clay occurs as rounded and sub-rounded fragments, although it is not clear whether this is because it is relatively soft and had abraded, or whether this was intentional. The function of the baked clay is unclear; no objects or surfaces can be discerned and it was probably used to add temper and bulk to daub walling. It is only present in small quantities and is sparsely distributed. It is present in Iron Age Ditches F1017 and F1202, Pits F1034, F1150 and F1192 and Post-hole F1009. The Modern CBM occurs as small, abraded fragments of 19th–20th century flat roof tile in F1007 and F1217.

The Metal objects

By Nina Crummy

Two fragments of iron were recovered; a fragment of an iron nail shank in Phase 2 Pit F1194 (L1195 – Area C) and a bent iron rod in modern Trench F1217 (L1218 – Area C).

The Slag

By Jane Cowgill

A small assemblage of slag and associated finds was submitted for recording. The slag and other finds were

washed before being identified solely on morphological grounds by visual examination, sometimes with the aid of a x10 binocular microscope.

Two pieces of slag, both hearth bottoms (120g and 107g) were recovered. Both are by-products of iron smithing; the forging or recycling of iron objects. Both were in poor condition, one totally encrusted and probably abraded, the other disintegrated into several pieces.

The Animal Bone

By Carina Phillips

Introduction

A small assemblage of only 149 fragments was excavated from Rainham. Forty fragments came from un-stratified features and have therefore been excluded from the following analysis. The ten (stratified) contexts containing animal bone were given spot-dates of Iron Age/Roman and modern (19th–20th century). Preservation of the assemblage was poor, with concretion and erosion occurring in eight contexts. Fragmentation was also high due to erosion. Due to the fragmentation and poor preservation of the bone a large proportion of the assemblage was unidentifiable to species.

Method

The bone fragments were identified and recorded to species when possible. Due to the difficulty in separating goat from sheep bones the category sheep/goat was used. Fragments unidentifiable to a particular species were recorded under the categories of 'large sized', consisting of cattle-sized, deer-sized and horse-sized fragments and 'small sized' consisting of sheep-sized, pig-sized and dog-sized bone fragments. When bones were complete enough, measurements were taken following the method of von den Driesch (1976). Teeth wear and eruption was recorded following Grant (1982) and ages were assigned using the method of Hambleton (1999). Unfortunately tooth wear ageing was not possible due to fragmentation and preservation. Bone fusion was recorded when possible. Butchery evidence, including chop marks, knife-cut marks, sawn bone and smashed bone, was recorded, as was taphonomic evidence such as gnawing, burnt bone and natural damage. The minimum number of individuals (MNI) of a species was calculated from most frequent element of a left or right bone.

Results

	Iron Age/ Roman			Modern		
	NISP	Gnawed	Burnt	NISP	Gnawed	Burnt
Cattle	7	0	0	4	3	0
Sheep/goat	4	0	0	0	0	0
Large sized	3	0	0	2	0	1
Small sized	6	2	0	2	0	0
Unidentifiable	79	0	0	2	0	0
Total	99	2	0	10	3	1

Table 3 Number of identified specimens/fragments (NISP) and evidence of gnawed and burnt bone per species

Discussion

The Iron Age/Roman assemblage contained the most bone fragments (Table 3). Cattle and sheep/goat were the only species to be identified in this assemblage. One mandible was present for each species allowing the calculation of ages, the sheep/goat mandibles (left and right from the same individual) were aged at 6–12 months. The cattle mandible was aged at old adult; this animal was therefore allowed to survive beyond the prime beef producing age. Cattle were the only identifiable species in the small modern assemblage. In both periods, there was no evidence of butchery, the absence of which may be due to the poor preservation of the bone. A small number of bones from both periods exhibited carnivore gnaw marks indicating that dogs or foxes had access to some of the bone. Unfortunately, the small size of the assemblage prevents further analysis and discussion.

Charred Plant Macrofossils and Other Remains

By Val Fryer

Thirteen samples for the extraction and analysis of the plant macrofossil assemblages were taken from features of later Iron Age and early Roman date. Contexts sampled included the fills of pits, ditches and other discrete features.

The samples were bulk-floated, and the flots were

collected in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnification up to x16, and the plant macrofossils and other remains noted are listed on Tables 4 and 5. Nomenclature within the tables follows Stace (1997). All plant remains were charred. Modern contaminants including fibrous and woody roots, seeds and arthropods were present in all samples.

Although grains of barley (*Hordeum* sp.) and wheat (*Triticum* sp.) were present in eight samples, all were either fragmentary or severely puffed and distorted, probably as a result of combustion at high temperatures and subsequent abrasion. However, the few wheat grains recorded appeared to be of an elongated ‘drop-form’ shape typical of spelt (*T. spelta*). Weed seeds were extremely rare, occurring in only four assemblages. Single seeds/fruits of stinking mayweed (*Anthemis cotula*) and sedge (*Carex* sp.) were recorded from samples 1 and 18 respectively, while seeds of mallow (*Malva* sp.), goosegrass (*Galium aparine*), brome (*Bromus* sp.) and spike-rush (*Eleocharis* sp.) were recorded from un-dated samples 10 and 16. Small charcoal fragments were present throughout and a small fragment of indeterminate fruit stone was noted in sample 4.

Other remains were rare, and some (including the black ‘cokey’ and tarry residues and the coal fragments) may be modern contaminants.

Sample No.	1	2	4	11	13	17	18
Context No.	1019	1035	1070	1155	1143	1197	1191
Feature No.	1017	1034	1069	1154	1142	1196	1190
Feature type	Ditch	Pit	Pit	Ditch	Pit	Feature	Pit
Date	IA	IA	IA	LIA/R	LIA/R	LIA/R	LIA/R
Cereals							
Hordeum sp.(grains)			x				
Triticum sp.(grains)	x		x				
Cereal indet (grains)						xfg	x
Herbs							
Anthemis cotula L.	x						
Wetland plant macrofossils							
Carex sp.							x
Other plant macrofossils							
Charcoal <2mm	xxx	x	x	x	x	x	x
Charcoal >2mm	x		x				
Indet.fruit stone frag.			x				
Other materials							
Black porous 'cokey' material	x			x			x
Black tarry material	x		x	x	x		x
Bone	x						
Burnt/fired clay							x
Ferrous globules	x						
Small coal frags.			x				
Vitrified material			x				x
Sample volume (litres)							
Volume of flot (litres)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%
Key: x = 1–10 specimens	xxx = 100+ specimens						

Table 4 Charred plant and macrofossils and other remains from dated contexts

Sample No.	Context No.	Contents
5	1098	cer;ch;bltmat
8	1209	cer;ch;cr/st;bltmat;coal;vitmat
10	1179	s/f;ch;bltmat
12	1153	cer;ch;bltmat;vitmat
14	1147	ch;bltmat
16	1210	cer;s/f;ch;blt;vitmat

Key: cer – cereals; s/f – Seeds/fruits; cr/st – Charred root/stem; ch – Charcoal; bltmat – Black tarry material; vitmat – Vitrified material

Table 5 Charred plant macrofossils and other remains from the un-dated contexts.

Although it is almost totally impossible to interpret such small assemblages, it would appear most likely that much of the material recovered is derived from a low density of scattered refuse which accidentally became incorporated within the feature fills.

Discussion

The excavation at the Squash and Snooker Club yielded evidence for human activity from the early to middle Iron Age (Phase 2) through the later Iron Age/early Roman period (Phase 3). The early to middle Iron Age occupation is represented by three ditches, two gullies and numerous pits, many of which were intercutting, while the later activity comprised a number of pits, including two containing near complete vessels, and a gully. A number of undated pits, post-holes and gullies that probably represent the remains of timber structures were also recorded, along with two palaeochannels and some modern truncation.

Ditch F1099 was dated to Phase 2 based on its relationship with enclosure Ditch F1017. However, there is a potential that F1099 formed part of an earlier enclosure as it had silted up before F1017 was cut. An earlier phase of human activity is recorded at Rainham Football Ground, represented by a number of pits dated to the early Bronze Age by the presence of Beaker ware (Costello 1997). In addition Mesolithic flint and an early Neolithic settlement site was excavated at the Brookway Allotment site (Gilman 1992), *c.* 300m to the south-east. There is no diagnostic evidence to support a Bronze Age or earlier date for F1099, although it is orientated on a north-south axis, an alignment not used by any other linear feature noted at either the Squash and Snooker Club or the Football Ground sites. A further point to illustrate is that as F1099 appears to terminate at F1017, it may have still been visible in some form as the later ditch was being cut.

Ditches F1017 and F1202 are interpreted as enclosure boundaries and they demonstrate parallels with two ditches recorded at Rainham Football Club (F10 and F13). They were orientated on the same axis (north-east to south-west), although the eastern extent of F10 curves to the south-east. They also shared similar profiles; the

more northerly ditches F1202 and F10 were U-shaped while F1017 and F13 were V-shaped. Therefore, it is possible that the main enclosure ditches recorded at the Squash and Snooker Club represent the continuation of those recorded at the neighbouring site.

It was suggested that while the two ditches at the Football Club site belonged to the same broad phase of activity, they were not contemporary features but represent consecutive periods of enclosure (Costello 1997, 101). This supposition is supported by the different profiles and their relatively close proximity; therefore a similar theory can be postulated for the Squash and Snooker Club site, with parallel Gully F1205 representing an additional episode of reworking.

No clear evidence was collected during the excavation to demonstrate how this enclosed landscape was utilised during the early to middle Iron Age. The pits appear to have been used for the deposition of refuse associated with occupation activity, although remains did not survive in sufficient quantity to suggest the site formed the main focus for a permanent, long term settlement. As with the adjacent site, it is not clear which phase of activity the timber structures, represented by post-holes, belonged to, although it is possible that they represent semi-permanent buildings from both phases. Therefore, the Squash and Snooker Club site may have only been used periodically, perhaps on a seasonal basis. This theory may be supported by its location on the edge of the gravel terrace, close to both the River Ingrebourne and the Thames marshes.

A number of seasonally used settlements have been identified on the floodplains of the upper Thames valley (Oxfordshire), thought to be used primarily for grazing in the summer months, while others seem to have been associated with industrial activity (Haselgrove 1999, 120). Although the evidence is inconclusive, on balance it would appear that arable cultivation was not being undertaken at the Squash and Snooker Club due to the low level of environmental evidence recovered during the excavation (see Fryer *above*), therefore pastoral activity may have been the principal activity undertaken.

The majority of the later Bronze Age to middle Iron Age settlements in the vicinity of the site occupy land higher up the gravel terrace, such as Scott and Albyns Farm (Guttmann and Last 2000) *c.* 900m to the north, South Hall Farm (GLSMR ELO4381) *c.* 1.1km to the east, Hunts Hill Farm (GLSMR ELO4777) *c.* 3.9km east north-east, Maybank Avenue (GLSMR ELO3634) *c.* 3.35km north and Launders Lane (ELO4378) *c.* 2.2km east. The above sites all appear to demonstrate evidence for more permanent settlement, in the form of round-houses with associated pits and ditches. This corresponds well to the regional picture which sees a gradual increase in the exploitation of land from the early Iron Age, characterised by small-scale settlements, surrounded by fields used for a mixture of pastoral and arable farming (Pryor 2003; Wait & Cotton 2000).

As mentioned above, the Football Ground site has yielded evidence for early Bronze Age activity, although there appears to be a hiatus in activity until the early to

middle Iron Age. The reasons for this gap are not clear, however the Iron Age period appears to have seen continuing environmental pressures as the climate worsened, which led to the spread of activity onto land previously classed as marginal or undesirable, coupled with an increase in the population size possibly due to improved agricultural practices (Wait & Cotton 2000, 102; Haselgrove 1999). Both of these factors could be seen as triggers for the spread of activity onto the Squash and Snooker Club site.

By the later Iron Age/early Roman period, the nature of the activity recorded at the Squash and Snooker Club site appears to change. The main development is the abandoning of the ditches, as attested by the Phase 3 pits cut through F1202. This would suggest that the landscape was more open and perhaps utilised in a different way, as attested by the possible evidence for industrial activity in the vicinity of the site contained in Pit F1190. Alteration in use is also attested at the Football Club, which sees an increase in the quantity of artefactual evidence, recovered almost exclusively from pits, and a probable ring-gully (Costello 1997).

Two pits (Area C) contained near complete later Iron Age/early Roman vessels. Although a functional purpose, such as storage, is easily suggested for these features, a ritual connotation can not be completely dismissed. The apparent ritual deposition of complete vessels was recorded in a well at the Launder Lane/Moor Hall Farm site and in pits at Hunts Hill Farm, c. 3.9km to the east north-east (Wait & Cotton 2000, 111). The sacrifice of domestic objects is just one form of ritual activity often seen on Iron Age sites, along with the deposition of metal objects, animal carcasses and even occasionally human remains (Haselgrove 1999).

The emerging picture of activity of later Iron Age/early Roman Rainham is of a continuing spread of settlement. Several of the Iron Age sites demonstrate continued occupation into the Roman period, although as with the Squash and Snooker Club and Football Club sites, the nature of this activity is visibly altered. This is most strikingly seen at the Launder Lane/Moor Hall Farm site (GLSMR ELO4378) where a triple ditch and rampart enclosure was constructed at some point during the 1st century BC to 1st century AD, interpreted as a defensive structure. The Launder Lane area has additionally revealed evidence for substantial Roman occupation, probably continuing on from the Iron Age period. Evidence for ongoing settlement is also known at South Hall Farm, (GLSMR ELO77), 1.25km to the east, Hunts Hill Farm (GLSMR ELO4777), c. 3.9km east north-east and Warwick Field (ELO535), c. 4km north-east.

In contrast, a number of other sites recorded in the vicinity appear to have either been reused or settled for the first time in the later Iron Age/early Roman period. These sites include the Lessa Sports Ground (GLSMR ELO542) c. 1.2km to the north, Harwood Hall Lane (GLSMR MLO26482) c. 4.5km north-east and Goresbrook Fields, c. 4.5km to the north-west (GLSMR ELO3147). In addition, circumstantial evidence for the

development of occupation is attested at the Tesco's site (MLO23804) c. 0.5km to the north-north-west, the Brookway Allotments site (GLSMR ELO4379) c. 300m to the south-east, the Jewish cemetery (GLSMR MLO23677), c. 2.2km north-east.

Conclusions

The evidence from the Squash and Snooker Club corresponds well with the picture of continued growth in settlement activity seen in the region in the later Iron Age and early Roman periods. However, it is important to note that increased settlement probably began much earlier, certainly by the middle Iron Age, with more marginal sites such as the Squash and Snooker Club being utilised on a more intensive scale than seen previously, possibly due to the need to exploit the lowland areas as the uplands became unfit for settlement due to climatic variations.

Despite the relatively low level of preservation, the archaeological remains have proved useful for furthering our understanding of how the landscape was being used in the early Iron Age to early Roman period. In particular, a picture of periodic exploitation along the edge of the Thames marsh from the early to middle Iron Age has been revealed, possibly associated with pastoral activity. Human activity seems to have intensified during the later Iron Age/early Roman period, coinciding with an overall growth in the use of the landscape that persisted throughout the Roman period.

Acknowledgements

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Bibliography

- Andrefsky, W. 1998. *Lithics. Macroscopic approaches to analysis*. Cambridge University Press.
- Clarke, C.P. 1988 'Late Iron Age Enclosures at Kelvedon: Excavations at the Doucecroft Site 1985-86' *Essex Archaeol. Hist.* Vol. 19. 15-39
- Costello, M. P. 1997 'Prehistoric and Roman material from Rainham; an archaeological watching brief at the former Rainham Football Ground, 1995' *Essex Archaeol. Hist.* 28: 93-102
- Crank, N. A. and Hounsell, D. 2001. *Berwick Ponds Farm, Rainham, Essex. An Archaeological Evaluation*. HAT Report No. 916
- Doyle, K., Manning, K. & Grassam, A. 2005. *Former Rainham Squash & Snooker Club, Ferry Lane, Rainham: archaeological excavation interim report*. AS Report No. 1658.

- von den Driesch, A. 1976. *A Guide to the Measurement of Animal Bones from Archaeological Sites*. Peabody Museum.
- Gilman, P. (ed) 1993 'Archaeology in Essex 1992' in *Essex Archaeol. Hist.* 24, 195 – 210
- Grant, A. 1982. 'The use of tooth wear as a guide to the age of domestic ungulates'. In, W. Wilson, C. Grigson and S. Payne (eds). *Ageing and Sexing Animal Bones from Archaeological Sites*. Oxford: BAR British series 109: 91–108
- Grassam, A. 2004, *Former Rainham Squash & Snooker Club, Ferry Lane, Rainham; An Archaeological Desk-Based Assessment*. AS Report No. 1540
- Guttmann, E.B.A. & Last, J. 2000 'A Late Bronze Age Landscape at South Hornchurch, Essex' in *Proc. Prehist. Soc.* 66, 319–359
- Hambleton, E. 1999. *Animal Husbandry Regimes in Iron Age Britain*. Oxford: BAR British series 282
- Haselgrove, C. 1999. 'The Iron Age' in J. Hunter and I. Ralston (eds.) *The archaeology of Britain: an introduction from the Upper Palaeolithic to the Industrial Revolution*. Routledge: London, 113–134.
- Perring, D. with Brigham, T. 2000 'Londinium and its hinterland: the Roman period' in *The archaeology of Greater London; An assessment of archaeological evidence for human presence in the area now covered by Greater London* MoLAS/English Heritage
- Pryor, F. 2003 *Britain BC* Harper Collins: London
- Sealy, P. R. 1996 'The Iron Age' in O. Bedwin (ed.) *The Archaeology of Essex Proceedings of the Writtle Conference*. Essex County Council, Chelmsford, 46–68
- Soil Survey of England and Wales 1983. *Legend for the 1:250,000 Soil Map of England and Wales*. Harpenden.
- Stace, C. 1997 *New Flora of the British Isles*. Second edition, Cambridge University Press
- Vertase Ltd. 2003 *Geotechnical and Environmental Site Assessment: 3 Ferry Lane, Rainham, Essex*
- Wait, G. & Cotton, J. 2000 'The Iron Age' in MoLAS (ed) *The archaeology of Greater London: an assessment of archaeological evidence for human presence in the area now covered by Greater London*. MoLAS/English Heritage: London, 102–117
- Williamson, I. & Grassam, A. 2004 *Former Rainham Squash & Snooker Club, Ferry Lane, Rainham: an archaeological evaluation*. AS Report No. 1658

Excavations at Southern Slopes, on land at Rectory Close, Colchester

Peter Boyer

With contributions by Malcolm Lyne and Alys Vaughan-Williams

BACKGROUND

Archaeological excavations were undertaken by Pre-Construct Archaeology Ltd. at Southern Slopes, on land on Rectory Close, Colchester (TL 9940 2680) during November and December 2003, in advance of development of the site by George Wimpey East Anglia Ltd. (Figs 1 and 2). An initial evaluation of the site had identified a number of areas of concentrations of archaeological features, mostly of Late Iron Age/Roman transitional date. Consequently excavation was extended in three targeted areas.

The underlying geology of the site comprised brickearth and terrace gravels. The site was located on

land sloping down from north-west to south-east, on the northern side of the river Colne, some 1.6km NNW of central Colchester and 250m north-east of North Station, Colchester. Site elevation varied from 40.07m OD in the north-west to 17.84m OD in the south. The development site covered a total area of 40,164m².

The earliest evidence of human activity in the vicinity was during the Bronze Age. A flint scraper was found to the south of the railway line and a small quantity of burnt and worked flint was found at the Turner Rise site close to the study site, which could be Bronze Age in date. A single sherd of Bronze Age/Early Iron Age pottery was found to the north, on land west of Colchester General Hospital.

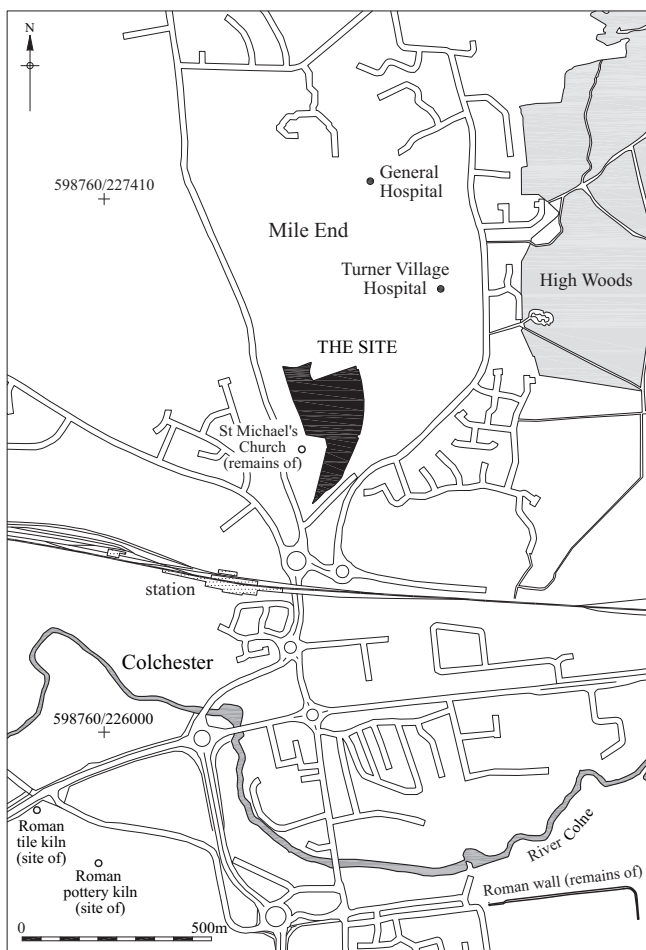


Fig. 1 Site location © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

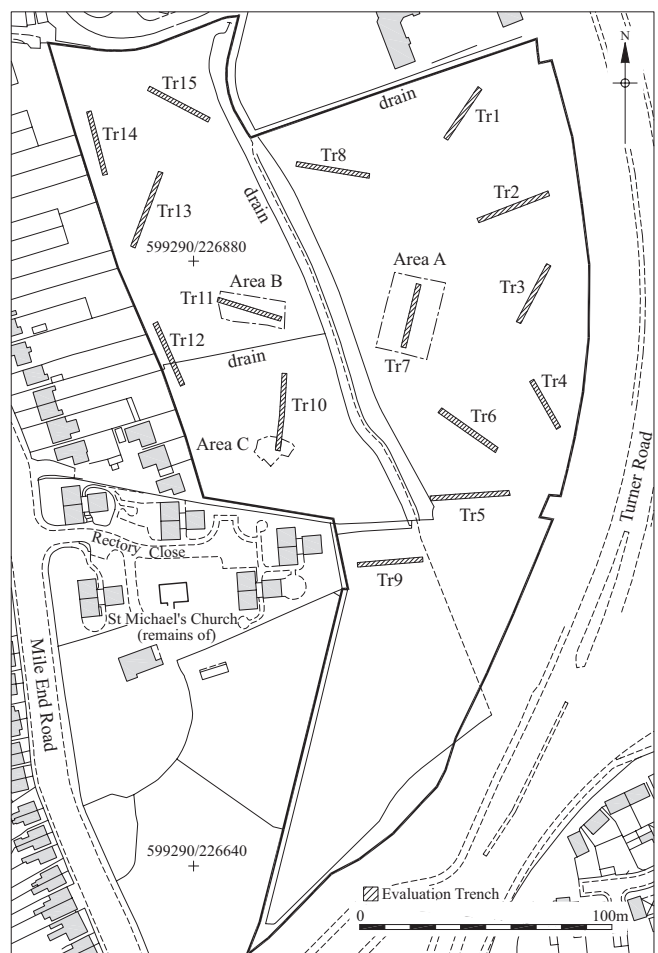


Fig. 2 Site Detail and Trench Locations © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

Some 375m north of the study site an early Roman ditch was identified in an archaeological evaluation in 1997. At Turner Village Hospital, to the east, a concentration of Late Iron Age and early Roman features was identified. These were interpreted as a ditched trackway leading to a settlement further to the north, set within a landscape of Late Iron Age and Roman field systems. Aerial photography has also revealed a number of cropmarks within the vicinity of the site, which may also be contemporary.

The evidence for Roman activity in the surrounding area is extensive. Numerous cremation burials have been recorded in areas to the south, particularly on the site now occupied by the Asda store and around North Station. There is also evidence of occupation in the vicinity of the station, and Roman pottery kilns are known alongside the river Colne at Cowdray Avenue, and to the east of North Station.

There is no evidence for any activity in the vicinity of the investigated area during the Saxon and early medieval periods. In the later medieval period it appears to have been within a section of agricultural land to the east of the hamlet of Mile End. St Michael's Church, which probably dates back to the 14th century, lay a short distance to the west.

Maps from the late 18th century onwards, show the site lying within agricultural land. Indeed, at the time of the excavations, it comprised mostly redundant arable land, surrounded on all sides by 19th and 20th century development.

The Excavations

Originally fifteen trial trenches were opened to evaluate the site (Trenches 1–15, Fig. 2). Archaeological features, predominantly of Iron Age/Roman date were recognised in seven of these, with particular concentrations in Trenches 7, 10 and 11. Consequently it was decided to extend each of the latter in order to investigate the groups of features further (Areas A–C, Fig. 2). Area A centred on Trench 7 and measured 20m by 30m, Area B on Trench 11 and measured 30m by 10m, and Area C on Trench 10 which measured approximately 15m by 15m, though its shape was rather irregular. In all of these, further features were recognised and excavated.

The earliest evidence of activity on the site comes from a small assemblage of struck flint characteristic of Mesolithic/Early Neolithic, Neolithic/Early Bronze Age and Middle Bronze Age to Iron Age industries (Bishop 2004). This material was all found residually in later contexts and is not considered further here. A very small number of residual pottery sherds of Late Bronze Age/Early Iron Age date was also recovered (Lyne 2004), but also not considered further here. The main phases of activity in the extended excavation areas were during the Late Iron Age and early Roman periods.

Area A

A number of features as recognised in Area A (Fig. 3), with a greater concentration towards the north and west. Although they were clustered, few discernible patterns

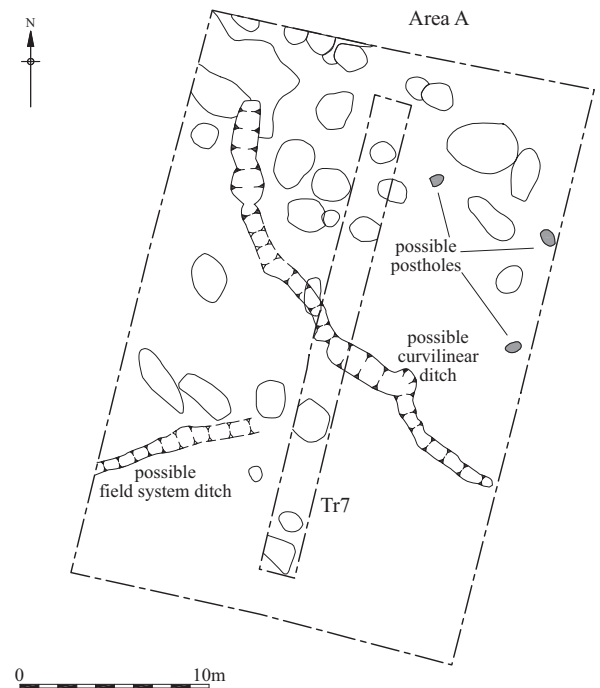


Fig. 3 Area A and Trench 7 Excavated Features

were recognisable. However, a number of associated features may have been elements of a heavily truncated and eroded curvilinear ditch. Cuts [143], [168] (= [4]), [160], [170], [120], [122] and [124] formed a broad arc, which extended from the eastern edge of the area, up to the north-west corner, a distance of some 25m. The widths of the various components varied from 0.80m to 1.88m, though the greater widths may have been caused by tree action. The depths varied from 0.20m to 0.38m, though generally averaged 0.25m. A small quantity of pottery was recovered from a number of the features ([143], [160], [170], [124]), which together indicated an early to mid 1st century AD date, probably immediately post-conquest. It is suggested that they formed part of a large enclosure ditch, which would originally have been much deeper and wider, and possibly enclosed an area to the north-east. If this was the case then a number of features, mostly pits, were located within the enclosed area. These varied considerably in size and form and have been interpreted as possible quarry pits, possibly to supply clay to a nearby pottery industry or building material for construction, such as wattle and daub buildings. Small pottery assemblages were recovered from a number of the cuts, which consistently pointed to an early to mid 1st century AD date, and were broadly contemporaneous with the possible enclosure ditch. One of the features ([2]) was originally thought to have been a possible cremation pit as it contained a concentration of burnt material. The fill ([1]) was sampled and subjected to archaeobotanical analysis. No evidence of cremated material was found. The analysis did, however, provide a palaeo-environmental context for the site (see below). Three of the cuts in this area ([137], [141] and [176]) were much smaller than the other pits and may actually have been truncated post-holes, suggesting some type of

structure near the edge of the enclosure. None of the post-holes produced dateable finds, but their presence within an area of possible quarry pits suggests they probably pre-dated this activity.

To the south-west of the possible enclosure ditch, two features ([114] and [178]) suggest the presence of a possible south-west – north-east aligned ditch, which extended beyond the western edge of the excavated area. This was between 0.64m and 0.86m wide and c. 0.15m deep. Again the separate elements had been heavily truncated, but may have been elements of a field system ditch, which extended south-westwards from the enclosure. There were also a number of other cut features south-west of the enclosure. Some of these have again been interpreted as possible quarry pits and produced small quantities of Late Iron Age/early Roman pottery, whilst others (e.g. [112]) were rather irregular and interpreted as possible tree throws.

Although the evidence from Area A was far from clear, there appear to have been three broad phases of activity. The first was represented by a small number of possible tree throws, which may represent woodland existing prior to clearance. The second may have seen the establishment of an enclosure and the laying out of field systems, probably following woodland clearance in the later Iron Age. The third phase probably saw some level of abandonment of the enclosure and the re-use of the area for quarrying in the early Roman period.

Area B

Extended excavation was carried out in Area B because of an apparent concentration of linear features towards the eastern end of evaluation Trench 11 (Fig. 4). The extension of the area revealed these to be mostly irregular and discontinuous, though aligned broadly parallel. Other cuts (e.g. [88], [94] and [108]) were interpreted as tree throws. Small quantities of pottery were recovered from some of them, which suggested a contemporaneity with the activity in Area A. Given the nature of the linear features here it is suggested that they represent gullies formed by downslope erosion, possibly as a result of soil

instability caused by deforestation and/or intensive arable use of the land.

Area C

A number of features were recognised at the southern end of evaluation Trench 10 and this was extended as Area C (Fig. 5). The features here were mostly irregular and some ([35], [37], [66], [70], [72], [74] and [76]) were interpreted as tree throws. However two linear cuts were recognised here, ditch [23], which was east-west aligned, with a western butt end [78], and ditch [68] which was north-west – south-east aligned, with a north-western butt end. Both extended beyond the eastern edges of excavation. Ditch 23 was 1.84m wide but only 50mm deep, whereas ditch 68 was 1.20m wide and 0.27m deep. Neither produced any finds, with ditch [68] standing roughly perpendicular to ditch [114]/[178] in Area A and it therefore may have been part of the same layout of field system boundaries. Ditch [23] was far more ephemeral and therefore difficult to interpret. A further section of a possible ditch [39] was recognised towards the northern end of Trench 10, and whilst it produced pottery, suggesting a contemporary date with the enclosure and field system ditches in Area A, the small section of this ditch exposed, and its apparent curvilinear form, make it difficult to interpret.

Evaluation Trenches

Although excavation was concentrated in the three extended areas, a small number of features as identified in four of the other evaluation trenches. In Trench 8 there were two, parallel, north-south aligned ditches ([52]

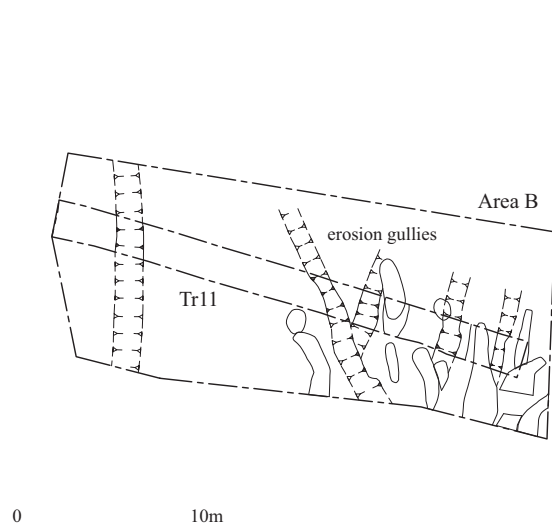


Fig. 4 Area B and Trench 11 Excavated Features

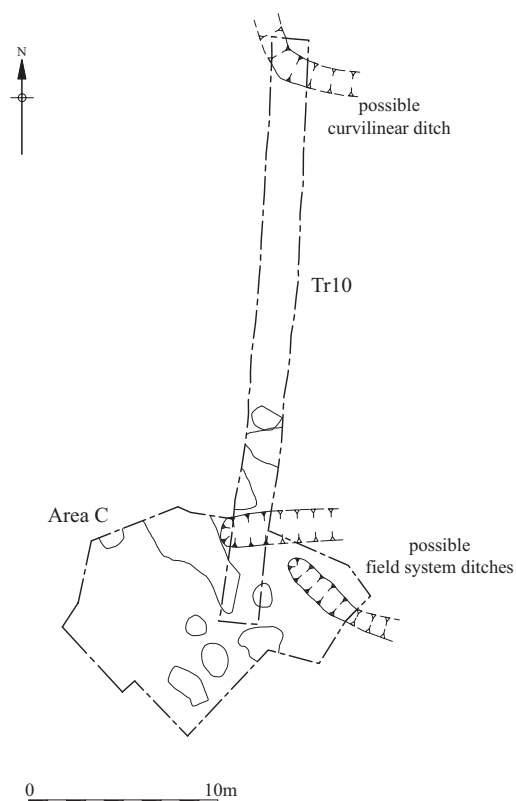


Fig. 5 Area C and Trench 10 Excavated Features

and [60]) and three oval pits ([54], [56] and [58]). Unfortunately none of these produced any finds, severely limiting their interpretative value. In Trench 9 there was a single north-east – south-west aligned ditch [8], which produced two sherds of Late Iron Age/early Roman pottery. This was broadly parallel with ditch [114]/[178] in Area A and may have been part of the same field system layout. Trench 12 contained sections of two linear cuts ([41] and [47]). Ditch [47] was undated and [41] contained fragmentary Roman ceramic building material, but was difficult to relate to any activity elsewhere. Trench 14, located towards the north-west corner of the site contained a single, irregular feature, interpreted as a possible tree throw. However it produced a quantity of Late Iron Age/early Roman pottery, suggesting some nearby activity, contemporary with that in Area A.

A Note on the Pottery

by Malcolm Lyne

The site yielded 783 sherds (6350g) of pottery, most of which is Late Iron Age in date and includes a large proportion of very abraded material. A couple of sherds of calcined flint tempered ?Late Bronze Age/Early Iron Age pottery, some early Roman and one fragment each of medieval and post-medieval pottery are also present.

Most of the various field boundary ditches, gullies and clay extraction pits produced small, rather abraded, assemblages of 'Belgic' Late Iron Age pottery of similar date to that encountered on the Sheepen industrial site to the west of Colchester. Somewhat fresher assemblages came from the fills of ditch butt end [78] in Area C, and linear feature [160] in Area A. Most of these Late Iron Age sherds come from grog-tempered storage-jars and cooking-pots but there are a few Gallo-Belgic whiteware and Terra Rubra sherds; the latter including a rim sherd from a TR3 ovoid beaker. Amphora sherds of similar date include fragments from at least one Dressel 1B (c. 70 BC – AD 0) and a Dressel 2–4 (c. 50 BC–AD 150) vessel. Amounts of Roman pottery are very small and do not, for the most part, need to be later than c. AD 60/70. The pre-Flavian pottery that there is comes from the fills of feature [96], pit [131] and pit [188]. The importance of the site lies in the presence of Late Iron Age pottery, including Gallo-Belgic imports and amphorae. This indicates another focus of Late Iron occupation contemporary with that at the Sheepen *oppidum* site to the west of Colchester but this time to the north of the city. The early nature of the Roman material suggests that the settlement on the Southern Slopes site may have been sacked or abandoned at the same time as the Sheepen one in AD 60/1.

Analysis of the Archaeobotanical Remains

by Alys Vaughan-Williams

This report presents the findings of the analysis of plant macrofossils recovered from one sample (sample <1>; context [1]), dated to the Late Iron Age/Roman transitional period, which was recommended for analysis

following assessment (Vaughan-Williams 2004). This context contained a variety of moderate to well-preserved waterlogged plant macrofossils including seeds and leaves. The aim of the analysis was to determine the likely function of the feature e.g. a cremation pit, and to provide some information on the nature of the surrounding landscape.

Methods

The plant macrofossils were recovered by flotation of bulk samples. For analysis, the flots were sorted and identifications were made under a low power zoom-stereo microscope. Identifications were made with reference to the modern seed reference collection at Royal Holloway University London, Berggren (1981) and Anderberg (1994). Plant nomenclature follows Stace (1997). The results are presented in Table 1.

Results and Interpretation

Sample <1>, context [1], contained a moderately diverse range of seeds indicative of plant species typically found on disturbed ground. Abundant orache (*Atriplex* sp.) along with frequent seeds of fat hen (*Chenopodium album*), and occasional stitchwort (*Stellaria* sp.) are present. These plants are common to arable fields, as well as waste ground. Blackberry seeds (*Rubus fruticosus*) were also occasional, although this shrub is also indicative of a diverse range of habitats. Grassland taxa included knotgrass (*Polygonum aviculare*) and thistle (*Cirsium* sp.). Damp ground taxa are represented by Curled dock (*Rumex crispus*). A single leaf of midland hawthorn (*Crataegus laevigata*) was preserved, which is typical of woodland. Occasional waterlogged buds and frequent thorny stems resembling hawthorn were also preserved.

Discussion and Conclusions

The plant assemblage retrieved from context [1] indicates a typically ruderal landscape, disturbed by human activities. Similar assemblages of this date, but with better preservation of plant remains, have been found at surrounding sites, such as Little Waltham (Wilson 1978) and Asheldham Camp (Murphy 1991). The plant remains represent a local landscape of hedgerows with scattered trees (hawthorn) and grassland. The leaves, stems and buds of hawthorn were not numerous enough to demonstrate the presence of woodland, and it is more likely that they represent hedgerows, incorporating shrubs, trees and other plants such as blackberries, thistles and fat hen. The presence of Curled dock (*Rumex crispus*) is interesting since the plant favours damp ground, which may confirm the presence of localised waterlogging within the feature and/or of damp ground at the site.

The results are characteristic of an open landscape, with grassland and scattered trees (probably forming hedgerows). From these results, it has not been possible to confirm the use of the feature as a cremation pit, although the plant assemblage has provided a valuable insight into the nature of the surrounding landscape.

			Sample Context Feature	1 001 Pit No. Present
Taxa	Plant part	Common name		
<i>Chenopodium album</i>	Seed	Fat hen		20
<i>Atriplex</i> sp.1	Seed	Orache		153
<i>Stellaria</i> sp.	Seed	Stitchwort		4
<i>Polygonum</i> Sect. <i>Avicularia</i>	Seed	Knotgrasses		6
<i>Rumex crispus</i>	Seed	Curled dock		3
<i>Rubus fruticosus</i>	Seed	Blackberry		20
<i>Cirsium</i> sp.	Seed	Thistles		5
<i>Crataegus laevigata</i>	Leaf	Midland hawthorn		O
cf. <i>Crataegus laevigata</i>	Thorny stems	Midland hawthorn		F
cf. <i>Crataegus laevigata</i>	Bud	Midland hawthorn		O

(F = Frequent, O = Occasional)

Table 1 Species List – Waterlogged Plant Macrofossils (EBRU03)

Discussion

The evaluation and excavation revealed activity on the site during the Late Iron Age and early Roman period, although the nature of the evidence means that interpretations made should not be seen as conclusive. The most comprehensive evidence came from Area A, which suggested that following woodland clearance a possible enclosure and associated field systems were established in the later Iron Age. The enclosure appeared to extend to the north-east of Area A, but was not detected in evaluation Trenches 1–3. The field systems appeared to have been laid out to the west and may also have been detected in Area C and Trench 9. In the early Roman period, activity at least in the centre of the site in and around Area A appears to have focussed on clay extraction to supply a local pottery industry or for construction purposes. The local landscape during these latter two phases appears to have been one of hedgerows and scattered trees within open grassland.

Although interpretations of the features have been suggested, they were extensively truncated and did not appear to represent any real foci of activity, indeed the scattered and fragmentary nature of the finds assemblages suggests they were probably not in primary contexts. Given the sloping nature of the site it is likely that the finds originated from further upslope. In addition to the pottery, fragments of Roman ceramic building material were recovered from a range of contexts (Major 2004), suggesting the possibility of buildings, or even a small settlement, upslope, to the north-west of the site.

The Late Iron Age activity appears to have been typical of the agricultural landscapes of the surrounding area and the wider eastern region during this period (Kemble 2001, 78–9).

During the early post-conquest years focus may have shifted to a more industrial use. The site is contemporary with the industrial site at Sheepen, to the south of the river Colne (Niblett 1985). In the absence of any evidence for pottery manufacture at Southern Slopes, it is suggested that raw materials may have been quarried

here to supply the industry across the river or to provide building materials for the associated settlement. Unlike Sheepen and Camulodunum itself, the Southern Slopes site was not protected by the series of Late Iron Age dykes to the west, and was probably therefore considered to be of little strategic importance. However, in common with the Sheepen site, it exhibited signs of abandonment in the mid 1st century, suggesting it too may have fallen victim to the Boudiccan revolt of AD 60/1.

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Bibliography

- Anderberg, A-L. 1994 *Atlas of Seeds: Part 4*, Swedish Museum of Natural History, Risbergs Tryckeri AB, Uddevalla, Sweden
- Berggren, G. 1981 *Atlas of Seeds: Part 3*, Swedish Museum of Natural History, Berlings, Arlöv, Sweden
- Bishop, B. J. 2004 Appendix 3–Lithic Assessment, in C. Pickard, Assessment of an Archaeological Excavation at Southern Slopes, on Land at Rectory Close, Colchester, Essex, Pre-Construct Archaeology Ltd., unpublished report
- Kemble, J. 2001 *Prehistoric and Roman Essex*, Stroud: Tempus Publishing Ltd.
- Lyne, M. 2004 Appendix 2–The Pottery, in C. Pickard, Assessment of an Archaeological Excavation at Southern Slopes, on Land at

EXCAVATIONS AT SOUTHERN SLOPES, ON LAND AT RECTORY CLOSE, COLCHESTER

- Rectory Close, Colchester, Essex, Pre-Construct Archaeology Ltd., unpublished report
- Major, H. 2004 Appendix 5–Ceramic Building material and Baked Clay, in C. Pickard, Assessment of an Archaeological Excavation at Southern Slopes, on Land at Rectory Close, Colchester, Essex, Pre-Construct Archaeology Ltd., unpublished report
- Murphy, P. 1991 Cereals and cropweeds, in O. Bedwin, Asheldham Camp – an early Iron Age hill fort: the 1985 excavations, *Essex Archaeology and History* 22, 31–5
- Niblett, R. 1985 *Sheepen: an early Roman industrial site at Camulodunum*, CBA Research Report No. 57, London: Council for British Archaeology
- Stace, C. 1997 *New Flora of the British Isles* (2nd ed), Cambridge: Cambridge University Press
- Vaughan-Williams, A. 2004 Assessment of the archaeobotanical remains from Southern Slopes, Rectory Close, Colchester, Essex, UK (EBRU03), ArchaeoScape, unpublished Report
- Wilson, D. G. 1978 Appendix I Iron Age and Roman plant remains, in P. J. Drury, *Excavations at Little Waltham 1970–1971*, CBA Research Report 26/ Chelmsford Excavation Committee Report No. 1, 142–5

Balkerne Heights, Colchester: Roman suburban development and cemetery use

Vaughan Birbeck

with specialist contributions by Catherine Barnett, Nicholas Cooke, Kirsten Egging Dinwiddy, Jessica M. Grimm, Kevin Hayward, Grace Perpetua Jones, Jacqueline I. McKinley, Jo Mills, Rachael Seager Smith, Chris J. Stevens and Sarah F. Wyles.

Illustrations by S.E. James

Excavation at Balkerne Hill, the site of the former St Mary's Hospital and Union Workhouse, now known as Balkerne Heights, provided evidence for Roman suburban development and later cemetery use just outside Colchester's Balkerne Gate. Six periods of Roman occupation, spanning the late 1st to 4th centuries, were identified. Within these phases the remains of nine buildings, open areas/yards, three phases of cemetery use and an alleyway or street were recovered. One of the buildings (building 9), interpreted as a late Roman temple or shrine, is similar to a previously excavated example some 40 m away, while another (building 7) may have contained a domestic shrine. There is evidence that the buildings were abandoned by the late 3rd century, at a time when the town defences were tightened and the Balkerne Gate was closed. The suburb's decline was marked by the use of the open area for general waste disposal, although it is unclear if the cemetery also started at this time. The 26 late Roman burials are known to be part of a much larger cemetery of 4th century date.

INTRODUCTION

The excavation site at Balkerne Hill (Fig. 1), centred on NGR 599175 225250, is located on land at the former St Mary's Hospital (itself the former Union Workhouse), which is now known as Balkerne Heights. Previous archaeological evaluation on the site indicated that important Romano-British deposits known from the area would be required to be excavated and preserved by record, as mitigation for the approved construction of a retirement residence. The site comprised approximately 0.3 ha located on the crest and upper north facing slope of a substantial ridge, at heights between c. 25 m and 31 m above Ordnance Datum (aOD). The underlying natural substrata comprised glacial sands and gravels overlying London Clay (BGS Sheet 224).

The natural configuration of the site, where excavation revealed the surface of the natural sand substrata, comprised a moderately steep, north-facing slope of an approximately east-west ridge. The slope appeared to become gradually less pronounced towards to crest of the ridge, immediately to the south of the site; however, as excavation ceased at or below the formation level of the new building in this area and the natural substrata was not fully exposed this remains uncertain.

Archaeological background

There is a considerable amount of published and unpublished archaeological data available for this site and its immediate vicinity, which is briefly summarised here.

During the Late Iron Age Colchester was an important tribal stronghold of the *Trinovantes*, centred on the areas around Sheepen Hill, approximately 700 m to the west of

the site, and Gosbecks Farm, approximately 3.5 km to the south-west. Two Late Iron Age findspots are known in the vicinity of the site: fragments of a Belgic jar (SMR No. 12375) and a bronze coin of *Cunobelin* (SMR No. 12368). However, no Late Iron Age finds, features or deposits were found on the extensive excavations conducted on Balkerne Hill in the 1970s (P Crummy 1981).

A Roman legionary fortress was established at Colchester (*Camulodunum*) in AD 43 and was the first legionary fortress to be built in Britain. When the Roman frontier moved north in around AD 49 a *colonia* or veterans colony was established in the former fortress, with many of the military buildings being converted to civilian use. Colchester, the first Roman capital of Britain, was later moved to the more accessible site of London (*Londinium*); however, it continued to function as an administrative, religious and industrial centre throughout the Roman period. During the Roman period the site was close to the main western gate of the Roman town and immediately to the north of the London – Colchester road and the Colchester – Sheepen road (Fig. 1).

There is abundant evidence for Romano-British occupation on and around Balkerne Hill, including several probable buildings, a cemetery and a mass of Roman finds which are only loosely provenanced to 'diggings' in the grounds of Union House recorded in the 19th and early 20th centuries. Further information on the archaeological potential of the site comes from the 1973–6 investigations on the line of the Inner Relief Road at Balkerne Hill (P Crummy 1981), immediately to the east of the site. Six principal phases of occupation, spanning the entire Roman period, were identified. These

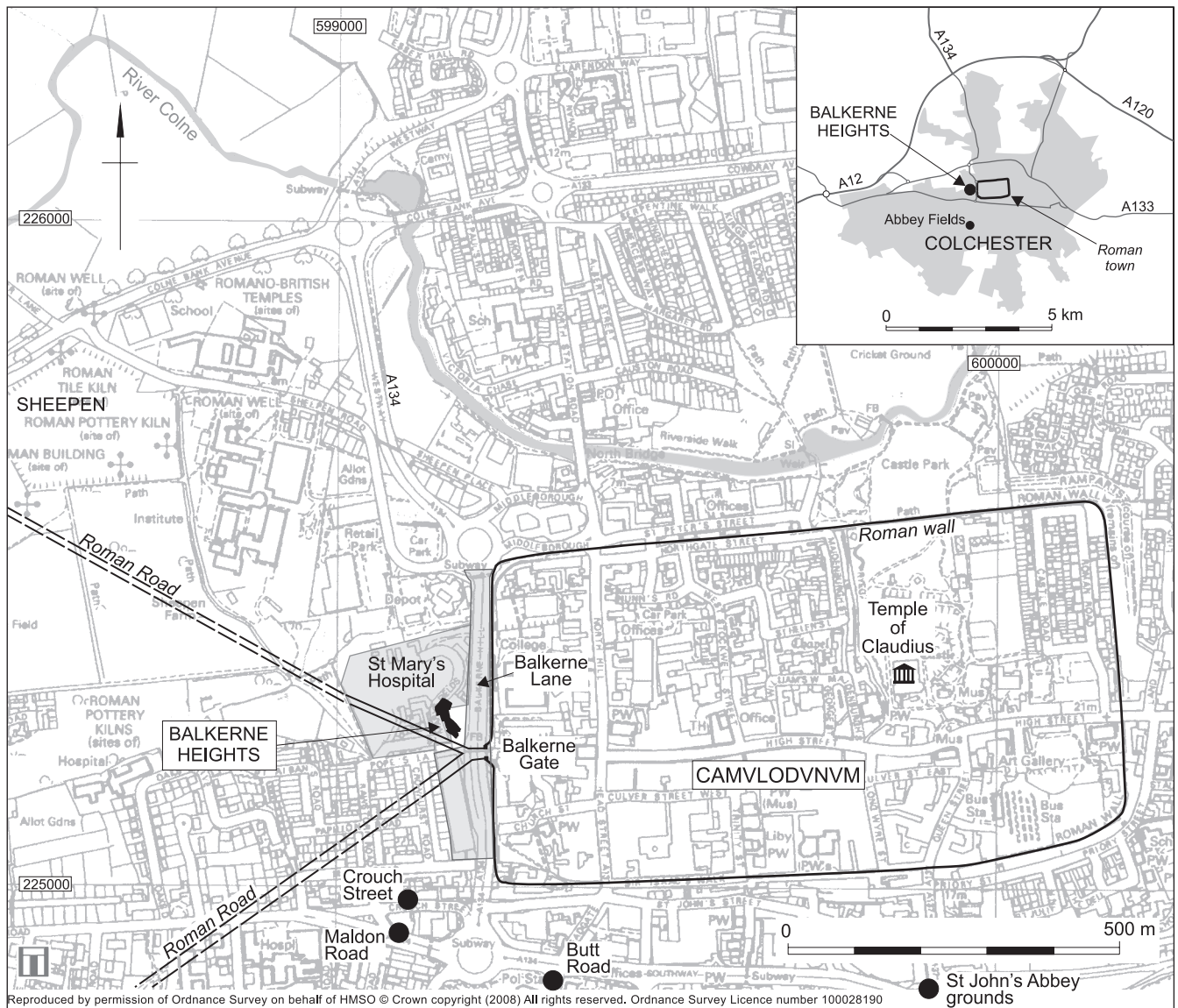


Fig. 1 Site location and Roman Colchester © Crown copyright and/or database right. All rights reserved. Licence number 100014800

excavations examined the complex relationships between the roadside settlement, the town defences and its political status, reflected in the construction and maintenance of the monumental arch at the Balcerne Gate, and the two flanking temples either side of the road as it approached the arch and the town wall. More recent evaluation and excavation in the immediate area of the site (Benfield forthcoming) recorded a previously unknown road, an alleyway with flanking buildings and yards and a number of inhumation burials.

Saxon finds in the immediate vicinity of the site consist of two poorly provenanced cruciform brooches of 6th or 7th century date, a type commonly found in burials, although there is no direct evidence that these came from burials.

Research objectives and fieldwork methodology

The central section of the excavation (Fig. 3) was partially excavated by the Colchester Archaeological Trust (CAT) in 2002/3 in accordance with a mitigation

strategy, which entailed excavation down to levels below which disturbance was not anticipated. Similarly, the present excavations reduced the archaeological deposits over the remainder of the site to levels below proposed construction disturbance or to natural sand sub-strata, whichever was encountered first.

The excavation strategy was designed to address a series of research aims:

- What is the natural topographic configuration of the site?
- Can the existing understanding of the character and chronology of the occupation of the site be enhanced by evidence from this development?
- What evidence is there for industrial and domestic activity on the site during the Roman period?
- Does the nature of the activities on the site during the Roman period reflect its proximity to the Roman town walls and ditch, Balcerne Gate and the Romano-Celtic temple recorded immediately to the east of the site?

- What evidence is there for a planned layout or zones of Roman occupation?
- Is there evidence on the site for occupation or other activities in the late Roman period and continuing into the post-Roman and Saxon periods?

The archaeological works comprised the excavation of the majority of the proposed building footprint (Figs 1 and 3), which amounted to an area of approximately 900 square metres. Following the demolition of the previous buildings on the site and a previous phase of excavations by CAT (Benfield forthcoming), modern overburden was stripped to the top of the first significant archaeological horizon by machine under constant archaeological supervision. Archaeological excavation then reduced the deposits encountered to below the proposed formation levels or to the natural sub-strata, whichever was encountered first.

All archaeological excavation was undertaken by hand, although most modern intrusions, redundant services and made ground deposits were removed during machine excavation. As the majority of archaeological deposits in the southern area of excavation were encountered at or below the proposed formation levels only two areas were examined in detail. These were reduced by up to 0.5 m below formation levels in order to understand at least the later phases of these clearly significant deposits. In the northern area of the site all deposits were reduced to the surface of the natural sand substrata and all cut features were excavated.

Stratigraphic and structural sequence

Archaeological deposits up to 1.2 m deep survived across much of the site. A total of nine Roman buildings and associated open areas, dating from the later 1st century to the early 4th century or later was identified, together with the course of a Roman street or alleyway and three phases of cemetery. The only post-Roman feature recognised, apart from 19th and 20th-century features associated with the Colchester Union Workhouse and St Mary's Hospital, was a substantial post-medieval ditch cut into the Roman deposits (Fig. 30).

On the basis of stratigraphic relationships and spot dating of finds recovered, the archaeological features and deposits have been divided into seven identifiable periods, comprising six periods of Roman activity and one of post-medieval date:

Period 1	late 1st – early 2nd century
Period 2	mid – late 2nd century
Period 3	late 2nd – mid-3rd century
Period 4	late 3rd century
Period 5	early 4th century
Period 6	4th century
Period 7	post-medieval

Within this framework, the site-wide sequence of events and activities has been defined in terms of land use blocks. These blocks describe the history of the land use on the site in terms of buildings, open areas and

cemeteries. Any particular land use block may have been in use for more than one phase; for example, successive floors within a building, or intercutting pits in an open area. The numbers ascribed to buildings change when the stratigraphic evidence suggests a major reconstruction; an open area changes when its function or limits appear to change. The development and interaction of the different land uses is illustrated schematically (Fig. 2).

The suburban occupation

Period 1

Open Area 1. Only in the northern area of the site, where excavation continued to the very earliest features and deposits within the stratigraphic sequence, were features and deposits of possible 1st century AD date revealed (Fig. 3). The earliest activities recognised on the site were represented by a large number of small, irregular features, probably caused by root disturbance, and a smaller number of larger irregular features. An environmental sample was recovered from a lens of charcoal within one of the larger, irregular features, cut 464, an irregular, sub-circular pit approximately 1.2 m long, 0.90 m wide and 0.80 m deep with steep irregular sides and a concave base. This sample produced charcoal of ten species, including several not represented in any of the other samples. These included common mixed hedgerow and woodland types such as field maple (*Acer campestre*), hazel (*Corylus avellana*), ash (*Fraxinus excelsior*) and Pomoideae (a group which includes taxa such as whitebeam, apple and hawthorn) in addition to mature and twigwood of oak. The presence of alder (*Alnus glutinosa*) indicates a damp source environment. The assemblage as a whole could be interpreted as a 'living' assemblage, such as from hedge clearance. Very few datable finds were recovered from these features, which appear to represent scrub or tree clearance.

Some of the features related to this, presumably short lived, episode of probable scrub or tree clearance were partly truncated by two possible sand quarries (Fig. 3), which appear to have been backfilled fairly rapidly with redeposited sand and small dumps of probably domestic waste. The larger of these possible quarry pits, 770, was sub-rectangular in plan, approximately 4 m long, 2.4 m wide and 1.60 m deep with steep, irregular sides and a concave base while the smaller, 663 was sub-circular in plan, approximately 2 m in diameter and 0.50 m deep with stepped sides and an irregular base. Although only relatively small quantities of datable finds were recovered from the fills of these features, they appear to have been backfilled at some time in the early 2nd century. A third large, irregular-shaped pit, 512 (Fig. 3), appears to have been roughly contemporary with quarries 770 and 663. This was approximately 4 m long, 3.5 m wide and 1.75 m deep with steep irregular sides and an irregular base. The original function of this feature is uncertain, but it may well represent a third quarry pit, however, the fills of this feature differed from those of the quarries; the basal fills comprised greenish silty deposit, probably cess, with small lenses of probably domestic debris. These deposits

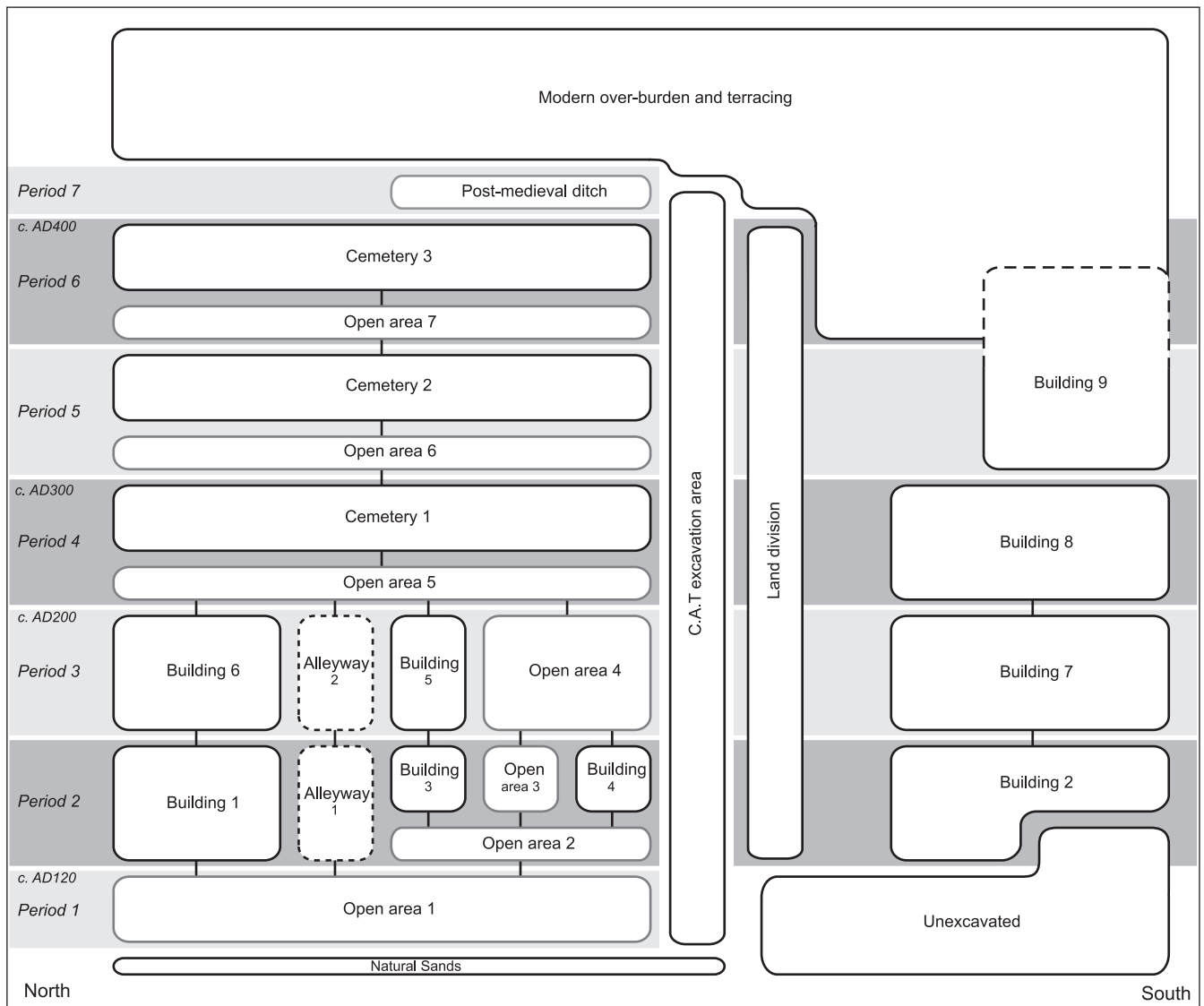


Fig. 2 Schematic plan of changes in land use in different areas of the site

compressed during the later periods, resulting in a number of later deposits slumping into the top of the pit.

Pits, in general circular or sub-circular between 1 m and 1.5 m in diameter and up to 1 m deep, continued to be dug in the area, seemingly for a number of purposes. Several pits contained distinctive mid-pale green cess deposits while others displayed signs of *in situ* burning and possible clay linings, possibly indicating some form of small-scale industrial function. Datable finds from these features suggest that this activity continued until the period 2 alleyway and buildings were constructed in the early-mid-2nd century. No structures were identified; however, it may be that these features represent the clearance of the area followed by activities related to the back-plots of buildings fronting onto the road between the Balcerne Gate and Sheepen (Fig. 1).

Period 2

The second period of activity comprised the laying out of a metallised surface (Alleyway 1) or narrow street, on an approximately north-south alignment (Fig. 4). This was parallel to an approximately 2 m wide ditch and bank

land division encountered in the central area of the southern part of the site, some 18 m to the east, which was certainly established by this period, if not earlier. A timber framed building (1) was constructed on the western side of the alleyway while the eastern side remained open for a short while (Open Area 2) prior to the construction of two further timber buildings (Buildings 3 and 4) separated by a small yard (Open Area 3) (Fig. 4). To the east of the land division a stone founded building (Building 2) occupied much of the southern excavation area.

Alleyway 1. The probable alleyway or narrow street that was found in the north of the excavation area ran approximately north to south, parallel to the ditch and bank land division (see below) that was located some 18 m to the east (Fig. 4). The alley is represented by a c. 100 mm thick sandy loam bedding layer above which was laid a well compacted layer of moderate to poorly sorted gravel pebbles that comprised the approximately 3 m wide alley surface. Although no closely datable finds were recovered from these deposits, finds from

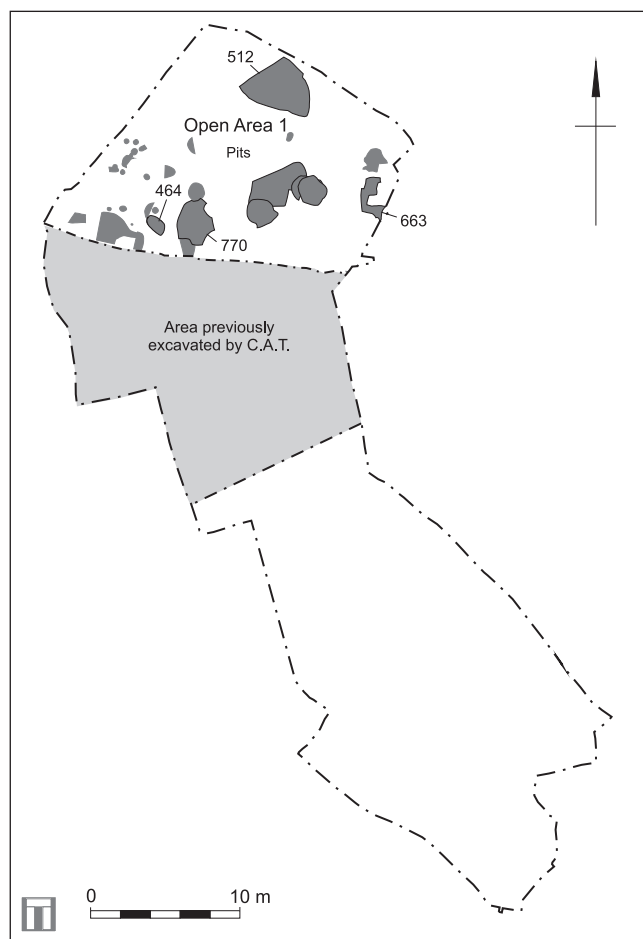


Fig. 3 Period 1 features

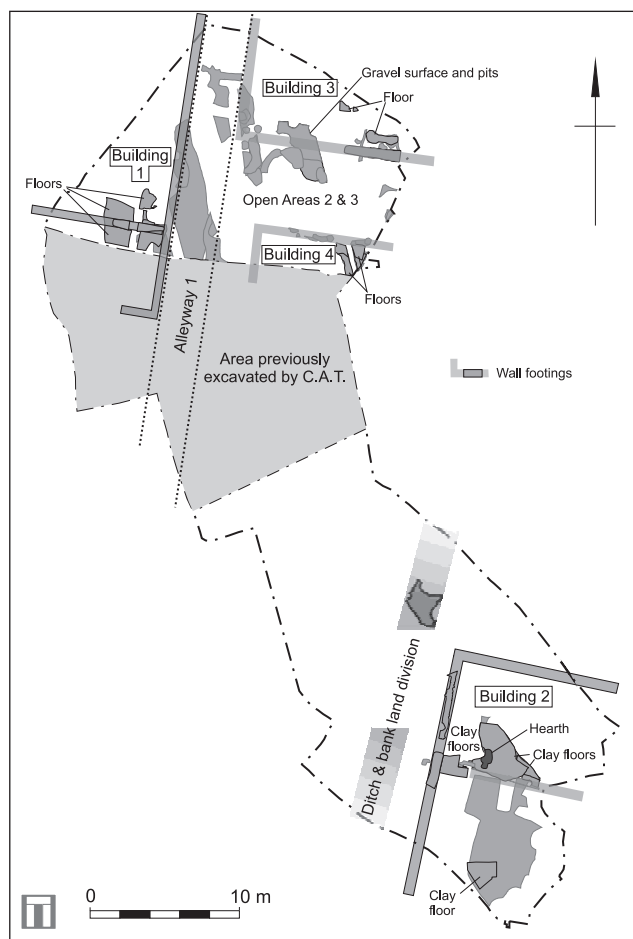


Fig. 4 Period 2 features

stratigraphically earlier and later deposits suggest that the alleyway was constructed towards the middle of the 2nd century.

Building 1. This is represented by a single, truncated length of beam-slot, aligned perpendicular to and to the west of Alleyway 1 and a few patches of remnant chalk and mortar flooring (Fig. 4). These rather crude floors lay to both the north and south of the beam-slot, indicating that this was probably an internal division, however, no possible external walls were located and the dimensions of the building are unknown. It is assumed that this building would have fronted onto the alleyway. Only a very small assemblage of finds was recovered from the deposits that represented this building, none of which was closely datable.

Open Area 2. The area to the east of the alleyway appears to have been left open, at least for a short time, at the beginning of period 2 (Figs 2 and 4) (pre-dating buildings 3–4 and Open Area 3, see below). A rough gravelled surface was laid and a group of seven pits, generally sub-circular in shape, between 1 m and 1.5 m in diameter and between 0.50 m and 0.75 m deep were dug through the surface prior to being rapidly backfilled with domestic waste. Intercutting between these pits indicates that they were sequential and the poorly sorted

nature of their fills suggests deliberate rapid dumping. Some slumping of deposits was noted in the upper fills of the period 1 pit 512 and it appears that several attempts were made to counter the slumping by backfilling the resulting depression with redeposited sand and then repairing the metallised surface. A large pottery assemblage (14.5 kg) of late 2nd century date was recovered from these upper fills. Although most are utilitarian jars and bowls in reduced fabrics, four vessels are of note for their completeness (Fig. 5, nos. 4, 5, 19 and 21), especially the rather unusual large, complete flat-rimmed bowl (CAM 243–244/246 variant, Fig. 5.5), notable for having a rounded base. The central area of the base exterior is worn. A bell-shaped bowl (CAM 306, Fig. 5.20) was also present, a vessel form more commonly found in religious/ritual contexts rather than domestic contexts (R. Symonds pers comm.).

The animal bone assemblage recovered from Open Area 2, mostly recovered from the pit fills, shows that sheep were probably the most frequent species kept around Colchester, closely followed by cattle, pig and domestic fowl. The representation of the different anatomical elements for cattle, sheep/goat and pig do not show any clear patterns. The presence of most of the skeleton indicates that at least some of the animals were slaughtered and processed on the spot. Alternatively, primary butchery waste and kitchen refuse were mixed

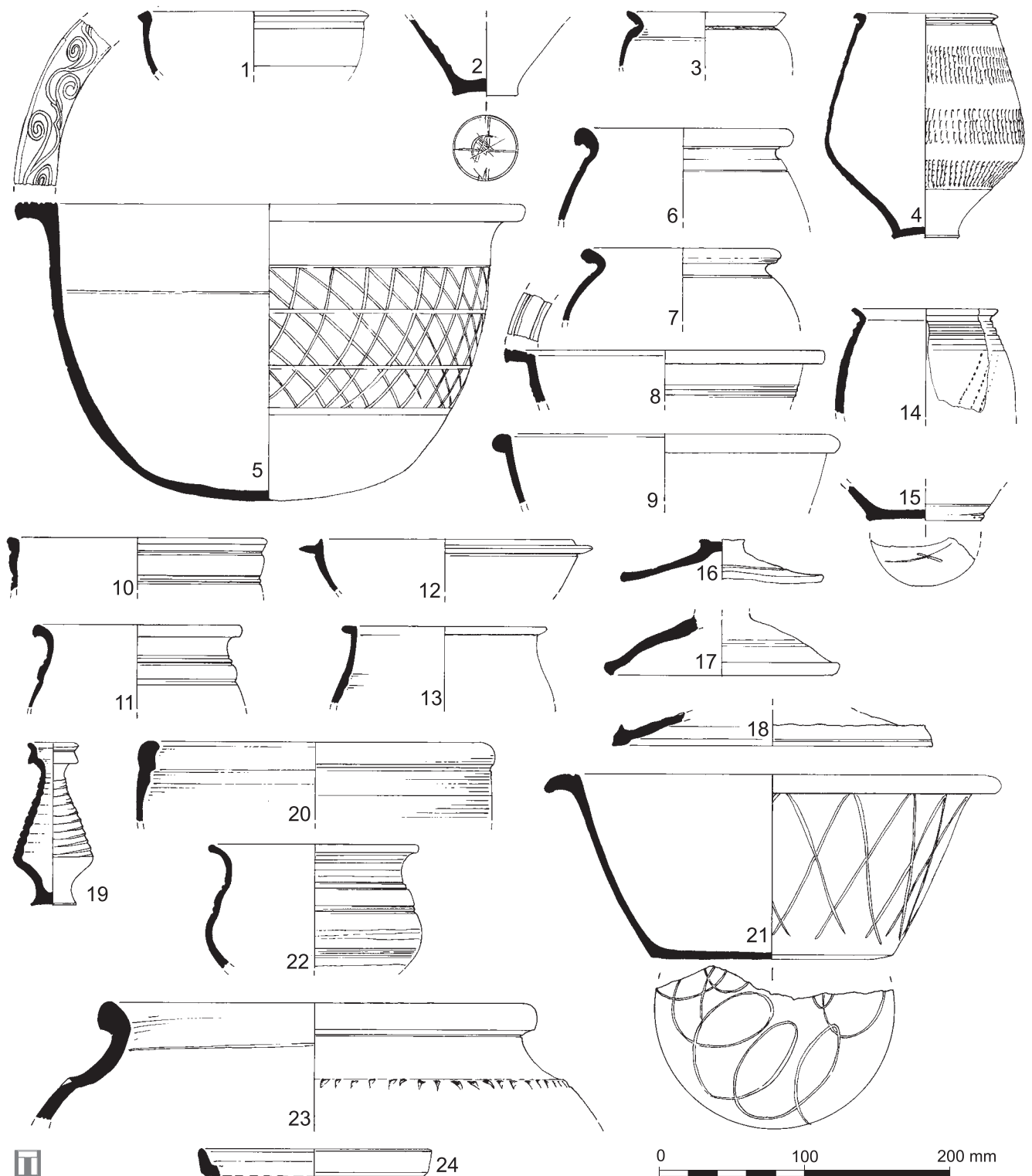


Fig. 5 Finds from pit 512

and dumped here. The high number of cattle phalanges, sheep/goat mandibles and metapodials in general, point to the disposal of primary butchery waste. However, the low number of vertebra does not support this. It could, be that the spinal column was not taken out of the carcass, but left with the rest of the butchered ribcage and sold off. Small numbers of scapulae, humeri, pelves and femora indicate that some kitchen refuse was mixed in with the butchery refuse. The absence of horn cores

might indicate that these were separated from the carcass and sent to a horn worker. Analysis of the faunal list makes it clear that domestic fowl were kept for meat and eggs. About one fifth of the bones from this assemblage derive from juvenile birds, indicating the probable on-site keeping of chickens. The presence of curlew and woodcock bones in the assemblage suggests fowling activities and a single bone of plaice suggests that fish also complemented the diet. Also of note in the animal bone

assemblage was the partial skeleton of a mature dog recovered from one of the pits. The skull of this animal was damaged just above the right eye socket possibly as a result of a blow on the head to kill it. Furthermore, the foramen major had a characteristic key-hole shape seen before in a dog skull from a Romano-British ritual shaft at Springhead (Jessica Grimm pers comm.). With a height at the withers of only 36 cm, this dog represents a typical Roman lapdog.

Boundary. An approximately north-south boundary or land division, represented by a bank of redeposited sand (4115) (Fig. 4), presumably upcast from a ditch immediately to the south, was recorded, in the southern part of the site, aligned parallel to alleyway 1 in the north of the site and the western wall of Building 2 in the south. The presumed ditch could not be clearly defined, as the top of the bank was below the formation level of the proposed new building and limited time did not allow further excavation. Although obscured by later dumps and pits, the ditch appears to have probably been between 1.5 m and 2 m wide and the bank approximately 1 m high, possibly with some form of timber revetting. The redeposited sand bank was overlain by a c. 0.30 m thick dump layer, which also lay below formation level. These deposits were recorded from the sections of later pits and modern intrusions and were not excavated. In the small areas examined immediately to the east and west of this boundary a small group of postholes, a small gully and a few remnants of a mortar surface along with an associated spread of burnt material were recorded. Due to later truncations and the limited nature of the excavations undertaken, it is very difficult to interpret the function or form of any structures or features in these areas. Whatever their form, the function clearly involved fire, as evidenced by the spread of burnt material. Very few finds were recovered from these deposits, none closely datable, though the inclusion of a small quantity of iron slag may indicate an industrial function.

Building 2. This building, represented by a masonry wall, a beam slot that probably represents an internal wall, a sub-rectangular hearth and several patches of clay floor overlain by associated occupation deposits, occupied the majority of the excavated area to the east of the ditch and bank land division and would have been at least 14 m from north to south and 10 m from east to west. As the remains of this building all lay below the formation levels for the proposed development very few of the features and deposits associated with it were actually excavated; the majority were recorded in plan but were not otherwise disturbed. The one external wall encountered comprised a small masonry (septaria) and mortar wall foundation with a well-finished upper surface that stood approximately 150 mm proud of the contemporary internal and external surfaces. It is assumed that this would have supported a timber and studwork wall. The internal surfaces comprised thin layers of silty clay or daub that appeared to have been replaced several times during the life of the building.

A bulk environmental sample was recovered from the fill of a hearth recorded within this building. The charcoal recovered from this sample was dominated by *Quercus* sp. (oak), the majority being of roundwood c. 7 years old when cut. Use of a short coppice rotation to provide fuel wood is indicated. Lesser quantities of birch and ash charcoal also occurred in the feature.

Due to the limited excavation, little dating evidence for the use of the building was recovered, and none at all for its original construction. Pottery recovered from the overlying demolition/levelling deposits (Fig. 6) included a nearly complete Central Gaulish colour-coated beaker with roughcast decoration (Fig. 6.1) and much of a Colchester mortarium stamped twice on the flange with MACRINF (Fig. 6.6). The potter Macrinus is known to have worked at Colchester and Hartley (1999, 200) notes that his forms are comparable to those of Viator, suggesting manufacture around AD 80–110. This vessel is well worn, causing the internal surface to become quite smooth. Another mortarium had been repaired with a lead plug (Fig. 6.7). The assemblage suggests an early to mid-2nd century date for this building. A Black Burnished Ware oval ‘fish-dish’ from Dorset (Fig. 6.2) was intrusive in the levelling deposits. The very limited nature of the excavation on this structure also hampers any interpretation of its function, although it is likely that this was a strip building, probably of largely domestic function that lay alongside the road between the Balcerne Gate and the industrial and religious complex at Sheepen.

Building 3. This building, constructed in the northern part of what was previously Open Area 2 (Fig. 4), continued beyond the northern and eastern limits of excavation and was bounded to the south by, the contemporaneous, Open Area 3 (see below). It was represented by a short length of beam-slot, 4 m long and continuing beyond the eastern limit of excavation, 0.60 m wide and 0.20 m deep with steep sides and a flat base, which appears to represent the southern external wall, and probable internal clay floor surfaces to the north that indicate that it was at least 4 m wide. Two post-holes immediately to the east of the alleyway are tentatively included with this structure as they appear to continue the line of the beam-slot; however, these may represent some kind of contemporary, but separate, structure beside the alleyway. If these post-holes do represent the frontage of building 3, it would have been over 10 m long. Several patches of yellowish brown silty clay, probably the remnants of a clay floor were also considered part of this structure, along with a possible hearth and the possible remnants of a second phase of floors. Only a very small finds assemblage was recovered from the deposits associated with this building, none of which was closely datable.

Building 4. This was represented by a short length of beam-slot, aligned perpendicular to alleyway 1 and a few post-holes, which appear to represent part of the northern wall of a building, which would have been over

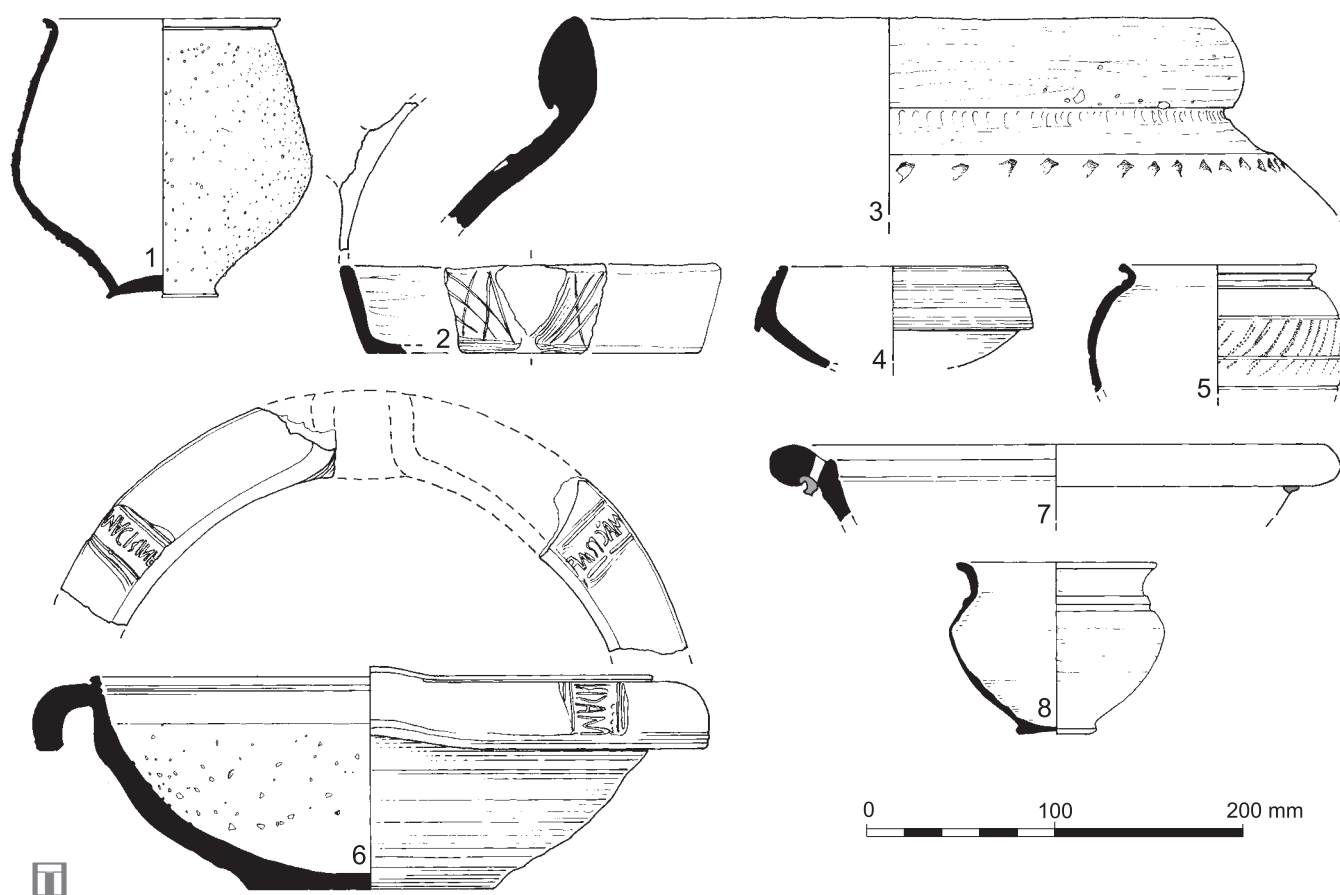


Fig. 6 Finds from building 2

6 m from east to west and over 2.5 m north to south (Fig. 4). A crudely gravelled surface was possibly laid down during, or immediately prior to, the construction of the building. This was overlain by a trample/occupation deposit that was in turn overlain by the patchy remains of probable internal clay floors to the south, that represent two superimposed phases of flooring, and associated occupation deposits. Building 4 was constructed in the southern part of what was previously Open Area 2, continued into the CAT excavation area immediately to the south and was bounded to the north by Open Area 3. Although only a very small finds assemblage was recovered from deposits representing Building 4, small quantities of hammerscale were recovered from one of the occupation deposits, suggesting at least small-scale smithing within the building. Also of note was a relatively unworn dupondius of Vespasian, minted in AD 71, recovered from within the fills of the beamslot.

Open Area 3. This lay between buildings 3 and 4 and is represented by a roughly gravelled yard surface, a few postholes alongside the alleyway and four small, sub-circular pits towards the eastern side of the area. Apart from small-scale disposal of probable domestic debris in the pits the deposits and finds associated with this area give little indication of its function, although the activities represented within this area are probably associated with Building 3 and/or Building 4. The small finds assemblage recovered from Open Area 3 included two Hod Hill

brooches, of Claudio-Neronian date (not illustrated). Although the animal bone assemblage recovered from the pits was small and the representation of the different anatomical elements can only hint to the utilisation of the carcasses, the presence of primary butchery waste (head, vertebrae and lower legs) as well as meat-rich body parts (scapulae, humeri and pelves) indicate a mixture of butchery and domestic waste.

Period 3

The third period of activity comprised the resurfacing of Alleyway 1, the demolition of Buildings 1, 3 and 4, and the construction of Buildings 5 and 6 in the northern area of the site (Fig. 7). In the southern area, at approximately the same time, Building 2 was demolished and Building 7 constructed. The boundary appears to have continued in use and was redefined by the excavation of several pits immediately to each side. Finds of note recovered from these pits include at least one apparently deliberately bent metal object, a spoon (object 567, Fig. 27.1) and the base of an alabaster bowl (Plate I). The silver round-bowled spoon (object 567) appears to have been cast as one piece, a cross (X) had been incised in the centre of the spoon bowl and the lower part of the handle has been deliberately bent. The form is a Crummy (N 1983) Type 1, dating to the second half of 1st century to 2nd century AD. A similar example has been published from the nearby St Mary's Hospital site (N Crummy 2006, Fig. 33.7). This is also a round-bowled spoon with a bent

handle; however the bend is at a different angle. The chemical weathering of the calcium sulphate means that items such as the alabaster bowl do not usually survive. Alabaster has been identified elsewhere at Colchester, from excavations on the south side of the Temple of Claudius precinct (Hull 1955, 46). Another notable find recovered from the pits around the boundary was the articulated skull and cervical vertebrae of an adult, possible female, aged between 35 and 45 years, along with a small assemblage of disarticulated human bone from a minimum of two individuals. The fact that the bones were still articulated suggests that the skull was not fully decomposed when deposited in the pit. There is some indication that the orientation of the buildings, especially to the west of the alleyway, may have changed slightly during period 3, possibly influenced by factors not observed on the site. It should be emphasised, however, that the evidence for the alignment of these period 3 features was very poorly preserved.

Alleyway 2. The original alleyway (1) (Fig. 4), which had probably become rather rutted with several crudely repaired pot-holes, was resurfaced (Alleyway 2) (Fig. 7), although the alignment remained approximately the same. A 150 mm thick bedding layer of redeposited natural sand was laid directly above the remains of alleyway 1; a c. 100 mm thick, well-compacted surface

of crushed mortar/*opus signinum*, CBM fragments and gravel was then laid over the bedding layer to form the metallated surface of the alleyway, which was approximately 3 m wide. Although only a small finds assemblage was recovered from these deposits, pottery dated to later than AD 120 and late 2nd century samian were recovered from the bedding layer, along with a 1st century coin of Domitian (AD 87), a bone hairpin with plain conical head (Crummy type 1) dated to c. AD 50–200 (N Crummy 1983, 21), and the bent shank from a copper alloy medical or toilet implement (object 131, Fig. 27.2).

Building 5. This is represented by the truncated remains of a single beam slot, the truncated remains of an internal clay floor to its north and the remains of two small internal hearths (Fig. 7). Only the southern external wall of the building was identified, the remainder of the building extending beyond the northern and eastern limits of excavation. The beam slot, although heavily truncated by later features, appears to represent a wall, at least 10 m long, orientated approximately perpendicular to Alleyway 2 and continuing beyond the eastern limit of excavation. Internal features, such as floors, hearths and pits, to the north of the wall, indicate that Building 5 was over 5 m wide and continued beyond the northern limit of excavation.

The earliest clay floor within Building 5 was associated with a small, sub-circular hearth, approximately 0.80 m in diameter and 0.15 m deep with steep, concave sides and a concave base, approximately 2 m to the north of the southern wall; a group of three stakeholes were also associated with this feature and the surrounding clay floor showed clear signs of *in situ* burning. Environmental samples recovered from this hearth indicate that the associated stakes were of oak, whilst the charcoal assemblage from the main body of the

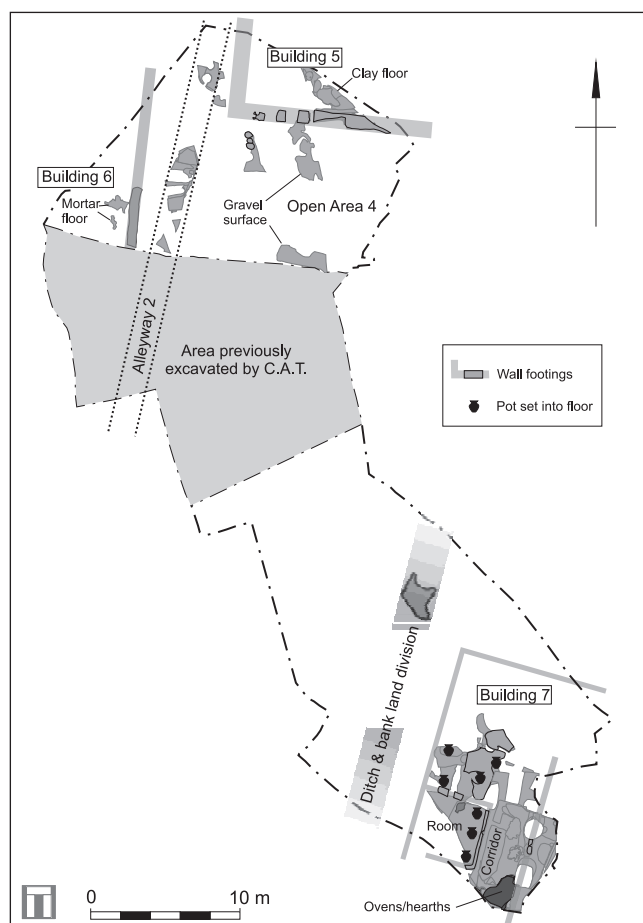


Fig. 7 Period 3 features



Plate I Alabaster bowl base

hearth proved to be large in terms of number of fragments and in individual fragment sizes but was highly restricted in terms of taxa represented. Substantial quantities of birch (*Betula pendula/pubescens*), oak and willow/poplar (*Salix/Populus* sp., the two indiscernible from their wood anatomy) were found with lesser quantities of hazel. It is noteworthy that fast growing taxa and rod-like roundwood dominated the assemblage, indicating use of managed and coppiced stands of trees as a fuel source. The sample also recovered large quantities of charred seeds, generally of wet grassland species. Cereal remains were recovered in low numbers suggesting they came from other sources. One possibility is that this material relates to hay or material brought in as animal fodder that was later burnt as tinder, or possibly brought in entirely for use as tinder.

The earliest floors were overlain by a thin deposit of charcoal and burnt material, presumably rake-out from the hearth, which was in turn overlain by a second phase of clay floor and an associated sub-circular hearth, located close to the position of the earlier hearth. A small sub-rectangular pit, 0.90 m long, 0.40 m wide and 0.20 m deep with steep sides and a concave base, was also associated with the 2nd phase of internal floors. Although this pit contained a great deal of charcoal and other heat-affected material, there was no evidence for *in situ* burning as there was with the hearths.

Some 77% of the animal bone assemblage recovered from the remains of Building 5 showed signs of contact with fire. All the burnt bone was recovered from samples from the hearths and mainly consists of (very) small bone splinters, usually not identifiable. 35% of the burnt bone was charred, 30% calcined on the outside and 35% was completely calcined. This oxidised bone could indicate temperatures of up to 600–750°C (Wahl 1981). Cattle followed by sheep/goat contributed most to the diet in the assemblage; however, as the overall assemblage is quite small, conclusions based on the representation of the different anatomical elements should be made with caution. The relatively high number of sheep/goat phalanges in the assemblage point to the disposal of primary butchery waste although the representation of cattle bones show a pattern more in line with kitchen refuse as meat-rich body parts like the upper legs seem to dominate.

Building 6. This is represented by a single, heavily truncated length of beam-slot (Fig. 7), approximately 4 m long, 0.60 m wide and 0.35 m deep with vertical sides and a flat base that lay to the western side of the alleyway, although it may be significant that this was not parallel to the side of the alleyway. Probable internal surfaces were represented by two remnant patches of calcareous mortar floor to its west. It is possible that these deposits represents an alteration to the structure of Building 1 rather than a completely different building, however, there does appear to be a significant, if slight, alteration to the orientation of the building and it is assumed that this represents a separate, or at least radically re-designed, structure. The limits of this probable building, which continued into the

CAT excavation area in the centre of the site, were not identified due to later truncations to the north and its dimensions are unknown. Only a very small finds assemblage was recovered from the remains of this building, however, the pottery recovered from the backfill of the beam slot, which probably represents the final demolition of Building 6, was datable to the 2nd or early 3rd century at the latest.

Open Area 4. This lay to the south of Building 5, on the eastern side of Alleyway 2 (Fig. 7). A gravelled surface was located on the southern side of the area and probably extended into the CAT excavation area. The only other features and deposits associated with this area comprise a group of several small post-holes close to the side of the alleyway, which do not appear to form any coherent structure and a small accumulation of probable domestic waste adjacent to the southern wall of Building 5. Although only a small finds assemblage was recovered from these deposits, diagnostic pottery of later 2nd century date was recovered from the waste accumulation adjacent to Building 5.

Building 7. This occupied the majority of the excavation area to the east of the central land division during period 3 (Figs 2 and 7). No external walls were identified, however, it is probable that the western, mortar and masonry, wall of Building 2 was reused and also formed the foundation of the western external wall of Building 7. The internal walls appear to have been constructed using both sill beams and upright posts to support wattle and daub studwork. Finds recovered from the deposits representing the destruction or demolition of the building indicate that some of the internal walls were almost certainly faced with painted wall plaster. The dominant colour was a pinkish red; however there were also areas of light green and brownish grey, with white or cream coloured stripes or lines. The building was at over 12 m from north to south and over 10 m east to west and continued beyond the southern and eastern limits of excavation. The building probably originally comprised three or more rooms, including a small room, approximately 4 m by 4 m, built against the probable western external wall; a narrow room or corridor, 3 m wide and over 6 m long; and a large room, approximately 8 m from east to west and over 6 m from north to south. A possible internal north-south partition wall, represented only by two post-holes, appears to have formed the eastern walls of the narrow room or corridor and may have continued to form the eastern wall of the large room. Slight colour and texture differences suggest that the clay floors within the building were laid on a room by room basis rather than as a single building-wide episode. However, the minor variations in colour and texture by which these were distinguished may be the result of the subsequent use of the floors. A coin, an As of Antoninus Pius, recovered from a levelling deposit immediately below the earliest clay floors suggests that the building was not constructed until at least the middle of the 2nd century or later.

The narrow room or corridor, which extended beyond the southern limit of excavation, contained a series of well-constructed ovens and hearths. The earliest oven was constructed within a sub-rectangular pit, which cut through the clay floor in this area. This had been lined with sandy clay into which tile fragments were laid to form the base of the oven. Later rebuilds had removed all traces of the superstructure, although its keyhole shape in plan could be discerned from the burnt deposits that represent the use of the oven. The remains of the earliest oven were overlain by a series of three further ovens, all of similar design, which continued to utilise the original footings. Some 4–5 m to the north of the ovens the floor was cut by two small, sub-circular hearths. As the floor in this room does not appear to have been replaced, it is uncertain whether these hearths were contemporary with some, all or none of the ovens. The charcoal assemblage recovered from these hearths was dominated by oak, including substantial quantities of oak roundwood, indicating use of coppiced wood. Lesser quantities of birch and hazel were also present. Of note in this assemblage was the presence of two fragments which compare well with the anatomy of *laburnum* (*Laburnum* sp.). This is a rare find archaeologically despite it being a relatively common introduced garden species today. It was, however, also found in a Roman cremation cemetery at Springhead Roman Town (Barnett in press). Its presence is somewhat anomalous given the common and probably managed trees represented in this and the other hearth/ovens analysed and it may be the wood was introduced to the fuel mix for a particular favoured property such as scent but since its seeds are poisonous, contact with food items could have proved hazardous.

The small room immediately to the west of the narrow room or corridor was notable for the cleanliness of the clay floors; very little occupation debris was found overlying the floors in this room in contrast to the sizeable accumulations that were allowed to build up above some of the other floors in this and other buildings within the site. It had three complete pots set into the floor alongside the small beam-slot that represents the internal, eastern wall of the room, with the necks flush to the floor. These comprised a BB2 cooking pot (object 621, Fig. 8.1), a cooking pot with undercut rim, which has post-firing graffiti on the exterior of the vessel (object 622, Fig. 8.2) and a large, necked jar with decorated cordon (object 623a, Fig. 8.3). Two graffiti were scratched on object 622, as described by Tomlin (2008, 376–7): ‘(a) Just below the rim, in small clumsy letters: [...]MBICAP...[...], [A]mbicap[iti]. (b) On the wall, in much larger clumsy letters but probably by the same hand: MBICAPITI, (A)mbicapiti. ‘(...) of Ambicapitus’. The initial *Ambi* is a constituent of many Celtic personal names (*ibid.*). A complete profile from a small, carinated bowl was also present (object 623b, Fig. 8.4). Four pottery vessels had been set into the floor of the large room to the north. These comprised a BB2 cooking pot (object 528, Fig. 8.5), a nearly complete jar (object 590, Fig. 8.6), and the lower parts of two other

vessels, both decorated with burnished lattice (objects 519 and 520, not illustrated). Other pottery from this building includes small, round-bodied jars or beakers with everted rims (Fig. 8.11), grooved-rim bowls (Fig. 8.8), cordoned bowls, a London-ware type copy of a samian form 37 bowl (Fig. 8.9) a small Black Burnished ware bead-rimmed jar from Dorset (Fig. 8.7), and bowls from both the BB1 and BB2 industries, with round or triangular rims. The base of one demonstrated at least two, possibly three, post-firing perforations (Fig. 8.13). The oxidised wares included a ring-necked flagon and part of a *tazza* (Fig. 8.12). The group is of late 2nd to mid-3rd century date. The pots from Building 7 are remarkable for their completeness as part of a group, but are not remarkable in form; they are typical cooking jars, although only one had evidence of actual use in terms of sooting or burnt residues (Fig. 8.1).

Metalwork recovered from Building 7 includes a disc-shaped plate brooch with 12 peripheral lugs and enamelled decoration: an outer circle of blue enamel and an inner circle of green, both bisected by a band of a third colour, also a shade of green, of mid-2nd century date (Fig. 9.5); a Hod Hill brooch fragment with white metal coating (not illustrated); a copper alloy terret ring (Fig. 9.2) and the suspension hook from steelyard (Fig. 9.1). Other objects of note are a bone pin beater, for use in weaving (Fig. 9.3) and a nearly complete glass unguent bottle (Fig. 9.4).

The function of this building is uncertain. While the series of ovens and hearths in the southern room could well be domestic, the rather unusual series of pots in the floor of the other two rooms could suggest a less obvious function. Perhaps of significance here is the fragment of (religious?) statuary, in Purbeck Marble, recovered from a possible occupation deposit within the large room. The piece is very well worked, tapered and rounded, perhaps part of an arm or leg. It is very unusual to find Purbeck Marble worked in this way as the stone is usually too hard and brittle, although once polished would have been visually striking.

Period 4

At some time towards the end of the 2nd century or early in the 3rd century the buildings and alleyway to the west of the ditch and bank land division were abandoned (Fig. 10) and large deposits of rubbish accumulated over their remains (Open Area 5, not illustrated). These presumably resulted from dumping waste material from elsewhere. The first phase of burials and associated features were cut through these deposits. At approximately the same time the stratigraphic evidence, along with the pottery dating, suggests that Building 7, to the east of the ditch and bank land division was replaced by Building 8. The north-south boundary continued in use and was reinforced by further pit digging immediately to its east and west. A notable find from one of these pits was a copper alloy hairpin with a biconical head and grooved, linear decoration that appears to have been deliberately bent (Fig. 27.4). This pin can only be placed in the miscellaneous category of

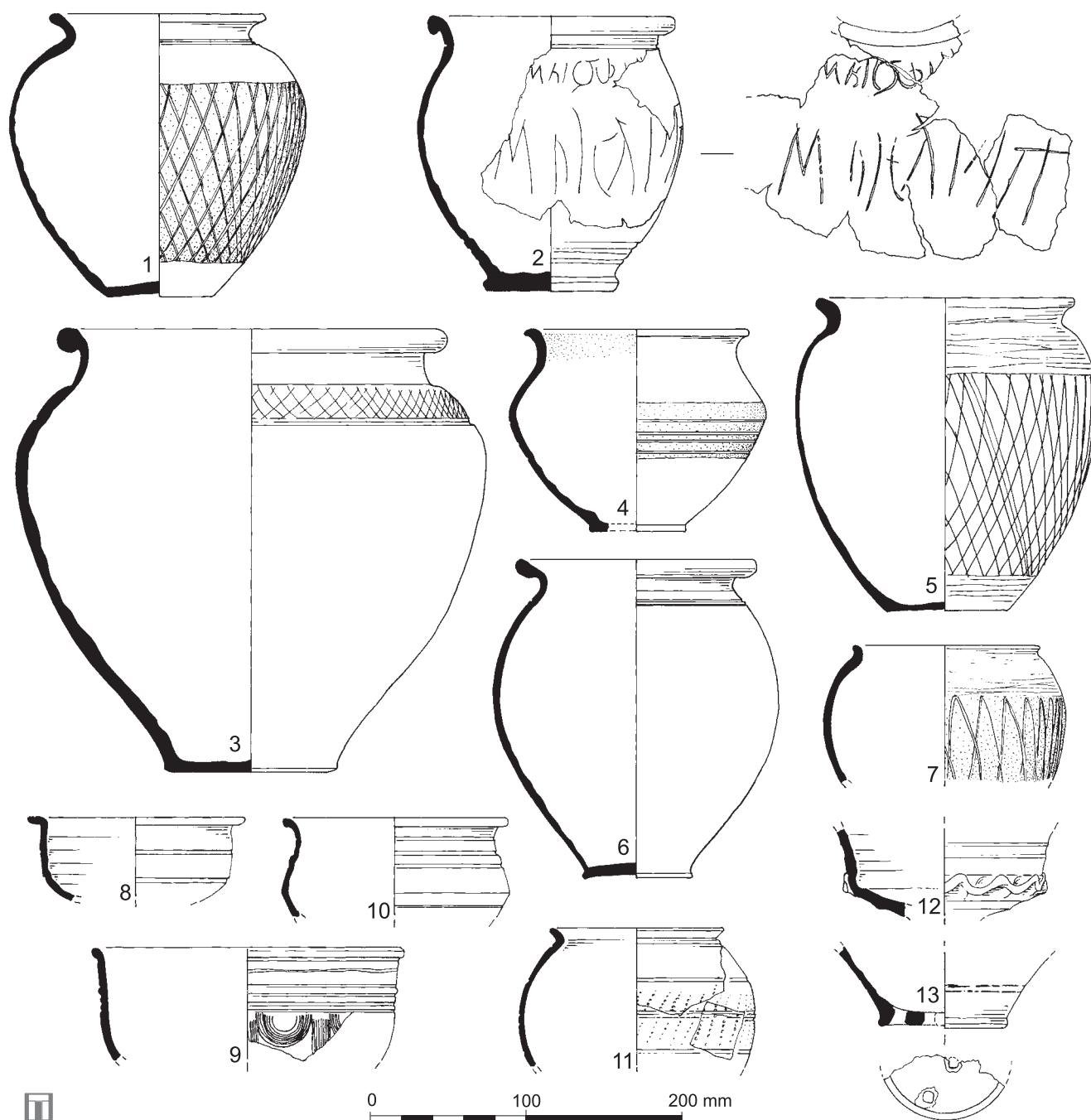


Fig. 8 Pottery from building 7

the Cool (1990) typology, and no parallels have so far been identified.

Building 8. This building, which occupied approximately the same area as the earlier Building 7, was represented by two beam-slots approximately 3 m apart, a few postholes and truncated floor surfaces (Fig. 10). These indicate that the building was over 12 m north south and at least 7.5 m east-west. A large linear feature, approximately 4 m long and 1 m wide with steep, irregular sides and a flat base, located between the western wall and the plot boundary may represent the robbed out remains of a further wall of Building 8; however, any relationship between this feature and the

western wall had been destroyed by a modern intrusion and the absence of any clay floor remains in this area suggests that this was unlikely to have been a structural part of the building. A slight incline noted in the base of this feature could indicate that this represents a drain running between the building and the property boundary.

Levelling deposits immediately below the remains of Building 8 produced a fairly typical range of pottery forms: cooking pots with undercut or everted rims (Fig. 11.1); triangular- or round-rimmed bowls; flat- or grooved-rimmed bowls (Fig. 11.4); a plain-rimmed dish; carinated bowls (Fig. 11.3); an everted rim beaker and a butt-beaker copy. Finewares included a sherd of

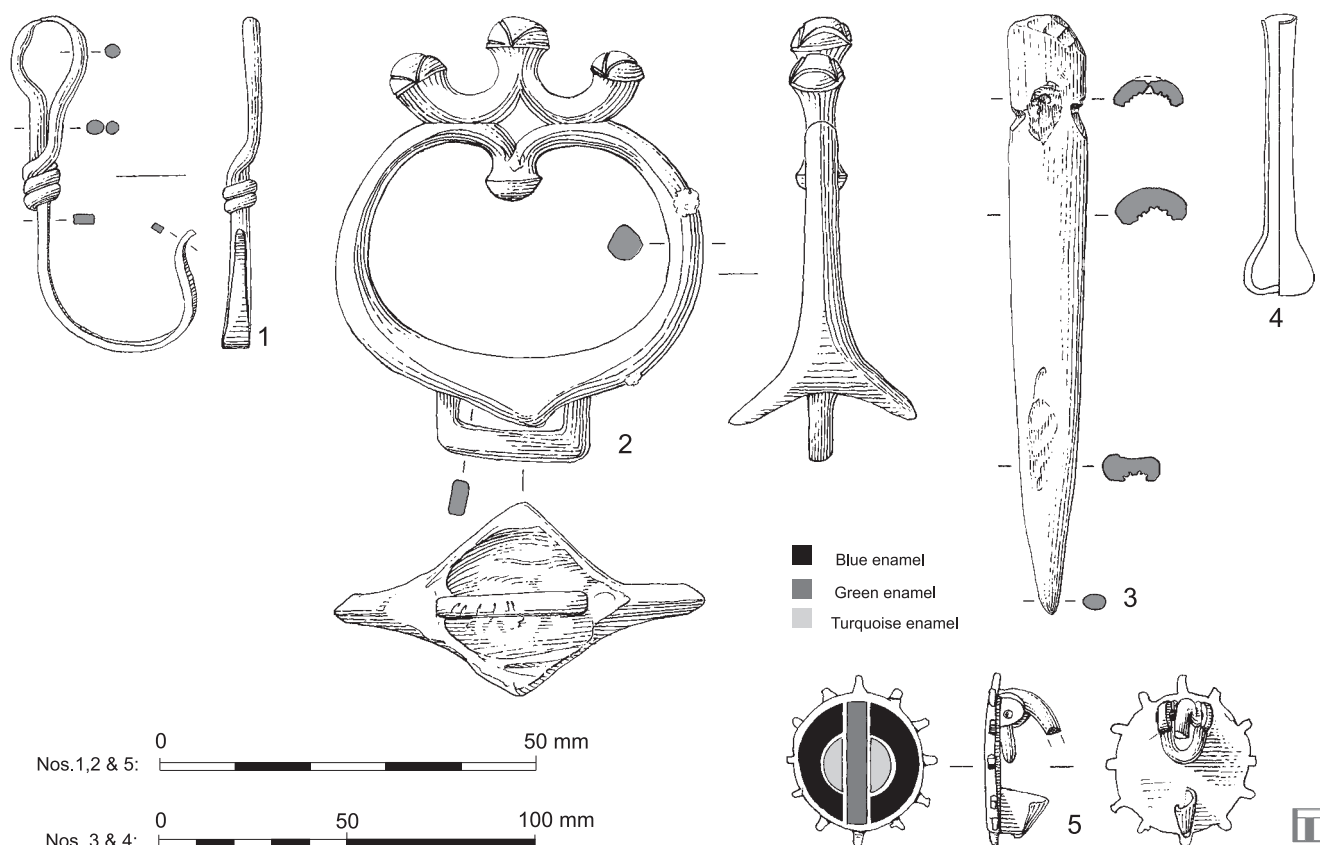


Fig. 9 Small finds from building 7

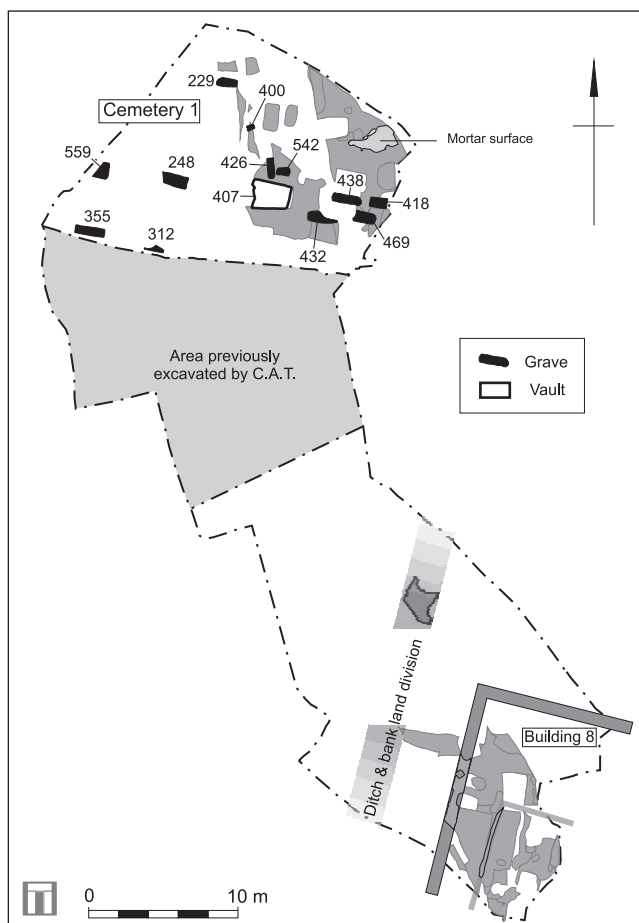


Fig. 10 Period 4 features

Colchester colour-coated ware and a Central Gaulish cornice-rim beaker, both with roughcast decoration. Two flagons were present, one with a cupped ring-neck, the other was more unusual, a vessel with a flaring mouth, in a form that imitates bronze vessels (CAM 356/362/381/383–384). A tiny bead-rimmed jar and a complete miniature oxidised ware jar were also recorded. A small hole in the side of the latter appears to have been made from the inside in antiquity (Fig. 11.2). Most of the pottery from the levelling deposits has a broad date range of early 2nd to the early 3rd century, however the single round-rimmed bowl is not earlier than the late 2nd century. Later still is an oval-shaped Black Burnished ware ‘fish-dish’ from Dorset (Fig. 11.5). The Balcerne Heights vessel is an unusual example of this form, with irregular wall-thickness and a pouring lip. This vessel is of mid-3rd century date at the very earliest.

A typical assemblage of pottery was present in the floor layers and structural remains, dominated by domestic coarsewares. These include a similar range of jars and bowls to that recorded for the levelling deposits. Also present were flat-rimmed bowls or dishes from the Dorset Black Burnished Ware industry, heavily-tempered storage jars and two lid-seated jars. Of interest is a triangular-rimmed bowl with two notched parallel lines on the rim, an owner’s or tally mark, and part of an abraded sherd with at least two pre-firing perforations. The form is unknown but it does not come from the base of the vessel, is not a strainer and the two holes make it unlikely to be from an infant feeder. Amphora for the

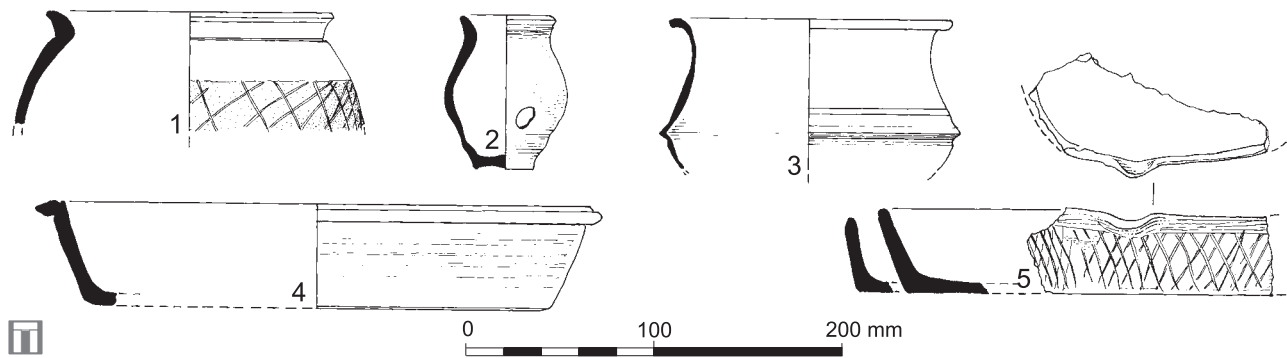


Fig. 11 Finds from building 8

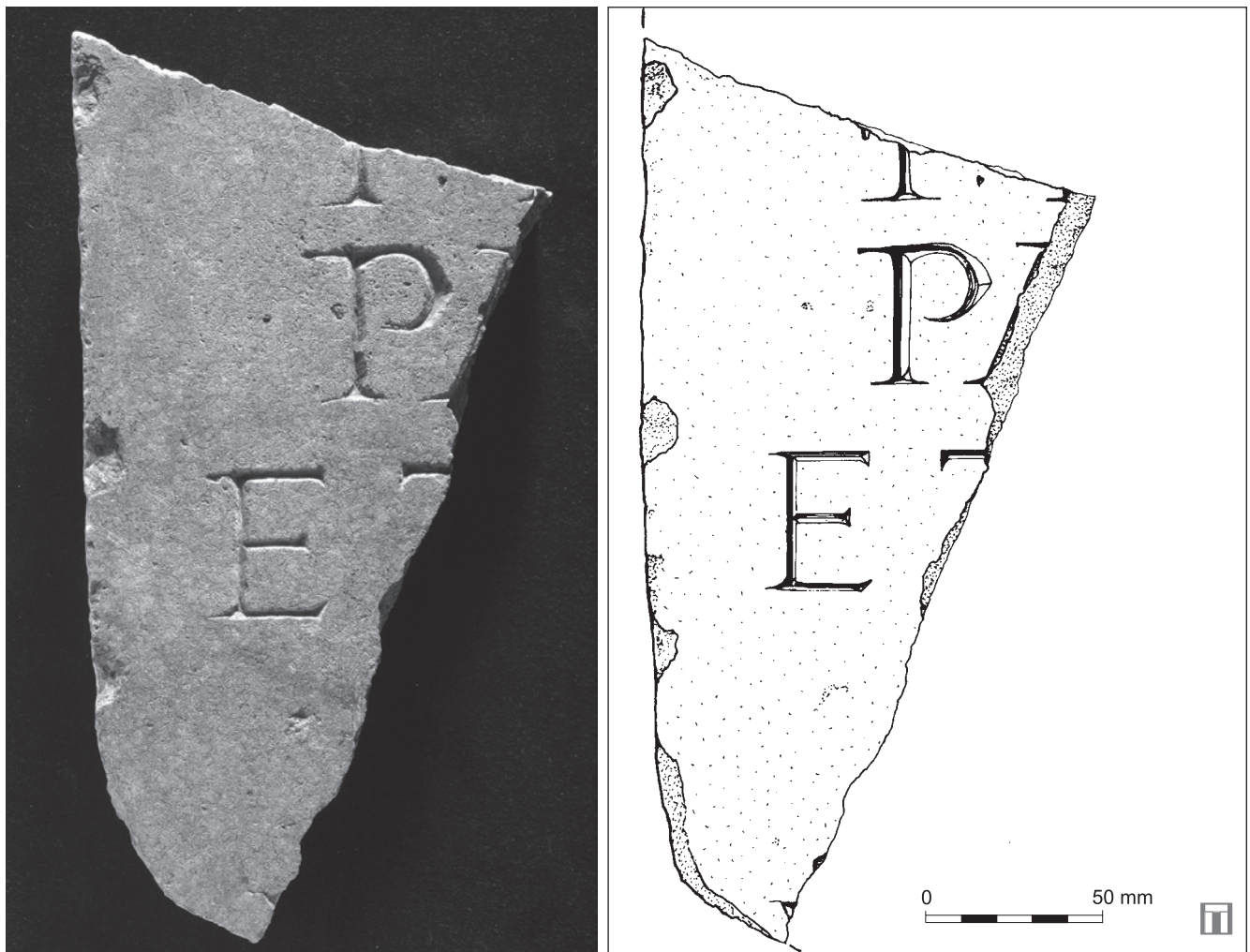


Plate II Fragment of inscribed Purbeck Marble

transportation of fish-based products and olive oil from southern Spain were present, as well as mortaria from Colchester and north-western France. Finewares include Colchester colour-coated ware, mica-dusted fabrics and a single sherd of Hadham oxidised ware.

Overlying some of the floor surfaces were occupation deposits, many of which comprised burnt deposits or hearth debris, suggesting that this may have had a similar function to the oven and hearth complex identified in the earlier Building 7 in the same position. In a few places these were overlain by heavily truncated patches of clay

floors, indicating at least one phase of repair or refurbishment during the life of the building. The demolition of the building is represented by extensive dump/levelling deposits that contained large quantities of CBM and, notably, a fragment of Purbeck Marble (object 373 – Pl. II) inscribed with well-drawn letters, described by Tomlin (2008, 370): '[...] | ..[...] | PΛ[...] | ET[...] | *vacat*, perhaps [...] | [*filio*] | *pa[ter]* | *et [mater]*'. '...to their son, (from) his father and mother'. The lettering and the use of Purbeck marble suggest a date before the mid-2nd century (*ibid.*).

Period 5

Period 5 is represented by further dumping or accumulation of rubbish (Open Area 6, not illustrated) followed by a second phase of burials to the west of the ditch and bank land division, including two subterranean vaults (Fig. 12) (see the cemeteries below). Notable finds recovered from Open Area 6 include an iron stylus with moulded decoration on the stem (Fig. 27.5, object 1108, Manning 1985 type 4) and the shank from a copper alloy pin/toilet implement or needle (Fig. 27.6), both bent at 45 degrees, possibly votive offerings; and a copper alloy wire looped at both ends (object 180), probably a chain link from a steelyard (Fig. 13.1). To the east of the land division, Building 8 was demolished and Building 9 (Period 6, see below) was constructed sometime after AD 283. Later terracing, presumably associated with the construction of the Colchester Union Workhouse, had severely truncated the remains in the southern area of the site and very few features and deposits associated with activities in the open area around Building 9 survived.

Period 6

The sixth period of activity is represented by further dumping or rubbish accumulation (Open Area 7, not illustrated) followed by a further phase of burials in the northern area of the site (Fig. 14). Notable finds recovered from Open Area 7 include a bent but

incomplete copper alloy toilet implement: a circular-sectioned probe with longitudinal moulding, the end is missing but would presumably have been a spoon (Fig. 27.7, object 148); and a shoe-sole-shaped brooch (Fig. 13.2, object 45, Feugère 1985 Type 28b2) with a yellowish/pale green enamelled background, inset with nine circular multi-coloured spots. Modern truncations had completely removed any traces of contemporary activity in the southern area of the site, however, on the

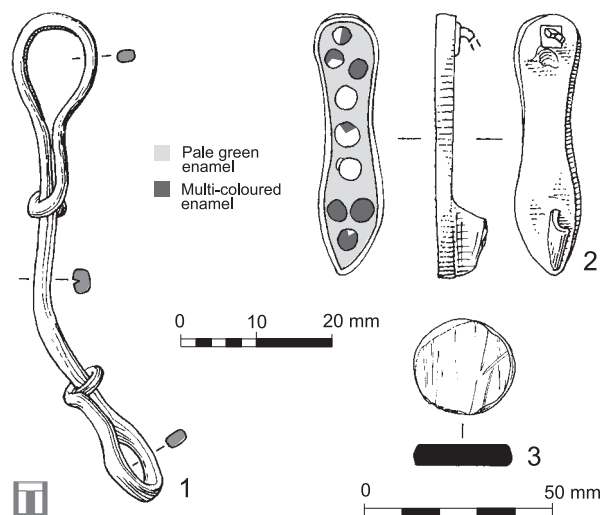


Fig. 13 Finds from open areas 6 and 7

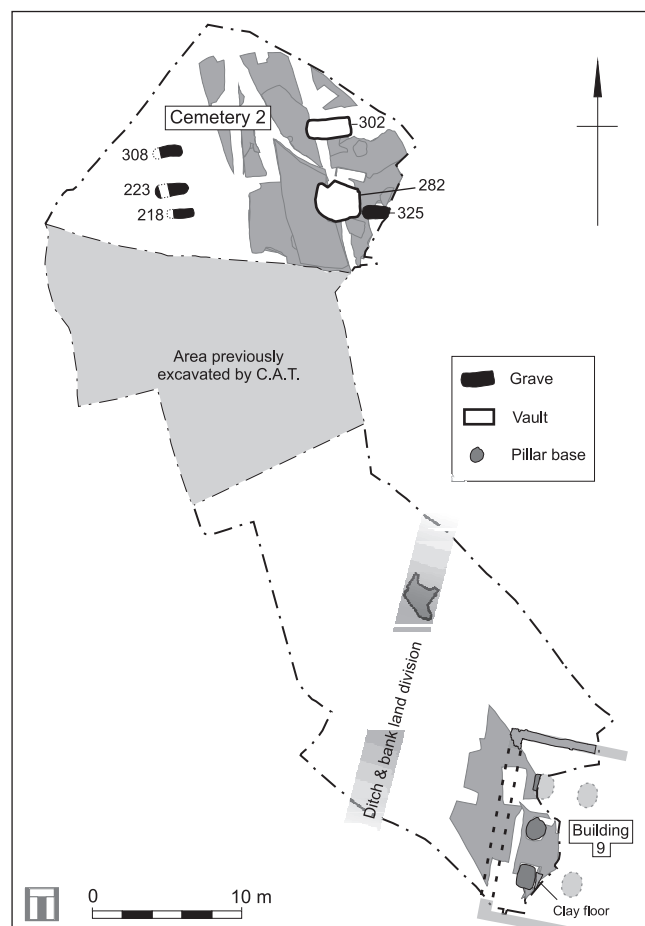


Fig. 12 Period 5 features

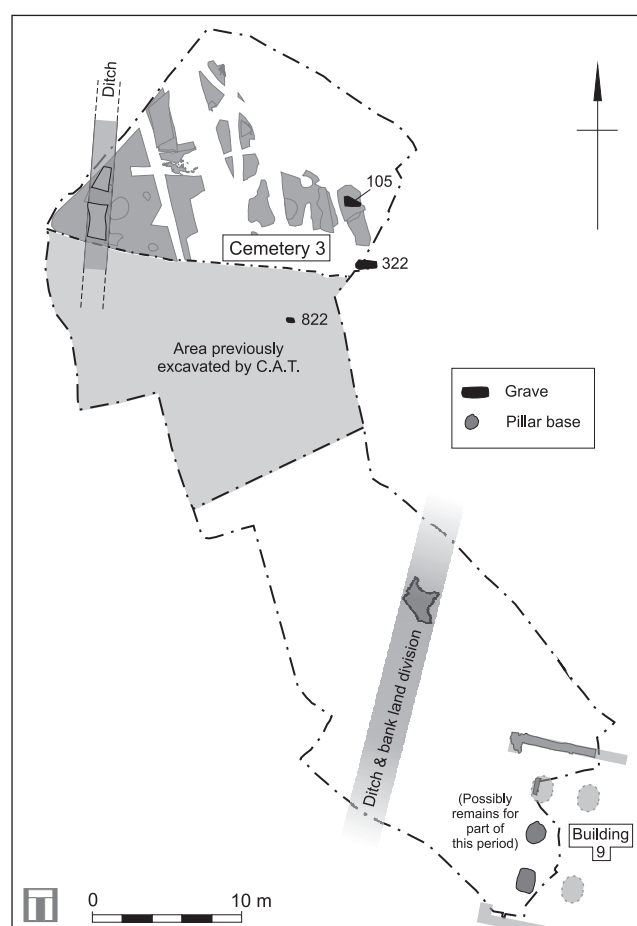


Fig. 14 Period 6 features

basis of spot dates obtained on pottery from some of the pits, the ditch and bank land division and associated pitting in the central area of the site probably continued in use.

The cemeteries

In the northern part of the excavated area part of a cemetery, with at least three phases of use, was uncovered (Fig. 15). This cemetery was set in what was now cleared and open ground. Most of the burials were placed in graves that were aligned approximately west-east, although a few had been deposited in wood-lined vaults.

Cemetery 1 (Period 4)

The earliest phase of cemetery on the site (Fig. 10), dated to the late 3rd century, comprised a group of 12 inhumation graves, including one large probable subterranean vault that contained the remains of two coffined burials. The vault (407) and five (418, 426, 432, 438 and 469), or possibly seven (400 and 542), of these graves could have been associated with a mortar surface, approximately 4 m long, 2.2 m wide and 0.04 m thick. While the function of this surface is uncertain, it is possible that it may have supported some form of timber structure, as has been suggested elsewhere in Colchester (N Crummy *et al.* 1993, 99) or it may simply represent a metallised area within the cemetery. A few other sub-rectangular pits (not illustrated) in the same area appeared to be broadly contemporary with Cemetery 1, but the absence of any bone and/or coffin nails within them suggest that if these were dug as graves, they were never used. Only one of these contained any notable finds; the remains of a wasps nest, suggesting that the area may also have been used for waste disposal, albeit opportunistically. The *in situ* remains (474) of a foetus (35–37 weeks) on its left side with the head to the west and the feet to the east, was recovered from an extensive dump deposit associated with Open Area 5. No grave cut could be discerned, but it is possible that the burial deposit was part of the earliest phase of cemetery and the shallowness of the grave prevented its identification.

Most of the graves had been subject to some level of disturbance, either due to the insertion of later graves or modern intrusions, or did not fully fall within the area of excavation (Figs 10, 17–8); the base of one grave (235/487) lay below the limits of excavation. All the graves contained the remains of a single coffined burial (vault 407 included two graves). Most of the burials were made on a west–east orientation; that in grave 426 being south–north and that in grave 400 south–west – north–east. In most cases the body had been laid supine and extended with the arms crossed over the pelvis; the tight positioning of the remains within two graves (355 and 426) suggests the bodies may have been shrouded. Evidence for the coffin in ten graves was provided by the presence of coffin nails. A small pit beside grave 248 may have held a grave marker.

Grave-goods were recovered from only four of the graves: fragments of a possible glass unguent flask were found with the young infant in grave 229; a bone armlet

was recovered with the disturbed remains of an infant in grave 312; the remains of a pair of hobnailed shoes were found under the skeleton in grave 426; and the remains of a jet bead necklace were found in the waist area in grave 495 of the probable male adult (skeleton 494) within vault 407. Various copper alloy items, including a Nauheim derivative brooch of 1st century AD date, hairpin and needle, together with fragments of numerous other objects, were recovered from the backfill of vault 407 in association with the redeposited remains of an adult female (see *Grave Catalogue*). Since the vault cut through no extant grave, the finds suggest these represent the remains of the vault's original well-furnished burial.

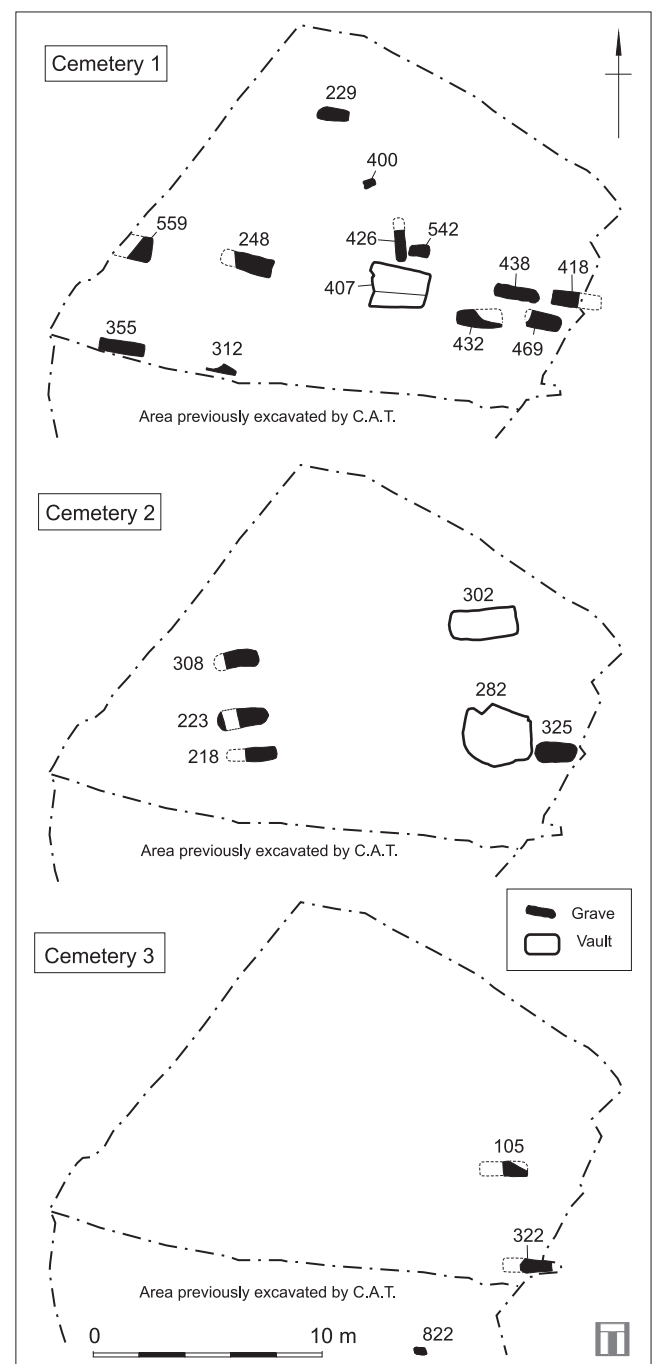


Fig. 15 Cemetery: phases 1–3

Grave 229 (Fig. 16). The grave was a rectangular cut, 1.40 m long, 0.60 m wide and 0.85 m deep, aligned approximately east-west. This contained the degraded skeleton 222, that of a 6–9 month old infant. Although very fragmentary, it was possible to discern that the skeleton was in a supine position with the head to the west. Numerous probable coffin nails found within the backfill of the grave indicate that the burial was originally contained within a rectangular coffin.

Grave 248 (Fig. 16). This grave, which was aligned approximately east-west and was truncated at the western end by a 19th century wall footing, was sub-rectangular in plan, 1.65 m long, 0.74 m wide and 0.20 m deep with steep-vertical sides and a slightly undulating flat base. This contained skeleton 249, that of a probable male adult, between 35 and 40 years old. The skeleton was in a supine, extended posture, with the head to the west, although the skull was absent due to the later truncation,

with the arms folded across the pelvis. Iron nails recovered from the backfill of the grave indicate that the burial was originally contained in a coffin. The backfill contained 12 sherds of late 3rd to 4th century pottery, including a face from a Hadham oxidised flagon (Fig. 19.1). A small, slightly irregular, sub-rectangular pit 0.75 m long, 0.32 m wide and 0.08 m deep with steep sides and a flat base, immediately to the east of grave 248 appeared to be contemporary and may represent some form of grave marker.

Grave 312 (not illustrated). This grave was very heavily truncated by later intrusions and was not recognised as a grave during excavation, however, the partial remains of a possible male infant, aged between 1.5 and 2.5 years was recovered from the backfill, along with a child's bone armlet, suggesting that this was probably an in situ burial, albeit very disturbed. The surviving portion of the grave was 1.20 m long, 0.35 m wide and 0.16 m deep with

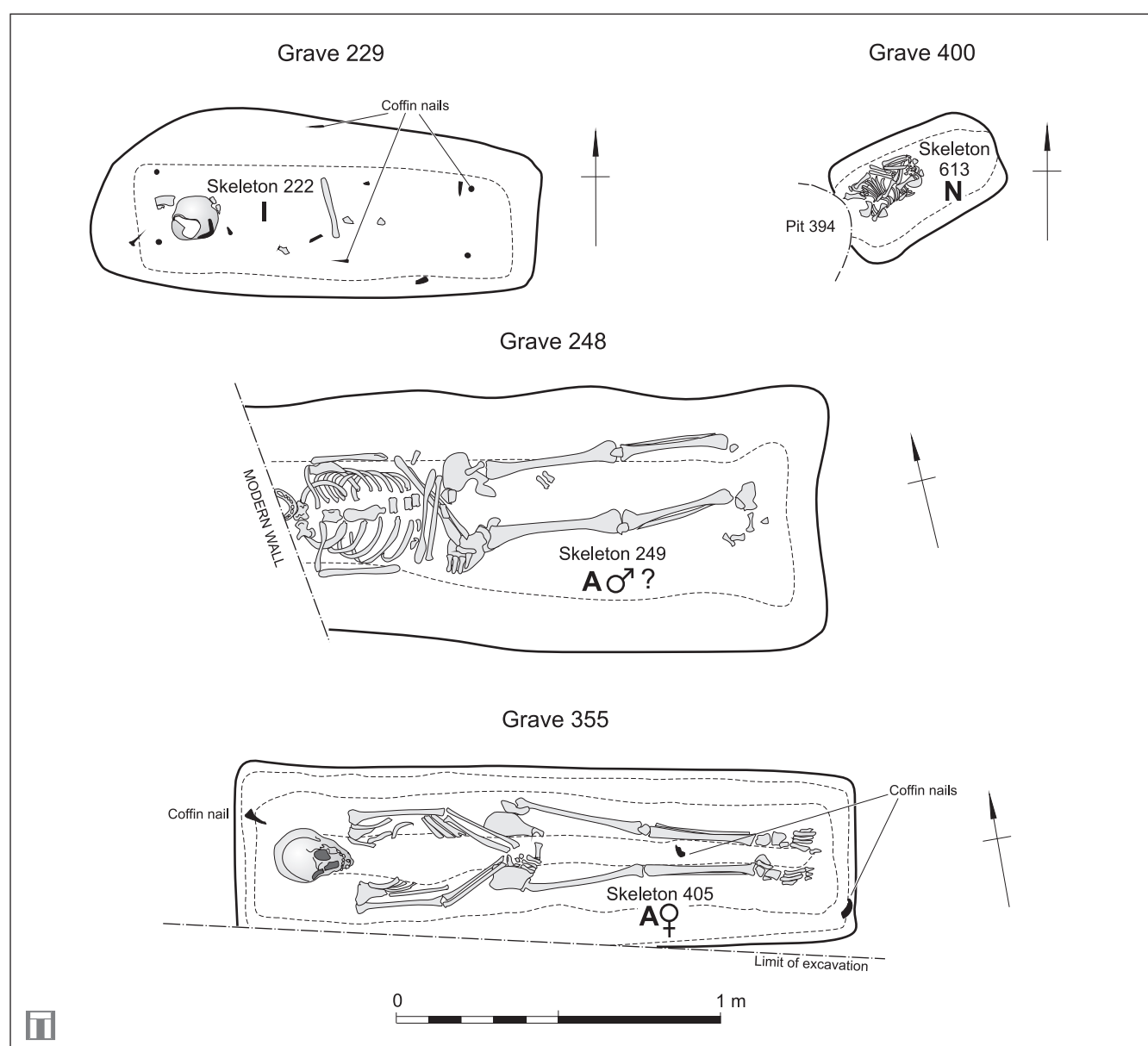


Fig. 16 Cemetery 1: graves 229, 248, 355 and 400

steep sides and a flat base. The bone armlet probably represents a grave good; armlets of a similar size have been recorded from previous excavations at Colchester in the graves of children aged 4–5, 10 and 12 (N Crummy 1983, 36). The armlet is 5 mm wide and 4 mm thick, with rectangular section, shaped at the edges. A butt joint was probably originally held together by a sheet metal plate (black staining suggests it may have been silver) but this is now missing (Fig. 19.2).

Grave 355 (Fig. 16). This grave was rectangular in shape, 1.88 m long, 0.64 m wide and 0.70 m deep with vertical sides and a flat base, orientated approximately east-west. This contained skeleton 405, that of an adult female over 60 years of age. The skeleton was in a supine, extended posture, with the head to the west and the arms folded across the pelvis. Iron nails recovered from the backfill of the grave indicate that the burial was originally contained in a coffin.

Grave 400 (Fig. 16). This grave was sub-rectangular in shape with steep-vertical sides and a flat base, 0.54 m long, 0.35 m wide and 0.15 m deep, aligned approximately east-west. This contained skeleton 613, that of a foetus or neonate on its left side with the head to the west. Most of the skull had been removed by a later post-hole. Iron nails were recovered from the backfill of the grave, suggesting that the burial may have originally been within a coffin.

Vault 407 (Fig. 17). This vault was a very large and deep east-west orientated double grave (cuts 495 and 744), 2.40 m long, 1.80 m wide and 1.66 m deep with straight, vertical sides and flat base divided lengthways to create a 'ledge' on the southern side. In the deepest, northern, side of the grave was the skeleton (673) of an adult female aged between 25 and 30 years, in a supine, extended posture with the head to the west and the arms along the sides of the body. Coffin nails found around the skeleton indicate that the burial was originally contained within a rectangular coffin. On the 'ledge' on the south side of the grave was the skeleton (494) of a probable male adult, aged between 35 and 45 years. This was also in a supine, extended posture with the head to the west, although the arms were crossed over the pelvis. Coffin nails recovered from the backfill of the grave indicate that this was also originally within a rectangular coffin. Ten small cylindrical jet beads, 7–15 mm long, were recovered from samples taken from around the skull and thorax of skeleton 494, and probably represent the remains of a necklace (Fig. 17). Similar beads are recorded from Roughier Street, York, in a late 3rd–early 4th century context (Allason-Jones 1996, 27, no. 25) and from deposits of 4th–5th century date in Colchester (Butt Road; cf. N. Crummy 1983, fig. 36, 1060–1).

Disarticulated human bone was recovered from the backfill of grave 407, suggesting that this may have disturbed an earlier burial. Notable finds recovered from the backfill of grave 407 include a copper alloy Nauheim derivative brooch of 1st century date (object 309, Fig. 19.3), a Cool Group 6 copper alloy hairpin with a

spherical head, 8 mm in diameter, with cordon moulding at the top of the shank (object 310, Fig. 19.4), a copper alloy Crummy (1983) Type 2 needle with flat spatulate-head and rectangular eye (object 320, Fig. 19.5), an L-shaped iron candlestick (object 1354, Fig. 19.6), part of a bone spoon (object 233, Fig. 19.7), part of a bone cylinder hinge made from a long bone, with both ends sawn (object 244, Fig. 19.8), a honestone (object 232, Fig. 19.9), and a rim fragment from a CAM 302 bowl, imitating a metal vessel (Fig. 19.10).

Grave 418 (Fig. 17). This grave was sub-rectangular in shape, aligned approximately east-west and continued beyond the western limit of excavation; it was over 1.14 m long, 0.66 m wide and 0.89 m deep with steep-vertical sides and a flat base. It contained skeleton 420, that of a juvenile, of uncertain gender, aged between 7 and 8 years, in a supine, extended posture with the head to the west and the arms crossed above the pelvis. Coffin nails recovered from the backfill indicate that the burial was originally contained in a rectangular coffin.

Grave 426 (Fig. 17). This grave was sub-rectangular in plan, aligned approximately north-south and was truncated at its northern end by a modern service trench; it survived to a length of 1.34 m, was 0.46 m wide and 0.18 m deep with vertical sides and a flat base. It contained the skeleton (425) of a possibly male subadult, aged between 13 and 15 years, in an extended, supine position with the head to the south and the arms crossed above the pelvis. Nails recovered from the backfill indicate that the burial was originally within a rectangular coffin. The remains of a pair of hobnailed shoes were recovered from under the left side of the skeleton, although it is uncertain whether these had been placed within the coffin or beneath it.

Grave 432 (Fig. 18). This grave was probably originally sub-rectangular in shape and aligned approximately east-west; however, the north-eastern side of the grave had been removed by a later grave or subterranean vault (grave 282, see cemetery 2). It was 1.74 m long, 0.70 m wide and 0.40 m deep with vertical sides and a flat base. It contained skeleton 431, that of an adult male, aged 55 years or over, in an extended, supine position with the head to the west and the arms crossed above the pelvis. The later truncation had removed the left leg and several bones of the right leg were also displaced (Pl. III). Coffin nails recovered from the backfill of the grave indicate that the burial was originally within a rectangular coffin. Analysis of the skeleton shows that the individual buried in grave 432 had possibly suffered from a broken nose and that most of the ribs had been broken, some possibly twice, and had healed.

Grave 438 (Fig. 18). This grave was sub-rectangular in shape, 2.0 m long, 0.66 m wide and 1.41 m deep with vertical sides and a flat base and was orientated approximately east-west. It contained the skeleton (440) of a probable female adult, aged between 25 and 35 years

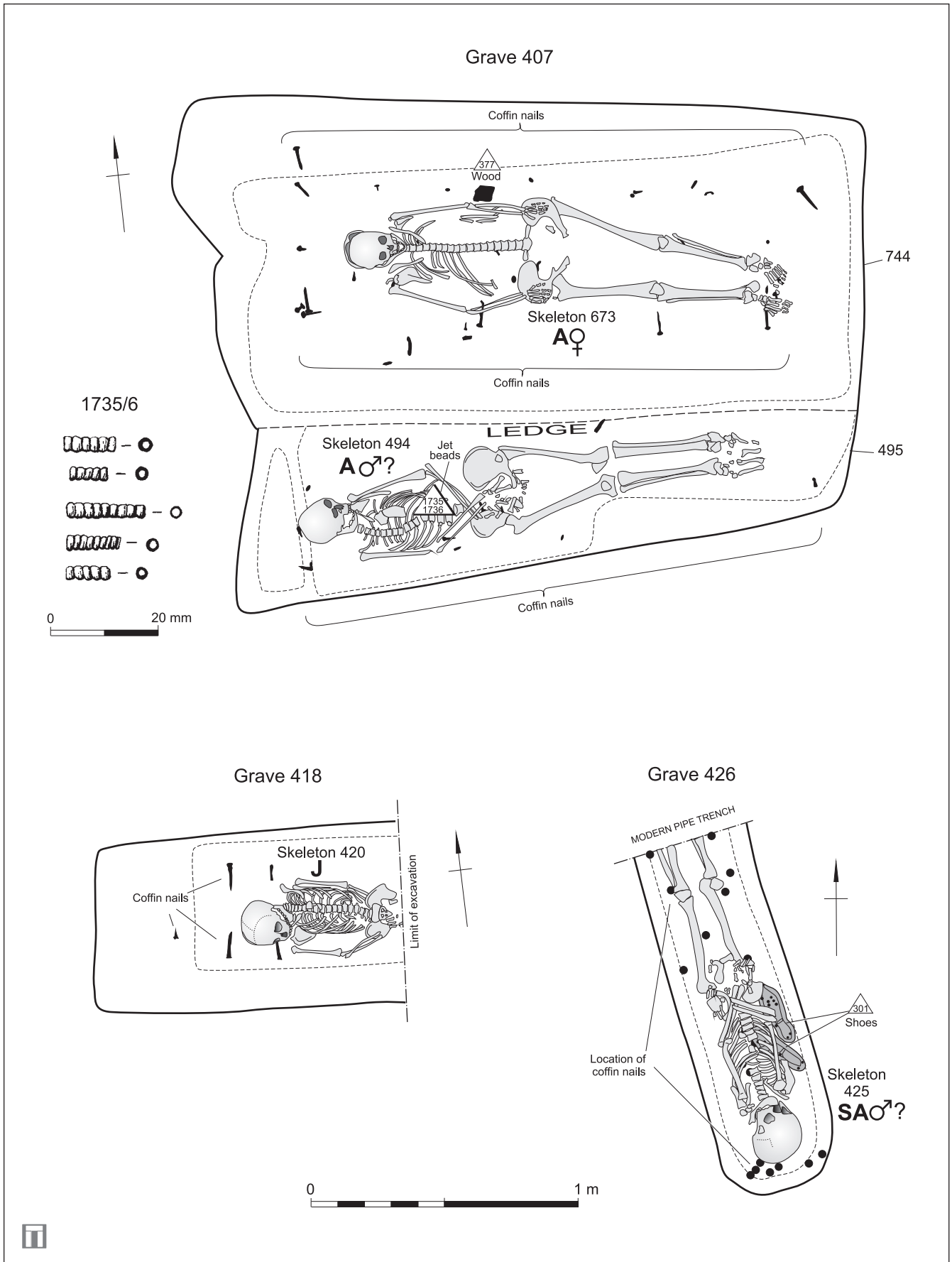


Fig. 17 Cemetery 1: graves 407, 418 and 426



Plate III Skeleton 431 in grave 432; note leg displaced by later grave (0.5 m scale)

in an extended, supine position with the head to the west and the arms crossed above the pelvis. Nails recovered from within the backfill indicate that the burial was originally within a coffin.

Grave 469 (Fig. 18). This grave was sub-rectangular in shape, aligned approximately east-west and had been truncated at its western end by a later grave or subterranean vault (grave 282, see cemetery 2). It survived to a length of 1.40 m, was 0.65 m wide and 0.97 m deep with vertical sides and a flat base. It contained the badly degraded skeleton 468, that of an infant aged between 10 and 14 months. Too little of the skeleton survived to indicate its posture within the grave, though nails recovered from within the backfill of the grave and a slight coffin stain indicate that the burial was originally within a rectangular coffin, probably with the head to the west.

Grave 542 (Fig. 18). This grave was sub-rectangular in shape, aligned approximately east-west and was 0.88 m long, 0.55 m wide and 0.28 m deep with vertical sides and a flat base. It contained skeleton 548, that of a neonate in a supine position with the legs apart and the head towards the west. Nails recovered from the backfill indicate that the burial was originally within a coffin.

Cemetery 2 (Period 5)

The second cemetery dates to the early 4th century and is represented by five graves, two vaults and one possible cenotaph (Fig. 12). Three of the graves had been disturbed by modern intrusions, and the four not associated with one of the two vaults (282 and 302) were relatively shallow. The larger of the vaults (282) had cut

three of the graves within cemetery 1, (Fig. 21) disturbing parts of the burials in each case. Each of the two timber-lined vaults, which survived up to 2.50m deep (Figs 21–2), contained the remains of two coffined burials; one (vault 282) with a deeper step in the northern portion that contained the coffined remains of a juvenile/subadult, the other coffined burial (a subadult female) was on the ledge to the south, and the other with a secondary deposit above the first (vault 302; a young infant and an adult female respectively). All the coffined burials had been made on a west–east alignment, with the bodies laid supine and extended, usually with the arms crossed over the pelvis. It is possible that skeleton 527 (infant *c.* 3–6 months) found *in situ*, supine and extended, in the upper fills of a large, irregular pit associated with Open Area 6, was related to this stage of cemetery use, but no grave cut was recognised.

The two burials in vault 282 were both furnished with grave-goods, and a copper alloy hairpin from the backfill of vault 302 was probably associated with the *in situ* remains of the adult female (347). A similar find from grave 308 may have been associated with the *in situ* remains of the juvenile (310), but fragments of redeposited human bone were also found in the fill and the find could relate to a disturbed and no longer extant grave. Probable grave goods were also recovered as residual finds from grave 218 and vault 282; those from the latter are may derive from the cemetery 1 grave 432 cut by the vault's insertion or have been redeposited from graves not extant at the time of excavation. Redeposited human bone of unknown origin was also recovered from grave 223; the grave did not cut any extant graves and was some distance from those cut by vault 282, further suggesting the presence of graves within the area prior to

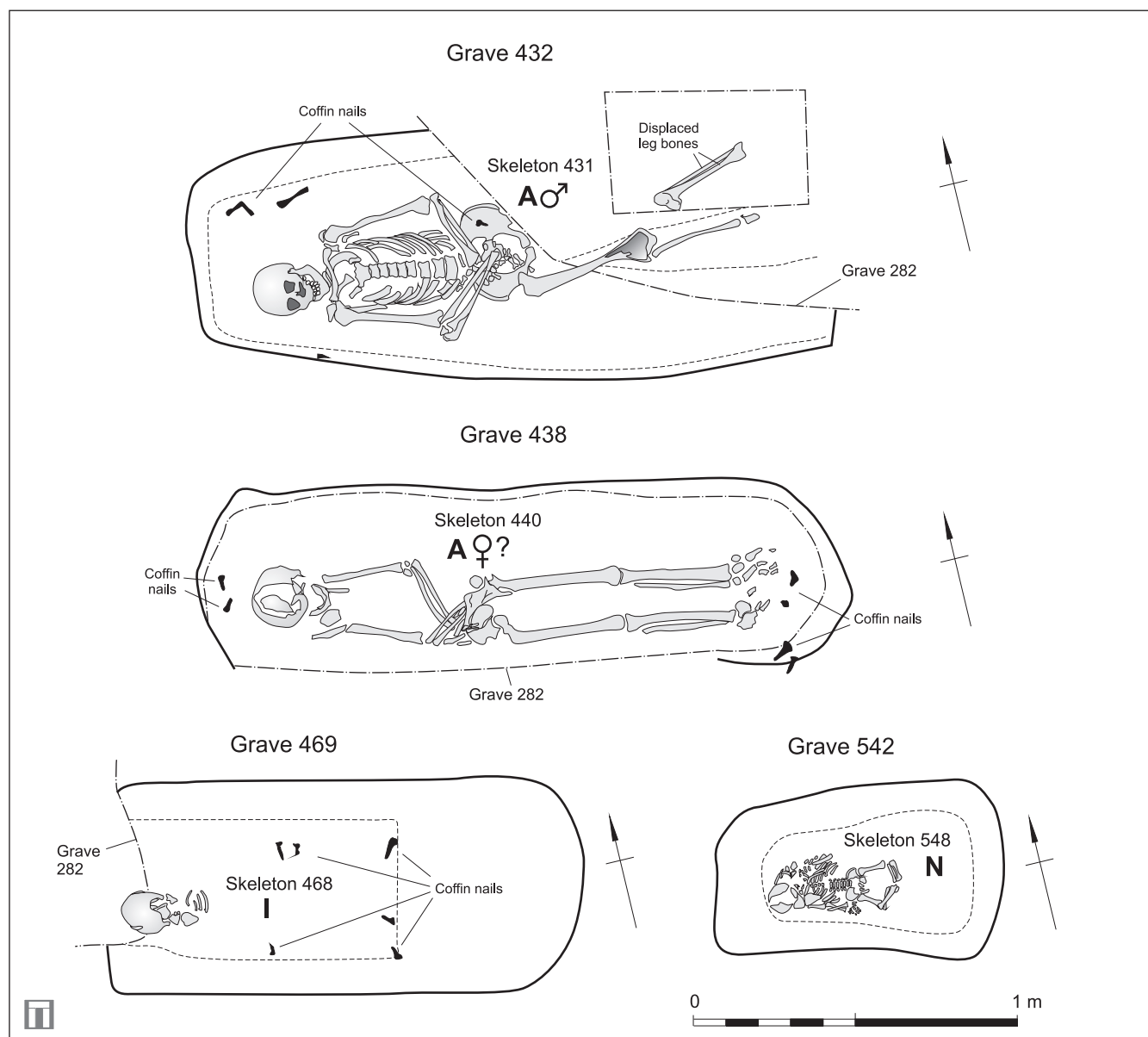


Fig. 18 Cemetery 1: graves 432, 438, 469 and 542

commencement of cemetery 1 (see discussion below and Appendix).

Grave 218 (Fig. 20). The grave, which was heavily truncated at its western end by a 19th century wall footing, was sub-rectangular in shape, survived to a length of 1.26 m, was 0.55 m wide and 0.32 m deep with vertical sides and a flat base. This contained skeleton 220, that of a juvenile of uncertain gender aged between 7 and 11 years, in a supine, extended posture with the arms crossed above the pelvis and the head to the west. Several iron nails recovered from the backfill of the grave suggest that the burial was originally within a coffin. Notable finds recovered from the backfill of this grave include a small iron knife blade with slightly concave back towards the tip, now broken in two (object 77, Fig. 24.1), a honestone (object 94, Fig. 24.2) and an incense cup (*tazza*) with plain rim and at least three slashed cordons on the body (see finds Fig. 24.3).

Grave 223 (Fig. 20). The grave, which was also truncated by a 19th century wall footing, was sub-rectangular in shape, 2.25 m long, 0.74 m wide and 0.32 m deep with steep-vertical sides and a flat base. This contained the skeleton (231) of an adult male, aged between 20 and 40 years in a supine, extended position with the head to the west, although later truncation had removed the whole of the upper body. Several iron nails recovered from the backfill of the grave indicate that the burial was originally within a coffin.

Vault 282 (Fig. 21). This vault was a very large sub-rectangular double grave, 2.92 m long, 2.71 m wide and 2.00 m deep with vertical sides and a flat base; a smaller sub-rectangular cut, approximately 2.00 m long, 1.00 m wide and 0.44 m deep with near vertical sides and a flat base had been cut into the northern side of the base. This secondary cut contained the skeleton (808) of a subadult of uncertain gender, aged between 12 and 14 years, in a

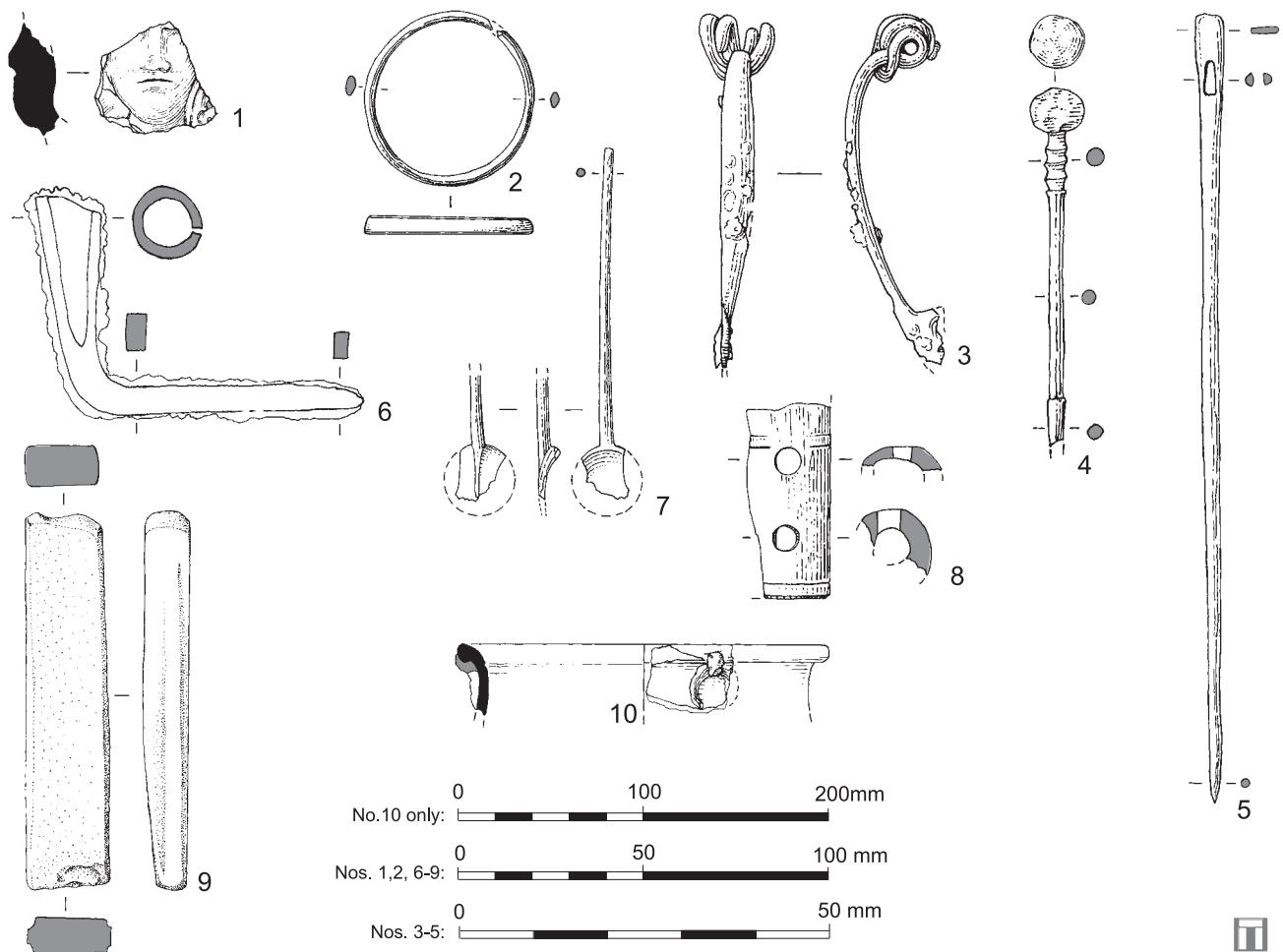


Fig. 19 Cemetery 1: general finds

supine, extended position with the head to the west and the arms crossed above the pelvis. Several iron nails and a clear coffin stain indicate that the burial was originally within a rectangular coffin, some 1.60 m long and 0.42 m wide. Grave goods associated with this burial comprised a pair of hobnailed shoes placed above the left knee, and three pins of almost identical size (one bone and two jet) that were placed to the left of the feet. The goods appear to have been either placed in or on top of the coffin rather than outside. The two jet pins (Fig. 21, objects 599, 601) are Crummy (1983, 27) Type 2, with faceted cuboid heads, of late 3rd to 4th century date. A thin layer of material, probably the result of trampling, was recorded below skeleton 808.

On the south side of the grave, on the higher part of the base lay skeleton 809, that of a subadult female, aged between 15 and 17 years, in a supine, extended position with the head to the west and the arms crossed above the pelvis. Several iron nails and a clear coffin stain indicate that the burial was originally within a rectangular coffin, 1.75 m long and 0.45 m wide. Placed outside the coffin, immediately to the east of the foot of the coffin were a group of grave goods; these comprised a pair of hobnail shoes, one crossing the other; a group of 16 jet beads and a number of metal objects, which were interpreted as the studs and clasp of a wooden casket (Fig. 21, object 511).

The jet beads (Fig. 21, object 510) were plano-convex spacer beads, each with two transverse perforations, probably from armlet (Allason-Jones 1996, 27). The undersides were slightly curved and the upper surfaces and ends were decorated with N-shaped notches. The bead sizes were slightly variable: 16–21 mm long, 5–8 mm wide and 7–9 mm high.

A number of iron nails, together with a somewhat ephemeral timber stain, suggest that this large grave was originally revetted, probably to form a subterranean vault. A fairly large assemblage of redeposited human bone was recovered from the backfill of the grave and these are likely to have derived from the two earlier graves (432 and 469, see Cemetery 1) cut by this feature.

?Vault 302 (Fig. 22). This vault was sub-rectangular in shape, 2.90 m long, 1.3 m wide and 2.46 m deep with vertical sides and a flat base. In the base was the skeleton (823) of an adult female, aged between 25 and 30 years, in an extended, supine posture with the head to the west and the arms crossed above the pelvis. Several iron nails and a clear coffin stain indicate that the burial was originally within a rectangular coffin, 1.82 m long and 0.48 m wide.

Approximately 0.60 m above skeleton 823 the remains of a second burial were recorded. This appeared

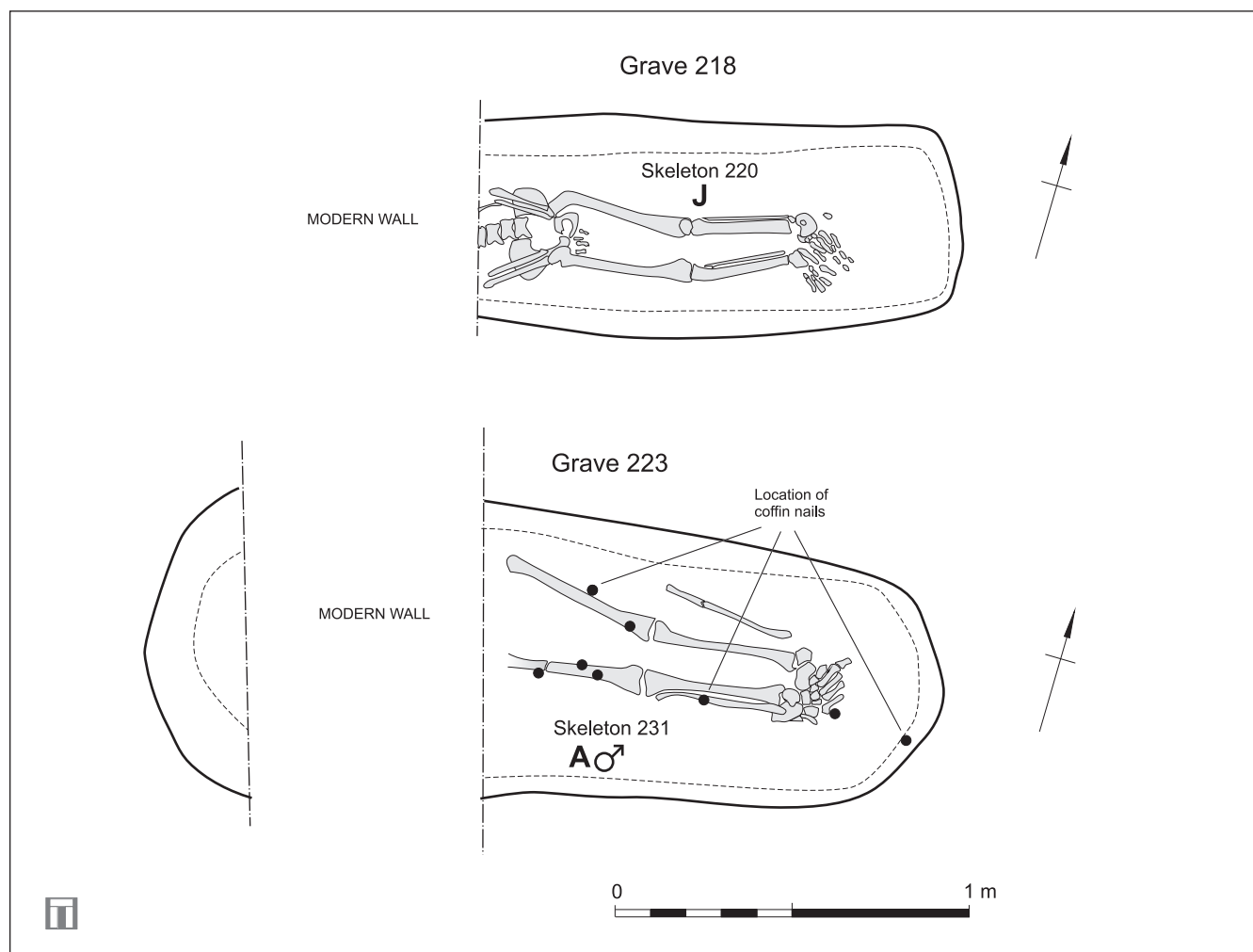


Fig. 20 Cemetery 2: graves 218 and 223

to have been inserted into the already partially backfilled grave in a small sub-rectangular cut 0.93 m long and 0.38 m wide. This cut was only visible at approximately the same level as the burial and was very ephemeral, so it may be that this represents a separate burial, however, the excessive depth (1.60 m) within grave 302 suggests that it was most probably inserted during the backfilling of the grave, contemporary with skeleton 823, and that the ephemeral cut represented the sides of a coffin. Skeleton 347 was that of an infant, aged between 6 and 9 months, in a supine, extended position. Several iron nails recovered from the backfill of the grave indicate that it was originally within a coffin. A notable find from the backfill of the grave was a copper alloy hairpin (object 155, Fig. 24.4) with double conical knob head and a slightly tapering circular-sectioned shaft, with six incised lines radiating from a central point (cf Cool 1990, Fig. 12.11, Group 25, Miscellaneous Multiple Grooved Heads).

Grave 308 (Fig. 23). This grave, which had been truncated at its western end by a 19th century wall footing, was sub-rectangular in shape, survived to a length of 1.45 m, was 0.70 m wide and 0.40 m deep with vertical sides and a flat base. This contained skeleton 310, that of a possibly female juvenile, aged between 8 and 10 years, in a supine,

extended posture with the head to the west and the arms crossed above the pelvis. Several iron nails recovered from the backfill of the grave indicate that the burial was originally within a coffin. A complete bone hairpin, a Crummy type 3b, with semicircular/elliptical lower half and slightly conical upper half, datable to after AD 200, was recovered from immediately to the right of the pelvis, however, it is uncertain whether this was deliberately deposited with the burial or was incidentally incorporated into the backfill.

Grave 325 (Fig. 23). This grave was sub-rectangular in shape, 1.90 m long, 0.96 m wide and 0.16 m deep with steeply sloping sides and a flat base. This contained skeleton 326, the poorly preserved remains of a probable female adult, aged between 25 and 35 years, in a supine, extended position with the head to the west and the arms by the sides. Iron nails recovered from the backfill of the grave indicate that the burial was originally within a coffin.

Cemetery 3 (Period 6)

The third and final phase of burials comprised three very shallow inhumation graves (Fig. 14), two of which had been partly destroyed by a post-medieval ditch and, in the case of grave 105, a modern pipe trench. The third grave (822) was exposed during machining in the CAT

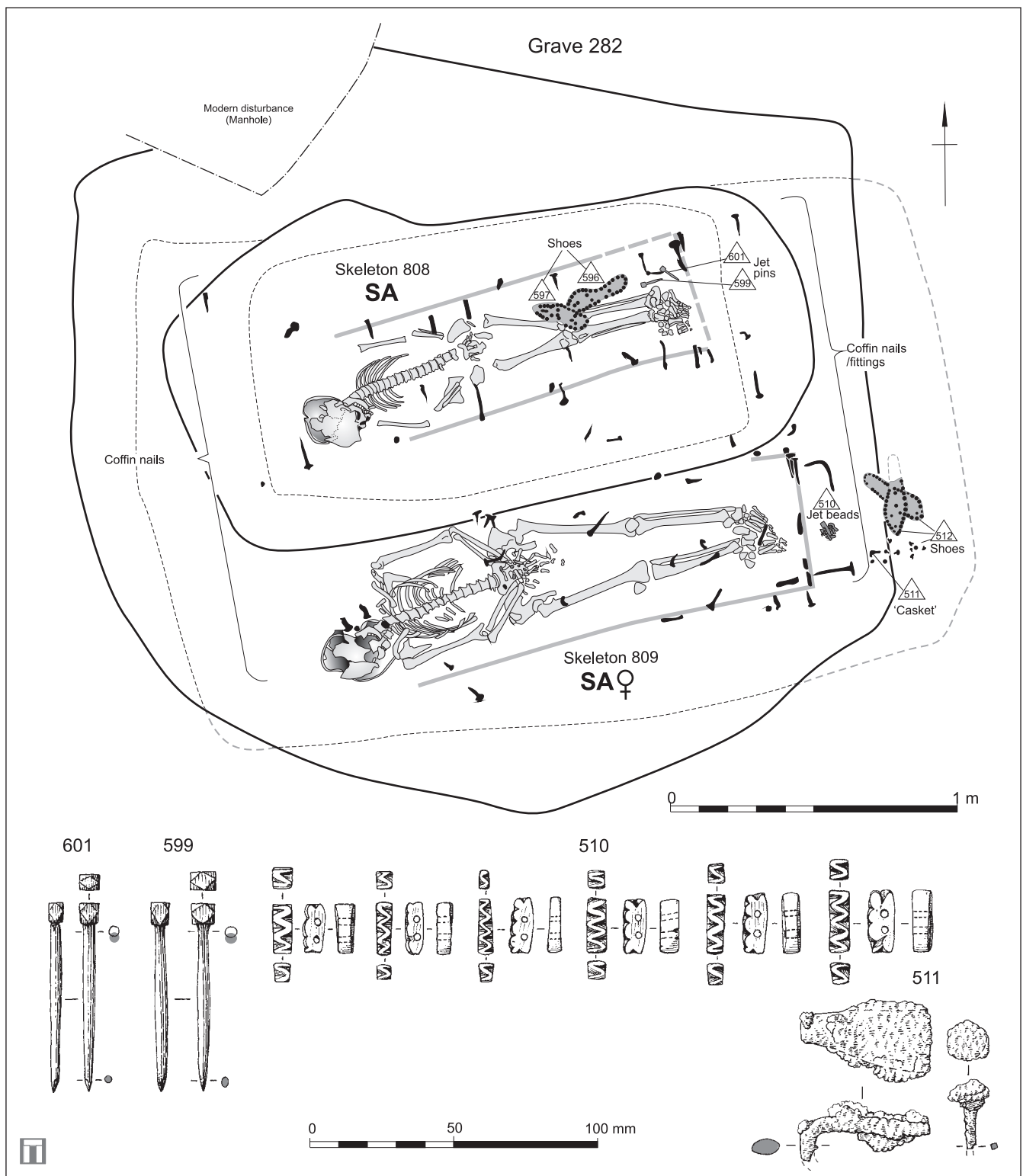


Fig. 21 Cemetery 2: grave 282

excavation area. As within the earlier cemetery phases, the two adult burials (graves 105 and 322) were coffined, with the body laid supine and extended on an approximately west-east alignment (Fig. 25). Neonatal remains from grave 822 were on the same alignment, but with no indications of a coffin and the apparently shrouded body laid on its left side. Although the dating of this grave is uncertain, it has been included in this phase of burials on the basis of its stratigraphic position. A coin

of Vespasian (AD 69–79) from the backfill of the grave is probably residual. No grave goods were recovered with the other burials, though the bone hairpin and possibly the fragment of ceramic lamp from the fill of grave 322 (Fig. 26.2) may have derived from an earlier grave (though 322 does not itself cut an earlier grave it lies only 3 m from the only one on the site to do so (vault 282) and further graves external to the current investigations may also have been intercutting.

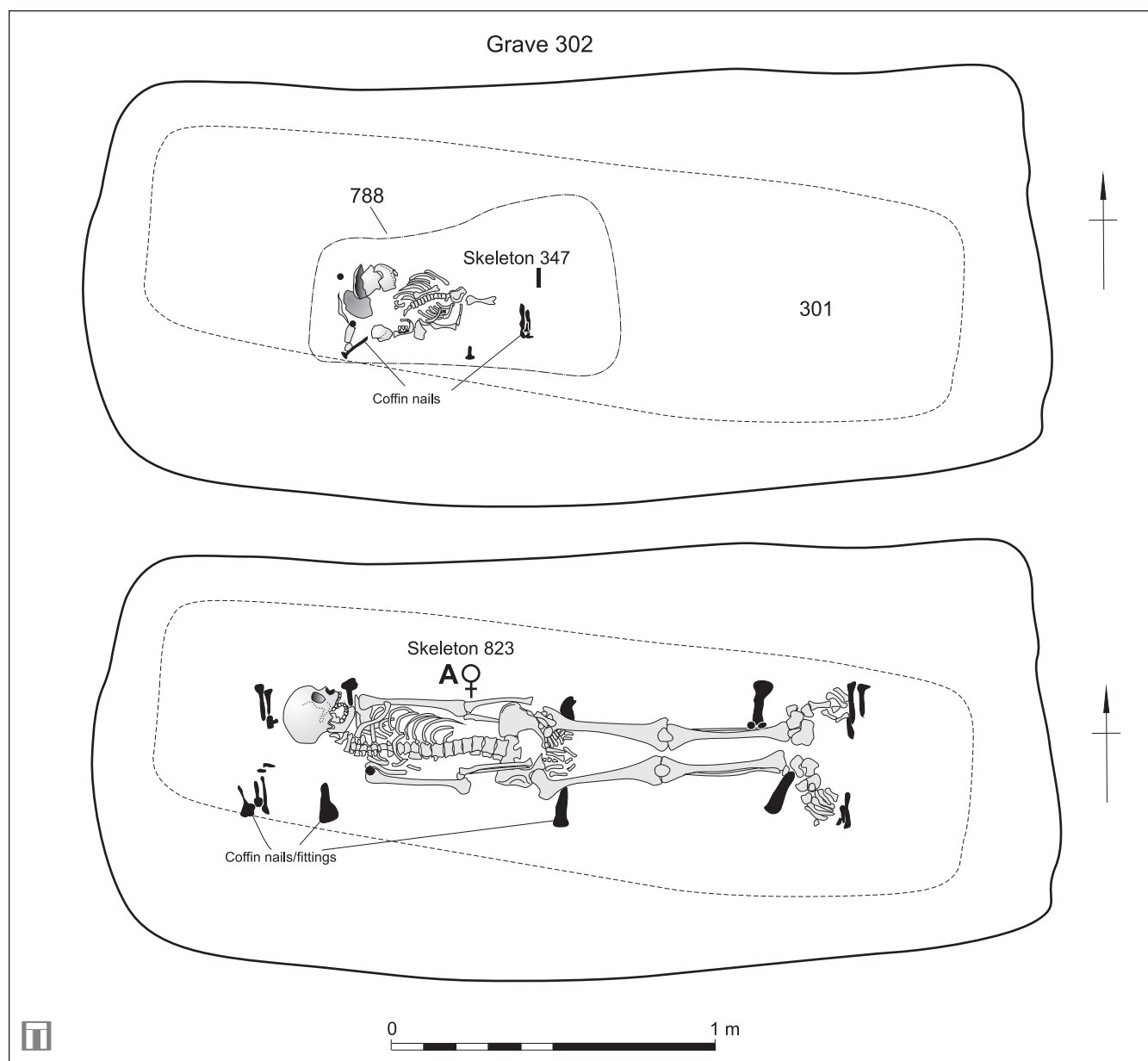


Fig. 22 Cemetery 2: grave 302

Grave 105 (Fig. 25). This grave, which had been severely truncated at its western end by a later post-medieval ditch and by a modern pipe trench on its north-eastern side, was probably originally sub-rectangular in shape, surviving to a length of 1.10 m; it was 0.70 m wide and 0.05 m deep with vertical sides and a flat base. This contained the truncated remains of a skeleton (106) of an adult male, aged between 30 and 45 years, in a supine, extended position with the head to the west and the arms crossed above the pelvis. Two iron nails recovered from the backfill of the grave indicate that the burial was probably originally within a coffin. Skull fragments recovered from the fill of the post-medieval ditch in this area were probably derived from skeleton 106.

Grave 322 (Fig. 25). This grave, which had been severely truncated at its western end by a post-medieval ditch, was probably originally sub-rectangular in plan, surviving to

a length of 1.38 m, it was 0.64 m wide and 0.16 m deep with steeply sloping sides and a flat base. This contained the truncated remains of skeleton 323, that of an adult male, aged between 50 and 60 years, in a supine, extended posture with the head to the west, the arms along the sides and the lower right leg crossed over the left. Iron nails recovered from the backfill of the grave indicate that the burial was originally within a coffin. Incidental finds from the backfill of this grave include part of the base of a ceramic lamp, with a grooved foot-ring, in an oxidised fabric. The base displays part of a moulded stamp, *VIB* and is probably from the lamp maker *VIBANVS* 'whose workshops flourished from the mid-2nd century to its end and whose lamps have been found in contexts dated to the later 3rd century' (Eckardt 2002, 205). A bone hairpin (object 228, Fig. 26.1), a Crummy type 4 (1983) with a faceted head, was also recorded.

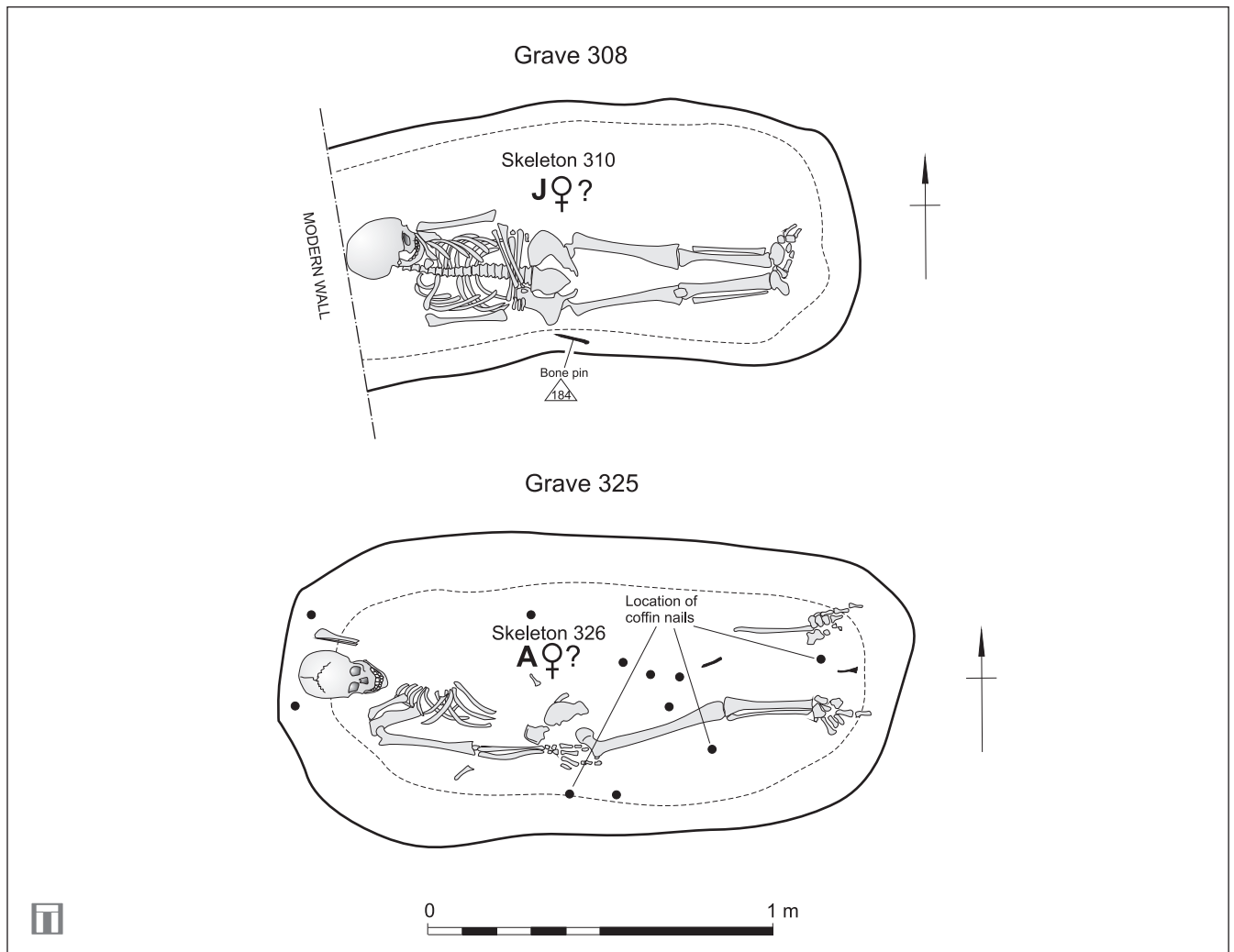


Fig. 23 Cemetery 2: graves 308 and 325

Grave 822 (Fig. 25). This grave was exposed during machining in the area previously partly excavated by CAT and as the skeleton was also exposed, a decision was made that this should be excavated. The east-west aligned grave cut was 0.56 m long, 0.30 m wide and 0.07 m deep with steeply sloping sides and a flat base. This contained skeleton 820, that of a neonate in a foetal position on its left side. No coffin nails were recovered from the backfill of the grave and the tight position of the arms and hands suggest it was shrouded/swaddled when buried. Although the dating of this grave is uncertain, it has been included in this phase of burials on the basis of its stratigraphic position. Although a coin of Vespasian (AD 69–79) was recovered from the backfill of the grave, this is thought to be residual.

Building with a possible religious function (Period 6)

Building 9. This is represented by three substantial pillar bases aligned approximately north-south, a length of masonry wall footing aligned approximately east-west and a few very small scraps of clay floors that appear to be all that survived within the site of internal features (Fig. 14). Both wall and pillar bases appear to have been constructed within vertical sided cuts and comprised

randomly coursed septaria and tile/brick fragments within a pale brown sandy mortar matrix. The upper surfaces of parts of the wall were surfaced with a fine greyish brown mortar, presumably a surface upon which a wall beam could rest. Although no upper surfaces of

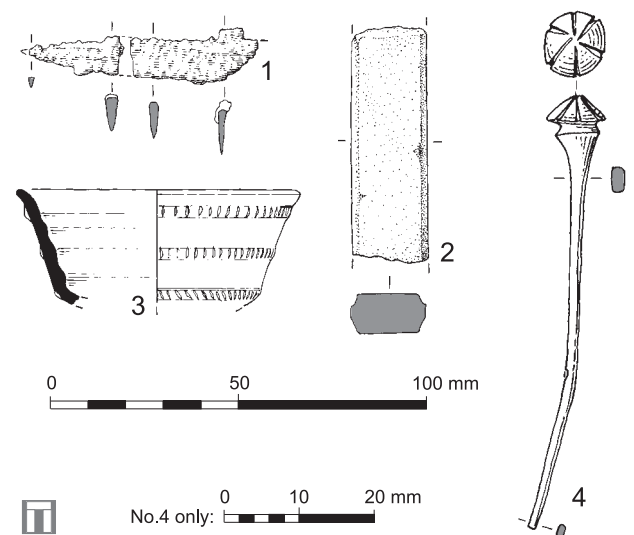


Fig. 24 Cemetery 2: general finds

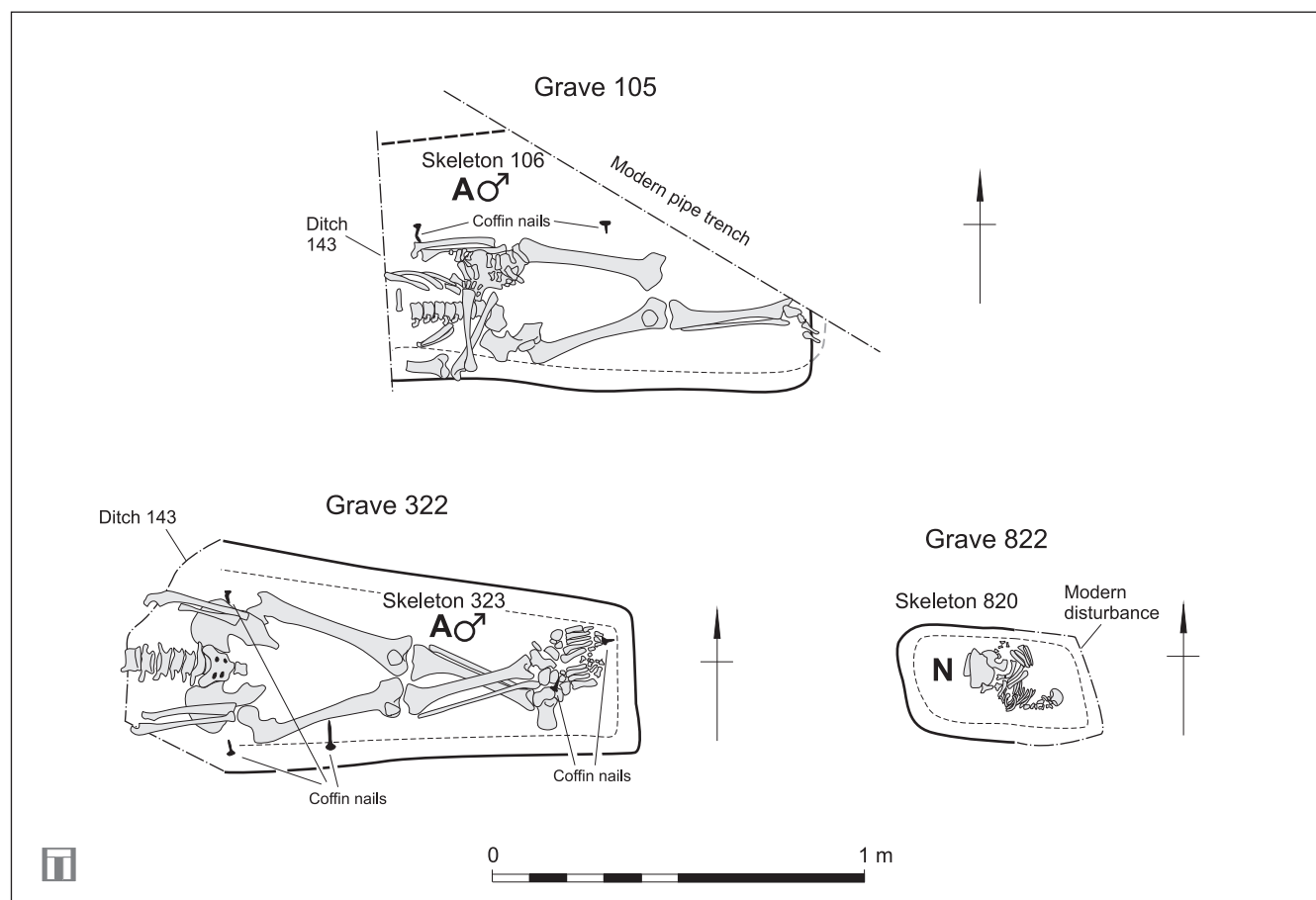


Fig. 25 Cemetery 3: graves 105, 322 and 822

the pillar bases survived, it is assumed that these were finished in the same manner.

The three sub-rectangular pillar bases were, on average, 1.50 m north-south, 1.25 m east-west and were up to 1.25 m in depth. The c. 6m length of wall footing was approximately 0.60 m wide and 0.50 m deep. The spacing between the centre points of the pillar bases was a fairly regular 3 m, the same distance as between the wall and the northern pillar base. As the majority of this building lay beyond the limits of excavation its dimensions are unknown. However, it must have been over 12 m north-south and over 6 m east west and is assumed to have been either square or rectangular. As with the earlier buildings in this part of the site, building 9 appears to have been aligned to face onto the Balcerne Gate to Sheepen Road, to the south of the site.

Finewares recovered from dump deposits associated with Building 9 include Colchester colour-coated beakers, a sherd from a Central Gaulish black-slipped ware beaker, the base of a late Argonne ware dish, coarse mica-dusted wares, a cup-mouthed flagon and a single sherd of Hadham oxidised ware. The coarsewares include jars with everted and undercut rims, storage jars, round and triangular-rimmed bowls, including one round-rimmed bowl with at least two parallel notches on the rim, plain-rimmed dishes and everted rim beakers. Most of the pottery ranges in date from the 2nd to 3rd centuries. However, the Argonne dish pushes this group into the 4th century.

A coin of Allectus (AD 293–296), recovered from the levelling/consolidation deposits that immediately preceded its construction, suggests that this building was probably constructed at the very end of the 3rd or early 4th century. Only post-medieval and modern deposits survived above the remains of building 9. Terracing associated with the construction of the Union Workhouse and later St Mary's Hospital appears to have removed almost all deposits related to the use and decline of this building, its longevity remains uncertain.

This building, or all that remains of it, was probably some form of temple or shrine, on the basis that it appears to lie adjacent to, and on a similar alignment to a Romano-Celtic temple to the east (P Crummy 1981 – Building 52). It is also of very similar design and construction to a possible shrine, of rather unusual form, some 40 m to the south-east (P Crummy 1981, Building 53). A similar building, also interpreted as a temple/shrine, was recently excavated at Springhead, Kent (Phil Andrews pers comm.).

Post-medieval (Period 7)

The only post-Roman feature recognised on the site, apart from features and deposits associated with the Colchester Union Workhouse or St. Mary's Hospital, comprised a single north-south aligned ditch (Fig. 30), which ran parallel to the town wall, which lies some 40 m to 50 m to the east. The ditch dates broadly to the post-medieval period on the basis of a small assemblage of

post-medieval ceramic building material (CBM), glass and metalwork. Notable finds recovered from this feature include two articulated pig skeletons. The ditch was traced for 13.6 m across the northern area of the site and was, on average, 1.50 m wide and 0.90 m deep with steep sides and a flat, narrow base; however, no continuation was identified in the southern or central areas of the site,

although this may be due to later terracing. The function of this feature is uncertain. Its alignment could suggest that this was some form of military feature associated with the Civil War siege of Colchester, but it is equally possible that this it was a simple field boundary.

Discussion

The programme of archaeological works at Balcerne Heights has recorded a moderately well-preserved and extensive sequence of features and deposits associated with part of the western suburb and later cemeteries of Roman Colchester and also identified a late shrine or temple. The major aim of the excavation was to record the location, extent, date, nature, character and relationships of the archaeological evidence (*see* Research Aims, above). These can be divided into three principal themes, the suburban occupation, the possible religious and ritual activities and the later Roman cemeteries, reflecting the tripartite character of the activities



Fig. 26 Cemetery 3: general finds

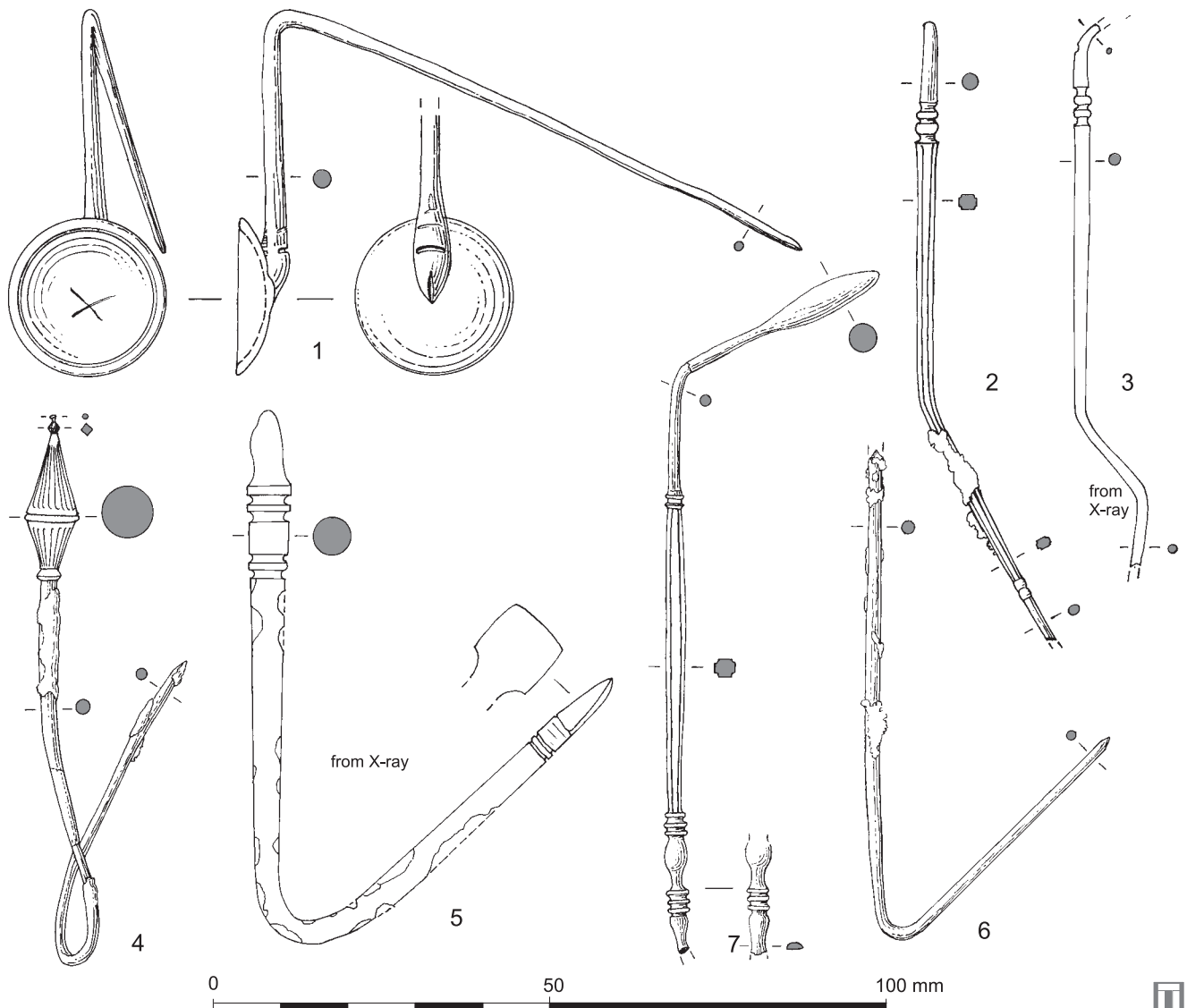


Fig. 27 Possible deliberately bent votive objects

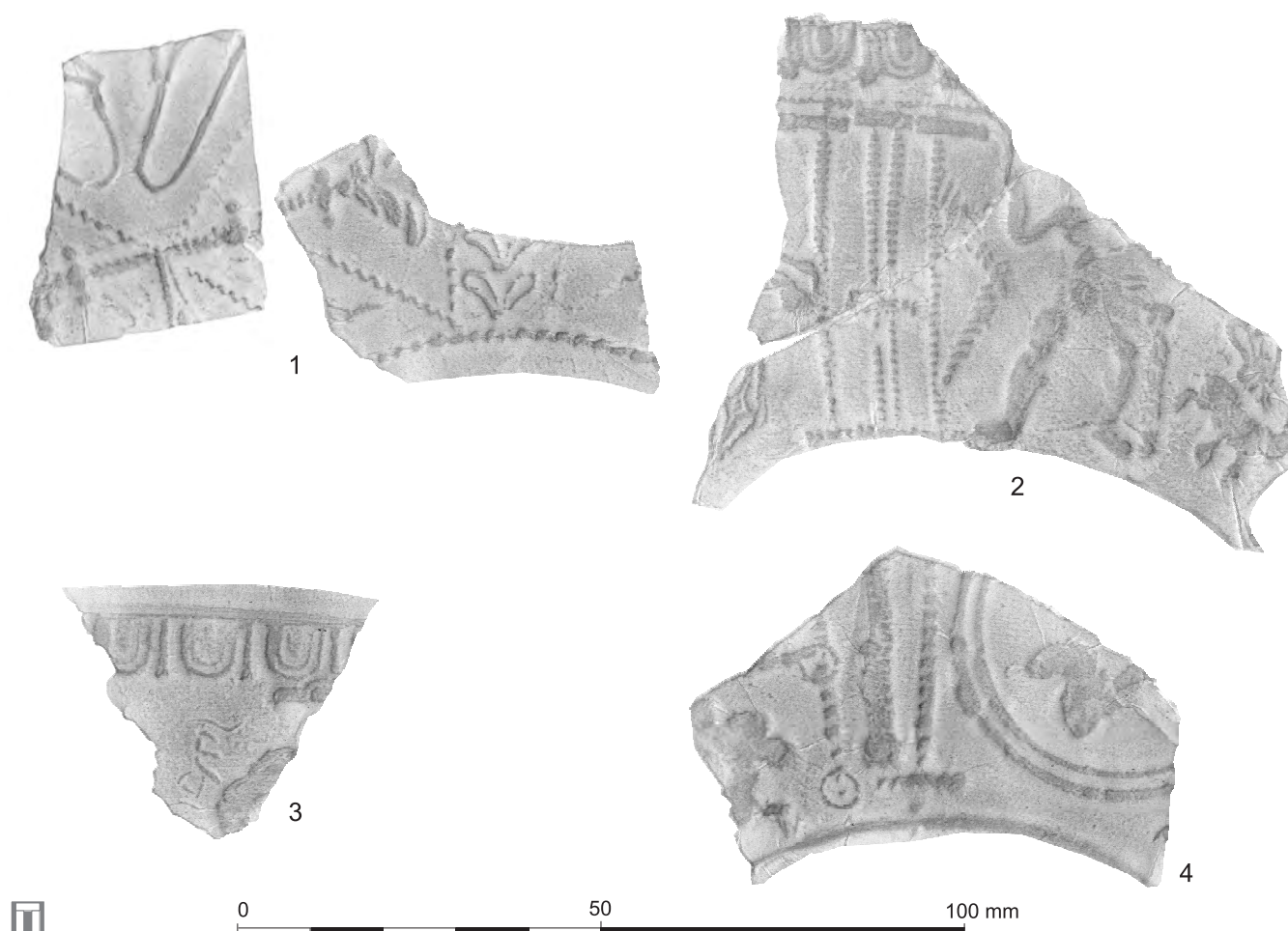


Fig. 28 The samian pottery

identified. For each theme, discussion will consider the wider context of Roman Colchester and draw comparisons with adjacent sites of similar date and form, where this is possible.

The suburban occupation

Although the earlier CAT excavations to the north and west of the site will have produced far more evidence to inform the research aims than have the present excavations, the results of both excavations are important to the understanding of the character and chronology of the western suburb. Evidence for the planned layout of the suburb and any zoning within this will probably be more apparent in the results of the larger-scale CAT excavations.

The earliest activities recognised on the site were represented by a large number of small, irregular features, probably caused by root disturbance, and a smaller number of larger irregular features, all of which probably represent the initial clearing of the area and subsequent sand quarrying. The date of the initial clearance is uncertain and only sparse dating evidence was recovered from other features of this phase, however, they appear to have been backfilled at some time in the early 2nd century. Some finds from the pit fills are of later 2nd century date, but this may be due to the slumping of later deposits. The apparently late date of these features contrasts with the early periods recorded in excavations

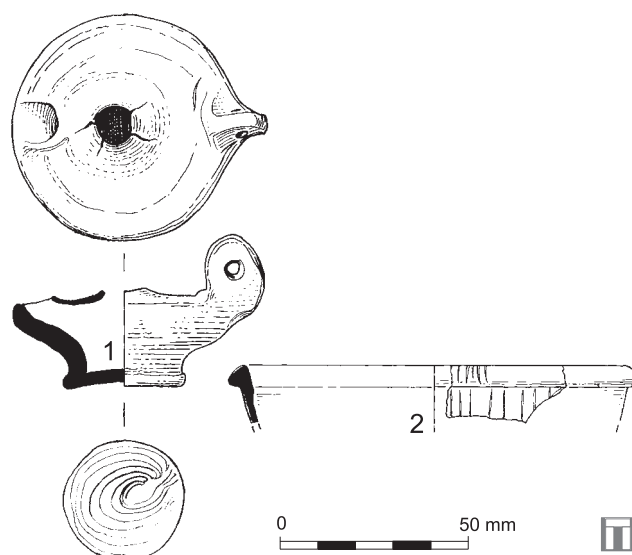


Fig. 29 Topsoil finds: 1, reduced ware lamp, and 2, CAM37A with owner's tally marks

at Balkerne Lane (P Crummy 1981) immediately to the east and south of the site, where buildings were found fronting onto the main road running from the Balkerne Gate in the pre-Boudican period. As the earliest levels were only reached in the north of the site, it is possible that this area lay behind buildings fronting onto the road to the south of the site. In the south of the site excavation

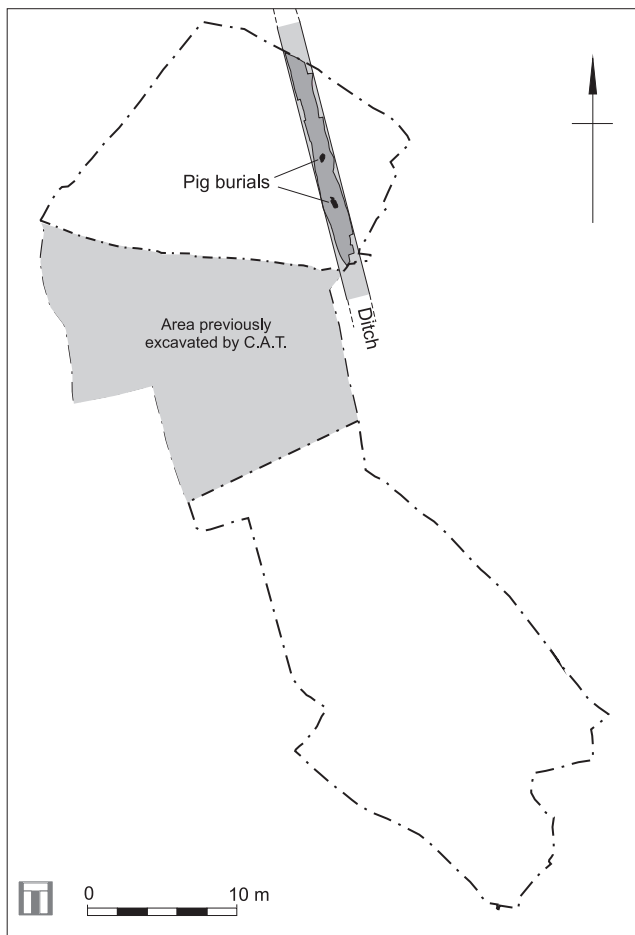


Fig. 30 Period 7 features

halted at a little below the formation levels of the new building; however, it was clear that an appreciable depth of stratified deposits survived below the remains of building 2, which is dated to the early to mid-2nd century.

The structural evidence for the subsequent suburban occupation of the northern part of the site is rather poorly preserved with only partial building plans recoverable and very limited survival of internal and external surfaces. Although sparse evidence of possible metalworking, in the form of hammerscale, was recovered from occupation deposits within building 4, the majority of the evidence suggests a domestic function for these buildings and the associated open areas. This appears to reflect the results of the larger-scale CAT excavations to the north and west (CAT 2004). The sequence of buildings encountered in the south of the site were in general more substantial and better preserved than those to the north. These would probably have fronted onto the road between the Balcerne Gate and the religious and industrial complex at Sheepen and are of similar construction to those recorded to the south of the site during the 1973–6 excavations (P Crummy 1981). Environmental samples from buildings 2, 7 and 8 suggest a primarily domestic function. Although the rather unusual series of pots set into the floors and the succession of ovens in building 7 may indicate a slightly more specialised function, similar features have been

recorded in the buildings to the south (P Crummy 1981, building 47, building 65) and in other Roman towns such as Silchester, where in house 1 in Insulae XXVII an unspecified number of complete pots were noted in two rooms with their mouths flush to the floor (Fulford 2001, 204). While these have been interpreted as votive deposits, in both cases they appeared to be set into the floors of domestic buildings. It is perhaps possible that the small room built against the probable western external wall of building 7, which had three complete pots set into its floor, was a domestic shrine or *lararium*. This room was also notable for the cleanliness of its floors, which differed markedly to the floors found in other rooms, possibly reinforcing this interpretation. This room is of a similar size and location to room 9 of building 2 in Insulae XIV at Silchester, which has been interpreted as a domestic shrine (Boon 1974, 160–164).

No closely datable finds were recovered from the earliest phase of the alleyway to indicate when it was laid out. Finds recovered from building 1, the construction of which was probably broadly contemporary with the establishment of the alleyway, including two brooches datable to the later 1st century. Finds recovered from the contemporary Open Area 2, included pottery dated to AD 90 or later and a coin of Antoninus Pius (AD 138 to 161), which suggest a date in the first half of the 2nd century for the construction of the alleyway and building 1.

There does not appear to be any discernible reason for the change of alignment observed between building 1, which was aligned against the alleyway and building 6, which replaced it in period 3. The alignment of the alleyway did not alter significantly at this time. Only very scant remains of building 6 survived, too little to determine the function, or even orientation, of the building. It could be that building 6 faced to the west and the alleyway ran behind the building, in which case the alignment is affected by factors other than the course of the alleyway. It may be significant that a ditch associated with cemetery 2, although of a later date, was located approximately 1.5 m to the west of the beamslot that represents building 6, and on the same alignment.

On the basis of earlier excavations immediately to the east and south of the site, it has been suggested that the suburbs declined practically to the point of extinction between AD 275 and 325 (P Crummy 1993, 34–45). This was at a time when the defences were tightened up by widening the town ditch and closing the Balcerne Gate. The evidence recovered from the site suggests that the buildings in the north of the site were abandoned before this period, probably in the early 3rd century, however, in the south of the site building 8 was probably occupied until the late 3rd century, when it was replaced by the possible temple or shrine, building 9, which cannot have been built before AD 293. This suggests a progressive decline of the suburban occupation with the buildings further away from the main roads being abandoned, possibly as early as the early 3rd century, while occupation continued closer to the road until the end of the 3rd century and possibly into the early 4th

century. The area previously occupied by the alleyway and buildings 5 and 6 in the north of the site (Open Area 5) appears to have been used for the dumping of general domestic waste from elsewhere, perhaps representing an opportunistic use of an unoccupied plot for waste disposal. It is uncertain when this area was first used as a cemetery. Pottery recovered from the backfill of the earliest phase of graves (Cemetery 1), whilst mostly residual, did contain a few sherds of Hadham ware and part of a drop-flanged bowl; these, along with the jet beads recovered from grave 407, suggest a late 3rd century date at the earliest.

The decline of the western suburb appears to mirror the general decline of Colchester in the later Roman period. The later 2nd century the town was still a centre of the Imperial Cult, if not the provincial capital. In its regional setting it was the largest town and most important administrative, social and economic centre. By the 4th century its regional pre-eminence had been eroded by the growth of small towns of the area.

Evidence for ritual /religious practices

The possibility that the small room built against the western side of building 7 represents a domestic shrine is discussed above and the several pots set into the floors of this room and the larger room to the north may be votive deposits, although environmental remains suggest that this was primarily a domestic building. The vessels themselves are typical cooking jars, one with traces of sooting and burnt residue.

The interpretation of building 9 as a religious building is based on its striking similarity to the possible shrine or temple (P Crummy 1981, building 53) located some 40 m to the south-east, and its position adjacent to the site of a known Romano-Celtic temple (P Crummy 1981, building 52). A similar building, also interpreted as a temple/shrine, was recently excavated at Springhead, Kent (Phil Andrews pers comm.). Building 9 could not have been built before AD 293, but evidence from the Balcerne Lane excavations indicates that the Balcerne Gate was blocked off and the temple and shrine isolated from the area to the west by a substantial ditch, probably around AD 300 (P Crummy 1981, 113) although the temple itself appears to have survived, possibly until the end of the Roman period. It was at this time that the character of the suburban occupation to the west of the town defences changed markedly; the area around the roads, which had been fairly densely occupied until then, was largely cleared of buildings and the roadside drains and ditches were abandoned. Much of the area of the Balcerne Lane excavations to the south of the site was used for pit digging and in parts for the disposal of waste; this is reflected in the small-scale dumping and pit digging recorded in the cemetery area to the north of the site. However, in the south of the site, at around this period of apparent decline and abandonment, building 9 was constructed, possibly to replace the temple or shrine that had been so recently isolated by the new defences. If this is correct, it could suggest, along with the seemingly high incidence of votive deposits in this area (see below

and N Crummy 2006) that the area itself may have been of religious significance throughout the Roman period.

The tapered and rounded Purbeck Marble statuary fragment from a localised accumulation of burnt material against the western wall of the large room in the north of the building 7 may be from a deity figurine, perhaps even of Mercury, 'the principal deity worshipped at Colchester's Temple 10' (N Crummy 2006, 35), however from such a small fragment it is impossible to tell. It has been suggested (Croxford 2003, 81–95) that "whatever the reason for the breaking image, it is clear that the resulting fragments were generally not treated lightly or casually discarded". There is very little other evidence from the small finds that provides evidence of the worship of Mercury, such as objects representing his companions or items he may have carried, however one exception is the presence of a shoe-sole shaped brooch from an extensive dump deposit in Open Area 7 (object 45). Crummy has suggested that such a brooch 'is no doubt a reference to Mercury the traveller' (N Crummy 2006, 63).

The alabaster bowl from a pit broadly contemporary with building 7, immediately to the west of the north-south land division, is also significant. This is an unusual find, partly as alabaster does not usually survive, however the presence of alabaster from the southern side of the Temple of Claudian precinct indicates a possible ritual significance to the material (Hull 1955, 46). Another notable find recovered from the period 3 pits around the boundary was the skull of an adult, possible female, aged between 35 and 45 years, along with a small assemblage of disarticulated human bone. The fact that the cranium and jaw were still articulated suggests that the skull was not fully decomposed when deposited in the pit. Also of note was the partial skeleton of a mature dog recovered from one of the period 2 pits in Open Area 2. The skull of this animal was damaged just above the right eye socket possibly as a result of a blow on the head to kill it. Furthermore, the foramen major had a characteristic key-hole shape seen before in a dog skull from a Romano-British ritual shaft at Springhead (Jessica Grimm pers. comm.). With a height at the withers of only 36 cm, this dog represents a typical Roman lapdog. Partial and complete dog skeletons have been associated with ritual deposition deposits at Silchester, London, Neatham, Baldock, Verulamium and Porchester (Fulford 2001, 201–212).

Crummy (2006) has reported on a number of objects from CAT's excavations at St. Mary's Hospital, some of which 'were deliberately bent or mutilated to render them useless in this world, although they would have remained effective and acceptable in the eyes of the gods' (N Crummy 2006, 56). A number of objects from Balcerne Heights are bent, although in some cases it seems likely that this occurred as a result of use rather than ritual activity, particularly in the case of hairpins. However, at least six objects do appear to have been deliberately bent in the manner described above.

The clearest evidence for a deliberately bent object is a silver round-bowled spoon from a dump deposit,

broadly contemporary with building 8, above the bank of the north-south land division (object 567, Fig. 27.1). This is similar to one from the St. Mary's Hospital site (N Crummy 2006, fig. 33.7), recovered from a post-Roman pit, although the handle had been bent at a different angle. There is also a hairpin, recovered from a period 4 pit close to the land division which has been deliberately bent almost double (object 442, Fig 27.4). The date of this object is uncertain and no parallels have so far been found. The head is grooved and displays linear decoration, a point is present at the top and a bead on the bottom of the head. An iron stylus had also been deliberately bent (object 1108, Fig 27.5) from an extensive mixed dump layer in Open Area 6. Other objects which have been bent, probably deliberately, include an incomplete spoon probe (object 149, Fig 27.7), from a dump deposit in Open Area 7; two incomplete medical/toilet instruments which may also be spoon probes (objects 131 and 530, Figs 27.2, 27.3), from a small gully along the side of alleyway 2 and a clay floor in Building 7, respectively; and the shank of a pin, needle or toilet implement (object 32, Fig 27.6) from a thin spread of gravel in Open Area 6.

The late Roman cemeteries

The three excavated grave groups are known to comprise part of a larger cemetery to the west of the Roman town. The larger-scale CAT excavations to the north and west of the site recovered over 70 inhumation burials (CAT 2004), compared to the 26 excavated from the present site, and the construction of the workhouse and hospital in the 19th century will probably have destroyed many others.

Although human bone was recovered from 66 contexts only 26 represented the remains of *in situ* burials. The majority of the re-deposited human bone was recovered from later deposits in the cemetery area. Many of the burials were partly truncated by later Romano-British graves and post-medieval and modern features, consequently much of the assemblage is fragmentary.

Intercutting between graves and slight differences in stratigraphic levels suggest three phases of cemetery use, however, this probably represents just a small part of a larger cemetery which was probably in use throughout the 4th century and the apparent phases recognised are simply episodes of reuse of this particular area. The majority of the layers between the phases of burial were possibly the result of upcast from grave digging reworking the earlier deposits, there is, however, some evidence for the deposition of deliberately bent implements in this area (see above). The waste deposits are characterised by loamy sand and abundant oyster shells; there does not appear to be any good evidence of industrial waste among this material, so it appears to represent domestic refuse, possibly from within the walled town. The latest Romano-British levels encountered during the 1973–6 excavations to the south and east of the site (P Crummy 1981, 145–6) consisted of “brown sandy loam with patches of gravel and oyster

rich soil” to a depth of up to 1 m. This certainly suggests that the general area to the north of the road from the Balkerne Gate was being used for waste disposal, possibly to a greater extent than in the cemetery area.

Internal organisation. There appears to be a great deal of uniformity within the cemetery phase in the shape of the graves, all, where the plan was recoverable, were sub-rectangular with very steep to vertical sides and flat bases and all but one of the burials appeared to have been originally made in coffins. It is also notable that all of the graves were aligned approximately west-east (head to the west), with the exception of grave 426 in cemetery 1, which was aligned approximately south-north (head to the south), however, this may have been affected by the position of the mortar surface associated with this phase of cemetery.

Two possible grave markers were noted in cemetery 1; there was a small, slightly irregular, sub-rectangular pit immediately to the east of grave 248 that may represent some form of grave marker or a metallated area within the cemetery; and five, or possibly eight, of the cemetery 1 graves appeared to be arranged around a pale yellow mortar surface. While the function of this surface is uncertain, it is possible that it may have supported some form of timber structure, as has been suggested elsewhere in Colchester (N Crummy *et al.* 1993, 99), possibly marking a family plot or group of otherwise associated burials. Also within cemetery 1, it is possible that graves 229, 248 and 312 form a widely spaced north-south line, however, this is uncertain and the perceived alignment may be coincidental.

Of the six graves that represent the second phase of burial, three (218, 223 and 308) appear to be part of a north-south row; the two large double graves (282 and 302) could be part of a more widely spaced north-south row, but this is uncertain.

Although the third phase of burials is only represented by three graves, two (105 and 322) could also be part of a fairly widely spaced north-south row. This third phase of burials was associated with an approximately north-south aligned ditch to the west of the burials, possibly representing an internal cemetery division, or the western boundary of this phase of burials.

Funerary practices. The apparent uniformity in the shape and orientation of graves and the provision of coffins is mirrored in the postures of the human remains; of the *in situ* burials excavated all but the neonates (400 in grave 613 and 822 in grave 820 and skeleton 474) and two that were too badly damaged to discern posture (grave 312 and 469), were in a supine, extended position, usually with the hands crossed above the pelvis and the head to the west.

The majority of the single burials were not accompanied by any detectable grave goods and even those with them were not richly furnished. The exceptions to this were: grave 426 in cemetery 1, where a pair of shoes had been deposited under the left side of the skeleton of a possible male aged between 13 and 15

years, although it is uncertain whether these had been placed within the coffin or beneath it; and less certainly deliberate in grave 312 in cemetery 1, where a bone armlet was recovered along with a possible male infant (1.5 and 2.5 years); and grave 308 in cemetery, where a bone pin was recovered from adjacent to the right side of the skeleton of a possible female juvenile (8 and 10 years). The two possibly stacked burials in the very deep grave 302 were not accompanied by any grave goods, but were very probably of linked individuals; similar stacked burials have been found elsewhere in Colchester, at the Butt Road cemetery (N Crummy *et al.* 1993, 59–60). Three of the four burials recorded within the two probable timber-lined vaults (407 in cemetery 1 and 282 in cemetery 2) were accompanied by grave goods. Vault 407 contained the skeleton of an adult female aged between 25 and 35 years in the lowest part of the vault and the skeleton of a probable adult male aged between 35 and 45 years on a ledge on the south side of the grave; the probable male skeleton was accompanied by the remains of a necklace represented by ten jet beads recovered from around the neck. It was noted at the Butt Road cemetery that jewellery associated with adult males was restricted to finger-rings and that the majority of the jewellery was not worn (N Crummy *et al.* 1993, 130), suggesting that this is a rather unusual burial. Vault 282 contained a similar arrangement of two skeletons. The skeleton of a subadult of uncertain sex, in the deepest part of the vault on the northern side was accompanied by a pair of hobnailed shoes placed above the left knee and three pins, two jet and one bone, to the left of the feet. The skeleton of a subadult female, in the shallower, southern, side of the vault was accompanied by a pair of hobnailed shoes, a group of 16 jet beads and possibly a wooden casket, all by the feet. All of the grave goods in this vault appear to have been deposited either above the coffin or by its side, at the feet end. Other similar vaults were excavated by CAT to the north and west of the site (CAT 2004) and are known from the Butt Road cemetery (N Crummy *et al.* 1993, 60).

Although it is difficult to generalise with such a small number of *in situ* burials, and any observations should be viewed with due caution, it appears that the majority of grave goods were deposited with infant, juvenile and subadult burials, the majority of the grave goods were placed outside the coffin and the burials in the timber-lined vaults were the most richly furnished, suggesting a relatively higher status than elsewhere in the cemeteries.

There is little evidence for the rituals and rites associated with burial from the small finds or the pottery recovered from the cemeteries. Part of a lamp, a fragment from an incense burner (*tazza*) and a candlestick were recorded from the graves, but all from the backfills and therefore may not be associated with the actual burials. However, such objects were used in funerary rites and other rituals in the Roman world (Eckardt 2002, 95). Two fragments of Purbeck Marble, including one inscribed with a dedication, were probably from funerary monuments (see above, Building 8).

Demography (Jacqueline I. McKinley). The remains of 26 individuals were identified (Table 3), 24 in the three phases of burials identified on the site and single *in situ* neonate burials in Open Area 5 and 6 that could not be confidently assigned to either cemetery 1 or cemetery 2 (Table 2). A minimum of 13 other individuals were represented among the redeposited remains recovered from pre-cemetery deposits, and deposits within and between cemetery use. Human remains were recovered from several deposits that pre-dated the earliest phase of cemetery use. The partial remains of two neonates were recovered from the fill of a pit in Open Area 1 and from a pit in Open Area 2. An almost complete skeleton of a foetus was recovered from a small, irregular scoop in Open Area 5, however, it is possible that this may represent an early burial in cemetery 1. A small part of a neonate skeleton was recovered from the floor deposits within Building 7 and two bones of a juvenile skeleton, around ten years old, were recovered from a deposit that represents the demolition or disuse of Building 7. Several human bones, representing a possible female age 18 years or over, an adult female aged between 18 and 45 years, a subadult aged between 14 and 18 years and a subadult aged between 12 and 16 years were recovered from a single pit, dated to period 3, cut into the bank that represents the north-south property division.

The origin of this redeposited material is uncertain. Only three graves within the area of excavation appear to have been cut by the insertion of a later grave (432, 438 and 469 all cut by vault 282). Further graves may have existed within the area, the evidence for which has been totally eradicated by later activity; there is certainly some evidence for the re-use of one of the vaults (407) resulting in the almost total removal of the remains of an earlier occupant. The graves excavated as part of this project represent a small sample from a much larger cemetery which could have extended to all sides, possibly in much greater density than seen here (data currently unavailable). Much of the redeposited material probably originated from re-worked graves within these areas of the cemetery, the southern portion of which could have extended close to the southern property boundary. The neonatal remains associated with the floor surface in Building 7 may have been within or close to their original place of deposition; the recovery of such young individuals in association with domestic buildings and properties is a common feature in the Roman period (Philpott 1991, 97–102; Mays 1993), such locations seeming to place them in the realms of the living rather than amongst the dead.

Two bones of a neonate were recovered from a deposit that probably represents upcast from pit digging around the same boundary in the same period. The skull and mandible of a possible female, aged between 35 and 40 years, were recovered from another period 3 pit in this area, as these were articulated, the head was not completely skeletal when deposited. All other human remains were recovered from the three phases of burials or were redeposited in later features and deposits.

The small size of the assemblage, together with the fact that it represents only a small part of a much larger cemetery for which comparative data is not yet available, places severe constraints on the significance which may be placed on the demographic data. There is, however, a noticeably high proportion of immature individuals (<18 yr.) amongst the *in situ* remains (58%), 38% of those in Cemetery 1 being under 5 years old. A slight temporal variation is detectable which may be reflective of a broader demographic change resulting in a lowering of the fertility rates associated with an ageing population, but the numbers are small and may simply be indicative of a shift in use within the cemetery.

At Butts Road, Colchester (Pinter-Bellows 1993), between 15.5–21% of the individuals from the phase 1 and phase 2 cemeteries were immature, with a maximum of 9% less than 5 years of age in the period 1 phase 2 assemblage. Comparative data from other contemporaneous cemeteries further highlights the high proportion of immature individuals as Balcerne Heights; e.g. 17.4% immature from Cirencester, Gloucestershire (Wells 1982), 25% from the Late Romano-British cemetery at Alington Avenue, Dorchester (Davies *et al.* 2002, 129), 29% from Lankhills, Winchester, Hampshire (Clarke 1979) and 33% from Poundbury, Dorchester (Molleson 1993, table 62). It will be interesting, once the full demographic data for the Balcerne Gate cemetery (Balcerne Heights and St Mary's Hospital) are available to see if the apparent difference between the two Colchester cemeteries, with its potential for reflecting social and status differences between the populations, is as varied as it appears from this initial 'key-hole' view.

Detailed analysis and discussion of the data is inappropriate given that this is only a small percentage of a much larger cemetery. What is presented here is a summary of the available data, all of which is held in the archive and can be accessed when further work on the cemetery as a whole is undertaken.

Stature (Jacqueline I. McKinley). The female mean is the same as that recorded for Butts Road period 2 cemetery, that for the males being slightly higher than the 1.67m recorded by Pinter-Bellows, the ranges being considerably shorter for both sexes (1993, table 2.22). The male mean is slightly above the average of 1.69m recorded by Roberts and Cox for the Roman period (2003, 163), and that for the females slightly below the overall mean of 1.59m (Table 4). The numbers involved are low and any conclusions drawn from the data should be treated with caution, but higher sexual dimorphism in stature estimates are often seen as indicative of a high protein – and by implication, status – diet.

Pathology (Jacqueline I. McKinley). A range of commonly occurring pathological conditions were recorded which are summarised in Table 2. The rates for dental disease (*ante mortem* tooth loss 7.8%; caries 4.3%; dental abscesses 2.8%) are all slightly lower than the averages for the period (14.1%, 7.5% and 3.9% respectively; Roberts and Cox 2003, 131–7), which suggests, in

corroboration with the stature estimate data, a slightly better (protein richer) diet than enjoyed by most in the Roman period and/or better oral hygiene. The rates from the largest (phase 2) of the Butts Road cemetery, although different from those recorded at Balcerne Heights, are similarly low compared to the overall rates for the period (10.7% *ante mortem* tooth loss; 3.9% caries; 0.7% abscesses; Pinter-Bellows 1993, 79), suggesting the provincial capital was better served than many of its contemporaries.

There is also some evidence to suggest that those burying their dead at Balcerne Heights may have enjoyed a less physically stressful lifestyle than many of their, particularly rural, contemporaries, with rates of 7.2% for spinal osteoarthritis, 3.3% for degenerative disc disease and 14.5% for Schmorl's nodes (a pressure defect resulting from a rupture in the intervertebral disc; Rogers and Waldron 1995, 27). Roberts and Cox give an average rate of 17.7% for the latter condition for the period (2003, table 3.21). Much of the comparative data for the other conditions is generally in the form of the less reliable CPR (number of individuals affected) rather than the number of joints affected (TPR), but the fairly high rates of spinal osteoarthritis (TPR 15.0%) and degenerative disc disease (TPR 22%) recorded from the recently excavated cemetery at Little Keep, Dorchester (McKinley and Egging Dinwiddy 2009) will help illustrate how low the rates from Balcerne Heights are.

A minimum of four individuals (two males and two females) had healed fractures to one or two bones including the metatarsal, tibia, fibula, clavicle and nasal bone (Table 2). Fractures to the foot bones generally result from a heavy object landing on the foot; those to the clavicle most frequently result from a fall onto the hand or shoulder; that to the fibula probably relates to a rotational force upon a fixed foot. Nasal fractures are not commonly recorded in archaeological material and, resulting from an accidental or deliberate blow to the face, are mostly seen in male remains. This young adult female (823, grave 302) may have been the victim of an unfortunate accident or subject to a violent attack. In several cases the trauma resulting in the fracture clearly also had associated soft tissue trauma, evidence for which is provided by periosteal new bone of the affected skeletal element.

Less commonly observed conditions include two possible cases of rickets (a deficiency in the early stages of childhood; Aufderheide and Rodríguez-Martín 1998, 306; Roberts and Manchester 1995, 173–4) and one possible case of tuberculosis (a chronic bacterial infection caused by *mycobacterium tuberculosis/bovis* resulting from either ingesting infected food or by droplet infection from another individual; Roberts and Manchester 1997, 135–142; Aufderheide and Rodríguez-Martín 1998, 118–141). Slight bowing lesions in the bones of the upper limb from burials 425 and 440 (cemetery 1) suggest the changes, if the diagnosis is correct, occurred at 'crawling' stage, the deficiency having been corrected by time the infant had started to walk. A small proportion of individuals from a minimum of six Romano-British sites

have previously been diagnosed with rickets, with a low CRP of 0.8% (Roberts and Cox 2003, table 3.18). Gross destructive lesions with little or no new bone formation in the interphalangeal foot joints from 808 may be indicative of tuberculosis; these skeletal elements are commonly affected in immature individuals with the condition (Rogers and Waldron 1995, 91). There are relatively few reported cases from Roman Britain, Roberts and Cox giving a CPR of 0.2% (2003, 119), but three possible cases have recently been reported from West Thurrock, Essex (McKinley in press).

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Archive

The project archive is currently stored at the offices of Wessex Archaeology under the project codes 55024–5 and will be deposited with Colchester Museums, under the accession number 2003.278.

The following specialist reports are available as part of the site archive:

The Animal Bone	by Jessica M. Grimm
The Coins	by Nicholas Cooke
The Human Bone	by Jacqueline I. McKinley and Kirsten Egging Dinwiddy
The Romano-British Pottery	by Grace Perpetua Jones
The Samian Pottery	by Jo Mills

The Small Finds	by Grace Perpetua Jones with Rachael H. Seager Smith
The Stone Building Materials	by Kevin Hayward
The Painted Wall Plaster	by Grace Perpetua Jones
The Charcoal	by Catherine Barnett
The Charred Plant Remains	by Chris J. Stevens
The Marine Shell	by Sarah F. Wyles

Small Finds: illustrated catalogue

Figure 9

1. Copper alloy suspension hook from steelyard, object 506, context 2106, Building 7.
2. Copper alloy terret ring, similar to examples from Pannonien (Alföldi and Radnóti, 1940, tafel XXIX). Object 507, context 2106, Building 7.
3. Bone pin beater, consisting of a tapering length of longitudinally split metapodial, probably cattle, exhibiting a point at one end and a flat, chisel-like butt at the other, both ends are polished, possibly through use. Notches had been cut into the sides of the object c. 20 mm from butt end and an attempt was made to make a central perforation through the object, drilled from both sides but abandoned (cf MacGregor 1985, 189, fig. 101, 17). Object 524, context 2129, Building 7.
4. Glass unguent bottle, conical, pale blue/green, top of flared rim missing but otherwise complete; minimum of 72 mm high. Late 1st to early 2nd century AD. Object 531, context 2131, Building 7.
5. Copper alloy plate brooch, disc-shaped, with 12 small peripheral lugs, 18 mm diameter (21 mm with lugs). Decorated with an outer circle of blue enamel and an inner circle of green, both bisected by a band of a third colour, also a shade of green. Slightly raised central detail. Pin missing. Mid-2nd century AD (cf Hattatt 2000, Fig. 204 nos. 122 and 1568). Object 654, context 2231, Building 7.

Figure 13

1. Copper alloy wire, looped at both ends, probable link from steelyard. Object 180, context 320, Open Area 6.
2. Shoe-sole-shaped plate brooch, 25 mm long, 6–9 mm wide, the pin is missing. Yellowish-green enamelled background, inset with nine circular multi-coloured spots. The surface had been polished after the application of these spots. Feugère (1985) Type 28b2, early to mid-2nd century. This form does not have the suspension loop which is more commonly seen on this type of brooch (Feugère Type 28b1). Object 45, context 148, Open Area 7.
3. Pottery counter, cut from a reduced ware sherd with burnished surfaces, 25 mm diameter. Object 62, context 148, Open Area 7.

Figure 17 (on plan of grave 407)

Objects 1735/6: Ten jet beads were recovered from

samples 99A and 100A, burial 494, Cemetery 1 (a sample are illustrated). They are all small cylindrical beads with equally spaced transverse grooving, 7–15 mm long, however the shorter ones may be broken. This type of bead has also been recorded from Roughier Street, York, in a late 3rd to early 4th century context (Allason-Jones 1996, 27 no. 25) and Colchester (Butt Road) from Period 2 deposits of 4th to 5th century date (cf Crummy 1983, Fig. 36, 1060–1).

Figure 19

1. Pottery, decorated body sherd showing face, from flagon, Hadham oxidised ware. PRN 409, context 250, grave 248.
2. Bone armlet, 41 mm internal diameter, 5 mm wide and 4 mm thick, with rectangular section, shaped at the edges. A butt joint was probably originally held together by a sheet metal plate (black staining suggests it may have been silver) but this is now missing. Amlets of a similar size have been recorded from previous excavations at Colchester in the graves of children aged 4–5, 10 and 12 (Crummy 1983, 36). Object 1738, context 311, grave 312.
3. Copper alloy brooch, Nauheim derivative with flat bow, 45 mm long, 9 mm wide across spring, 4 mm wide across widest point of bow, bow tapers to the foot and is very slightly curved (cf Hawkes and Hull 1947, type VII, Pl. XCII, 55, Claudio-Neronian). The spring has four coils, one is broken, only part of the catchplate is present and the pin missing. Object 309, context 433, grave 407.
4. Copper alloy pin with spherical head, 8 mm in diameter, cordon moulding at the top of the shank. It survives to a length of 48 mm. Cool (1990) Group 6, dating from the second half of the 1st century AD to the 2nd century. Object 310, context 433, grave 407.
5. Copper alloy needle, complete, Crummy (1983) Type 2, needle with flat spatulate head and rectangular eye. Length: 105 mm, the head is 4 mm wide and the eye measures 4.5x1.5mm. This type of needle is seen throughout the Roman period (Crummy, 1983, 65). Object 320, context 433, grave 407.
6. Iron candlestick, incomplete, L-shaped, the candle-holding arm is 60 mm in length, the other arm is 80 mm long and tapers. The socket is 15 mm in diameter. Object 407, context 408, grave 407.
7. Bone spoon, incomplete, tip of handle and most of bowl are missing, however the bowl appears to be circular and of the same type as the silver spoon (object 567). The minimum length is 90 mm. Object 233, context 408, grave 407.
8. Bone cylinder hinge, incomplete, approximately 50 mm long, made from a long bone. Both ends are sawn, two circular peg holes, 7 mm in diameter, have been drilled through the wall and a pair of incised lines at either end of the object each contain traces of black pigment and were used to decorate the hinge. Object 244, context 408, grave 407.
9. Whetstone, Kentish ragstone. Object 232, context 408, grave 407.

10. Pottery, CAM 302, oxidised ware, PRN 58, context 408, grave 407.

Figure 21 (on plan of grave 282)

Object 510: Sixteen jet beads from burial 809, grave 282, Cemetery 2 (a sample is illustrated). These were plano-convex spacer beads, each with two transverse perforations, probably from an armlet. The underside is slightly curved, the upper surface and ends are decorated with a deeply cut motif (Z motifs, Allason-Jones 1996, 28). The bead sizes are slightly variable: 16–21 mm long, 5–8 mm wide, 7–9 mm high.

Object 511: Iron fitting, probable hinge, and iron nail, possibly from a box or casket.

Object 599: Jet hairpin, Crummy (1983, 27) Type 2, pins with a faceted cuboid head, of late 3rd to 4th century date. The five lozenge and eight triangular-shaped facets are present but are not all even, the head measures 7 mm × 5 mm and is 7 mm in height. There is a slight swelling in the shaft and wear around the point. Context 808, grave 282, Cemetery 2.

Object 601: Jet hairpin, Crummy (1983, 27) Type 2, pins with a faceted cuboid head, of late 3rd to 4th century date. The pin has a well-made faceted cuboid head, measuring 8 mm × 6 mm and 7 mm in height. There is a slight swelling in the shaft. Context 808, grave 282, Cemetery 2.

Figure 24

1. Iron knife blade with slightly concave back towards the tip, now broken in two. Object 77, context 219, grave 218.
2. Whetstone, Kentish ragstone, Object 94, context 219, grave 218.
3. Pottery, *tazza*, CAM 198, whiteware, PRN 402, context 219, grave 218.
4. Copper alloy pin, with double conical knob head and a slightly tapering circular-sectioned shaft, with six incised lines radiating from a central point (cf Cool 1990, Fig. 12.11, Group 25, Miscellaneous Multiple Grooved Heads). Object 155, context 301, grave 302.

Figure 26

1. Bone pin, incomplete, Crummy (1983) Type 4, pins with faceted cuboid head, not perfectly formed, however a reasonably successful attempt has been made. Object 228, context 324, grave 322.
2. Ceramic lamp, base fragment, oxidised fabric, probably from a Firmalampen, a Loeschke Type 10. The base displays a grooved footring and part of a moulded stamp, *VIB*, probably the mark of lamp maker *VIBIANVS*, 'whose workshops flourished from the mid-2nd century to its end and whose lamps have been found in contexts dated to the later 3rd century (Bailey 1980, 102)' (Eckardt 2002, 205). Another lamp from this workshop was found at the Balcerne Lane site (base stamped *VIBIANI*, dated AD 150–250, Crummy 1983, 78, 2102). Object 1385, context 323, grave 322.

Figure 27

1. Silver spoon, round-bowled, appears to have been cast as one piece. A cross (X) had been incised in the centre of the spoon bowl (cross measures 8x4mm). The lower part of the handle has been deliberately bent at 45 degrees, the bent length is 85mm, unbent the spoon would have been approximately 138mm long. The bowl is 24mm in diameter. The form is a Crummy (1983, 69) Type 1, dating to the second half of 1st century to 2nd century AD. A similar bent example has been published from the nearby St. Mary's Hospital site (Crummy 2006, Fig. 33.7), however the bend is at a different angle. Object 567, context 4043, Boundary 2.
2. Copper alloy medical/toilet implement, incomplete, shank is bent. Object 131, context 259, Alleyway 2.
3. Copper alloy medical/toilet implement, incomplete, shank is bent. Object 530, context 2131, Building 7.
4. Copper alloy pin, deliberately bent almost double. It has a large (25 mm in length, up to 8 mm wide at the centre) head with grooved, linear decoration, a point at the top and bead at the bottom of the head. Bent length is 81 mm. Uncertain date. Object 442, context 4032, Boundary 3.
5. Iron stylus, bent, Manning (1985) Type 4, with moulded decoration on the stem. Original length was approximately 145 mm. Object 1108, context 320, Open Area 6.
6. Copper alloy shank from pin or toilet implement, bent at 45 degrees. Object 32, context 151, Open Area 6.
7. Copper alloy spoon probe, incomplete, bent at one end. Object 149, context 292, Open Area 7.

Figure 28

1. Scrap from a bowl with a vertical panel of loopy leaves (Rogers G282) and a saltire based on a cross of wavy lines, both of which are on a bowl attributed to Vegetus from Birdoswald (Stanfield and Simpson 1990 pl 62, 3), as is the bead row at the bottom of the decoration. The saltire on this bowl includes an acanthus which is a new motif for this potter. Dragendorf (Dr) 37, Period 1, 590 (burnt). A second sherd from a layer assigned to Period 2 (543) could be from the same bowl and shows the central part of a similar saltire. It has a horizontal bead row with astragalus Rogers R66 on each end, and possibly an acanthus springing from each astragalus. The upper quadrant seems to contain two tendrils probably ending with trifold Rogers G88. The lower quadrant may contain pendant trifold Rogers G58 which is listed for Avitus but not Vegetus. c.AD120–40
2. Large body sherd with ovolo B24. The panelled design includes Hercules O.760 and motifs G142, U28 and large corded spindles. A pair of bead rows with an astragalus over them with bead rows either side, all with astragalus terminals separate the panels. The ovolo, pair of bead rows, astragalus and diamond motif are all on a bowl stamped by Docilis (Rogers 1990, pl 39,2). The leaf is unique to Docilis. Dr 37, Central Gaul, c. AD130–60. Samian catalogue no.

66, context 481, Open Area 5.

3. Rim sherd from a form Dr 37 from Rheinzabern, with ovolo Ricken–Fisher E44, and a mould signature. The signature reads]ST LIS (retrograde) and may be Augustalis of Rheinzabern. Only one other signature is recorded for him which is larger, and in the base of a mould, but the lettering is closely similar (Ricken and Thomas 2005, taf 186, 1). It is probably late second – to early third-century in date. Object 1264, context 230, Open Area 7.
4. Sherd from the lower part of the panelled decoration. The details are not terribly clear, but the untidy beads with rings overlain at junctions and terminals are found on bowls assigned to Caletus (Rogers 1999, pl.18, 3); pillar Rogers P13 is on the same bowl whilst the pillar, tidier bead row with long astragalus terminal are on a bowl from Corbridge (Stanfield and Simpson 1990, pl 128, 9). No parallel has been found for the motif or figure within the large medallion. Dr 37, Central Gaul, c.AD160–200. Samian catalogue no. 50, context 511, pit 512, Open Area 2.

Figure 29

1. Ceramic lamp, complete. It is a circular short lamp, with high circular base demonstrating wheel-thrown marks. The top is flat, undecorated and has a stub handle, clearly added after the main body of the lamp was formed, and a central filling hole. The lamp is 57 mm in diameter, and the nozzle does not protrude beyond the body but is 'simply pierced through the top of the lamp' (Eckardt 2002, 209). This is a rare form, however one has previously been recorded from Colchester, dated AD 250–300 (Crummy 1983, Fig. 82, 2105, in Eckhardt 2002). Weight: 57g. Object 357, context 100, modern overburden.
2. Pottery, reduced ware, CAM 37A with owner's or tally mark on the rim. Object 360, context 100, modern overburden.

Bibliography

- Alföldi, A. and Radnóti, A. 1940 Zügelringe und Zierbeschlüge von römischen Jochen und Kummerten aus Pannonien, *Serta Hoffileriana*, Zagreb, 309–19
- Allason-Jones, L. 1996 *Roman Jet in the Yorkshire Museum*, York: The Yorkshire Museum
- Aufderheide, A.C. and Rodríguez-Martín, C. 1998 *The Cambridge Encyclopaedia of Human Palaeopathology*, Cambridge: University Press
- Bailey, D.M. 1980 *A Catalogue of Lamps in the British Museum, Vol. 2: Roman lamps made in Italy*, London: British Museum Publications
- Barnett, C. in press 'Wood charcoal', in P. Andrews and E. Biddulph (eds) *Settling the Ebbsfleet Valley, CTRL Excavations at Springhead and Northfleet, Kent. Volume 3, Late Iron Age-Roman human and environmental remains*, Oxford and Salisbury: Oxford-Wessex Archaeology
- Benfield, S. forthcoming *An Archaeological Excavation at the St Mary's Hospital Site, Colchester, Essex, 2001–3*, Colchester Archaeological Trust
- Boon, G.C. 1974 *Silchester: The Roman Town of Calleva*, Newton Abbott Colchester Archaeological Trust (CAT) 2004 St Mary's Hospital Excavation, http://www.catuk.org/doku.php?id=excavations:st_marys
- Clarke, G. 1979 *The Roman Cemetery at Lankhills, Winchester Studies 3, Pre-Roman and Roman Winchester, Part II*, Oxford: Clarendon Press

- Cool, H.E.M. 1990 'Roman metal hairpins from southern Britain', in *Archaeol. J.* 147, 148–82
- Croxford, B. 2003 'Iconoclasm in Roman Britain?' *Britannia* 34, 81–95
- Crummy, N. 1983 *Colchester Archaeological Report 2: The Roman small finds from excavations in Colchester 1971–9*, Colchester: Colchester Archaeological Trust
- Crummy, N. 2006 'Worshipping Mercury on Balcerne Hill', in P. Ottaway (ed.) *A Victory Celebration: Papers on the Archaeology of Colchester and Late Iron Age-Roman Britain Presented to Philip Crummy*, Colchester: Friends of Colchester Archaeological Trust, 56–68
- Crummy, N., Crummy, P. and Crossan, C. 1993 *Excavations of Roman and Later Cemeteries, Churches and Monastic Sites in Colchester, 1971–88*, Colchester: Colchester Archaeol. Rep. 9
- Crummy, P. 1981 *Excavations at Lion Walk, Balcerne Lane and Middleborough, Colchester, Essex*, Colchester: Colchester Archaeol. Rep. 3
- Crummy, P. 1993 'The Development of Roman Colchester', in S.J. Greep, *Roman Towns: the Wheeler Inheritance: A Review of 50 years Research*, London: CBA Res. Rep. 93, 34–45
- Davies, S.M., Bellamy, P. S., Heaton, M.J., and Woodward P.J. 2002 *Excavations at Alington Avenue, Fordington, Dorchester, Dorset, 1984–87*, Dorchester: Dorset Nat. Hist. Archaeol. Soc. Monog. 15
- Eckardt, H. 2002 *Illuminating Roman Britain*, Montagnac: Monographies Instrumentum 23
- Feugère, M. 1985 *Les fibules en Gaule Méridionale: de la conquête à la fin du Ve siècle après J.-C.*, Paris: Revue Archéologique de Narbonnaise Supplément 12
- Fulford, M. 2001 'Links with the past: pervasive 'ritual' behaviour in Roman Britain', *Britannia* 32, 199–218
- Hartley, K.F. 1999 'The stamped mortaria', in Symonds and Wade 1999, 195–211
- Hattatt, R. 2000 *A Visual Catalogue of Richard Hattatt's Ancient Brooches*, Oxford: Oxbow
- Hawkes, C.F.C. and Hull, M.R., 1947 *Camulodunum*, London: Soc. Antiqs. Res. Rep. 14,
- Hull, M.R. 1955 'The south wing of the Roman forum at Colchester', *Trans. Essex Arch. Soc.* 25, 24–61
- Manning, W.H. 1985 *Catalogue of Romano-British Iron Tools, Fittings and Weapons in the British Museum*, London: British Museum
- MacGregor, A. 1985 *Bone, Antler, Ivory and Horn: The Technology of Skeletal Materials since the Roman Period*, London: Barnes & Noble
- Mays, S. 1993 'Infanticide in Roman Britain', *Antiquity* 67, 883–8
- McKinley, J.I. in press 'The human bone' in P. Andrews, 'West Thurrock: Late prehistoric settlement, Roman burials and the medieval manor house. Channel Tunnel Rail Link Excavations 2002' *Essex Archaeol. Hist.*
- McKinley, J.I. and Egging Dinwiddy, K. 2009 'Deviant' burials from a late Romano-British cemetery at Little Keep, Dorchester, Dorset,' *Proc. Dorset Nat. Hist. Archaeol. Soc.* 130, 1–19
- Molleson, T.I., 1993 'The human remains', in D.E. Farwell and T.I. Molleson, *Poundbury Volume 2: The Cemeteries*, Dorchester: Dorset Nat. Hist. Archaeol. Soc. Monog. 11, 142–214
- Oswald, F. 1936–1937. *Index of Figure-Types on Terra Sigillata ("Samian Ware")*. Liverpool
- Philpott, R. 1991 *Burial Practices in Roman Britain: A Study of Grave Treatment and Furnishing A.D. 43 – 410*, Oxford: BAR 219
- Pinter-Bellows, S., 1993 'The human skeletons', in N. Crummy *et al.* 1993, 62–91
- Ricken, H., and Fischer, C., 1963. Die Bilderschüsseln der römischen Töpfer von Rheinzabern. Textband mit Typenbildern zu Katalog VI der Ausgrabungen von Wilhelm Ludowici in Rheinzabern 1901–1914 (Materialen zur römisch-germanischen Keramik 7, Bonn)
- Ricken, H. and Thomas, M. (eds) 2005 *Die Dekorationsserien der Rheinzaberner Reliefsigillata. Textband zum Katalog VI der Wilhelm Ludowici in Rheinzabern 1901–1914*, Bonn: Materialen zur römisch-germanischen Keramik 14 (2 vols)
- Roberts, C. and Cox, M. 2003 *Health and Disease in Britain from Prehistory to the Present Day*, Stroud: Sutton
- Roberts, C. and Manchester K. 1997 *The Archaeology of Disease*, Stroud: Sutton
- Rogers, G.B., 1974. *Poteries Sigillées de la Gaule Centrale I. – Les motifs non figurés* (Gallia Supplement XXVIII, Paris)
- Rogers, G.B. 1999 *Poteries Sigillées de la Gaule Centrale II – Les Potiers* (Vols I & II), Lezoux
- Rogers, J. and Waldron, T. 1995 *A Field Guide to Joint Disease in Archaeology*, Chichester: Wiley
- Stanfield, J.A. and Simpson, G. 1990 *Les Potiers de la Gaule Centrale*, Gonfaron: Revue Archéologiques Sites, Hors-série 37
- Symonds, R.P. and Wade, S. 1999 *Roman Pottery from Excavations in Colchester, 1971–86*, Colchester: Colchester Archaeol. Rep. 10
- Tomlin, R.S.O. 2008 'Inscriptions', *Britannia* 39, 369–89
- Wahl, J. 1981 *Beobachtungen zur Verbrennung menschlicher Leichname. Über die Vergleichbarkeit moderner Kremationen mit prähistorischen Leichenbränden*, Archäologisches Korrespondenzblatt 11, 271–9
- Wells, C. 1982 'The human burials' in A. McWhirr, L. Viner, L. and C. Wells *Romano-British Cemeteries at Cirencester*, Cirencester: Cirencester Excavations 2, 135–202

Fig. No.	No.	Material Context	PRN	Object	Landuse block/feature	Fabric	Form/description
5	1	Pottery	498	1494	Pit 512, OA 1/2	Mica-dusted	Bowl (cf Symonds and Wade, Fig. 5.21: 112)
5	2	Pottery	498	1495	Pit 512, OA 1/2	Reduced ware	Base with post-firing graffiti (incised, crossing lines)
5	3	Pottery	511	1506	Pit 512, OA 1/2	Reduced ware	CAM 108
5	4	Pottery	534	1685	Pit 512, OA 1/2	Colchester colour-coated ware	CAM 391A/B
5	5	Pottery	534	1686	Pit 512, OA 1/2	Reduced ware	CAM 243-244/246 variant
5	6	Pottery	556	1537	Pit 512, OA 1/2	Reduced ware	CAM 268
5	7	Pottery	556	1546	Pit 512, OA 1/2	Reduced ware	CAM 268
5	8	Pottery	556	1532	Pit 512, OA 1/2	Reduced ware	CAM 243-244/246
5	9	Pottery	556	1543	Pit 512, OA 1/2	BB2	CAM 37B
5	10	Pottery	556	1548	Pit 512, OA 1/2	Silvery micaceous greyware	CAM 330
5	11	Pottery	556	1547	Pit 512, OA 1/2	Reduced ware	CAM 218B/C
5	12	Pottery	556	1542	Pit 512, OA 1/2	Mica-dusted	CAM 305B
5	13	Pottery	556	1540	Pit 512, OA 1/2	Reduced ware	Beaker with long, sloping neck and flat-topped rim
5	14	Pottery	556	1541	Pit 512, OA 1/2	Reduced ware	CAM 391A/B
5	15	Pottery	556	1549	Pit 512, OA 1/2	Reduced ware	Base with post-firing graffiti (cross)
5	16	Pottery	556	1523	Pit 512, OA 1/2	Reduced ware	Lid with plain, rounded rim
5	17	Pottery	556	1530	Pit 512, OA 1/2	Reduced ware	Lid with squared-off rim
5	18	Pottery	556	1552	Pit 512, OA 1/2	Oxidised ware	Lid with upward-hooked rim
5	19	Pottery	753	1557	Pit 512, OA 1/2	Oxidised ware	CAM 389
5	20	Pottery	753	1573	Pit 512, OA 1/2	Reduced ware	CAM 306
5	21	Pottery	756	1560	Pit 512, OA 1/2	BB1	CAM 304
5	22	Pottery	756	1590	Pit 512, OA 1/2	Reduced ware	CAM 218B/C
5	23	Pottery	761	1579	Pit 512, OA 1/2	Heavily-tempered ware	CAM 273
5	24	Pottery	762	1684	Pit 512, OA 1/2	Reduced ware	Open lamp
6	1	Pottery	2240	749	Building 2	Central Gaulish colour-coated ware	CAM 391A/B, roughcast
6	2	Pottery	2240	730	Building 2	BB1	Wessex Archaeology (1983) type 21
6	3	Pottery	2248	711	Building 2	Heavily-tempered	CAM 373
6	4	Pottery	2248	713	Building 2	Oxidised ware	CAM 312
6	5	Pottery	2248	701	Building 2	Fine greyware	CAM 108
6	6	Pottery	2286	629	Building 2	Colchester mortaria	CAM 497, stamped MACRINF twice on flange
6	7	Pottery	2291	658	Building 2	Colchester mortaria	CAM 496 variant with lead plug
6	8	Pottery	2254	679	Building 2	Reduced ware	CAM 218B/C
8	1	Pottery	2197	877	Building 7	BB2	CAM 278
8	2	Pottery	2197	869	Building 7	Reduced ware	CAM 268 with post-firing graffiti
8	3	Pottery	2197	876	Building 7	Reduced ware	CAM 266
8	4	Pottery	2197	875	Building 7	Reduced ware	CAM 218B/C
8	5	Pottery	2129	810	Building 7	BB2	CAM 278
8	6	Pottery	2188	878	Building 7	Reduced ware	CAM 268
8	7	Pottery	2231	1005	Building 7	BB1	Wessex Archaeology (1983) type 7
8	8	Pottery	2197	891	Building 7	Reduced ware	CAM 243-244/246
8	9	Pottery	2200	865	Building 7	Reduced ware	CAM 330
8	10	Pottery	2222	935	Building 7	Reduced ware	CAM 219
8	11	Pottery	2197	892	Building 7	Reduced ware	CAM 108
8	12	Pottery	2197	904	Building 7	Oxidised ware	Part of <i>tazza</i> (CAM 198)
8	13	Pottery	2197	896	Building 7	Reduced ware	Base with post-firing perforations

9	1	Cu alloy	2106	506	Building 7	Reduced ware	Steelyard hook
9	2	Cu alloy	2106	507	Building 7	Oxidised ware	Terret ring
9	3	Bone	2129	524	Building 7	Fine greyware	Pin beater
9	4	Glass	2131	531	Building 7	Reduced ware	Unguent bottle
9	5	Cu alloy	2231	654	Building 7	BB1	Plate brooch
11	1	Pottery	2232	1274	Building 8		CAM 278
11	2	Pottery	2232	1286	Building 8		Miniature jar, complete
11	3	Pottery	2232	1281	Building 8		Cam 327
11	4	Pottery	2232	1280	Building 8		CAM 243–244/246
11	5	Pottery	2232	1282	Building 8		Wessex Archaeology (1983) type 21
13	1	Cu alloy	320	180	Open area 6		Link, probably from steelyard
13	2	Cu alloy	148	45	Open Area 7		Shoe-sole shaped plate brooch
13	3	Pottery	148	62	Open Area 7	Reduced ware	Counter
17		Jet	494	1735–6			Jet beads
19	1	Pottery	250	409	Cemetery 1, grave 407	Hadham oxidised ware	Face from flagon
19	2	bone	311	1738	Cemetery 1, grave 248		Armlet
19	3	cu alloy	433	309	Cemetery 1, grave 312		Brooch, Naulheim derivative
19	4	cu alloy	433	310	Cemetery 1, grave 407		Hairpin
19	5	cu alloy	433	320	Cemetery 1, grave 407		Needle
19	6	iron	408	1354	Cemetery 1, grave 407		Candlestick
19	7	bone	408	233	Cemetery 1, grave 407		Spoon
19	8	bone	408	244	Cemetery 1, grave 407		Hinge
19	9	Stone	408	232	Cemetery 1, grave 407		Whetstone
19	10	Pottery	433	58	Cemetery 1, grave 407	Oxidised ware	CAM 302
21		Jet	808	599	Cemetery 2, grave 282		Hairpin
21		Jet	808	601	Cemetery 2, grave 282		Hairpin
21		Jet	809	510	Cemetery 2, grave 282		Beads
21		Iron	809	511	Cemetery 2, grave 282		Possible hinge and nail
24	1	Iron	219	77	Cemetery 2, grave 218		Knife blade
24	2	Stone	219	94	Cemetery 2, grave 218		Whetstone
24	3	Pottery	219		Cemetery 2, grave 218	Oxidised ware	<i>Tazza</i> (CAM 198)
24	4	Cu alloy	301	155	Cemetery 2, grave 302		Hairpin
26	1	Cu alloy	323	1385	Cemetery 3, grave 322		Lamp base with partial stamp
26	2	Pottery	324	228	Cemetery 3, grave 322		Hairpin
27	1	Silver	4043	567	Boundary 2		Bent spoon
27	2	Cu alloy	259	131	Alleyway 2		Bent shank
27	3	Cu alloy	2131	530	Building 7		Bent shank
27	4	Cu alloy	4032	442	Boundary 3		Bent pin
27	5	iron	320	1108	Open Area 6		Bent stylus
27	6	Cu alloy	151	32	Open Area 6		Bent shank
27	7	Cu alloy	292	149	Open Area 7		Bent spoon probe
29	1	Pottery	100		Topsoil	Reduced ware	Lamp
29	2	Pottery	100		Topsoil	Reduced ware	CAM 37A with owner's/tally marks
28	1	Pottery	590	44	Pit 592, OA 1	Central Gaulish samian	Dr. 37
28	2	Pottery	481	66	Open Area 5	Central Gaulish samian	Dr. 37
28	3	Pottery	230	1264	Open Area 7	Eastern Gaulish samian	Dr. 37 with mould signature
28	4	Pottery	511	50	Pit 512, OA 1/2	Central Gaulish samian	Dr. 37

Table 1 Details of illustrated finds

Context	Cut	Phase (deposit)	Phase (burial)	Deposit type	Quantification	Age/sex	Pathology
100a	-	mod. over.	?	redep.	2 bones; l.	neonate c. 0-1 week	mv – wormian bones
100b	-	mod. over.	?	redep.	5 bones; s.u.	infant c. 1 yr	
100c	-	mod. over.	?	redep.	3 bones; u.l.	i) adult > 20yr. ?male ii) adult > 20yr. ?female	
100d	-	mod. over.	?	redep. = 101	35%; a.u.l.	adult c. 30-35yr. male	fracture – MtT; periosteal new bone – MtT; mv – asymmetrical sternum
100e	-	mod. over.	?	redep.	1 bone; l.	adult > 25yr. male	exostoses – trochanter
100f	-	mod. over.	?	redep.	15%; a.u.l.	adult c. 35-50yr. female	osteoarthritis – T8-10; osteoarthritis – pelvis; op- humerus
101	-	mod. over.	?	redep. = 100d	18%; a.u.	adult c. 30-35yr. male	osteoarthritis – costo-vertebral
102	-	open area 7	cemetery 2 -	redep.	1 bone; l.	adult > 18yr. ?male	fracture – tibia; periosteal new bone – tibia
106	105	cemetery 3	cemetery 3	coffined burial	50%; a.u.l.	adult c. 30-45yr. male	osteoarthritis – T12, L5, ?carpal; Schmorl's node – L5; periosteal new bone – r innominate, radius, femora, tibia, fibula
109	117	period 7 +	?	redep.	1 bone; u.	subadult/adult > 16yr.	osteoarthritis – 1L; op – prox. ulnae fracture – left MtT; periosteal new bone – right ribs, left MtT
128		open area 7	cemetery 2 -	redep.	4 bones; a.u.	adult > 25yr. ?male	
131	143	p. med. ditch	?	redep.	12 frags; a.u.l.	adult > 18yr.	
142a	143	p.med. ditch	?	redep.	c. 21 frags; s.a.l.	adult c. 35-45yr. female	abscess; caries; amtl; op – T11 bsm; osteoarthritis – T11; sinusitis; periosteal new bone – calcaneum
142b	143	p.med. ditch	?	redep.	c. 4 frags; u.l.	subadult/adult > 17yr. ?male	amtl; abscess; articular surface defect – MtT
148a		open area 7	cemetery 2 -	redep.	2 bones; u.	adult > 18yr. ?male	
148b		open area 7	cemetery 2 -	redep.	1 bone; u.	adult > 18yr. male	
148c		open area 7	cemetery 2 -	redep.	1 bone; l.	neonate c. 0-1 week	
148d		open area 7	cemetery 2 -	redep.	1 bone; a.	infant/juvenile c. 2-10 yr.	
163a		open area 7	cemetery 2 -	redep. = 173a	1 bone; l.	juvenile c. 5-7 yr.	
163b		open area 7	cemetery 2 -	redep. = 173b	1 bone; u.	adult > 18yr.	
173a		open area 7	cemetery 2 -	redep. = 163a	1 bone; l.	juvenile c. 5-7 yr.	
173b		open area 7	cemetery 2 -	redep. = 163b	4 bones; l.	adult > 18yr. ?male	
174a	184	mod. over.	?	redep.	1 frag; u.	neonate c. 0-1 week	
174b	184	mod. over	?	redep.	5 frags; s.l.	adult c. 30-50yr.	
212		open area 7	cemetery 2 -	redep.	1 bone; l.	neonate c. 0-1 week	
215	233	open area 7	cemetery 2 -	redep.	1 frag; s.	adult > 35 yr.	hyperostosis – occipital periosteal new bone – tibia, fibula
219	218	cemetery 2	cemetery 1 -	redep. = 220	1 bone; u.	juvenile c. 7-14yr.	
220	218	cemetery 2	cemetery 2	in situ = 219	55%; a.u.l.	juvenile c. 7-11 yr.	
222	229	cemetery 1	cemetery 1	coffined burial	55%; s.	infant c. 6-9mth.	endosteal new bone; hyperostosis; <i>cribra orbitalia</i>
231a	223	cemetery 2	cemetery 2	coffined burial	35%; l.	adult c. 20-40yr. male	
231b	223	cemetery 2	cemetery 1 -	redep.	5 bones; l.	adult > 18yr.	
241	242	open area 7	cemetery 2 -	redep.	5%; s.a.	neonate 0-6mth.	calculus; hypoplasia; destructive lesion – T4; osteoarthritis – L3, costo-vertebral; Schmorl's node – L3; cortical defect – scapulae
243	282	cemetery 2	cemetery 1 -	redep.	1 bone; u.	adult > 18yr.	
249a	248	cemetery 1	cemetery 1	coffined burial	70%; s.a.u.l.	adult c. 35-40yr. ?male	
249b	248	cemetery 1	cemetery 1	redep.	10 bones; a.u.	adult > 35yr. ?male	osteoarthritis- bilateral MtC; fracture – left rib periosteal new bone – right MtT; plastic changes – right MtT
258	282	cemetery 2	cemetery 1 -	redep.	5 bones; a.l.	adult > 18yr. ?male	
288		open area 6	cemetery 1 -	redep.	1 frag; a.	adult > 25yr.	

291	316	building 6	pre-dates cemeteries	redep.	2 bones; u.l. 10%; l.	adult >20yr. male neonate c. 2-6mth.	op – prox. phalanx (hand)
301	302	cemetary 2	cemetary 1 -	redep.	2 bones; u.l.	i) adult >20yr.	
309a	308	cemetary 2	cemetary 1 -	redep.	2 frags; a.u. 95%; s.a.u.l.	ii) subadult >12yr. juvenile c. 5-8yr.	hypoplasia; calculus; caries; new bone – maxillary M3 alveolus; mv – pegged max. I2s, wormian bones, occipital bunning
309b	308	cemetary 2	cemetary 1 -	redep. = 310		juvenile c. 8-10yr. ??female	
310	308	cemetary 2	cemetary 2	in situ = 309b			
311/315	312	cemetary 1	cemetary 1	in situ	40%; s.a.u.l.	infant c. 1.5-2.5yr. ??male	
323	322	cemetary 3	cemetary 3	coffined burial	65%; a.u.l.	adult c. 50-60yr. male	osteoarthritis – costo-vertebral, L4-5, navicular; op – T12 bsm, L, ulnae, carpals, Mt-C, left MtT; enthesophytes – femur head, patellae, calcanea, navicular; periosteal new bone – left MtT; ? fracture – left MtT
326	325	cemetary 2	cemetary 2	coffined burial	55%; s.a.u.l.	adult c. 25-35yr. ??female	calculus; periodontal disease; hypoplasia; plastic change?- r humerus; op – r ulna; cortical defect – left prox. phalanx (foot)
328	788	open area 6	cemetary 1 -	redep.	1 bone; l.	infant c. 1-3 yr.	porosity – vault, humerus, radius, ulna
347	(302)	cemetary 2	cemetary 2	in situ	65%; s.a.u.l.	infant c. 6-9mth.	
366a		open area 6	cemetary 1 -	redep.	5%; s.	adult >18yr.	
366b		open area 6	cemetary 1 -	redep.	2 bones; l.	neonate c. 0-<1 week	osteoarthritis – 1C; op – C bsm; enthesophytes – femoral fossa
366c		open area 6	cemetary 1 -	redep.	2 bones; l.	neonate c. 3-6mth.	
368a		open area 6	cemetary 1 -	redep.	2 frags; u.l.	adult >18yr.	
368b		open area 6	cemetary 1 -	redep.	2 frags; a.l.	adult >20yr.	
368c		open area 6	cemetary 1 -	redep.	4 bones; l.	juvenile c. 8-11 yr.	
405	355	cemetary 1	cemetary 1	coffined burial	80%; s.a.u.l.	adult >60yr. female	
420	418	cemetary 1	cemetary 1	coffined burial	65%; s.a.u.	juvenile c. 7-8yr.	
425	426	cemetary 1	cemetary 1	in situ	55%; s.a.u.l.	subadult c. 13-15yr. ??male	
430	432	cemetary 1	cemetary 1 -	redep. = 431	1 frag; l.	adult >18yr. male	
431	432	cemetary 1	cemetary 1	coffined burial (430 and 807a)	80%; s.a.u.l.	adult >55 yr. male	
433	407	cemetary 1	cemetary 1 -	redep.	15%; s.	adult c. 25-35yr. female	
440	438	cemetary 1	cemetary 1	in situ	80%; s.a.u.l.	adult c. 25-35yr. ??female	calculus; hypoplasia; op – sacrum; slight bowing (?rickets) – radii, ulnae; mv – intermediate cuneiform to MtT3 coalition
468	469	cemetary 1	cemetary 1	in situ	20%; s.a.u.	infant c. 10-14mth.	enamel hypoplasia; endosteal new bone – parietal; periosteal new bone – right humerus

Context	Cut	Phase (deposit)	Phase (burial)	Deposit type	Quantification	Age/sex	Pathology
474		open area 5	pre-dates cemeteries	in situ	95%; s.a.u.l.	foetus c. 35–37 weeks	
494	495 (407)	cemetery 1	cemetery 1	coffined burial	98%; s.a.u.l.	adult c. 35–45yr. ??male	amtl; caries; abscesses; calculus; hypoplasia; Schmorl's node – T11–12, L1–6; new bone – L body surfaces; op – T bsm, L bsm; enthesophytes – T sp, L sp, femora, patellae; mv – wormian bones, dental overcrowding, L6
508	509	open area 1	pre-dates cemeteries	redep.	30%; s.a.u.l.	neonate c. 0–<1 week	
510	501	open area 6	cemetery 1	redep. = 527	5%; l.	neonate c. 3–6mth.	
527	501	open area 6	or earlier - cemetery 1	in situ = 510	70%; s.a.u.l.	neonate c. 3–6mth.	
545	559	cemetery 1	or earlier - cemetery 1	redep.	1 bone; l.	adult >30 yr. ??female	osteoarthritis – left MtT
548	542	cemetery 1	cemetery 1 -	coffined burial	95%; s.a.u.l.	neonate c. 0–<1 week	
574	589	open area 2	pre-dates cemeteries	redep.	5%; s.	neonate c. 0–6mth.	
613	400	cemetery 1	cemetery 1	in situ	95%; s.a.u.l.	neonate c. birth	
673	744 (407)	cemetery 1	cemetery 1	coffined burial	95%; s.a.u.l.	adult c. 25–30yr. female	
807a	282	cemetery 2	cemetery 1 -	redep. = 431	18%; l.	adult >25yr. male	caries; periodontal disease; hypoplasia; calculus; pubic (parturition) tubercles; fracture – distal fibulae; enthesophytes – tibiae, fibulae, left pubic crest; Schmorl's node – L4–5; destructive lesion – L5; osteoarthritis – knees, left tarsals; op – C2, glenoid fossae, 1 rib, right elbow, distal tibiae, hips, tarsal-MtT, MtT-P; mv – retarded eruption right max. M3
807b	282	cemetery 2	cemetery 1 -	redep. = 825	1 frag; l.	adult >18yr.	fracture – left distal tibia, left prox. fibula; periosteal new bone – prox. fibula; enthesophytes – left femur shaft, left distal tibia, left prox. fibula, left talus; new bone – prox tibia articular surface
808	282	cemetery 2	cemetery 2	coffined burial	85%; s.a.u.l.	subadult c. 12–14 yr.	calculus; hypoplasia; periodontal disease; abscess; destructive lesions (??TB) – bi-lateral metaphyses foot phalanges; mv – misaligned and impacted teeth
809	282	cemetery 2	cemetery 2	coffined burial	95%; s.a.u.l.	subadult c. 15–17yr. female	hypoplasia, periodontal disease
820	822	cemetery 3	cemetery 3	in situ	75%; s.a.u.l.	neonate c. 0–2wks	calculus; hypoplasia; periodontal disease; abscess; hypoplasia; fracture – nose; Schmorl's node – L2–5; op – 1 rib
823	302	cemetery 2	cemetery 2	coffined burial	98%; s.a.u.l.	adult c. 25–30yr. female	enthesophytes – patella; op – patella
825	282	cemetery 2	cemetery 1 -	redep. = 807b	1 bone; l.	adult >18yr.	
2131		building 7	pre-dates cemeteries	redep.	20%; a.u.l.	neonate c. 0–<1 week	
4018	4020	boundary 5	period 5 -	redep.	1 bone; u.	adult >18yr.	
4019	4021	boundary 5	period 5 -	redep.	1 bone; u.	subadult c. 12–14yr.	
4043		boundary 3	pre-dates cemeteries	redep.	5%; l.	neonate c. 0–3wks	
4053	4080	building 7	pre-dates cemeteries	redep.	4%; a.l.	juvenile c. 10yr.	
4056a	4055	boundary 3	pre-dates cemeteries	redep. = 4058a	5%; a.u.l.	adult >18yr. ??female	op – prox. ulna

4056b	4055	boundary 3	cemeteries pre-dates cemeteries	redep. = 4058b	1 frag; a.	subadult c. 14–18yr.
4058a	4055	boundary 3	cemeteries pre-dates cemeteries	redep. = 4056a	2 bones; a.l.	adult c. 18–45yr. ?female
4058b	4055	boundary 3	cemeteries pre-dates cemeteries	redep. = 4056b	1 bone; l.	subadult c. 12–16 yr.
4109	4055	boundary 3	cemeteries pre-dates cemeteries	redep.	20%; s.a.	adult c. 35–40yr. ?female amtl; calculus; hypoplasia; mv – skewed nasal spine, marked asymmetrical nasal aperture, activity related tooth modification, dental crowding and rotation

KEY: mod. over. – modern overburden; 'period 7 +/-2' denotes period 7 or later/earlier; redep. – redeposited; p.med. – post-medieval; s. – skull; a. – axial skeleton; u. – upper limb; l. – lower limb; amtl – *ante mortem* tooth loss; op – osteophytes; ddd – degenerative disc disease; mv – morphological variation/non-metric trait; C – cervical; T – thoracic; L – lumbar; S – sacral; bsm – body surface margins; sp – spinal process; MtT – metatarsal; MtC – metacarpal; P – phalanx; max. – maxilla; prox. – proximal

Table 2: Summary of results from analysis of human bone

Age	Pre-cemetery	Cemetery 1	Cemetery 1 or earlier	Cemetery 2	Cemetery 3	Totals
fetus	1					1
neonate 0–6 mth.			1		1	4
infant 0.5–5 yr.		3 (?M)		1		4
juvenile 5–12 yr.		1		2 (1?F)		3
subadult 13–18 yr.		1 (M)		2 (1F)		3
adult c. 18–35 yr.		2 (1?F, 1F)		3 (1M, 2 ?F)		5
adult c. 30–50 yr.		2 (?M)			1 (M)	3
adult >50 yr.		2 (1F, 1M)			1 (1M)	3
<i>totals</i>	1	13	1	8	3	26

Table 3 Summary of demographic data from in situ burials

	Number	Range	Mean
<i>male</i>	9 (45% males)	1.60 – 1.84m (c. 5' 3" – 6")	1.72m SD 7.93 (c. 5' 7½")
<i>female</i>	4 (29% females)	1.49 – 1.61m (c. 4' 10½" – 5' 3½")	1.56m SD 5.25 (5' 1½")

Table 4 Stature estimates

Roman and medieval remains at 83 High Street, Great Dunmow

Phillippa Sparrow

With contributions from Nina Crummy, Val Fryer, Jennifer Jones and Philip Clogg, Andrew Peachey, Carina Phillips and Peter Thompson. Illustrations by Charlotte Davies and Kathren Henry.

SUMMARY

Excavations at 83 High Street, Great Dunmow, Essex (NGR TL 6300 2165) revealed three phases of activity. Phase 1 comprised a Romano-British (2nd to 4th-century) kiln and flue, a small amount of quernstone and pottery; the pottery assemblage comprises predominantly sandy greywares; however long-distance connections were represented by a small amount of Eastern Gaulish Samian ware and quernstone fragments. Phase 2 dated to the 11th to 14th-century and comprised pits associated with domestic refuse disposal as well as a burgage plot boundary. The pottery assemblage indicated occupation of the site at this time was low-status due to a lack of fine wares and the dominance of coarse wares. Phase 3 was represented by the late 19th-century construction of a large building which underwent subsequent alterations in the early 20th-century. The late 19th to early 20th-century activity resulted in a high degree of truncation to underlying archaeological features which hindered the interpretation of the Roman features.

INTRODUCTION AND BACKGROUND

Between August and October 2006, Archaeological Solutions Limited (AS) conducted an archaeological evaluation and subsequent excavation on land at 83 High Street, Great Dunmow, Essex (NGR TL 6300 2165; Figs 1 and 2). The archaeological potential of the site had been predicted on the basis of its proximity to the Roman ‘small town’ at Great Dunmow and its location close to the junction of three Roman roads: Stane Street and two other roads from Chelmsford and London respectively (see Fig. 2). Great Dunmow is a known medieval market town with many listed buildings dating from the 14th to the 19th century (Medlycott 1999); therefore, evidence of medieval activity along the High Street was anticipated.

The site is located in the eastern side of Great Dunmow within the historic core of the medieval and post-medieval town (Figs 1 and 2). It is bounded to the west by High Street and to the south by Braintree Road. The site is roughly rectangular in plan, with a curved south-western corner at the junction of the High Street and Braintree Road. The site lies at a height of *c.* 70m AOD with a solid geology of London Clay Formation with localised flint gravel capping.

The site was situated on, or just outside of, the eastern periphery of the Roman ‘small town’ at Great Dunmow (Fig. 2). Excavations at the Chequers Lane site (Wickenden 1988), Dunmow Junior School (Boyer 2001) and Hasler’s Lane (Hickling 2002; 2003) identified parts of the town layout, cremation cemeteries and domestic activities from the 1st century to the 4th century AD.

The town is mentioned in Domesday Book and appears to have been a bi-focal settlement from at least this period (Rumble 1983). A church is noted at Church End to the north-east of the site while activity in the area

of the present town of Great Dunmow was also attested. The presence of several coach houses along High Street indicates the medieval focus of the town and illustrates the continued importance of the main roads to the survival of the town.

OVERVIEW OF THE ARCHAEOLOGICAL INVESTIGATION

Four trial trenches were excavated on the site, in locations approved by ECC HEM. Following the preliminary identification of Roman features F1007 and F1047 in Trench 2, the trench was expanded as the subsequent phase of archaeological excavation, on advice from ECC HEM, in order to excavate the feature fully during October 2006. This larger open area measured 11.5 × 6.75m. Trench 4 was also widened in two places in order to achieve a full section across a ditch feature and also to confirm its alignment (Fig. 1)

Detailed descriptions of all features, in addition to all specialists’ archive reports, including methodologies and supporting data, can be found in the site Research Archive Report (Sparrow 2007), available through the Essex Historic Environment Record and the National Monuments Record (Swindon).

RESULTS OF THE INVESTIGATION

Summary

The evaluation revealed three phases of activity (Fig. 3):

- **Phase 1** – Romano-British (2nd – 4th century AD)
- **Phase 2** – Medieval (*c.* 11th – 14th century)
- **Phase 3** – Modern (late 19th – early 20th century)

Phase 1 comprised a possible kiln and flue of 2nd–4th century construction; Phase 2 comprised 11th to 14th

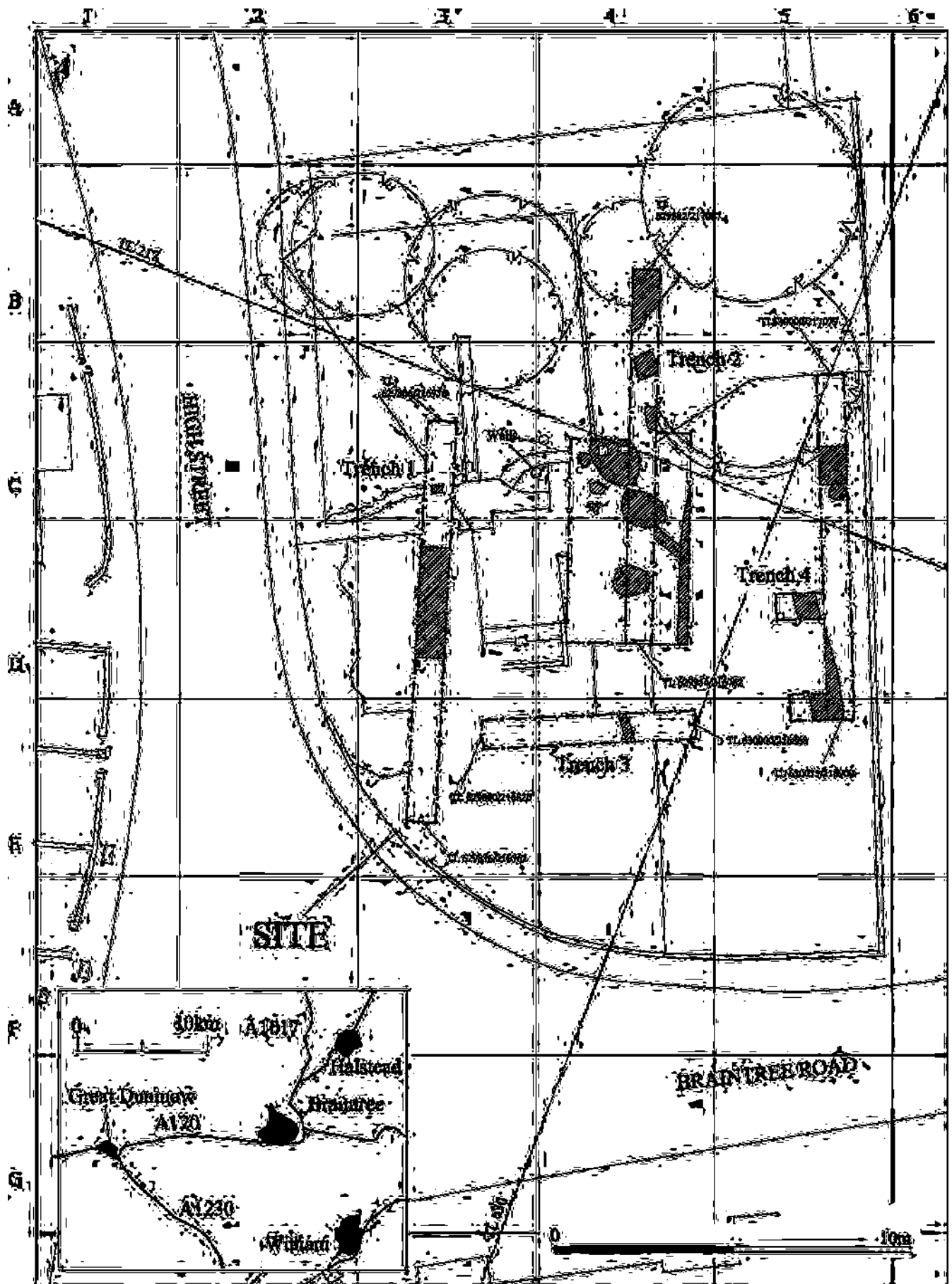


Fig. 1 Site location © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

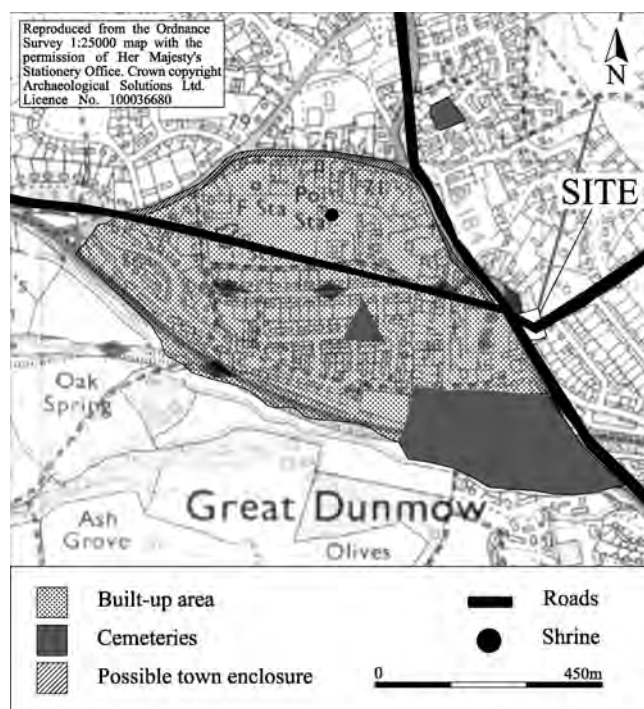


Fig. 2 Site location and outline of Roman town (after Medlycott, 1999). © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

century domestic refuse pits, a burgrave plot boundary and a possible waterhole or cesspit. Phase 3 revealed the foundation remains and two cellars of late 19th to early 20th century buildings. A small number of undated features were excavated: three postholes and one pit.

A similar deposit model was identified across the site which comprised modern topsoil overlying modern subsoil. Some areas of the site, particularly Trenches 1 and 4, contained modern layers of concrete hardstanding and brick rubble attesting to the degree of truncation apparent over the whole of the site. Natural deposits beneath these upper layers comprised dark grey-brown, compact, flint gravel in silty clay.

PHASE 1: ROMAN (2nd-4th century AD)

Two features were assigned to Phase 1, a clay-lined kiln (F1007) and its associated flue (F1047). Both were located in Trench 2 in the centre of the site (Figs 1 and 3), and have been interpreted as components of a pottery kiln. Modern truncation to the flue destroyed any associated features into which it ran, resulting in a degree of ambiguity regarding interpretation.

Kiln (F1007) and Flue (F1047)

Kiln F1007 (Figs 3 and 4) measured 2.70m × 1.90m × 0.50m and was sub-oval in plan, with a concave base and steep sides. The feature contained six fills (L1039, L1046, L1037, L1008, L1045 and L1038). The primary fill (L1039) was a thin layer of grey, lightly clayed silty sand, which yielded Roman pottery and animal bone. The secondary fill (L1046) comprised the clay lining of the feature; this layer consisted of compact greyish-brown

clayey sand with charcoal inclusions. A sample was taken from this fill but it failed to provide any environmental data. No finds were recovered suggesting the lining was created and then left to dry, possibly covered, over a short space of time. It has previously been suggested the lack of finds could also be due to periodic clearing out and relining (Graham and Nicholson 2007).

Fill L1037 also contained a large amount of baked clay lining; this was not *in situ*, being found slumped down the south-western edge of the pit. Layers L1008 and L1038 contained considerable amounts of material comprising L1037. The presence of the slump might indicate the kiln extended above ground level before collapsing inward, following abandonment. However, this layer was only located in the south-western quadrant of the feature. As the site is not located on a steep slope, there is no reason to expect that the kiln's superstructure collapsed *in situ*; if it had, a spread of the deposit would be expected throughout the kiln. As such, the slump may thus represent deliberate destruction of the superstructure, rather than decay and subsequent disuse. If accurate, the evidence might suggest that once the above ground structure of the feature was destroyed, it was then used, along with domestic refuse, as backfill.

L1008, L1045 and L1038 were the final fills. L1008 contained Roman pottery, a quernstone fragment and animal bone with a high charcoal and baked clay content. L1045 was located only in the northern half of the feature (the layer was not recorded in section) and produced no finds but was black, suggesting it had contained an amount of charcoal. Together with its spatial location within the feature matrix (being the fifth of six fills), the limited evidence for L1045 suggests that it may not be indicative of activities associated with the kiln. The presence of charcoal may represent a use of hearth waste to backfill the disused kiln.

L1038 comprised a compact, clayed silty sand layer, a large amount of flint gravel and a small quantity of Roman pottery. The inclusion of flint gravel within this fill indicates potential redeposition of the natural (L1000). The combination of clayed silty sand, similar to the subsoil (L1001) and redeposited natural could, indicate the creation of pits or other features whose fills were employed to backfill the kiln. The absence of these features during the archaeological evaluation might be explained by the heavy truncation and use of the site during the medieval and (in particular) modern period.

The flue (F1047) associated with Kiln F1007, was at least 2.1m long (it had been cut by a modern feature) and 0.5m wide. The flue did not appear to cut F1007, or *vice versa*, which indicates the features probably had a contemporary creation date. The sides sloped moderately into a flat base and contained a fill of black, loose sandy clay with a high charcoal content and moderate inclusions of clay lining (L1048). The clay lining was not *in situ* and, thus, probably represents activity associated with the disuse and backfilling of the kiln and flue. Roman pottery was also recovered from this feature.

Environmental evidence (see Fryer, this report,) suggested the kiln may have been used as a corn drier or

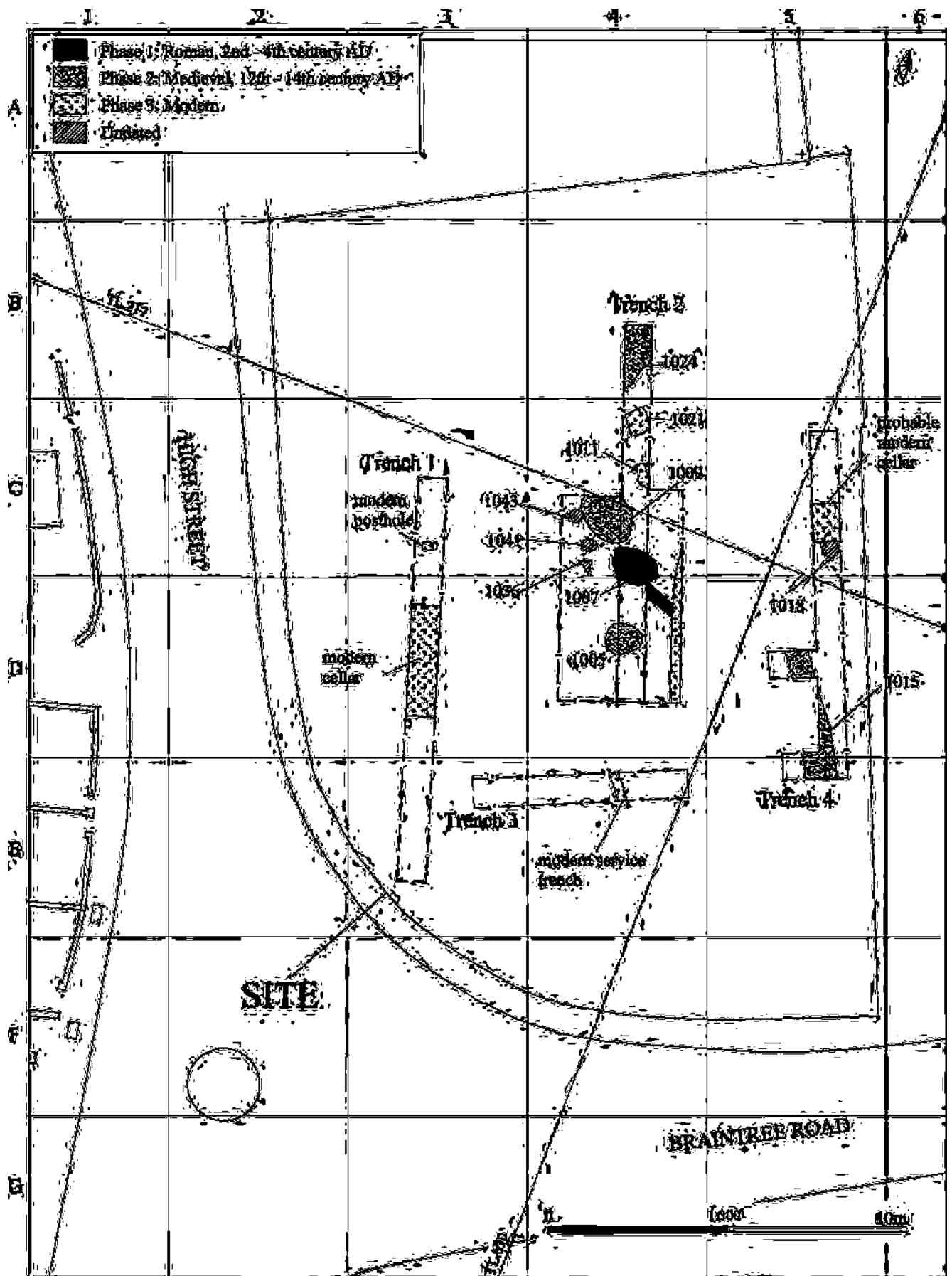


Fig. 3 Phase plan © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

as an oven. However the only grain recovered originated in L1008; the spatial location of this layer within the feature matrix (fourth of six) suggests it may not have been associated with activities relating to the use of the feature (the lower fills were sampled but grains and seeds were absent). The charred grain could also indicate the use of this type of plant material as kindling (Van Der Veen 1991; Lally *et al.* 2008). Excavations at East Winch (Lally *et al.* 2008) have identified the practice of using plant remains, such as grains and seeds, for starting and maintaining fires within kilns. The evidence recovered was therefore, not suggestive of corn drying.

The presence of animal bone and pottery within the fill, as well as a quernstone, suggests this layer may have resulted through the deposition of domestic waste. The quernstone fragment may imply that grain grinding occurred on site, but this could have been coincidentally incorporated within the fill of the kiln. The domestic assemblage may indicate a possible use as an oven, however, the shapes of the associated features are distinctly different from those of ovens at other sites: the oven at Weeting, Norfolk (Gregory 1996) was oval in plan and did not have a flue; an absence of a flue is also attested by all four types of oven at Great Holts Farm, Boreham, Essex (Germany 2003). As such, the Roman features at 83 High Street were not used as a domestic oven.

Kiln F1007 and Flue F1047 appear to be much larger than other examples attested at other local sites; the kilns at Bourne Hill, Wherstead, Suffolk (Gill *et al.* 2001) were 1.04m × 1.20m and 0.8m × 0.95m. The kiln at Great Dunmow measured 2.70m × 1.90m. It would have therefore been more than double the size of the features from Wherstead. In addition to its larger size, the shape of the Great Dunmow feature did not conform to the general form of kiln features; they are usually C-shaped with a short flue leading into a larger stoke-hole (Swan 1984). The flue at Great Dunmow was over 1.1m long (it had been truncated by a modern service trench which destroyed its associated feature and suggests it could have been much longer). The flues associated with the kilns at Wherstead were very short, leading immediately into the stoke-holes (Gill *et al.* 2001).

The kiln and flue excavated at Great Dunmow are more like Kiln 1 from Dairy Farm, Ellingham, Norfolk (Bates and Lyons 2003; Bates and Lyons *no date*); the fire chamber beneath the vented floor of the kiln and flue at Ellingham were clay-lined, as was F1007 at 83 High Street. Although the current flue contained clay lining, it was not discovered *in situ* and is thus, not thought to have been lined. The Ellingham kiln 1 chamber and flue were much smaller than the kiln and flue at 83 High Street. This feature may have manufactured pottery on a larger scale than the kilns at Wherstead and Ellingham, however finds normally recovered during the excavation of kilns were not present at the site; no wasters were found, no clay bars to support the pottery were identified and, although a relatively large assemblage of pottery was recovered, the amount was not indicative of pottery production. If this feature were a large kiln, a large

assemblage of the above finds would be anticipated from excavation.

The most probable type of pottery produced in the kiln would have been Sandy Grey Wares, which were typical of the south-east of England during the 2nd to 4th centuries AD (Peachey pers. comm.). The pottery recovered from F1007 and F1047 consisted predominantly of Sandy Grey Ware but the presence of Colchester White Ware and Storage Jar Fabric indicates the use of different pottery types on site. The Sandy Grey Ware sherds represent several jars, which included Chelmsford types, as well as two plain dishes. Everted bead rims were also present in the Sandy Grey Ware assemblage. The Colchester White Ware, discovered in L1008, is from a *mortarium* of Chelmsford D1.5/1 type, which, along with the Sandy Grey Ware, suggests this layer formed in the first quarter of the 2nd century AD; therefore implying that the kiln went out of use by c. 125AD.

The pottery assemblage may indicate trade between the Roman town at Great Dunmow and the larger towns of Chelmsford (c.17km south-east of the site) and Colchester (c. 37.5km to the east); the local wares found on site were all common to the Essex area. Residual Roman pottery sherds discovered within later chronological features demonstrate trade on a wider scale; a sherd of Trier samian ware from Pit F1009 (L1044) (dated to the first half of the 3rd century AD), and a bead and flange rim dish of Chelmsford type B6 (mid 3rd-4th centuries), suggest that the site continued in use until the 4th century AD. A fragment of Mayen quernstone from the fill of Kiln F1007 (L1008) also shows trade with areas of Germany. This has been dated to between the 1st century AD and the 3rd century, conforming to the proposed dating of the kiln, as early 2nd century AD.

The presence of grain (barley, oat and spelt) within these features potentially offers an insight (albeit limited) into agricultural practices and spatial zoning, both in and around the Roman small town. A small number of possible Roman farmsteads have been identified in close proximity to Great Dunmow (<http://ads.ahds.ac.uk/catalogue/search/basicr.cfm>: Ref Nos.: NMR_NATINV-1149368, NMR_NATINV-376536 and EHNMR-926852). Taken together, these appear to indicate that the town was dependent upon local agricultural produce; with many of its inhabitants potentially involved in crop production. The close proximity of the three Roman roads potentially indicates the production of grain for distribution to the larger towns of the region, such as Chelmsford.

Excavations at Dunmow Junior School, High Stile, Great Dunmow, revealed samian ware imported from: Lezoux, central Gaul; Montans, southern Gaul; and Heiligenberg, Rheinzarben and Trier, all of which were located in eastern Gaul (Fawcett 2001). The excavations at Chequers Lane, Great Dunmow (Wickenden 1988), just to the west of the site at 83 High Street, produced a much more diverse assemblage of British ceramics, which included sandy grey wares, Colchester Colour-

Coat wares, Nene Valley wares and Hadham oxidised red wares amongst a large collection of other wares (Going and Ford 1988); these were absent at 83 High Street. South Spanish amphorae fragments were also recovered from Chequers Lane; a pottery type that was not found at either the Junior School or at 83 High Street. The amphorae were of a Dressel type 20 variety; a kind not frequently encountered in Essex (Going and Ford 1988). Imported wares were also discovered in the enclosure cemetery at Chequers Lane. This area of the site had a high proportion of fine wares including samian ware (Going and Ford 1988), though their place of manufacture remains uncertain.

The pottery assemblage from 83 High Street conforms to those found at other sites in Great Dunmow; although the site produced fewer fine wares than expected. This may be explained by the location of the site on the periphery of the Roman town; it is perhaps unlikely that areas situated away from the economic centre would have been as affluent as those within its bounds. It is also possible the site represents an area of industrial or agricultural activity, where the presence of fine wares would not necessarily be expected.

The discovery of Roman roof tile in some of the medieval pits might be indicative of nearby Roman buildings, though no masonry structures have as yet been identified within the bounds of the former Roman town (Petchey 1983). It is possible, that the site's assemblage of tegulae represents a dump of occupational material, deposited away from the town's main area of development.

PHASE 2: MEDIEVAL (11th – 14th Century)

Phase 2 features (see Figs. 3 & 4) comprised two pits (F1005 and F1009) and a feature of uncertain function which could have been a waterhole or a cesspit (F1024) in Trench 2. Ditch F1015 was located in Trench 4 in the east of the site on a north-west to south-east alignment and has been interpreted as a burgrave plot boundary.

Pit F1005 was located close to the south-eastern end of Trench 2. A large number of residual Roman pottery sherds were recovered suggesting the feature disturbed earlier, Roman remains. The medieval pottery has been dated to between the 11th and 13th centuries and is classified as Early Medieval Sandy Ware. Some sherds of medieval sandy greyware, which was produced between AD 1100 and 1400, were also discovered. All the sherds are suggestive of domestic refuse, comprising a cooking-pot rim, and the rims from several jars and a bowl.

Twelve fragments of animal bone fragments were recovered from this fill. A cattle scapula within this assemblage exhibited cut marks indicative of butchery. The deposition of this small amount of waste supports the notion that the pits represent disposal of domestic waste.

A sample of Fill L1006 was taken which produced a few charcoal/charred wood flecks. This could be related to the industrial residue assemblage excavated from this feature; parts of three smithing hearth bottoms, probably from one phase of metalworking on site were suggestive

of domestic repair perhaps by an itinerant smith, rather than industrial activity.

A fragment of a Mayen quernstone in this deposit, although similar to that found in a Phase 1 context, was not necessarily residual. The import of these quernstones began during the Roman period but ceased towards the end of the era, with quernstones subsequently replaced with more local gritstones. During the Middle Saxon period, the trade was reintroduced and continued until post-medieval times.

A gritstone which had been used as a grinding palette was also discovered within Layer L1006. The wear patterns identified on it suggest that it was used for grinding or mixing fairly soft substances. The quernstone and gritstone represent small-scale processing of grain and possibly other foodstuffs. They possibly represent different types of on site domestic activity; Hilton (1985) has suggested that although residents of market towns were predominantly employed in non-agricultural occupations, they may have still cultivated small plots to supplement their diet, or purchased grain from the local market.

Pit F1009 was located 3m to the north-west of Pit F1005 and 0.3m north-west of Phase 1 feature F1007. Primary fill L1044 consisted of redeposited natural. The upper fill (L1010) contained medieval pottery, animal bone and struck flint. The medieval pottery comprised coarse sandy greyware/buff ware similar to that recovered from F1005 (L1006). Seven fragments of animal bone were recovered from this pit. A sheep/goat tibia fragment had been smashed prior to deposition; a practice indicative of marrow removal. An environmental sample taken from L1010 produced charcoal/charred wood, an indeterminate cereal grain fragment and a buttercup seed. This may be indicative of agricultural practices or could be associated with the two quernstone fragments recovered from Pit F1005. The presence of the buttercup seed may also inform upon the medieval landscape in the area of Great Dunmow; the Domesday entry for Great Dunmow describes the presence of meadowland around the town (Rumble 1983) which may have still been in existence during the 11th to 14th centuries. The quantity of environmental evidence within the sample is, however, too small to enable definitive interpretation.

Feature F1024 was located in the north-western end of Trench 2 and extended beyond the limit of excavation. As a result, only one edge of the feature was detected suggesting it was of an irregular shape, it may have been used as a cess-pit or a pond due to the wet, organic nature of the basal fill (L1025). This secondary layer appears to be the result of deliberate backfilling, which failed to fill the feature. Upper layer L1027 was formed by natural processes. The fill also produced medieval ceramic roof tile, suggesting a building was present nearby. There were no features identified during the evaluation that could be interpreted as forming a structure but the presence of two undated postholes on an alignment parallel to that of Ditch F1015 could suggest a structure was once present but has since been destroyed by later activity; the site is located on High Street so evidence suggesting a building was close would have been anticipated.

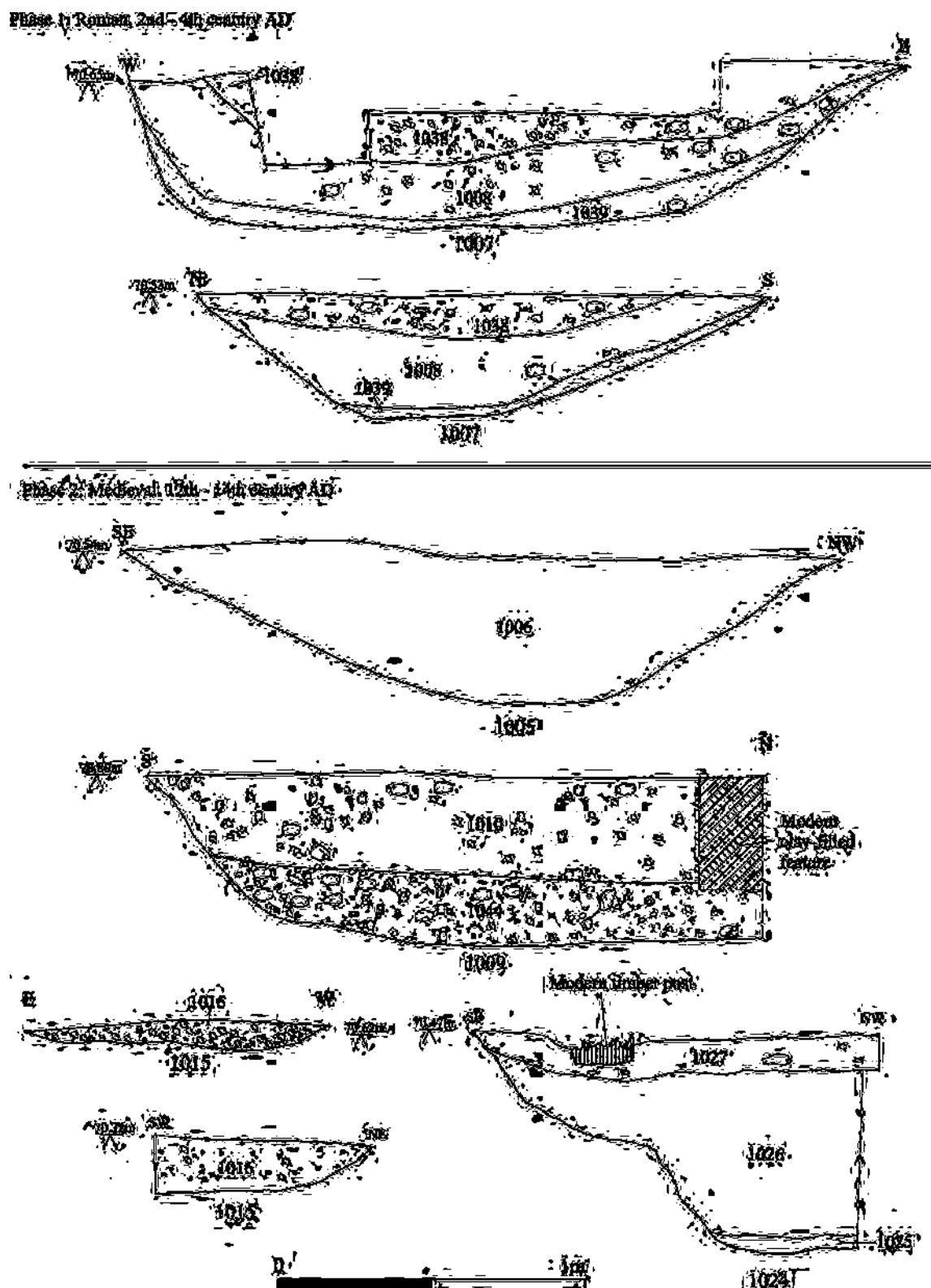


Fig. 4 Sections

The Burgage Boundary

Shallow Ditch F1015 was aligned north-west/south-east and contained one fill. Residual Roman pottery was recovered from this fill. One sherd of medieval pottery was found in L1016; a coarse, sandy oxidised ware of 12th to 14th century date. The ditch ran almost parallel with High Street running through Great Dunmow. The location, 30m away from High Street, suggests the ditch

represents a burgrave plot boundary. Burgrave boundaries were common in small towns during the medieval period and were associated with artisans and craftsmen (Dyer 2002). Burgraves gave the townspeople legal, trading and financial privileges, the boundaries were fixed and usually demarcated by a hedge, wall, ditch or fence (Slater 2005).

Although no other traces of the ditch were discovered during the evaluation, it is likely that the ditch continued

around the site. Excavations along High Street (Robertson 2003; Mackay 2003; Regan 2003) failed to reveal other parts of this boundary, however it is known to have existed until the early 16th century; two lists of subscribers to the church, dated 1527 and 1529, mention Bullock Row which ran parallel to High Street and became disused during the early 16th century (Scott 1873). It is therefore probable that the burgage plot boundary was also used as a less busy lane to the rear of the High Street workshops and shops at a later stage in the town's history. The burgage boundary appears to have been respected by later development along High Street; the Ordnance Survey Second Edition may identify the extent of the boundary.

Trade

The pottery assemblage indicates trade contacts between Colchester and Great Dunmow; the majority of the collection is comparable to early medieval sandy wares from Colchester. The presence of a sherd of gritty fabric similar to Hedingham ware, within the pottery assemblage, suggests that trade occurred within a 19km radius of Great Dunmow. This indicates a regional trade contact but does not demonstrate a wider sphere of influence. At this time, Great Dunmow was a small market town and the presence of many coach houses and inns identify the importance of passing trade during its medieval period.

Great Dunmow is a bi-focal settlement, and has been since at least the Anglo-Saxon period (HER 9051). Church End, to the north-east of High Street, was the site of the Anglo-Saxon Church which was subsequently replaced during the 13th century by the extant church. The Market Charter was granted in 1227, possibly influencing resettlement in the south-western part of Great Dunmow, close to the transport routes. The market is thought to have been located to the north of the site, in a triangular plot, bounded by Back Lane (now White Street) and the northern part of High Street (HER 9051).

The market was infilled during the 14th century (HER 9051; Medlycott 1999), coinciding with the last known use of the site during the medieval period. The infilling of the market may also mark a time of crisis within the economy of the town. During the early 14th century, crop failures and cattle disease resulted in widespread famine throughout England (Schofield 1999). The bubonic plague killed a major proportion of the population in Britain between 1348–9; this resulted in a shortage of labour which led to an increase in wages that employers struggled to afford (Reaney 1970). The price of consumables had to increase to compensate for the rise in wages which meant the population was unable to afford staple products. In 1351 The Statute of Labourers ordered prices and wages to revert to pre-plague levels but the workers would not accept a reduction in pay. Consequently more employers reared sheep and cattle; this was less labour-intensive than crop cultivation and enabled the employer to pay higher wages to less staff. This, however, decreased the production of

corn. Discontent eventually led to the Peasants Revolt (Reaney 1970). It is possible that the unsettled nature of life during the mid-late 14th century is represented at the site by a discontinuation of activity.

PHASE 3: MODERN (late 19th to early 20th century)

The modern features were spread around the site and consisted of two service trenches, two features associated with cellars, a posthole and two sub-square pits (Figs 3 and 5). A service trench also cut through Phase 1 Flue F1047 in Trench 2.

Cartographic evidence shows at least two stages of construction on the site during the late 19th and early 20th centuries. The two cellars and the foundation cuts are dated to these two phases of modern activity. The posthole may have housed a sign showing the nature of the company or perhaps directing staff or visitors around the site.

UNDATED FEATURES

Four undated features were excavated on site (Fig. 3). F1018 was located to the south-east of the probable modern cellar in Trench 4. The other three were located in the north-eastern corner of extension of Trench 2, one of which (F1043) cut the edge of Phase 2 Pit F1009.

Pit F1018 was located in Trench 4, immediately south-east of and abutting the late 19th century cellar. The shape, in plan, and its proximity to the modern cellar, would suggest that this pit was also a modern feature.

Posthole F1041 was located in the north-western corner of Trench 2. The fill was similar to that of Posthole F1043 to the north-west in Trench 2 which suggests it was dug for the same purpose. The fill of Posthole F1043 consisted of redeposited natural. F1041 and F1043 could have represented a small structure dating to the late medieval, post-medieval or modern periods. The limited area of excavation did not reveal any other postholes that could have been associated with F1041 and F1043, therefore the alignment or position of any potential building cannot be gauged. It is possible they could represent the rear wall of a structure, and their alignment north-west to south-east parallels that of the Phase 2 burgage plot, subsequently Bullock Row (F1015). It is therefore possible they could have once formed part of a structure built between the 14th and 16th centuries (the last use of F1009 which was cut by F1043, and the period when Bullock Row fell into disuse, respectively) but truncation in the west of the site has destroyed any evidence of buildings prior to the early 19th century.

Posthole F1036 was located to the south-east of the other undated pits in Trench 2. This feature had an irregular shape. It was interpreted as a possible post removal hole due to the vertical nature of three of the four sides; the southern side would have been the side formed by the removal of the post. The fill was similar to that of the other two undated features within this trench and is again suggestive of redeposited natural; once the post had been lifted the remaining depression was

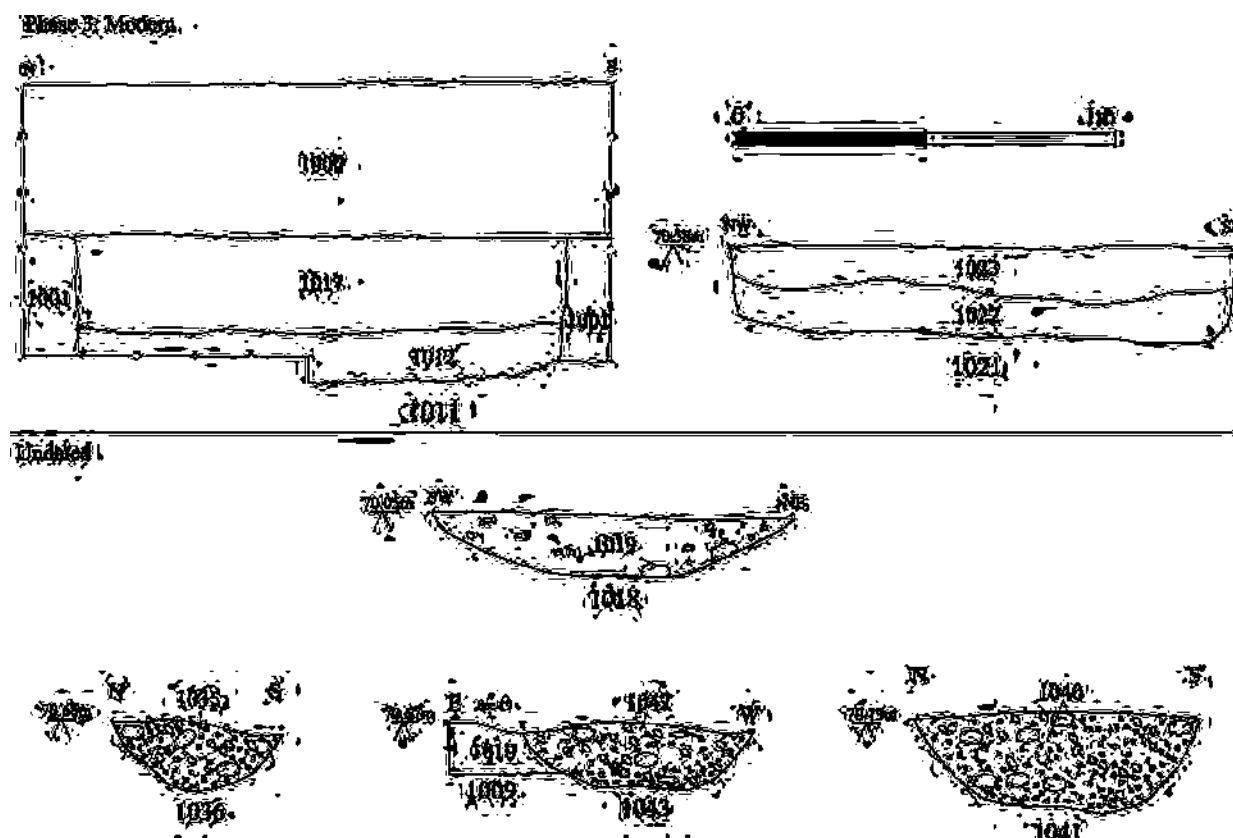


Fig. 5 Sections

backfilled with natural material acquired from around the site. No finds were retrieved from the pit and thus it remains undated.

These features may represent a 'cleaning' or levelling of the site prior to the development of the late 19th century and early 20th century structures, as they were filled with redeposited natural. They could quite easily represent alterations to the site during any period, except for Post-hole F1043, which contained residual Roman pottery and cut medieval Pit F1009, thus suggesting it could have been created between the 14th and 19th centuries.

SPECIALIST REPORTS

The Romano-British Pottery

By Andrew Peachey

Excavations produced a total of 111 sherds (1530g) of abraded Romano-British pottery from seven features. Fabrics were examined and defined at x20m magnification, recorded by sherd count and weight, and cross-referenced with the Chelmsford type series (Going 1987).

Fabric Descriptions

TRI SA	Trier samian ware (Tomber and Dore 1998, 41)
LVN CC	Lower Nene Valley colour-coated ware (Going 1987, 3: Fabric 2)
COL WH	Colchester white ware (Going 1987, 7: Fabric 27)

GRS	Sandy Grey Ware (Going 1987, 9: Fabric 47)
BSW	Black-surfaced/Romanising grey ware (Going 1987, 9: Fabric 45)
BB2	Black-burnished ware 2 (Going 1987, 8: Fabric 41)
STOR	Storage Jar Fabric (Going 1987, 9: fabric 44)

The most significant stratified group of Romano-British pottery in this assemblage is present in Kiln F1007 (L1008, L1038, L1039 and L1048), totalling 68 sherds (1347g). This group is dominated by GRS fabrics but also includes COL WH and STOR fabrics. The GRS fabric group includes well-preserved rim sherds from several jars, including Chelmsford types G4.2 and G9, as well as at least eight everted bead rims from G23/24 type jars and two plain rim dishes of B2/B4 type (Going 1987). The single sherd of COL WH in L1008 is from a Chelmsford D1.5/1 *mortarium* that with the GRS vessels concurs with a date within the first quarter of the 2nd century AD. Further sparse stratified Romano-British sherds were present in Pits F1011 (L1012) and F1043 (L1044), as well as F1024 (L1026). The Romano-British sherds in Pit F1011 are of particular note as they include a GRS bead and flange rim dish of Chelmsford type B6 (Going 1987) that dates to the mid 3rd to 4th centuries AD.

Romano-British sherds were also present as residual material in Pit F1009 (L1010) (31 sherds, 76g) and Ditch F1015 (L1016) (1 sherd, 7g). The group in Pit

F1009 includes GRS, BB2, TRI SA, LNV CC and STOR. The LNV CC sherd is derived from a Chelmsford H32.1 indented beaker with scale decoration, and the TRI SA from a samian form 31 bowl, suggesting a date in the first half of the 3rd century AD. Several small fragments of bead rims from miscellaneous GRS jar and dish forms are also present.

The Kiln Lining

By Andrew Peachey

Excavations produced a total of 414 fragments (27606g) of kiln lining. The bulk of the kiln lining: 388 fragments (26224g) was recovered *in situ* from L1037 (and associated sample L1046), while sparse fragments were also present in Pits F1005, F1009, and Kiln F1007. Where fragments are sufficiently complete, it can be seen that the kiln lining has oxidised interior surfaces/margins but that the outer portions, or those further from the source of heat, are reduced or only partially fired. Fragments range up to 120mm thick, and exhibit inconsistently spaced branch impressions (15–35mm in diameter) where the clay was packed on to a wooden frame. The kiln lining consists of poorly mixed clay with inclusions of common chaff/grass (burnt voids, 3–15mm), sparse quartzite and flint (5–25mm).

The Romano-British Ceramic Building Materials

By Andrew Peachey

Eight fragments (1083g) of abraded Romano-British CBM, seven of which are *tegula* roof tile, were present in Pit F1005 (L1006) (1065g). A single small fragment (18g) is also present in Pit F1011 L1012. The fabric has oxidised surfaces and margins (2.5YR 5/6) with either a slightly lighter or reduced core, and inclusions of common fine quartz and iron rich grains (<0.2mm), sparse coarse quartz (<2mm) and sparse/occasional flint (<7mm).

The Medieval Pottery

By Peter Thompson

The evaluation recovered 147 medieval sherds weighing 2.914 kg from four features. The medieval pottery of 12th to 13th century date is in overall good condition with little abrasion and contains several diagnostic rim

forms and these can be compared with a type series from Colchester.

The pottery is made up almost exclusively of sandy coarse wares (>97%) with Pit F1005 containing the bulk of the assemblage comprising 79% of the sherd count (116 sherds weighing 2.440 kg). The assemblage is quite mixed in terms of the size and amount of quartz sand inclusions whilst surface colours can be anything from orange or red-brown, buff, brown, grey or occasionally mottled, although grey is overall the most common. Cores are usually grey but brown is not uncommon. Four sherds also contain sparse white shell or calcareous inclusions and are classified as Early Medieval Sandy Shelly wares dated between the 11th and 13th centuries. Figure 6.1 is comparable to examples from Colchester with thickened slightly beaded rims (Cotter 2000, 37).

The majority of the pottery can be broadly equated with Early Medieval Sandy Ware (Fabric 13) dated between c.1000 and 1225. These are characterised as hard, sandy fabrics of medium to coarse sub-rounded quartz with weakly oxidised dull brown or grey brown surfaces and grey cores although examples can be completely oxidised or reduced (Cotter 2000, 39–40). The fabrics and forms shown in Figures 6.2 – 6.3 compare with Early Medieval Sandy Wares published from Colchester (Cotter 2000, 45–46). However, some of the fabric and forms are also comparable with the succeeding medieval sandy greyware (Fabric 20). This is a general term assigned to pottery dated c.1100–1400 and characterised as hard and sandy with abundant medium-coarse quartz, dark grey surfaces and lighter grey or dark red-brown cores, although some surfaces can be dull brown or completely oxidised (Cotter 2000, 91). These differ mainly from their predecessor F13 in being harder, having a more uniform grey fabric and being thinner walled. Squared rims come early in the development of Fabric 20 and Figures 6.4 to 6.6 are examples of medieval sandy greywares comparable to examples from Colchester (Cotter 2000, 94). All of the above come from Pit 1005 but one greyware sherd in particular, with a thumb decorated applied strip, from Pit F1024 (L1027) is in a gritty fabric similar to Hedingham coarseware.

The lack of Thetford or St Neots Wares or use of shell-dusting might also suggest the assemblage is

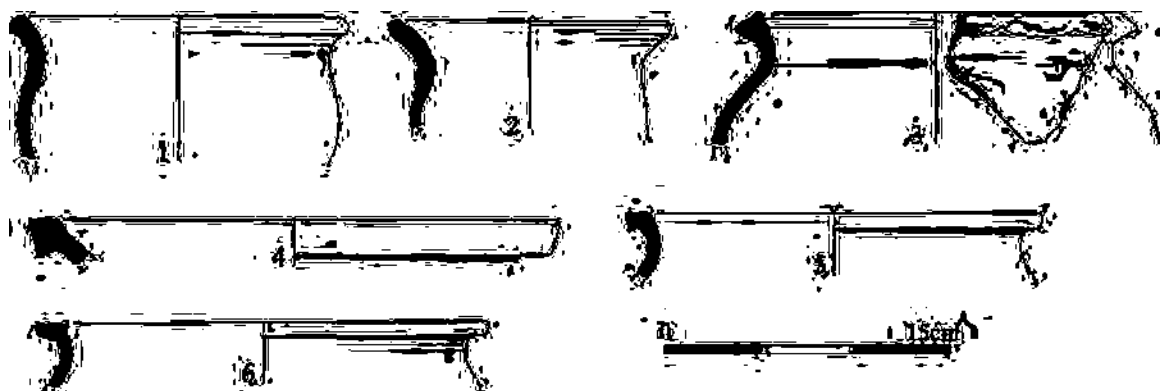


Fig. 6 Pottery

probably not earlier than c.1150 whilst medieval greywares did not fully replace Early Medieval Sandy Wares until c.1325. Rivenhall, located approximately 25km to the east-south-east of Great Dunmow, had a similar sequence of pottery although the site covers a longer period. Fabric 12 is thought to have gone out of use in the mid 12th century and Fabric 13 did not survive it much longer (Drury *et al.* 1993, 80). Two rims illustrated from Fabric 20 (Figures 6.5 and 6.6) are most similar to type H2 from Rivenhall which date from the late 12th into the early 13th centuries (Drury *et al.* 1993, 81).

The Stone Objects

Nina Crummy

Two of the pieces of stone from the site are fragments of Mayen lava quernstone, one from a Roman and the other from a medieval context. The import of these querns from Germany was long-lived. It began in the mid 1st century AD and continued for at least the first two centuries of Roman occupation before being replaced by British sourced querns such as, in eastern Britain, those of Millstone Grit. The trade with Germany was re-established in the Middle Saxon period and appears to have lasted uninterrupted from then until perhaps as late as the early post-medieval period. Given the span of this trade, it is possible that each of the Great Dunmow fragments is broadly contemporary with its context, although the one from a medieval pit may equally be a residual Roman piece.

The third piece is a block of gritstone that has been used as a grinding palette. The wear pattern on the grinding palette suggests that it was used for substances that required little or no pulverising but only a prolonged and gentle action, such as might be needed to roll small cheeses or mix ointments, creams or salves.

Catalogue

F1007 (L1008). Kiln backfill. Fragment of a Mayen lava quernstone with radial grooving on one surface and concentric scour marks on the other. Possibly from an upperstone that has been reversed and redressed. Maximum dimensions 87 by 78 mm, 47 mm thick.

F1005 (L1006). Pit fill. Fragment from the lowerstone of a Mayen lava quernstone with smooth grinding surface and rough underside. Maximum dimensions 81 by 68 mm, maximum thickness 29 mm.

F1005 (L1006). Pit fill. Gritstone block, worked smooth on both faces and with edges that vary from smooth and worn to irregular. The upper surface is slightly dished, but there is a marked step up on two diagonally opposed corners. This area and the corners left unworn coincide with the areas that would respectively be reached by the hand or left untouched by a circular rubbing motion that came from the right wrist but did not involve lifting and moving the elbow. Length 175 mm, width 109 mm, maximum thickness 50 mm.

The Industrial Residues

Jennifer Jones and Philip Clogg

Quantification

A quantity of industrial residue (total weight 1323g) was submitted for examination and identification. The material derived from the fill of a single feature on the site (Pit F1005, Trench 2). Pottery from the pit suggests a medieval date for the feature.

Examination

The aim of the examination was to characterise the material and to identify the industrial processes from which it originated. The material was examined visually and under X16 magnification, and classified by morphology, density, colour and vesicularity. In addition, a sample was taken from one of the smithing hearth bottoms for EDXRF (energy dispersive X-ray fluorescence) analysis. The category criteria used are based on the English Heritage Centre for Archaeology Guidelines on Archaeometallurgy (Bayley *et al.* 2001).

Results

Four types of material were identified:

Smithing hearth bottoms

Parts of three smithing hearth bottoms, two of which are almost complete: these are concavo-convex in section, roughly circular, and around 78mm and 96mm in diameter. They weigh 207g and 288g respectively. The third hearth bottom is fragmentary, but partly reassembled it also appears to be around 96mm in diameter. Smithing hearth bottoms form from the accumulation of slag inclusions which are worked (hammered) out of the iron bloom by the smith at high temperatures. Both the hearth bottoms show depressions in the top surface, which are produced by hot air from the bellows being blasted into the smithing hearth to keep the charcoal fuel at a sufficiently high temperature for the iron to remain workable. Small fragments of charcoal are visible at X16 magnification on the undersides of the hearth bottoms. One piece has traces of haematite (iron oxide) on its surface, suggesting that it was burnt after formation.

A sample was taken from one of the smithing hearth bottoms, pulverised to homogenise the material and compressed into a pellet for EDXRF analysis. Analysis detected mainly iron and silica, plus a range of minor elements including aluminium, calcium, potassium and phosphorus present at levels greater than 1%, which derive from impurities in the iron ore or the fuel used. The total iron content of the slag was quite high at 64%, suggesting that the smithing processes so far had been relatively inefficient. This result is comparable to those reported by other researchers for the analysis of material derived from similar metalworking processes.

Semi-fused sandy earth

Fragments of thin hard sandy earth, some of which are curved: These were originally semi-fused to the underside of the hearth bottoms and have become detached since excavation. Fragments of the same material can still be seen attached to the hearth bottoms.

Iron-rich geology

Two lumps of iron-rich geology, which have been burnt, causing small stones and grit to become incorporated into their surfaces. This material may be an accidental by-product of industrial or domestic combustion activities taking place on the site. It is too lightweight and friable to be iron ore.

Fuel ash slag

A small piece (3.5g) of fuel ash slag: Fuel ash slag is a white/brown/grey lightweight, vesicular material formed during combustion, when the non-organic components of alkali-rich fuels such as wood react with silicates present in earth, stone or ceramic. The sometimes glassy and fragile slag-like material can form at temperatures easily achieved in a domestic hearth, if the correct conditions are present. Its presence does not necessarily suggest that industrial processes were taking place on site.

Discussion

As the smithing hearth bottoms are all of a similar size and weight, and have been disposed of together, they may derive from a single episode of metalworking at the site. Their comparatively small size suggests they may result from secondary smithing activity – the production or repair of iron objects – rather than primary smithing, which is the first working of the iron bloom. As such, they may be debris from a visit by an ‘itinerant’ smith to a group of households, or they could represent part of a larger accumulation of smithing debris, most of which has been disposed of elsewhere. Small quantities of metalworking debris such as this are very difficult to date, but the material is quite consistent with the medieval date suggested by the associated pottery.

The assemblage is small, and the absence of any evidence for primary iron production or features relating to metalworking suggests that ironworking was not an important part of the economic activity at the site.

The Animal Bone

Carina Phillips

Introduction

A small animal bone assemblage of only 24 fragments was recovered during excavations of 83 High Street. The animal bone is of moderate condition, although some fragments exhibit concretion caused by an anaerobic waterlogged environment. The animal bone came from both Phase 1 (Romano-British 2nd to 4th century AD) and Phase 2 (Medieval 12th to 14th century) contexts.

Method

Bones were identified and recorded to species and element when possible. Unless it was possible to clearly identify the species sheep (*Ovis* sp.) or goat (*Capra* sp.) the category sheep/goat has been used. The category cattle (*Bos* sp.) has been used when it is not possible to differentiate between cows and bulls. Tooth wear for cattle, sheep and pig were recorded using the method of Grant (1982) and ages assigned following the method of Hambleton (1999). Measurements were taken when

viable following the methods of Jones *et al.* (1976) and von den Driesch (1976), and are contained in the site archive. Height estimates were not possible for any species due to fragmentation of the bone. Fragments unidentifiable to a particular species were recorded under the categories of ‘large sized’, consisting of cattle, large deer and horse, sized fragments and ‘small sized’ consisting of sheep/goat, small deer, pig and dog sized bone fragments. All other unidentifiable bone fragments were recorded as such. Evidence of burning, sawing, chopping, knife-cutting and gnawing was also recorded, as was smashed bone. The minimum number of individuals (MNI) of a species was calculated from most frequent left or right skeletal element (minimum number of elements).

Results

Phase 1 contained only four fragments of animal bone, none were identifiable to species (Table 1).

Phase 2 features produced 20 fragments, 9 of these were identifiable to species. Both sheep/goat and cattle were identified. A cattle mandible and a sheep/goat mandible provided ageing evidence; they were aged as 8–18 months and 6–8 years respectively. Butchery was observed on three bone fragments (all from Phase 2), a sheep/goat radius and tibia were both smashed (probably for marrow utilisation) and a cattle scapula exhibited small knife cuts indicative of filleting.

Discussion

The small size of the animal bone assemblage limited the results gleaned from the animal bone assemblage. It was only possible to identify a small amount of the assemblage to species. Cattle and sheep/goat are the two most common domestic species to be represented in British archaeological assemblages.

The environmental evidence

Val Fryer

The sample from Kiln F1007 contained an extremely high density of charcoal/charred wood fragments, some of which were in excess of 5mm in size. A large number of the fragments appeared somewhat abraded, possibly as a result of post-depositional disturbance. Moderately well preserved oat (*Avena* sp.), barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were also present within the assemblage, with wheat being particularly abundant. The

Species	Phase 1	Phase 2
Sheep/goat	0	6
Cattle	0	3
Unidentifiable Bird	0	1
Large sized	1	6
Small sized	1	0
Unidentifiable	2	4
Total	4	20

Table 1 Counts of animal bone fragments by category and phase

evidence from Kiln F1007 possibly indicates that this feature was used either for the parching/drying of grain or for cooking. Glumed wheats, including spelt, require parching to facilitate removal of the chaff and archaeological evidence indicates that grains frequently became scorched or charred during this process. Cereals were also frequently accidentally burnt during culinary preparation.

Charred remains were very scarce within both of the medieval assemblages. Pit F1005 (sample 1) contained only a few charcoal/charred wood flecks whilst Pit F1009 (sample 3) contained charcoal/charred wood, an indeterminate cereal grain fragment and a single buttercup (*Ranunculus* sp.) seed. The medieval assemblages contain insufficient material for accurate interpretation.

DISCUSSION

Roman Great Dunmow

The Roman features have been interpreted as a kiln, despite their ambiguous nature. The location of the site close to the eastern periphery of the town could indicate the segregation of industrial activities within the town. Excavations at the Chequers Lane site, in what would appear to be the centre of the town, did not identify any features associated with manufacture. This could have implications for the current boundaries of the Roman town; an industrial area may be located to the east, along Stane Street. Further excavations along this road may confirm or deny this.

The location of the town close to the junction of three main Roman roads explains the presence of a small number of imported items from this low-status, possibly industrial, site. No structures were discovered on site, although roof tiles were found as residual material in a medieval pit implying Roman structures were demolished or robbed until the medieval period.

The abandonment of the site is represented by the backfilling of the features with domestic waste. The presence of redeposited natural material within the upper fill of the fire pit suggests other features were created and may have replaced the earlier ones, but due to a high level of truncation on site and the limits of excavation, they were not found during the evaluation.

No material dating to between the 4th and the 11th century was discovered, suggesting the site was abandoned towards the end of the Roman period.

Medieval Great Dunmow

The site was used domestically; activities such as food preparation and an occasion of small-scale smithing suggestive of repairing broken items, supports the use of the site in a domestic context. The pottery assemblage from this feature, as well as the other Phase 2 features, has been identified as low status due to the absence of fine wares. The bulk of the material comprised Early Medieval Sandy Shelly wares; coarse wares probably used in a domestic context such as the kitchen. This also complements evidence that domestic butchery was

practised on site. The site was therefore probably occupied by less wealthy inhabitants of the town; they ground their own grain, possibly from their own produce or bought from the market. They also appear to have either repaired their metal items themselves or employed an itinerant smith to repair small items on one occasion. No evidence of industrial or commercial activity was recovered close to the High Street site boundary; therefore the activity at the front of the plot was not identifiable.

The latest medieval activity was found to be 14th century, which suggests the 14th-century crisis may have impacted upon daily life in Great Dunmow. Infilling of the market may also have spelled the decline of the site as the inhabitants would have relied on the market to sell their domestically produced wares, or alternatively, may have been a result of ongoing economic decline.

Modern Great Dunmow

The site remained fields until the late 19th century when it was occupied by a large structure, set back from the High Street. Alterations to the original building occurred during the early 20th century. The creation of these structures resulted in a high degree of disturbance to the underlying archaeological features, which has hindered interpretation of the site.

Bibliography

- Anon. 2007 www.old-maps.co.uk, accessed 21-11-07
- Archaeological Database Search http://ads.ahds.ac.uk/catalogue/earch/basic_r.cfm accessed 21-11-07
- Bates, S. and Lyons, A. 2003 *The Excavation of Romano-British Pottery Kilns at Ellingham, Postwick and Two Mile Bottom, Norfolk, 1995-7* East Anglian Archaeology Occasional Papers 13 Gressenhall: Norfolk Museums and Archaeology Service
- Bates, S and Lyons, A no date http://64.233.183.104/search?q=cache:kN2pE-0Is3cJ:www.engh.gov.uk/archcom/projects/summarys/html97_8/1914.htm+clay-lined+roman+fire+pitsandhl=enandct=clnkandcd=9andgl=uk Accessed 21-11-07
- Bayley, J., Dungworth, D. and Paynter, S. 2001 *English Heritage Centre for Archaeology Guidelines on Archaeometallurgy*, English Heritage Publications, London
- Boyer, P 2001. *Dunmow Junior School, High Stile, Great Dunmow, Essex: Archaeological Excavation and Monitoring and Recording* Hertford: Archaeological Solutions Ltd. Report 937
- Cotter, J 2000. *Colchester Archaeological Report 10: Post-Roman pottery from excavations in Colchester, 1971-85*, Colchester Archaeological Trust Report
- Driesch, A. von den 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*. Peabody Museum Bulletin 1. Harvard: Peabody Museum
- Drury, P.J., Cunningham, C. M., Kilmurry, K. and Walker, J. S. F 1993 'The later Saxon, medieval and post-medieval pottery' in Rodwell W. and Rodwell K. (eds.) *Rivenhall: investigations of a Roman villa, church and village, 1950-77*. CBA Research Report 80.
- Dyer, C. 2002 'Small places with large consequences: the importance of small towns in England, 1000-1540' in *Historical Research* 75, 1-24
- Fawcett, A. R. 2001 'Roman Pottery' in Boyer, P. *Dunmow Junior School, High Stile, Great Dunmow, Essex: Archaeological Excavation and Monitoring and Recording* Hertford: Archaeological Solutions Ltd Report 937
- Germany, M. 2003 *Excavations at Great Holt's Farm, Boreham, Essex, 1992-94* Norwich: East Anglian Archaeology 105
- Gill, D., Plouviez, J., Symonds, R. P. and Tester, C. 2001 *Roman Pottery Manufacture at Bourne Hill, Wherstead* East Anglian Archaeology

- Occasional Papers 9 Ipswich: Archaeological Service, Suffolk County Council
- Going, C. J. 1987 *The Mansio and other sites in the south-eastern sector of Caesariomagus: the Roman Pottery*, CBA Res. Rep. 62
- Going, C. J. and Ford, B. 1988 'Romano-British Pottery' in Wickenden, N. P. *Excavations at Great Dunmow, Essex: a Romano-British small town* Chelmsford Archaeology Trust Report 7, East Anglian Archaeology 41
- Graham, E. and Nicholson, K. 2007 *83 High Street, Great Dunmow, Essex: Post-Excavation Assessment and Updated Project Design* Hertford: Archaeological Solutions Ltd, Report No. 2185.
- Grant, A. 1982 'The use of tooth wear as a guide to the age of domestic ungulates' in W. Wilson, C. Grigson and S. Payne (eds). *Ageing and Sexing Animal Bones from Archaeological Sites*. Oxford: BAR British series 109: 91–108
- Gregory, T. 1996 *A Romano-British Farmyard at Weeting, Norfolk* East Anglian Archaeology Occasional Papers 1, Gressenhall: Field Archaeology Division Norfolk Museums Service
- Hambleton, E. 1999 *Animal Husbandry Regimes in Iron Age Britain*. Oxford: BAR British series 282
- Hickling, S. 2002 'A Romano-British Cremation Cemetery at Great Dunmow (Essex County Council Field Archaeology Unit)' *Essex Archaeological and Historical Congress Archaeological Symposium, Chelmsford, 2 November 2002*
- Hickling, S. 2003 'Excavations at Hasler's Lane, Great Dunmow', *CBA mid-Anglia Group Newsletter* Summer 2003, 14
- Hilton, R. H. 1985 'Medieval market towns and simple commodity production' *Past and Present* 109. 3–23
- Jones, R., Wall, S., Locker, A., Coy, J. and Maltby, M. 1976 *Computer Based Osteometry Data Capture User Manual. (1)*. 1st Supplement to AML Report Number 2333, Ancient Monuments Laboratory DoE. Report Number 3342.
- Lally, M., Nicholson, K. and O'Brien, L. 2007 *Fosters End, Drove, Blackborough End, East Winch, Norfolk: Research Archive Report* Hertford: Archaeological Solutions Ltd, Report No. 2922.
- Mackay, D. 2003 *71–75 High Street, Great Dunmow, Essex: An Archaeological Evaluation* Cambridge: Cambridge Archaeological Unit, University of Cambridge Rpt 560
- Medlycott, M. 1999 *Historic Towns in Essex: Great Dunmow, Historic Towns Assessment Report 1999* English Heritage and Essex County Council
- Petchey, M. R. 1983 'The archaeology of medieval Essex towns' at <http://ads.ahds.ac.uk/catalogue/adsdata/cbaresrep/pdf/034/03415001.pdf> accessed 22–11–07
- Reaney, P. H. 1970 (1st edition 1928) *Essex* London: S R Publishers Ltd
- Regan, R. 2003 *Great Dunmow Essex: Evaluation to the Rear of 37–61 High Street* Cambridge Archaeological Unit, University of Cambridge Rpt 521
- Robertson, A. 2003 *77–79 High Street, Great Dunmow: Archaeological Evaluation by Trial Trenching* Cambridge: Cambridge Archaeology Unit, University of Cambridge Report 1184Rpt doc
- Rumble, A. (ed.) 1983 *Domesday: Essex* Chichester: Phillimore
- Schofield, J. 1999 'Landscapes of the Middle Ages: Towns 1050 – 1500' in Hunter, J. and Ralston, I. *The Archaeology of Britain: An introduction from the Upper Palaeolithic to the Industrial Revolution* London: Routledge. 210 – 227
- Scott, W. T. 1873 *Antiquities of an Essex Parish or, Pages from the History of Great Dunmow* London: H S King and Co.
- Slater, T. R. 2005 'Plan characteristics of small boroughs and market settlements: evidence from the Midlands' in Giles, K. and Dyer, C. (eds) *Town and Country in the Middle Ages: Contrasts, Contacts and Interconnections 1100–1500* Society for Medieval Archaeology Monograph 22. Leeds: Maney. 23–41
- Sparrow, P. 2007 *83 High Street, Great Dunmow, Essex: Research Archive Report* Hertford: Archaeological Solutions Ltd
- Swan, V. G. 1984 *The Pottery Kilns of Roman Britain* Supplementary Series 5. Royal Commission on Historical Monuments. London: Her Majesty's Stationery Office.
- Tomber, R. and Dore, J. 1998 *The National Roman Fabric Reference Collection*. London: Museum of London
- Van Der Veen, M. 1991 'Charred Grain Assemblages from Roman-Period Corn Driers in Britain' *Archaeological Journal* 146. 302–319
- Wickenden, N. P. 1988 *Excavations at Great Dunmow, Essex: a Romano-British small town* Chelmsford Archaeology Trust Report 7, E. Anglian Archaeology. 41

An archaeological excavation at Claret Hall, Ashen

Tom Woolhouse

With contributions by Peter Thompson, Andrew Peachey, H. E. M. Cool, Nina Crummy, Carina Phillips and Val Fryer

SUMMARY

In February and March 2006, Archaeological Solutions Ltd. carried out a programme of archaeological monitoring and excavation during the construction of an extension to Claret Hall, Ashen, Essex (NGR TL 7657 4388). The extant house was built following the destruction of the original Tudor hall in a fire in the 1920s. The excavation revealed four phases of activity. Phase 1 comprised the brick walls of a cellar belonging to the original mid-16th century house. Phase 2 (17th – 18th century) consisted of midden pits and other features located in an external yard area adjacent to the Tudor hall. Phase 3 (mid to late 19th century) saw the construction of an extension to the north-east side of the building, over the former yard. Phase 4 comprised levelling and demolition layers from the destruction and rebuilding of Claret Hall in the 1920s. The excavated structural remains correspond well with documentary, photographic and cartographic sources for the original hall. Despite Claret Hall's location within what is thought to be a medieval moat, the only medieval archaeology found on the site consisted of a few residual sherds of pottery and glass. The absence of medieval archaeology might indicate that the moat is in fact contemporary with the Tudor hall; comparison with other 16th century houses in the region suggests that moated residences continued to be a popular way of projecting social status and aspirations well beyond the medieval period.

BACKGROUND

In February–March 2006, Archaeological Solutions Ltd. (AS) carried out a programme of archaeological monitoring and excavation at Claret Hall, Ovington Road, Ashen, Essex (NGR TL 7657 4388; Fig. 1). Claret Hall is surrounded by a moat, possibly of medieval date; the present house was built in the 1920s following the destruction of the earlier Tudor hall in a fire. The archaeological work was required prior to the construction of a small extension (5.25 × 5.85m) to the north side of the existing residential building. Full descriptions of the background to the project, the archaeological features identified and complete specialist reports (with details of methodologies) can be found in the archive report (Mundin, Weston and Woolhouse 2007), available at the Essex Historic Environment Record Office (HER) in Chelmsford.

Claret Hall is located 1.5km south-west of Clare and 2.4km north-east of Ashen in north Essex (Fig. 1), close to the parish boundary with Ovington. It occupies a prominent position (74–5m AOD) on a hillside overlooking the Stour Valley to the north. The geology of the area comprises Upper Chalk overlain by glacial and fluvial silt and clay; the surrounding landscape is predominantly arable farmland.

Chance discoveries of early to middle Saxon and Anglo-Scandinavian metalwork, 650m north-east of Claret Hall (HER 18602), may point to some settlement in the area at this time. Domesday Book records estates in both Ashen and Ovington by 1066 (Williams and Martin 1992, 1036, 998); some of the fabric of Ovington

parish church may date to the 12th century (HER 7038), suggesting that a village already existed on the present site. By the Norman Conquest, Clare was an important local centre with a market (Williams and Martin 1992, 1261) and minster church (Scarfe 1999, 52) recorded in Domesday Book. During the medieval period, the lords of Clare were among the country's leading magnates and Clare was the administrative centre for a great aggregate of manors and estates in East Anglia and beyond.

An estate called 'Claret' is also recorded in Domesday Book (Williams and Martin 1992, 990). Before the Norman Conquest, it had been held by one Leodmaer, a freeman. It is perhaps possible to tentatively identify him with 'Leodmaer the priest' to whom Clare itself was granted by its late Saxon lord, Aelfric, as part of the endowment of the minster church. The Claret estate was relatively small, comprising only 1½ hides and 35 acres, but Great and Little Yeldham were attached to the manor as a berewick (an outlying farm, sometimes specialising in the production of a specific crop). The name 'Claret' may mean 'little Clare', perhaps deriving from the name of the important market town and estate centre to the north combined with the French -et diminutive suffix (Reaney 1935, 407). Other references to Claret Hall occur in documentary sources from the late 12th century onwards, for example as *Clarent* in 1189–99 (Calendar of Documents Preserved in France) and as *Clarettehall* in 1195 (Pipe Rolls), 1225 (Feet of Fines), 1295 (Calendar of Inquisitions Post-Mortem), 1327 (Court Rolls) and 1346 (Feudal Aids) (Reaney 1935, 407). However, although these references prove the existence of an estate called Claret Hall from the late Saxon

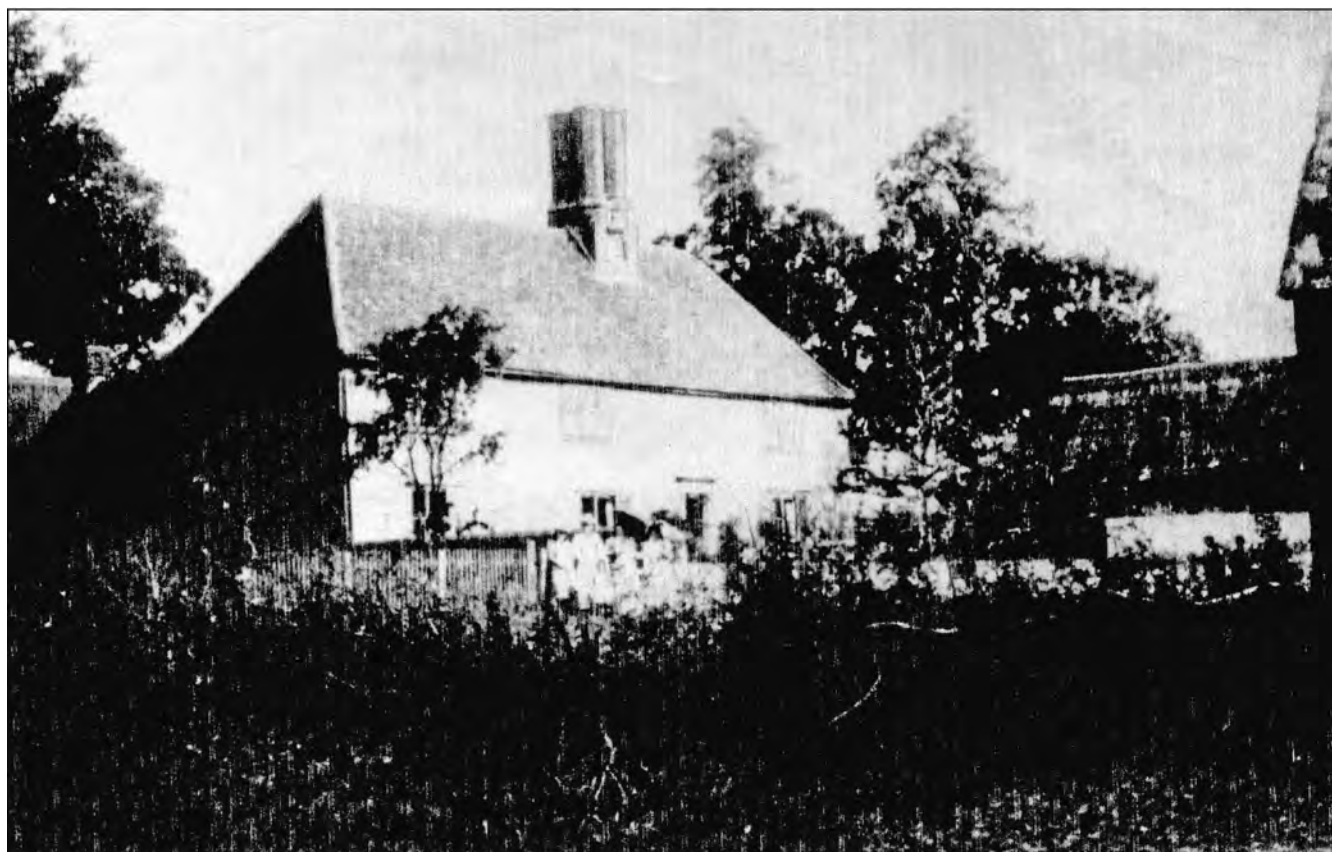


Plate 1 Claret Hall c. 1910, from the north-west

the modern building was constructed largely within the footprint of the earlier house. The only surviving part of the 16th century hall is one of the brick chimneystacks, which was incorporated into the 1920s building.

EXCAVATION RESULTS (Figs. 3 – 6)

Medieval activity

No archaeological features dating from earlier than the mid-16th century were identified. However, a handful of residual medieval finds were recovered from the fills of post-medieval features and might hint at earlier activity at Claret Hall.

The medieval pottery

Peter Thompson

There were seventeen residual medieval sherds from the site, most of which were of late medieval to transitional appearance. Pit F1056 (L1057) (see *Phase 2*, below) contained possibly the earliest, albeit heavily-abraded, medieval sherd (in a sandy fabric with a little grass/straw temper), along with two late medieval/transitional sherds.

The medieval glass

H. E. M. Cool

A centre fragment from a high-domed base in potash glass was recovered from Service Trench F1049 (L1052) (see *Phase 4*, below). Identifying with certainty the form from which a base fragment comes is not always possible, but this might have come from a flask (see, for example,

Tyson 2000, 157 type F2). A late medieval date (13th–15th century) would be appropriate.

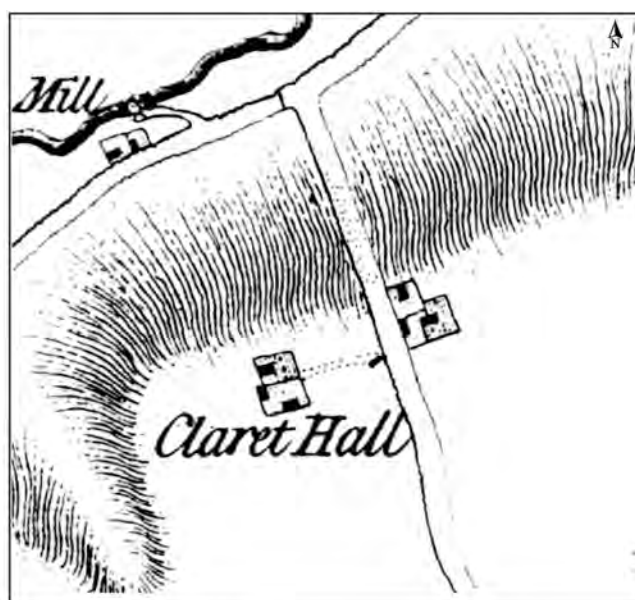
Phase 1 (mid to late 16th century): cellar and external yard of the Tudor hall

The earliest remains identified were Walls M1020=M1007 and M1087 (Fig. 4; Fig. 5 Sections 1 and 2), encountered at 0.24–0.33m below ground level. Wall M1020 was located 1.30m from the western edge of the excavation and ran on a south to north alignment for 3.38m. Wall M1087 joined the northern end of M1020 at a 90° angle and extended westwards for 1.13m, forming a continuation of the same structure. The walls were constructed of red bricks measuring 230–240 × 110–115 × 50–60mm, laid in English garden wall bond (Brunskill 1997, 88) and held together with sandy lime mortar. The walls were 0.25m thick, comprising the length of a single brick laid on end. About 20mm of smoothed grey/white plaster facing was applied to the inside of each wall (the west face of M1020; the south face of M1087). To the south, M1020 continued under the modern Claret Hall, while to the west, M1087 appeared to continue beyond the limit of the excavation, but had been truncated by modern Drain Cuts F1085 and F1009. No traces of the original foundation cuts for the walls were identified.

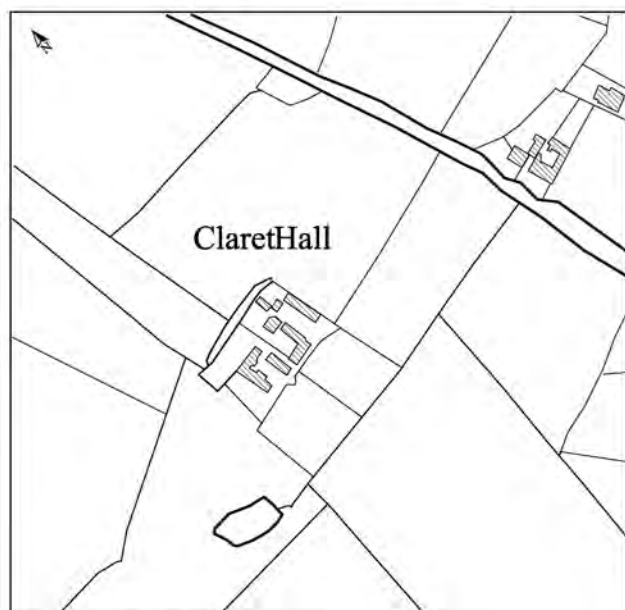
Walls M1020 and M1087 formed the east and north sides of a cellar. They almost certainly belonged to the original Tudor hall, which was described by the RCHM (1916) as having ‘two storeys and a cellar’. The cellar was



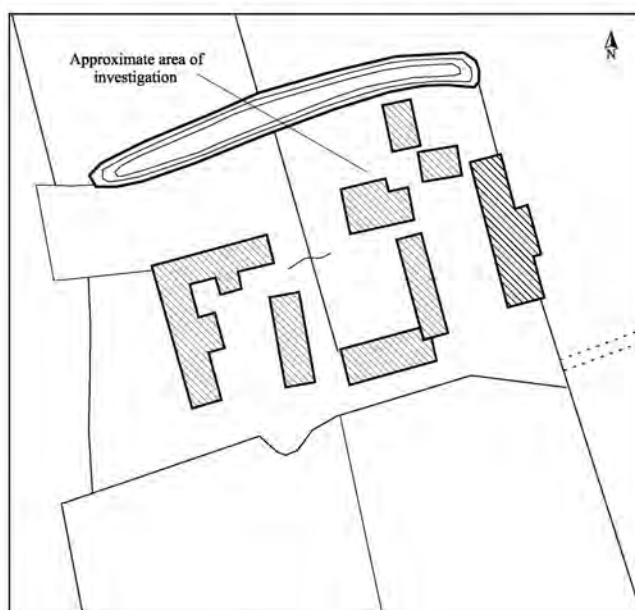
Saxton's map, 1576
Reproduced by courtesy of Essex Record Office



Chapman & Andre, 1777
By kind permission of Phillimore & Co. Ltd



Ashen Tithe map, 1839



Ashen Tithe map, 1839

Fig. 2 Cartographic sources

at least 1.20m in depth (Plate 2), but was not bottomed during excavation due to safety constraints. It had been backfilled with a single light grey/yellow clay deposit (L1054) prior to the rebuilding of the hall in the 1920s (Fig. 5 Section 1).

To the east of Wall M1020 was a very compact mid to dark grey clay layer (L1063) with occasional chalk and charcoal inclusions (4.00m+ × 2.80m+ × 0.25m (max.) deep). This lay directly on top of natural clay and is interpreted as an external yard surface adjacent to the original hall. The yard surface and cellar wall respected one another, with no evidence of a cut for Wall M1020 truncating L1063 (Fig. 5 Section 2). Layer L1063 did not yield any diagnostic finds, but was cut by a securely-

dated early 17th century midden pit (F1078, see *Phase 2*, below). It extended beyond the limits of the excavation.

The bricks from the cellar walls

Andrew Peachey

Brick samples for analysis and dating were taken from Walls M1007 (L1003) and M1087 (L1088). Each had: dimensions in the range of 230–240 × 110–115 × 50–60mm, no frog, slightly irregular/rounded arrises and slightly creased faces. In keeping with the other ceramic building materials recovered from the site, the fabric of these cellar wall bricks was oxidised red throughout (10R-2.5YR 5/6–5/8), hard-fired and tempered with moderate to abundant fine quartz sand (0.2–0.5mm;

sparse larger grains). These dimensions and characteristics are very similar to those of Tudor 'place' bricks and late 17th/early 18th century bricks (Ryan 1996, 95), and probably place the production of the bricks in the 17th century, although it is not unfeasible that they were produced in the late 16th. A brick of this type was reused in Phase 3 Wall M1030 (L1031). One was also present in Phase 4 Demolition Cut F1059 (L1024) (see below).

A sizeable oval midden pit, F1078 (1.17m+ long \times 1.88m wide \times 0.30m deep; Fig. 3; Fig. 5 Section 2; Plate 3), was dug through Yard Surface L1063 and into the underlying natural clay (L1001) during the early part of Phase 2. It contained a large deposit of waste building materials and animal bone, and 72 sherds of early 17th century pottery (Thompson, this report). A late post-medieval boss or finial cap recovered from the basal fill of

This was followed by the laying of a new yard surface, comprising Layers L1058 (2.80m+ \times 1.00m \times 0.11–0.20m deep) and L1062 (0.90m+ \times 1.00m+ \times 0.10–0.30m deep) (Figs. 3 and 4; Fig. 5 Sections 2, 3 and 4). This was probably intended to reinstate L1063 where it had been disturbed by Pit F1078. Both layers consisted of fairly compact grey clay; L1062 was darker in colour owing to its abundant charcoal content, while L1058 was fairly pale due to common inclusions of large chalk lumps. Ceramic evidence suggested that both layers dated to the early 17th century (Thompson, this report), probably having been laid down shortly after Pit F1078 was filled in. Late medieval/early post-medieval finds including a key handle and possible jetton (SF1) were also found in L1058 (Crummy, this report).

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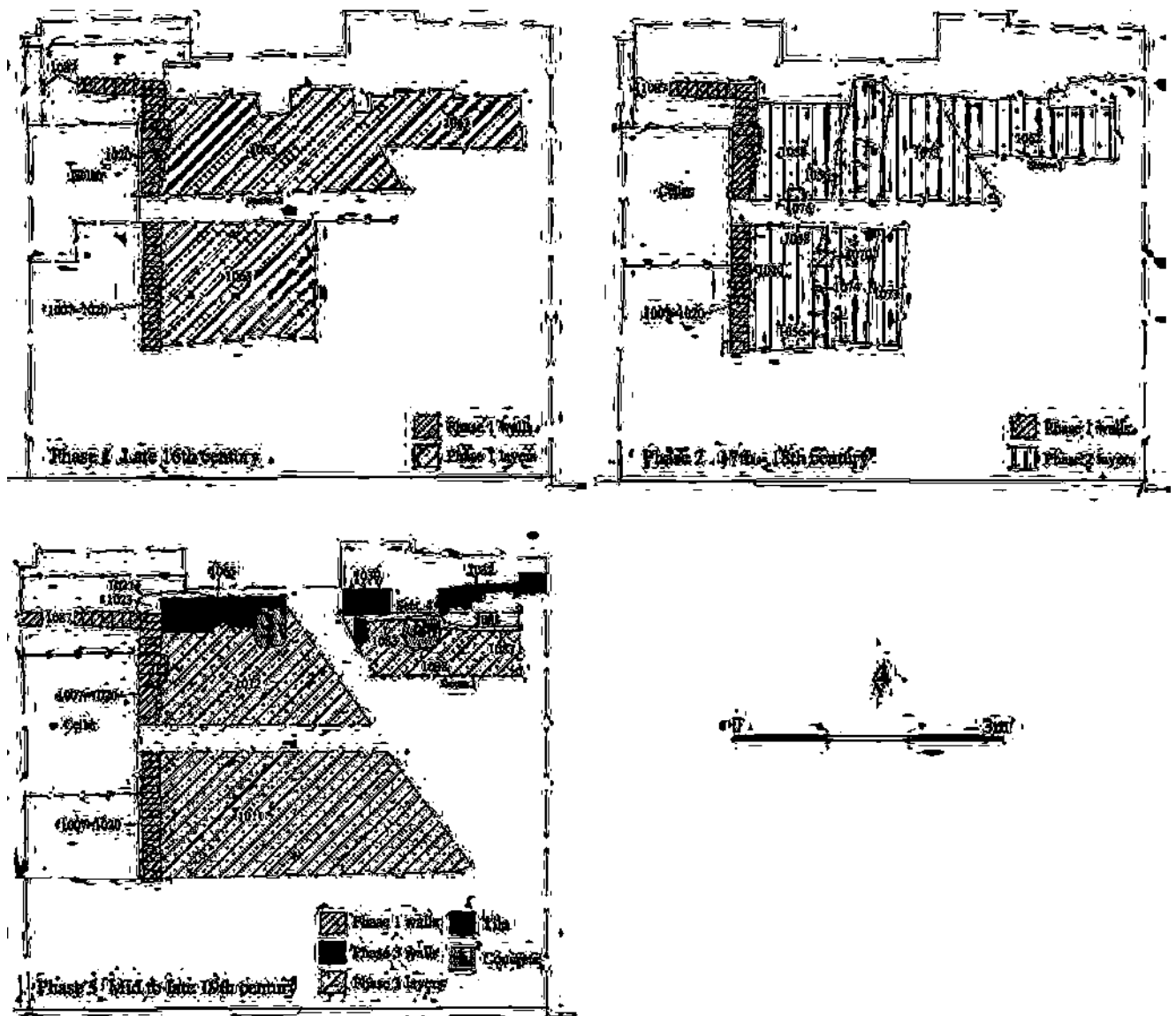


Fig. 4 Phase plans

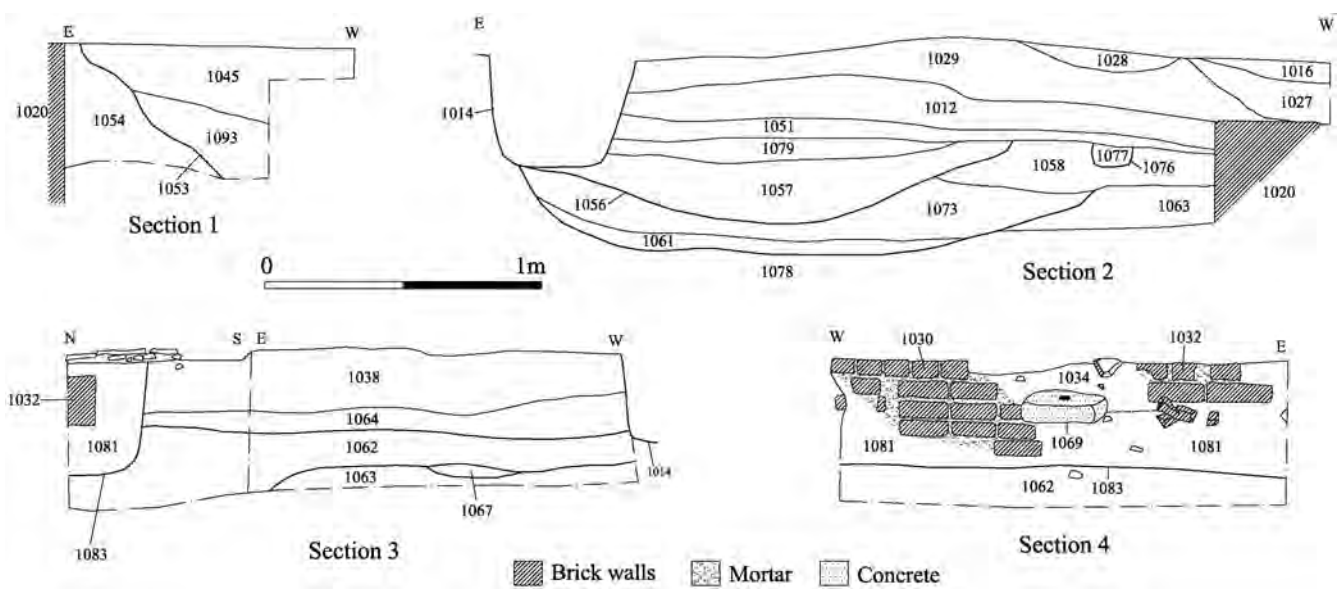


Fig. 5 Sections



Plate 2 Cellar wall M1020, from the west



Plate 3 Midden pit F1078, from the north

reinstated yard surface and into the upper fill of Pit F1078 (Fig 3; Fig. 5 Section 2). This was of similar size to the earlier pit and had the same gently-sloping sides and flattish, slightly rounded base. It contained large amounts of animal bone (4.9kg+), CBM (5kg+), oyster shell and other waste materials, including iron nails and fittings. Many of the iron objects were of later post-medieval date (Crummy in Mundin *et al.* 2007), and it is therefore likely that much of the early 17th century pottery recovered from this pit (Thompson, this report) was redeposited material from earlier Pit F1078.

Bulk environmental samples from both the large pits (F1078 and F1056) and the reinstated yard surface (L1062) contained abundant charcoal, possibly indicating disposal of hearth waste. Plant macrofossils were extremely rare, and all originated from L1062.¹ They comprised a charred barley (*Hordeum* sp.) grain, a further fragmentary grain and an indeterminate pulse (*Fabaceae*) cotyledon.

Two small post-holes (F1070 and F1076) and a stake-hole (F1074) were also cut into Yard Surface L1058 (Figs. 3 and 4; Fig. 5 Section 2). Their functions are unclear, but it is likely that they were related to lightweight outbuildings, lean-to structures, or fences located around the outside of the Tudor hall. Towards the end of Phase 2, the yard area was again resurfaced, this time with several thin compacted layers containing abundant crushed CBM (L1051, L1055, L1064 and L1084). These yielded mid to late 18th century pottery. Layer L1051 also contained sherds of 18th century flat glass and L1051 and L1084 each contained single fragments of glass from post-medieval vessels.²

The general character of the Phase 2 features and layers, with refuse pits, maintained yard surfaces and post-holes for fences or undefined small structures, seems consistent with an interpretation as activity in a backyard area adjacent to the early post-medieval house.

The finds and environmental evidence from the Phase 2 pits and yard surfaces

The pottery

Peter Thompson

Pit F1078 had two fill layers (L1061 and L1073) containing pottery fragments from a minimum of

twenty-two vessels. The assemblage includes sherds of the same jar rim found in both fills, and the rim of a large bowl (Fig. 6.1). Much of the assemblage is broadly characteristic of the 16th century, but some of the glazed red earthenwares are probably a little later. Some of these resemble Cistercian ware (c. 1480–1600), and if not actual examples, closely post-date them (Fig. 6.2). Taken with the presence of imported Raeren stoneware (c. 1480–1610) and Frechen stoneware (c. 1550–1700), an early 17th century date is probable for the assemblage, although it could even be slightly earlier.

Midden Pit F1056 (L1057) contained thirty-six sherds of mainly early post-medieval red earthenware fabric that would also broadly fit with a 16th century date. The presence of imported Frechen stoneware, including a sherd of Bellarmine, indicates a mid-16th to 17th century date, while a black iron-glazed mug base and several other glazed red earthenware sherds point to a 17th century date for the assemblage. Two further stoneware sherds, with internal brown glaze and mottled brown and grey external surfaces, are probably imported Raeren products which would provide a date between the 16th and early 17th century. One upper body sherd in red earthenware has a prominent ridge or flange running around the body and there are sparse splashes of green glaze, suggesting that the vessel was fired with glazed vessels rather than intentionally glazed itself (Fig. 6.3). This bifid form matches the F1 type of post-medieval rim forms from Moulsham Street, Chelmsford (Cunningham and Drury 1985, 2) and is similar to a small flanged jar from Bedford recovered from a 16th–17th century context (Baker and Baker 1979, 208 and 211, no. 710). An associated hollowed, everted and partially glazed jar rim (Fig. 6.4) can also be paralleled with the Moulsham Street E2 flanged rims (Cunningham and Drury 1985, 2). The fabric, glaze and form are also indicative of Moulsham Street fabric 40: post-medieval red earthenware dated to the late 16th/17th centuries (Cunningham and Drury 1985, 1, 2 and 75).

Yard Surface L1062 also contained four sherds of early post-medieval red earthenware, including a bowl rim (Fig. 6.5) and a sherd of Frechen stoneware, again indicating a date of c. 1550–1700. On balance, also taking into account that there is no clay pipe present (not becoming a widely practised habit until c. 1600 (Oswald

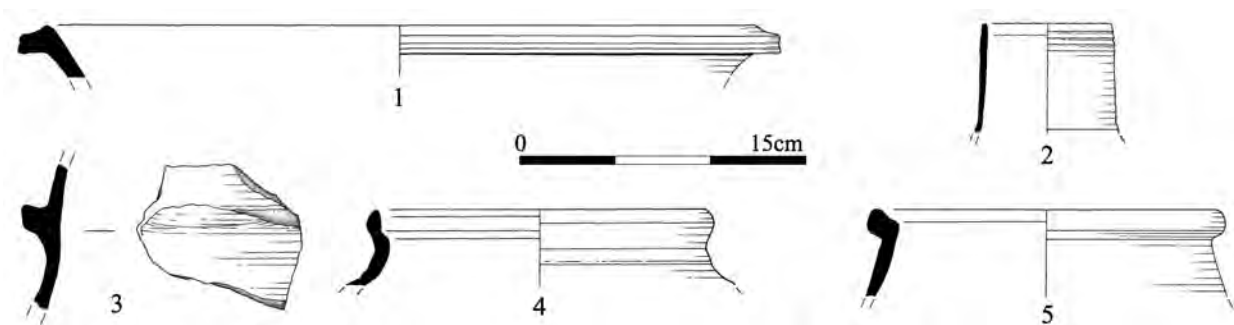


Fig. 6 Pottery illustrations

1975, 6)), a date between the late 16th and early 17th centuries is likely for the pottery from both Pit F1056 and Yard Surface L1062. Yard Surface L1058 contained three sherds of similar wares to that from L1062, including a red earthenware jar base 8cm in diameter.

Layer L1051 contained Staffordshire Slip Ware and Frechen, Nottingham-type and Staffordshire white salt-glazed stonewares, indicating a mid to late 18th century date, while Layer L1064 contained sherds of porcelain and one of Mocha-type earthenware of late 18th to 19th century date.

Pottery illustrations

- Fig. 6.1 F1078 L1073 Red earthenware bowl rim approximately 40cm diameter with patches of internal and external clear glaze, late 16th–17th C
- Fig. 6.2 F1078 L1061 Conical mug rim 7cm diameter with glossy brown glaze, late 16th–17th C
- Fig. 6.3 F1056 L1057 Red earthenware vessel wall with flange, late 16th–17th C
- Fig. 6.4 F1056 L1057 Red earthenware jar rim with internal clear glaze on rim, late 16th–17th C
- Fig. 6.5 L1062 Red earthenware bowl rim approximately 20cm diameter, late 16th–17th C

The ceramic building materials

Andrew Peachey

Concentrations of peg tile with dimensions of $? \times 145 \times 15\text{mm}$ (fragmentation prevented the complete dimensions of any of the CBM types found on site being recorded) and pre-firing circular nail holes were present in Midden Pits F1078 (forty fragments; 5160g) and F1056 (seventy-three fragments; 4416g). This was the most common form of CBM from the site in terms of fragment count and weight and was ubiquitous in all features, although generally in small quantities. Pit F1078 (L1061) also yielded a few fragments of brick with dimensions of $? \times 115 \times 45\text{mm}$, slightly irregular to regular, slightly rounded or sharp arrises, and a smooth base, identifying it as a brick from the 17th to early 18th centuries (Ryan 1996, 95). A few brick fragments of this type were also found in Pit F1056 (L1057) and ten fragments (3648g) were recovered from Phase 3 Levelling Layer L1038 (see below). A single brick fragment from F1078 (L1061) appears to have identical characteristics and dimensions (only the thickness is extant), except that the upper surface is decorated with a blue/grey glaze, which is another known feature of bricks of this type from this period (Ryan 1996, 95). Three fragments (2450g) of plain 45mm thick brick were present in the same feature (Pit F1078 (L1061)).

The small finds and metal objects

Nina Crummy

The moderate assemblage of metal objects recovered during the excavation principally comprises iron nails and copper-alloy and iron fittings; those that are diagnostic belong to the late post-medieval or modern periods. Several more interesting objects were recovered from the Phase 2 yard surfaces and Pit F1056, but again, are unlikely to be of great antiquity.

(L1057) F1056. Pit fill. Complete post-medieval horseshoe, nail holes covered by corrosion. Length 106mm.

SF 1. (L1058) Yard surface. Corroded thin disc, probably a late medieval or early post-medieval jetton. Diameter 25mm.

(L1058) Yard surface. Key handle with hollow-ended shank and oval bow. The bit is missing. Length 118mm. Late medieval or post-medieval.

(L1061) F1078. Pit fill. Copper-alloy boss or finial cap with raised floral decoration on the top and semicircular facets on the sides, with two (perhaps three) holes for attachment nails. Diameter 70mm, height 20mm. Late post-medieval.

The animal bone and shell

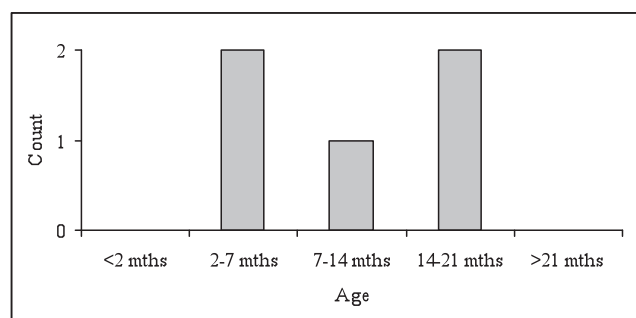
Carina Phillips

Phase 2 features contained 51% of the overall animal bone assemblage from the site. Eighty-eight percent of the Phase 2 assemblage came from Midden Pit F1056 (221 fragments). In total, 34% of the Phase 2 assemblage is identifiable to species. In general counts of number of identified specimens (NISP), cattle bones are most frequent (thirty-nine); however, in counts of the minimum number of individuals (MNI), sheep/goat and pig are present in higher numbers than cattle (four and three, respectively, compared to two). This difference could be a result of the small size of the assemblage; there is also continuing debate over which method is more reliable (see Klein and Cruz-Urbe 1984 and O'Connor 2000 for a discussion of both methods and their merits). Goose (*Anser* sp.) was the only other species to be identified, although small numbers of unidentifiable bird and fish bones are also present.

Age estimates using teeth wear were possible for five pigs, two cattle (both 2.5 – 3 years old at death based on their mandibles) and two sheep/goats (2 – 3 years and 6 – 8 years old at death based on their mandibles).

Twenty-six fragments (10.7%) of the Phase 2 animal bone assemblage show signs of butchery. This includes nine chopped, two cut, fourteen smashed and one sawn fragment. Sixteen fragments show signs of having been gnawed.

A total of 202 fragments of shell were recovered from the site, 179 of them from dated contexts; the shell is in moderate condition. Eighty-two percent of the dateable assemblage came from Phase 2 contexts and is dominated by oyster (*Ostrea edulis*) (145 of 146 fragments, MNI 82), with a single specimen of mussel



Age estimates for Phase 2 pigs using tooth wear (n=5)

also present. Holes caused by whelks were noted on three (2%) of the Phase 2 oyster shell fragments; nineteen fragments (13%) exhibit signs of worm parasites.

Phase 3 (mid to late 19th century): extension to hall

Around the mid-19th century, the yard identified in the central and eastern portions of the site was covered with sandy gravel levelling deposits (L1010, L1011, L1012 and L1038), several of which contained residual 18th century pottery and clay pipe. The levelling layers prepared the ground for the foundations of an extension to the hall, represented by three short surviving sections of a single south-west to north-east aligned wall, M1030, M1032 and M1065. These were identified close to the northern edge of the excavation at *c.* 0.11m below the modern garden surface. The wall began at the northern terminus of Cellar Wall M1020, abutting its east side. The surviving portions of the wall ran north-eastwards from this point for a total of 4.34m, extending beyond the eastern site boundary. Walls M1030 and M1032 were contained within a single linear construction cut, F1083, which was cut through L1038, L1064 and into underlying earlier Yard Surface L1062. Wall M1065 was contained within a similar linear, vertical-sided, flat-based construction cut, identified at the west end of the wall (F1021). It is likely that this was a continuation of F1083, but it could only be traced for a short distance.

The sections of wall comprised soft red bricks of slightly varying dimensions. A brick sample taken from Wall M1032 (L1033) has dimensions of 215 × 110 × 65mm, while one from Wall M1065 (L1066) has dimensions of 240 × 110 × 65mm. Both bricks have a broad frog with fairly regular arrises and faces and are consistent with a late 18th to early 20th century date (Ryan 1996, 95).³ The bricks were bonded with pale cream to mid orange cement *c.* 20mm thick. Traces of plaster on the south side of the wall suggested that this side was interior to the building, with the wall forming the northern external wall of the extension. The wall survived to four courses in height in M1030 and M1065, but only two in M1032. The limited height of the surviving wall makes it difficult to establish with certainty the bond that was used. Where more courses survived, it was apparent that the lower three courses comprised entirely of stretchers, with an uppermost course of headers. This may indicate the use of an English garden wall bond, with several stretcher courses between courses of headers (Brunskill 1997, 88). The wall was truncated at intervals by modern concrete post-settings (Plate 4).

Although the bricks from the Phase 3 walls could have been produced at any time between the late 18th and early 20th century, cartographic sources suggest that this north-eastern extension was built in the mid to late 19th century. It does not appear to have been present in 1839, when the Ashen Tithe Map shows the hall as a squat 'L'-shaped building, without a north-east wing (Fig. 2). However, the extension does appear on the 2nd Edition Ordnance Survey Map of 1897 (Fig. 7) and was

probably already present when the 1st Edition O/S Map was produced in 1876, although the small scale (6 inch: 1 mile) of the available 1876 map makes it difficult to discern the layout of buildings at this time with certainty. It thus seems likely that the extension took place between *c.* 1840 and 1876. This ties in with the 1916 description of the north-eastern extension as 'modern' (see *Background*, above); at this time it may have been no more than 40 years old and was certainly 'modern' relative to the original Tudor building.

The animal bone and shell from Phase 3

Carina Phillips

Thirty-four percent of the Phase 3 animal bone assemblage is identifiable to species. Similar numbers of cattle and sheep/goat bones are present (NISP 10 and 9, respectively); however, as in Phase 2 the MNI counts suggest more sheep/goats (2) than cattle (1). Pig (MNI 1) and domestic duck/mallard (*Anas* sp.) (MNI 1) bones are also present; the pig was aged 7 – 14 months at death based on teeth wear. Butchery marks were identified on 11 fragments (16.2%) in the Phase 3 animal bone assemblage. These include seven chopped fragments, one cut-marked and three smashed. There are signs of carnivore gnawing on five bones.

Eight fragments of oyster shell were found in Phase 3 contexts, representing a minimum number (MNI) of four individual specimens.

Phase 4 (early 20th century onwards): destruction of Tudor house and 1920s rebuilding

The final phase of activity represented the demolition of the Tudor hall following the 1920s fire and the construction of the present house. The cellar defined by Walls M1020=M1007 and M1087 was backfilled with a single yellow/grey clay deposit (L1054; Fig. 5 Section 1). Demolition and levelling layers were then laid across the site, some localised, others covering large areas. Several contained crushed CBM (e.g. L1026, L1035, L1037 and L1039); others consisted of compact silty clay (L1016, L1018, L1027, L1028, L1029 and L1034). The similar composition and relatively 'clean' appearance of these silty clay layers might suggest that they had a common source. An irregular west to east demolition cut (F1059), just south of Wall M1065, was also associated with the destruction and levelling of the original house.

A number of service trenches associated with the extant building were identified. These included Drain Cuts F1085 and F1009 in the west of the site, Pipe Trench F1014, which ran on a north-west to south-east alignment across the eastern portion of the site and contained a lead pipe, and three parallel service trenches which crossed the site from east to west (F1042, F1049 and F1013). Several of these services were disused, but F1042 contained a live cable and F1009 housed a drain attached to a down pipe on the modern house. Some of the Phase 4 services contained residual earlier finds. A shallow rubbish pit cut through the 20th century

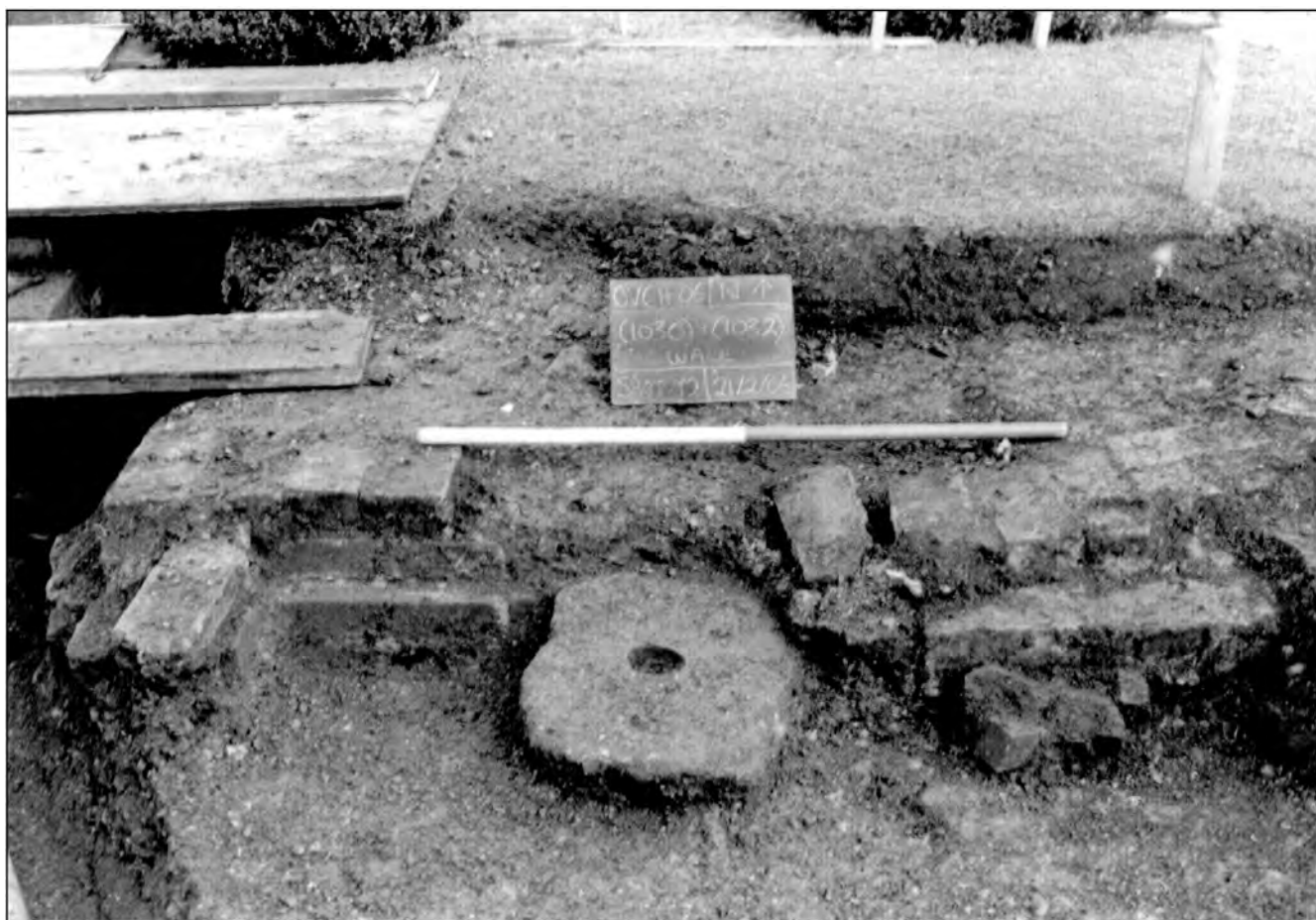


Plate 4 Walls M1030 and M1032, from the south

demolition/levelling layers in the west of the excavation area (F1094) represented activity in the garden of the modern house.

Little evidence was found of fire damage. Some of the service trenches (e.g. F1042 (L1041)) contained quantities of charcoal, but this represented redeposited material rather than *in situ* fire damage. No charring or thermal cracking was seen on the brickwork, probably because the walls were only foundations for the main timber-framed structure.

The Phase 4 pottery

Peter Thompson

Pit F1094 L1008 contained some of the latest pottery from the site, having Transfer Printed Ware and porcelain, along with a sherd of Victorian-type vase and modern stoneware of probable early 20th century date. A burnt sherd of white earthenware with blue underglaze decoration from here is probably from the same plate as a similar sherd found in modern Service Trench F1013 (L1046), showing a contemporary date. Service Trench F1049 (L1050) contained residual porcelain and Staffordshire White Salt-Glazed Stoneware of probable mid to late 18th century date.

Residual post-medieval buckle (Fig. 8)

Nina Crummy

Probably the earliest small find from the site, apart

perhaps from some of the more corroded nails, was recovered from the fill of Phase 4 Drain Cut F1085 (L1045). This comprised a complete double oval buckle (SF2) 62mm long by 40mm wide, with a relief-decorated surface and ornamental projections at each end and at the junction of the two loops. It may, at the earliest, be of 17th century date.

The animal bone and shell from Phase 4

Carina Phillips

Of the Phase 4 animal bone assemblage, 24% is identifiable to species. Sheep/goat and pig bones are present in the same numbers (NISP 9, MNI 2); cattle numbers are slightly lower (NISP 7, MNI 1). Based on teeth wear, the two pigs were aged 2 – 7 and 14 – 21 months at death. Rabbit (*Oryctolagus cuniculus*) (MNI 1) and hare (*Lepus europaeus*) (MNI 1) are the only other species present.

As in Phases 2 and 3, the animal bone assemblage from Phase 4 features includes fragments (14; 11.3% of the assemblage) on which butchery marks are visible. Chop marks (2) and saw marks (4) are present, along with eight fragments of smashed bone. Four fragments show signs of carnivore gnawing.

Thirty-four fragments of shell were recovered from Phase 4 features and deposits. As in Phases 2 and 3, oyster dominates the assemblage (thirty-two fragments, MNI 16), with single specimens of whelk and cockle also

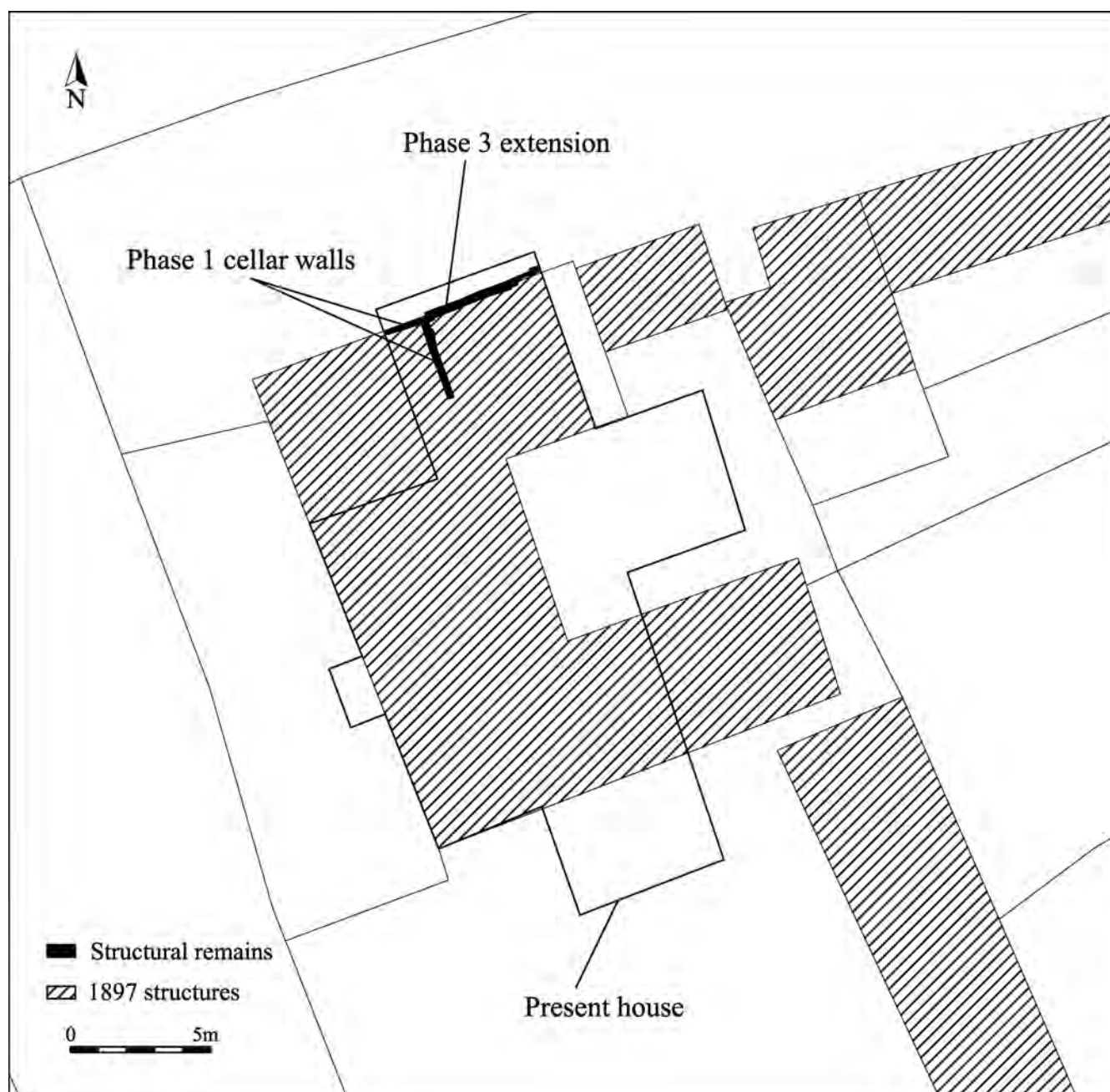


Fig. 7 The structural remains compared to the 1897 Ordnance Survey map. Reproduced from the 1897 Ordnance Survey Map
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present. Whelk holes are present on five (14%) of the shells; four (12%) are affected by worm parasites.

DISCUSSION

The Tudor and post-medieval hall

Development of the building

The excavation revealed remains associated with the original Tudor house at Claret Hall, destroyed by a fire in the 1920s. The archaeological evidence corresponds well with the documentary, cartographic and photographic sources for the original house.

The earliest structural remains, Walls M1020=M1007 and M1087, formed the retaining walls of a cellar, almost certainly that of the Tudor hall mentioned by the Royal

Commission for Historic Monuments (1916) in their description of the original house (see *Background*, above). The brick samples taken from the walls were characteristic of a 17th century date, but could feasibly have been produced as early as the late 16th (Peachey, this report). The archaeological evidence might therefore suggest a marginally later date for the Tudor hall than that given in the RCHM entry, which describes it as having been built '*about the middle of the 16th century*'. However, the RCHM commissioners had considerably more evidence upon which to base their assessment of the building's age, including the exposed timberwork mentioned in the inventory; the types of wood and jointing used in the timber frame would have been invaluable indicators as to the antiquity of the structure. Therefore, the mid-16th century date proposed by the

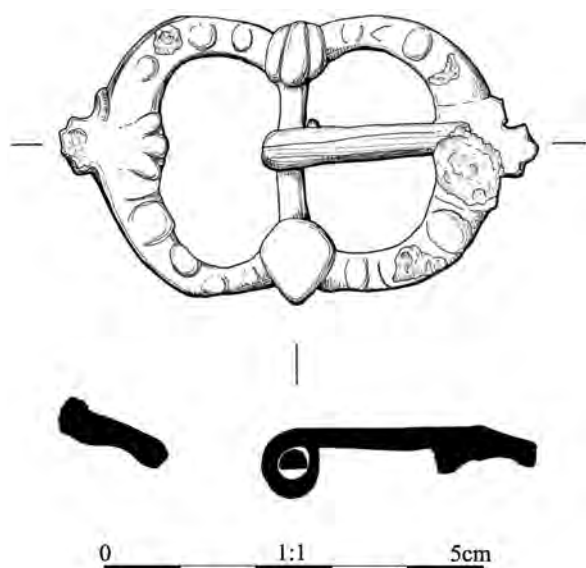


Fig. 8 Copper-alloy buckle

RCHM should probably be accepted. The cellar walls continued southwards under the present building, and to the west, indicating that the modern house is built largely within the footprint of the earlier building, as was thought prior to the excavation, but is positioned slightly further to the south.

The Phase 3 walls formed an extension to the north-east side of the 16th century hall. Again, this closely matches the 1916 RCHM description, which records the original house as built on an L-shaped plan, with the wings running north and east, but with a 'modern' wing added on the north-east, making the plan 'half-H shaped' (RCHM 1916). The excavated walls correspond well with the outline of the late 19th century house as shown on the 1897 Ordnance Survey Map, with the Phase 3 walls closely following the north side of the north-east wing of the house (Fig. 7). It appears that the north-eastern extension was already present by 1876, although the small scale (6 inch: 1 mile) of the available 1876 Ordnance Survey Map held at Essex Record Office (Chelmsford) makes it difficult to ascertain with certainty. However, on the Ashen Tithe Map (1839), the house is shown as having a squat L-shaped plan, without a north-east wing (Fig. 2). It therefore seems that the Phase 3 extension to the hall was built in the period between the surveying of the Tithe Map and the production of the 1st Edition Ordnance Survey, between c. 1840 and 1876.

Neither the walls of the Tudor cellar, nor the walls of the Phase 3 north-east wing, were particularly sturdy, reinforcing the 1916 description of the building as being 'timber-framed and plastered', rather than entirely brick-built. The brick walls would presumably have risen only a few courses above ground level, providing a dwarf wall on which a sill beam for the timber frame would have rested. The narrow width of the Phase 3 walls might also indicate that they were only intended to support the weight of a single storey. The north-eastern extension indeed appears to be only one storey in height in the surviving early 20th century photograph of the hall

(Plate 1). The assemblage of building materials recovered from the site comprised red brick and peg tile, mirroring the 1916 description of the construction and appearance of the original house.

The Hall's occupants: diet, standard of living and 'status'

Tom Woolhouse and Carina Phillips

The animal bone assemblage (a total of 469 fragments) and shell (202 fragments) recovered from both the Phase 2 midden pits (F1078 and F1056) and other features provides evidence of the diet of the inhabitants of the original Tudor Claret Hall from the early 17th century onward.

Despite the small size of the identifiable assemblages, some tentative suggestions can be made. The presence of both meaty and non-meaty bones in the cattle, sheep/goat and pig bone assemblages from all phases suggests that butchery and domestic waste are both represented in each phase. Signs of smashing and chopping were the most frequently identified butchery marks. The positions of some of the chop marks, particularly on cattle bones, indicate that they occurred during dismemberment of the carcass; sawing is also likely to have been used for this task. The smashed bone fragments are likely to have occurred when the bone marrow and/or bone fat were extracted. Cut marks may have marked the bone during both skinning and meat filleting.

It was not possible to assess the proportions of the main domestic species in the Claret Hall assemblage. At other East Anglian sites in the post-medieval period, beef was usually the main meat eaten (Ayers 1997, 64). The young ages of some of the pigs in Phase 2 suggest that they were born and reared locally. It is likely that geese and ducks, probably in addition to other birds such as domestic fowl, were used for meat in Phase 2, as were fish. It was common for domestic birds such as fowl to be kept in the courtyards of manors (Wilson 1991, 120). In Phase 4, the presence of rabbit and hare suggests that these species were also consumed. Poor survival of smaller bones and excavation biases in favour of larger ones has probably resulted in an under-representation of species such as birds, fish and small mammals, which are likely to have played a significant role in the economy and diet of the post-medieval household.

A moderate quantity of shell was recovered from the site, mainly from Phase 2 contexts (146 of 202 fragments). The assemblage is dominated by oyster, with individual examples of cockle, whelk and mussel also present. In post-medieval Britain, shellfish were commonly used for food and oyster is the most frequently-occurring species on many archaeological sites of the period. All shellfish would have been transported from the coast for trade inland, with the use of water tanks for live transportation. Shellfish were consumed raw, pickled or cooked (Wilson 1991, 54).

Conclusions must be tentative given the small size of the animal bone and shell assemblages and the very limited area of excavation. The available evidence suggests that the inhabitants of the post-medieval hall consumed both meat and waterfowl. Perhaps the latter,

represented by bones of geese and domestic duck/mallard, came from Claret Hall's moat and the ponds located around the site. Bones of rabbit and hare in Phase 4 contexts may indicate that the early 20th century residents hunted, probably for recreation and pest control as much as for meat.

Taken together, the pottery, animal bone and small finds assemblages from the site suggest a post-medieval household of moderate, rather than high, status. The occupants could afford imported pottery, in fair quantities given the number of vessels represented in Midden Pit F1078 (Thompson, this report), but the fabrics suggest practicality rather than ostentation. The copper-alloy buckle (SF2; Fig. 8) found in a residual context in a modern service trench (F1085 (L1045)) hints at the hall's inhabitants being well, but not richly dressed. Of course, the excavation area was small and the results of the fieldwork no doubt give a nuanced and incomplete picture of the economy and status of the early hall. It is possible, for example, that the yard area of Phases 1 and 2 was used largely by servants, and that the later north-east wing of the house was a service wing, thus giving us an insight into only the lower end of the hall's social spectrum. Nevertheless, the suggested view of the 16th and 17th century hall as a fairly high-status farmstead – perhaps occupied by yeoman farmers or minor gentry – finds some support in the yard area located to the north-east of the house at this time. The inhabitants disposed of much of their rubbish and hearth waste in pits located just outside the building, while ephemeral post-holes may be from lightweight sheds and outbuildings positioned alongside the main house. These features seem to suggest a working farm rather than a high-status manorial centre.

Absence of medieval occupation

Despite the remains of a possible medieval moat around Claret Hall (HER 7053) and the documentary references to a Claret Hall estate from as early as the late Anglo-Saxon period, the present excavation found little evidence of pre-Tudor occupation on the site. Medieval finds were limited to a few sherds of later medieval pottery (Thompson, this report) and part of a glass flask of tentative 13th – 15th century date (Cool, this report), all found in residual contexts. Pit F1056 (L1057) contained possibly the earliest find from the site: a single heavily-abraded residual medieval sherd in a sandy fabric with grass/straw temper, possibly from a jug. The fragment was an undiagnostic body sherd, but could plausibly be early medieval (Peter Thompson, *pers. comm.*).

These residual finds could point to pre-Tudor occupation nearby, perhaps indicating that earlier remains were destroyed by the construction of the 16th century house. However, this quantity of medieval material is too small to prove that there was medieval occupation on the site. It is equally possible that before the 16th century, the site was farmland and that this small quantity of abraded medieval material was deposited through manuring. The moat may thus have been created no earlier than the Tudor hall.

Moated residences retained significance as projections of status well beyond the medieval period and many new houses created by the region's elite continued to be equipped with moats into the 16th and 17th centuries. At Rushbrook Hall, Kentwell Hall and Wetherden Hall in Suffolk, for example, it is likely that the moats surrounding the houses are contemporary and part of the original mid-16th century plans (Martin 1991, 202–4). The construction of new moated houses in the 16th century, at a time when old moated manors were being abandoned elsewhere, has been seen as the affectations of a courtier class anxious to suggest the respectability of their lineage through the apparent age of their properties (Howard 1987, 47). Perhaps a similar process was at work lower down the Tudor social hierarchy. 'New men' may have felt that a traditional moated residence helped to establish and reinforce their social position; the fact that such houses were becoming archaic and unfashionable only served to emphasise a connection between their families and the past. Local trends may also have been an important factor in the continued construction of moated residences into the 16th century. It has been argued that the creation of a moat at Westhorpe, around a new courtyard house built for Charles Brandon, Duke of Norfolk, in the 1520s/30s, may have been down to local fashion (Gunn and Lindley 1988, 278). The density of moated sites in the surrounding area, and the proximity of several other moated houses, may have made the moat at Westhorpe a necessary means of both fitting in with and impressing the local elite, many of whom owned similar residences. The presence of a moat at Claret Hall is thus not necessarily indicative of medieval origins. Perhaps the house and moat were both created in the 16th century by a wealthy farmer, or member of the minor gentry, who was eager to establish his standing in the eyes of his contemporaries.

However, the present excavation was both small and located in a peripheral area directly adjacent to the northern arm of the moat. The principal building in a moated enclosure was often in the centre of the platform, facing the main entrance across an open forecourt, with a garden or orchard at the rear (Martin 1999, 60). Therefore, the absence of medieval features within the excavation area may well be attributable to its location at the edge of the moated platform and evidence of medieval occupation may still be found in any future excavations further to the south.

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AS is also grateful for the input and advice of Essex County Council Heritage Advice, Management and Promotion Section (ECC HAMP, now Essex Historic Environment Management (HEM)), particularly Vanessa Clarke and Richard Havis. The author is also grateful to staff at the Essex Record Office and the Essex Historic Environment Record (Chelmsford), for their assistance.

The excavation was directed by Andrew Munding on behalf of AS; the project was managed for AS by Jon Murray. Finds were coordinated by Clare Wallace. Graphics for this report were produced by Kathren Henry; illustrations are by Caroline George. The pottery was analysed by Peter Thompson, the ceramic building materials by Andrew Peachey, the clay pipe by Dan McConnell, the glass by H. E. M. Cool, the small finds by Nina Crummy, the animal bone and shell by Carina Phillips and the bulk environmental samples by Val Fryer.

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Bibliography

- Ayers, B. 1997 'Anglo-Saxon, medieval and post-medieval (urban)' in Glazebrook, J. (ed.) *Research and Archaeology a Framework for the Eastern Counties, 1. Research Assessment*. East Anglian Archaeology Occasional Paper 3, 59–66
- Baker, D. and Baker, E. 1979 'Excavations in Bedford 1967–1977', *Bedfordshire Archaeological Journal* 13
- Brunskill, R.W. 1997 *Brick Building in Britain*. Victor Gollancz, London
- Charge, B.B. 1983 *A Survey of Moated Sites. Vol. 3. No. 3*.
- Cunningham, C.M. and Drury, P.J. 1985 *Post-Medieval Sites and their Pottery: Moulsham Street, Chelmsford*. Council for British Archaeology Report 54
- Gunn, S.J. and Lindley, P.G. 1988 'Charles Brandon's Westhorpe: an early Tudor courtyard house in Suffolk', *Archaeological Journal* 145, 272–89
- Howard, M. 1987 *The Early Tudor Country House. Architecture and Politics 1490–1550*. George Philip, London
- Klein, R.G. and Cruz-Urbe, K. 1984 *The Analysis of Animal Bones from Archaeological Sites*. The University of Chicago Press, Chicago & London
- Le Patourel, H.E.J. and Roberts, B.K. 1978 'The significance of moated sites' in Aberg, F.A. (ed.) *Medieval Moated Sites*. CBA Research Report no. 17, 46–55
- Martin, E. 1991 'Two exceptional Tudor houses in Hitcham: Brick House Farm and Wetherden Hall', *Proceedings of the Suffolk Institute of Archaeology and History* 37 Part 2, 186–207
- Martin, E. 1999 'Medieval moats' in Dymond, D. and Martin, E. (eds.) *An Historical Atlas of Suffolk*. Suffolk County Council Environment and Transport/Suffolk Institute of Archaeology and History, 60–1
- Munding, A., Weston, P. and Woolhouse, T. 2007 *Claret Hall, Ovington Road, Ashen, Essex. Archaeological Excavation. Interim Report*. Archaeological Solutions unpublished report 1994
- O'Connor, T. 2000 *The Archaeology of Animal Bones*. Sutton Publishing
- Oswald, A. 1975 *Clay Pipes for the Archaeologist*. British Archaeological Reports 14
- RCHM 1916 *An Inventory of the Historical Monuments of North West Essex, Vol. 1*.
- Reaney, P.H. 1935 *The Place-Names of Essex*. English Place Name Society vol. 12, Cambridge University Press
- Ryan, P. 1996 *Brick in Essex*. Colchester
- Scarfe, N. 1999 'Domesday Churches' in Dymond, D. and Martin, E. (eds.) *An Historical Atlas of Suffolk*. Suffolk County Council Environment and Transport/Suffolk Institute of Archaeology and History, 52–3
- Tyson, R. 2000 *Medieval Glass Vessels Found in England c. AD 1200–1500*. Council for British Archaeology Research Report 121, York
- Williams, A. and Martin, G.H. (eds.) 1992 *Domesday Book: A Complete Translation*. Alecto Historical Editions/ Penguin Books
- Wilson, C.A. 1991 *Food and Drink in Britain. From the Stone Age to the 19th Century*. Academy Chicago Publishers, Chicago

Cartographic sources

- 1576 Christopher Saxton's Map of the County of Essex
- 1777 J. Chapman & P. André's Map of the County of Essex from an Actual Survey
- 1839 Ashen Tithe Map
- 1839 Ashen Tithe Apportionment (Ashen D/CT10A)
- 1876 1st Edition Ordnance Survey (6": 1 mile) Essex Sheet 5.11
- 1897 2nd Edition Ordnance Survey (25": 1 mile) Essex Sheet 5.11

Notes

- ¹ Bulk environmental samples and plant macrofossils described by Val Fryer
- ² Glass analysed by H. E. M. Cool
- ³ Brick samples described by Andrew Peachey

A Heddingham Ware kiln at Great Bardfield, Essex

Kate Orr and Howard Brooks

INTRODUCTION (Fig. 1)

This report records the discovery of a medieval kiln 200m south of Mandalay Farm in the parish of Great Bardfield, Essex (NGR TL 7038 2970). It was exposed by the topsoil strip of an easement for an Anglian Water pipe-line running from Shalford Green (Shalford parish) to Petches Bridge (Great Bardfield parish), and was excavated by Colchester Archaeological Trust in January–March 2006. The site work (sponsored by Anglian Water, to whom we are grateful), was managed by KO.

After a brief description of the kiln's location and structure, the kiln products are listed. We are very grateful to Helen Walker of Essex County Council Field Archaeology Unit for examining the pottery with Howard Brooks, and for advising on classification, reporting and drawing the assemblage.

This report is a summary of the full archive report (Orr 2007), which can be viewed on the Colchester Archaeological Trust website at cat.essex.ac.uk.

Location (Fig. 1)

The kiln was located on the gently-sloping southern side of the valley of the river Pant, at 78m above Ordnance datum. The Geological Survey of Great Britain (Sheet 223) shows that the kiln was built on the boundary between the Kesgrave Sands and Gravels (to the north), and boulder clay (to the south and west). London Clay is exposed in the Pant valley, approximately 500m to the north. Although no evidence was obtained on this project, it is assumed that one or other of these clay sources was used in the manufacture of the pots described here. The Ordnance Survey does not show any natural water sources any closer than the streams 600m to the north at Cook's Farm Cottages, or 600m to the east-south-east near Redfants Manor Farm. However, the boulder clay to the south of the kiln site would have allowed for the relatively straightforward creation of ponds to give a ready supply of water.

The kiln structure (Fig. 2)

The kiln is a Musty Type 1 with a single stoke-pit and a flue (Musty 1974). The top of the kiln had been ploughed away, thus removing the superstructure and the firing chamber floor. The surviving structure consisted of the central pedestal or support, and the burnt clay of the firing chamber.

The firing chamber was packed with broken pottery and charcoal in a fill of dark brown silty clay. At the base of the firing chamber and stoke-hole were large pieces of flat unburnt flint. A curious feature of this kiln was that

it had a narrow straight-sided gully running underneath the stoke-hole. It looked like a drain running off into a pit (a sump?) at its eastern end. It is tempting to dismiss this as an earlier feature, but it must have been open at the same time as the stoke-hole because it had the same fill of charcoal and potsherds. A recently published kiln from Takeley has a similar gully or drain (Ennis 2008, 44–45, Kiln 970).

Environmental samples taken from the firing chamber indicate that a variety of materials, including cereal processing waste, dried plant material and hedge scrub may have been used as fuel. However, it should be noted that such low densities of material may also represent accidental inclusions of charred waste, possibly in the form of wind blown detritus (archive report by Val Fryer).

The pottery (Figs. 3–4)

A total of 3,927 sherds weighing 28.22kg was excavated from the interior and stoke-hole. The material comprises mainly Heddingham Coarse Ware (Fabric 20D) and a smaller quantity of Heddingham Fine Ware (Fabric 22: pottery fabric codes as defined by Cunningham 1985).

The coarse ware vessels are mainly undecorated cooking-pots, with smaller quantities of jugs and bowls. The Fine Ware was exclusively stamped and stripped Heddingham Ware jugs, with 'crescent-in-circle' stamps. The fabrics produced here are described, and a typology of vessel forms is given. There is a little attention to methods of manufacture. A full quantitative analysis has not been attempted, mainly due to budget constraints. The pottery was excavated from the kiln in a number of separate 'contexts', but cross-fits between contexts show that this is essentially all one group of material, and it is treated as such here.

The vessel typology has been created by drawing the most complete examples of the various forms and sub-forms. The typology produced is based on Cunningham's typology of post-Roman pottery in Essex (Cunningham 1985, 1–16), and John Cotter's (2000) additional detail on some fabrics.

Vessel form typology

The overwhelming bulk of this material (90% by sherd count) consists of unclassified body sherds, and only a small proportion (10% by sherd count) consists of 'featured sherds' (i.e. principally rim sherds, with some handle fragments and decorated body sherds).

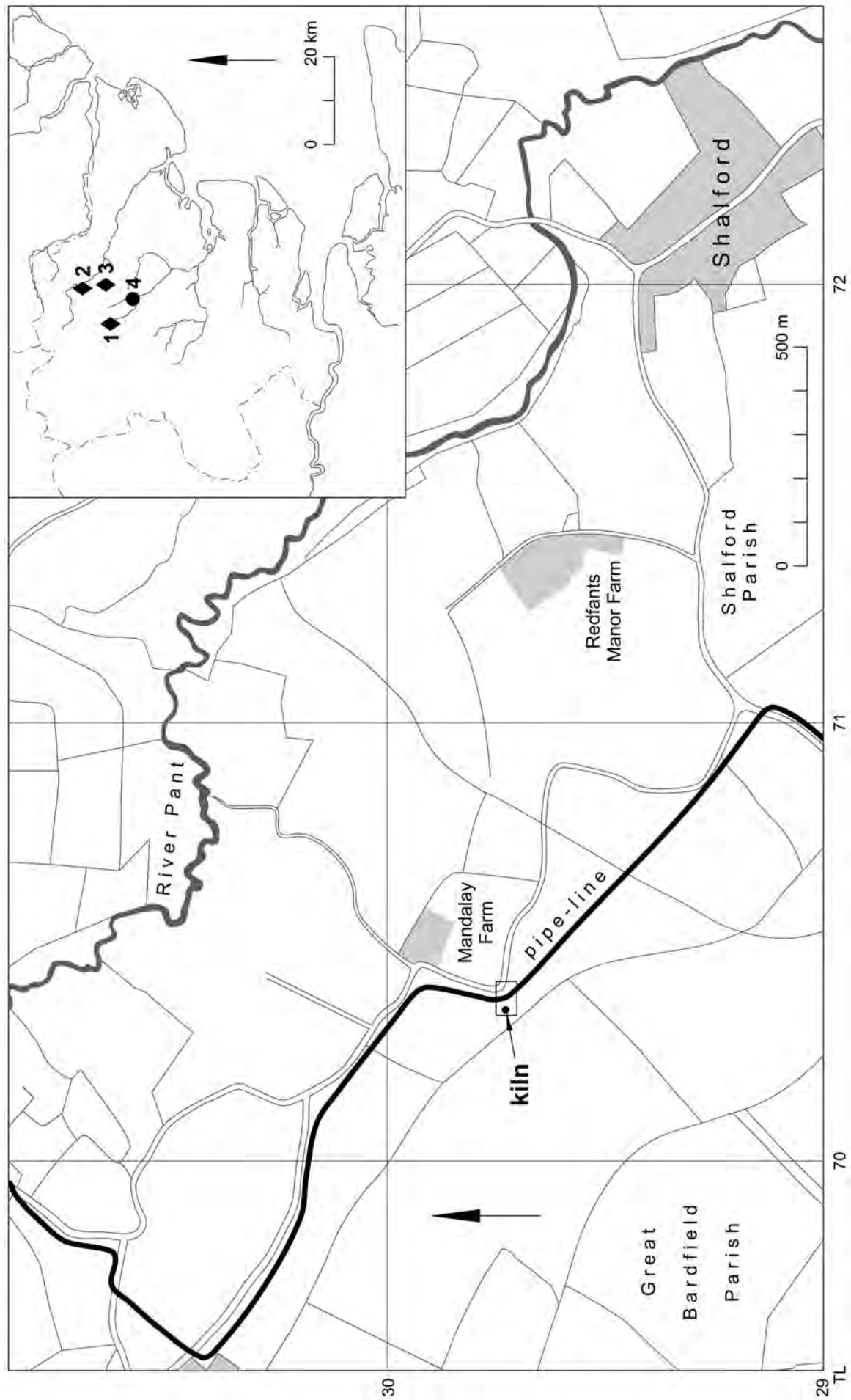


Fig. 1 Site location. Inset: 1 – Bardfield kiln site; 2–3 – Sible Hedingham and Gosfield kiln sites; 4 – Braintree. © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

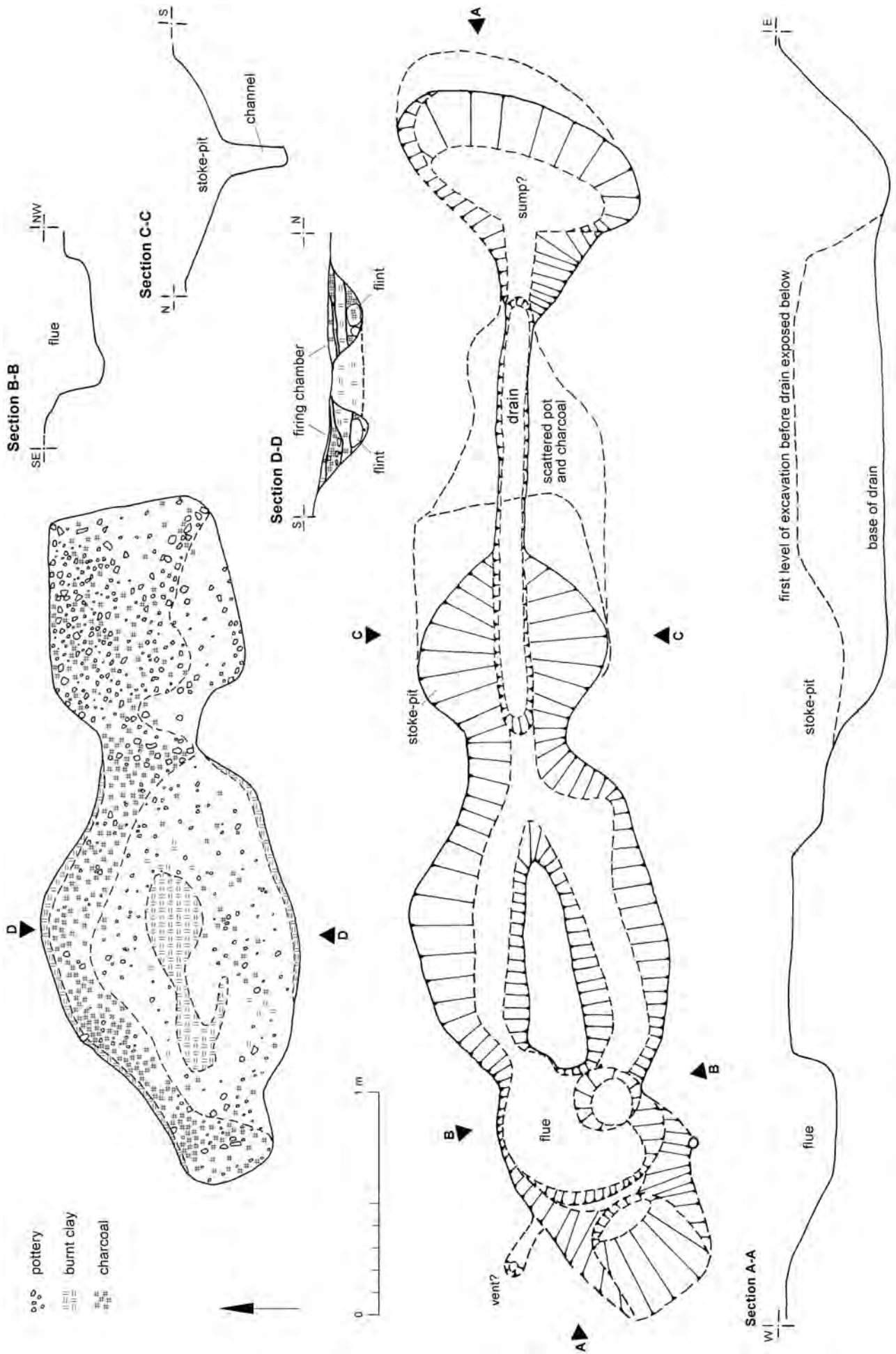


Fig. 2 Plans, section, and profiles of kiln. Above, pre-excitation plan. Below, post-excitation plan showing drain and sump.

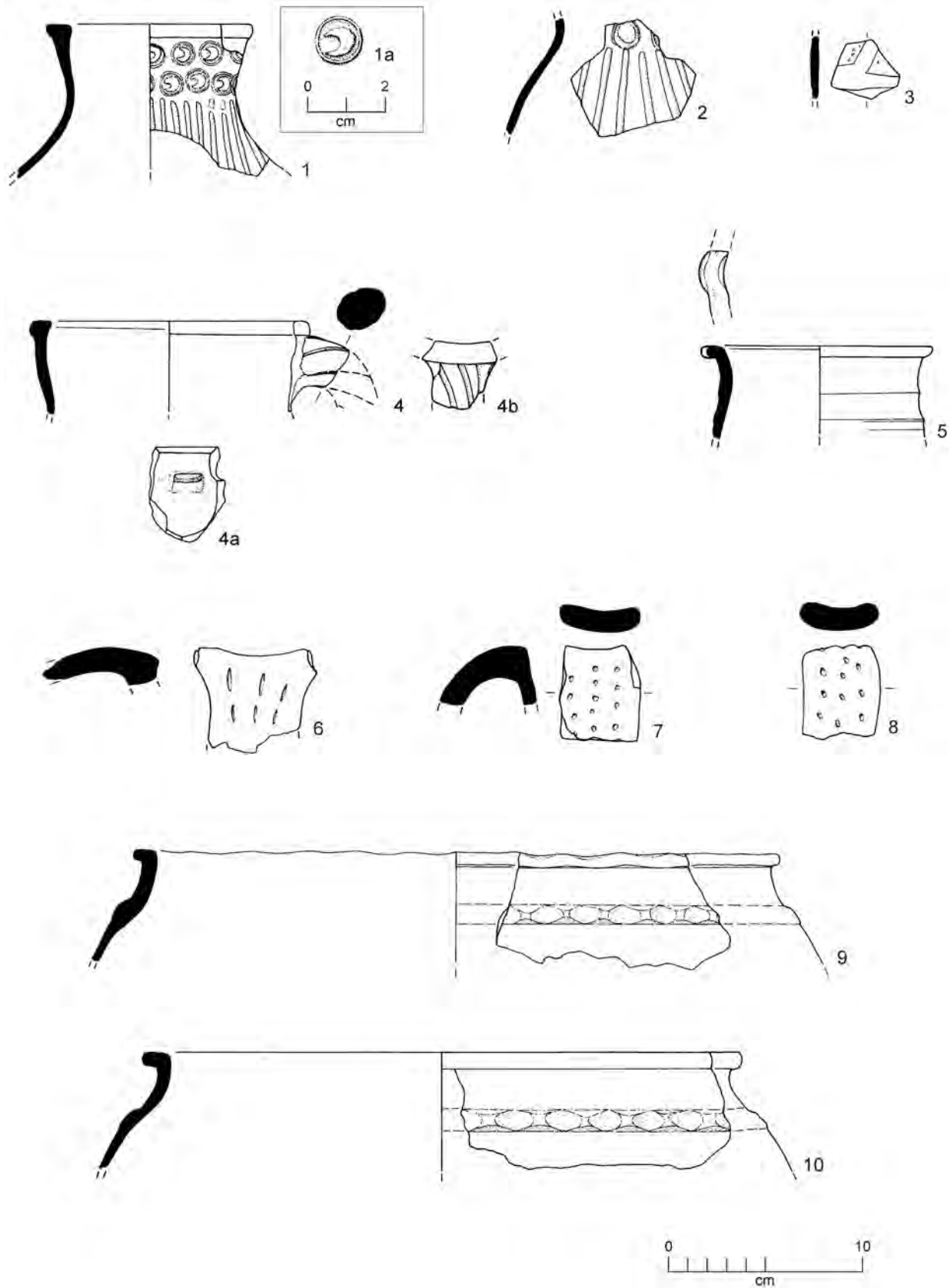


Fig. 3 Heddingham Fine Ware (Fabric 22) jugs (1–4): Heddingham Coarse Ware (Fabric 20D) jugs and cooking-pots (5–10)

The Fine Ware – a visual description

Fifty-five fine ware sherds were identified. This equates to 17% of featured sherds by sherd count. Jugs were the only identifiable fine ware product. One group of five joining sherds (Fig. 3.1) gives a profile typical of Hedingham Fine Ware jugs, with vertical applied strips on the upper body/lower neck and two bands of circular stamps below a flat-topped rim (described in Cotter 2000 as ‘stamped stripped jugs’). Identical decoration is found on a separate sherd (Fig. 3.2). There are close parallels for this jug form from Rivenhall (Drury 1993, fig. 43.125, fig. 43.128–130), and from High Street, Colchester (Cotter 2000, fig. 50.17).

The stamps, in the form of a crescent in a circle, are not paralleled in Cotter or Drury, but are in the same tradition as other Hedingham style jugs illustrated by them, and comparable crescent stamps, not in a circle, occur at Colchester (Cotter 2000, fig. 50.18). The stamps are pressed into the body of the pot, and not into an applied pad.

The Fine Ware fabric is generally fired grey throughout, ranging from medium dark grey (Munsell 2.5y 6.1) to pale grey (Munsell 2.5y 7.1). Hedingham Ware from occupation sites is nearly always a creamy orange, so these grey sherds are probably misfired (H. Walker, pers. comm.). In a little under a third of the Fine Ware sherds the surface is underfired a dull orangey brown (Munsell 5yr 6.4). This difference in colour might be put down to misfiring, were it not for the fact that two of these sherds have a spacing of applied strips which differs from the illustrated jug (Fig. 3.1). In that jug, the applied strips are spaced approximately 5mm apart, whereas on the orange-bodied sherds they are approximately 15mm apart. This may be an indication of two different kiln products. The surface treatment supports this idea. On most of the grey sherds there are traces of a glaze over a white slip, but the glaze is so heavily degraded to a cream or very pale yellow that it is not possible to determine its original colour. On one of the widely-spaced strip sherds, however, the glaze is still noticeably brownish green. There are no rim sherds obviously belonging to the green-glazed and orange-bodied product. A single sherd shows a different surface decoration of applied white slip decoration (Fig. 3.3).

The only handle fragment is from a twisted rod handle (Fig. 3.4, 3.4a) in the Scarborough Ware tradition which may also belong to a stamped strip jug (cf. Cotter 2000, fig. 50.17). There is also a parallel for the Hedingham Ware twisted-rod handle from Rivenhall (Drury 1993, fig. 43.127). Evidence for the method by which the handle was attached to the pot is demonstrated by a 9mm-deep hole 15mm below the rim (Fig. 3.4b). This shows that a rectangular instrument has been pushed through from the interior of the pot (and slightly downwards in the direction of the centre of the handle). This must have pushed clay from the pot wall into the core of the handle, and successfully attached one to the other.

The coarse ware fabric – a visual description

The fabric is very sandy, with rough internal and external surfaces (although surface weathering can make the pottery look coarser than it really is). Colour is in a range from dull light orange brown (Munsell 7.5yr 5.4) through to a pale greyish brown (Munsell 10yr 5.1). Fabric colour is generally uniform throughout but in some of the more orange-bodied pots, the internal break shows a stronger orange than the surface (Munsell 5yr 6.6). On the surface and in the fabric, quartz grains are visible, sometimes up to 0.5mm diameter and occasionally 1mm. Occasionally, a small quantity of flint is included in the fabric, showing principally on the surface as fragments <2.5mm across.

The coarse ware cooking-pots

Coarse ware cooking-pots are the largest component of this group, forming 69% by sherd count of all ‘featured sherds’. Identifiable rim types are H1, H2, H3, B2, and A1a. Of the 186 rim fragments, 134 (72% of rim fragments) are H1 type, twenty-one (11%) are H2, and twenty-five (13%) are unidentifiable. Types B2, H3 and A1a make up the remainder of the group, in that order. Given the proportions of identifiable rims, it seems clear that the main kiln product comprises cooking-pots with H1 rims, followed by a smaller number of cooking-pots with H2 rims (in the proportion of roughly seven H1 pot rims to every H2 pot rim).

Rim features

Three rims have thumbled tops, and one has a slight lid-seated effect similar to an example from Long Wyre Street in Colchester (Cotter 2000, fig. 58.4).

Surface treatment

The overwhelming majority of body sherds, whether from cooking-pot or bowl are undecorated. Six cooking-pots rims have a thumbled applied cordon approximately 50mm below the rim (as Fig. 3.9–3.10, 4.11), and one sherd has rilling on its outer surface (Fig. 4.15). A very small proportion of the product has wavy, combed surface decoration.

Manufacturing techniques.

On seventeen rims, part of the inner face has flaked away. In one measurable instance the flaking intruded approximately 25mm down the inner face of the rim. This indicates that at least a proportion of the pots had rims with folded-over tops.

The coarse ware bowls

Twenty-one bowl sherds were identified. This equates to 7% of all featured sherds (a ratio of approximately one bowl to ten cooking-pots). The bowls have everted rims, as illustrated in Figs. 4.16–4.19. The bowls seem quite large, with measurable rims between 400mm and 480mm in diameter, with several examples clustering near to 440mm. A group of Medieval Sandy Greyware bowls from Colchester has two main size groups, a smaller group with diameters between 240mm and

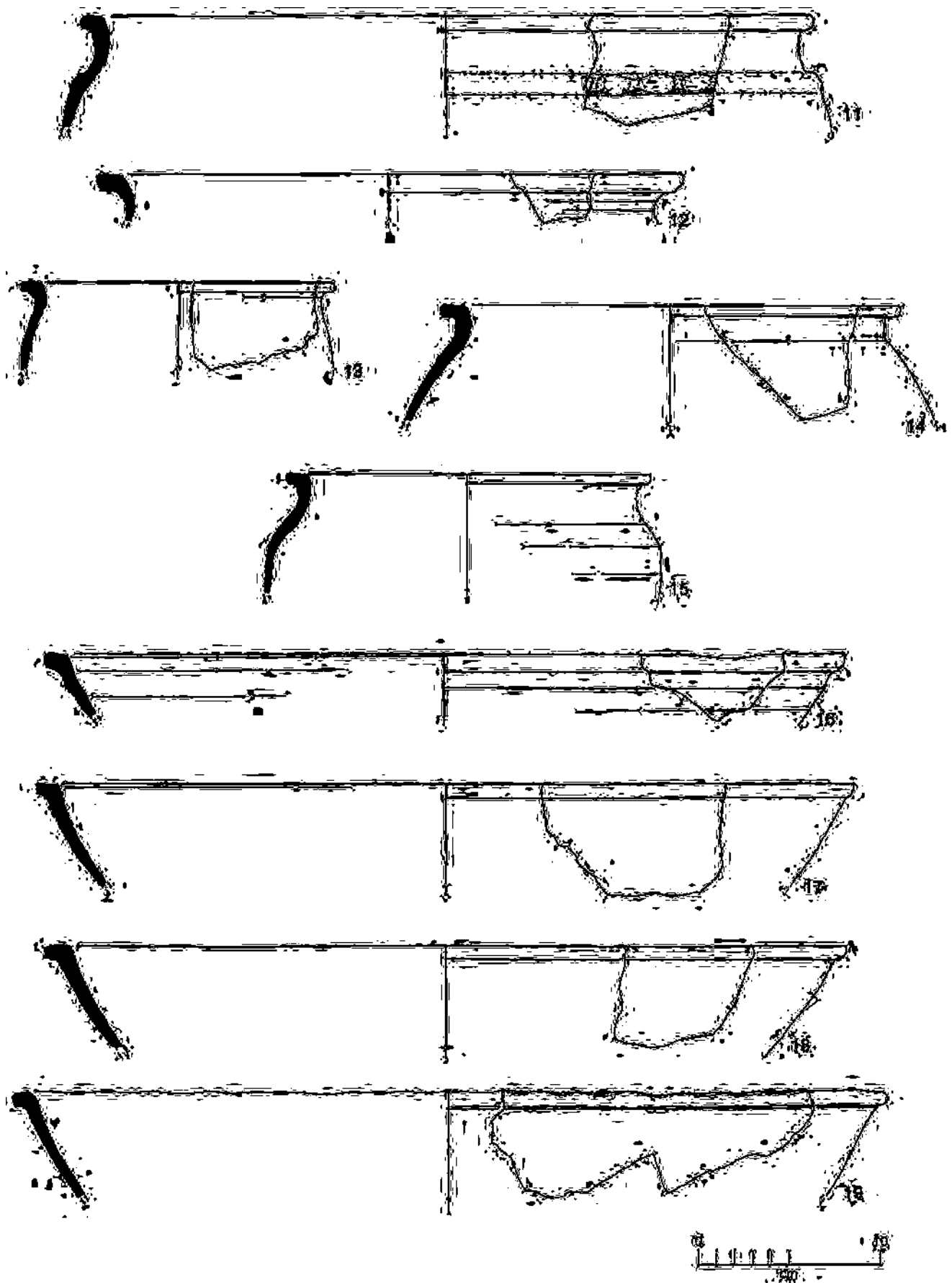


Fig. 4 Heddingham Coarse Ware cooking-pots (continued: 11–15), and bowls (16–19)

280mm, and a larger group with diameters between 420mm and 540mm (Cotter 2000, figs. 61, 62). The present group would therefore equate to the larger examples from Colchester. One bowl is similar to an example from Rivenhall, though with a slightly smaller (340mm) diameter (Drury 1993, fig. 41.90).

The coarse ware jugs

There were seventeen jug fragments, equating to 5% of all featured sherds by sherd count. These included rim sherds, and fragments of handles. One example has an everted rim and pulled spout (Fig. 3.5). There were a number of methods of decorating the handles: one (Fig. 3.6) has cats-claw slashed decoration similar to an example from Rivenhall (Drury 1993, fig. 42.114). Another has a dished profile with slightly thumbled edges, again with a Rivenhall parallel (Drury 1993, fig. 42.100). However, stabbed decoration was the commonest decoration, present on six handle fragments (Figs. 3.7, 3.8).

Catalogue

- Fig. 3.1 Hedingham Ware 'stamped stripped' jug
- Fig. 3.1a Detail of stamp at twice scale of jug
- Fig. 3.2 Hedingham Ware 'stamped stripped' jug
- Fig. 3.3 Hedingham Fine Ware body sherd with applied slip decoration
- Fig. 3.4 Hedingham Ware rim and twisted-rod handle in imitation of Scarborough Ware
- Fig. 3.4a View of interior of jug showing attachment method
- Fig. 3.4b View of twisted-rod handle from above
- Fig. 3.5 Fabric 20D jug with pulled spout
- Fig. 3.6 Fabric 20D jug handle with cat's claw slashed decoration
- Fig. 3.7 Fabric 20D jug handle with stabbed decoration
- Fig. 3.8 Fabric 20D jug handle with stabbed decoration
- Fig. 3.9 Fabric 20D cooking-pot with thumbled, applied cordon
- Fig. 3.10 Fabric 20D cooking-pot with thumbled, applied cordon
- Fig. 4.11 Fabric 20D cooking-pot with thumbled, applied cordon
- Fig. 4.12 Fabric 20D cooking-pot
- Fig. 4.13 Fabric 20D cooking-pot
- Fig. 4.14 Fabric 20D cooking-pot
- Fig. 4.15 Fabric 20D cooking-pot
- Fig. 4.16 Fabric 20D everted rim bowl
- Fig. 4.17 Fabric 20D everted rim bowl
- Fig. 4.18 Fabric 20D everted rim bowl
- Fig. 4.19 Fabric 20D everted rim bowl

Discussion (Fig. 1)

Hedingham Fine Ware was one of the success stories of the medieval pottery industry in East Anglia and beyond. Judging by its find-spots, it was principally traded over north Essex and Cambridgeshire, and to a lesser extent in Suffolk, Norfolk, Hertfordshire and Bedfordshire (Cotter 2000, fig. 53). The newly-discovered Great Bardfield kiln is in the heart of the Hedingham Ware trading area, with the other two known production centres at Sible Hedingham (8.5km to the north-north-east), and Gosfield (7.5km to the east).

All the pottery recovered from the Great Bardfield kiln was kiln product and the lack of imported material means that there is no opportunity to directly compare the Bardfield material with contemporary fabrics and vessel types from other production sites. Nevertheless,

the fabric of the Bardfield pottery is largely identical to that from the 'type site' kiln at Sible Hedingham (H. Walker, pers. comm.).

Nine kilns recently excavated at Takeley (8.5km to the south-west of the Great Bardfield site) produced a later version of Early Medieval Ware (i.e., Fabric 13). Two of the kilns were found on the banks of the River Roding by Oxford/Wessex Archaeology during works to widen the A120, and Essex County Council Field Archaeology Unit excavated a further seven kilns immediately to the south-south-west and east-north-east (Timby *et al.*, 2007; Ennis 2008). The Fabric 13 produced by these kilns had similarities to the Bardfield material, and may have been a forerunner of the latter (H. Walker, pers. comm.).

The Great Bardfield kiln was well situated at approximately 75m AOD on the east slope of a valley, where it was sheltered from the prevailing winds. The River Pant runs 600m to the north, but there may have been closer sources of water when the kiln was in production. The location on Kesgrave sands and gravels may be significant, as the potters would have needed sand to temper the coarse wares.

Although only one kiln was found, it came to light in a 9-metre wide easement excavated for a new pipeline. If the ground to either side of the easement were excavated or tested by geophysical survey, it is quite possible that other kilns would be discovered.

The possibility of archaeomagnetic dating of the kiln structure was discounted (because of root disturbance) after advice from Dr Mark Noel. There is no internal evidence for the Bardfield kiln's production period, but the dating of two of the types of pottery types is relevant – specifically the Hedingham Fine Ware 'stamped strip jugs' (Fabric 22) and the Hedingham Coarse Ware cooking-pots (Fabric 20D). John Cotter (2000, 89) dates the Fine Ware 'stamped strip jugs' to c.1225–1300/25. The main cooking-pot rim type in this assemblage (H1) would normally be current throughout the 13th century, but the H3 type is late 13th to 14th century (Drury 1993, 81–4). Therefore the rim types date this particular kiln to the earlier 13th to earlier 14th century.

Bibliography

- Cotter, J. 2000 *Post-Roman pottery from excavations in Colchester 1971–1985*. Colchester Archaeological Report 7.
- Cunningham C. M. 1985 'A typology for post-Roman pottery in Essex', in Cunningham, C. M. and Drury, P. J., *Post-medieval sites and their pottery: Moulsham Street, Chelmsford*, Chelmsford Archaeological Trust Report 5, Council for British Archaeology Research Report 54, 1–16.
- Drury, P. J. 1993 'The Later Saxon, Medieval, and Post-Medieval Pottery', in Rodwell, W. J., and Rodwell K. A., *Rivenhall: investigations of a Roman villa, church and village, 1950–77. Volume 2 Specialist studies and Index to Volumes 1 and 2*. CBA Research Report 80, 1993, 78–95.
- Ennis, T. 2008 'Roman and medieval land-use in the upper Roding Valley: excavations at Frogs Hall borrow pit, Takeley, Essex, 2002', in *Essex Archaeology & History* 37, (for 2006).
- Musty, J. W. G. 1974 'Medieval pottery kilns', in Evison, V., Hodges, H., and Hurst, J. G. (eds.), *Medieval Pottery from Excavations: Studies Presented to Gerald Clough Dunning*, 1974, 41–65.

Orr, K. 2007 Archaeological monitoring of an Anglian Water mains replacement scheme from Shalford Green (Shalford) to Petches Bridge (Great Bardfield), Essex, December 2005–March 2006. Colchester Archaeological Trust Report 374 (unpublished client report).

Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A. 2007 *A slice of rural Essex: Recent archaeology along the A120 between Stansted Airport and Braintree* Oxford Wessex Archaeology monograph No. 1

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Sir John Harlestone ‘... a most remarkable and eminent man in his time.’¹

Geoffrey Carter

INTRODUCTION

Sir John Harlestone is something of an enigma. His presence throughout the second half of the fourteenth century is akin to that of a minor character in one of Shakespeare’s historical dramas. He seems always to be there in the background, sword at the ready, while the great lords take centre stage. From time to time he emerges from the crowd briefly to occupy centre stage then withdraws. He was, however, at the centre of an international diplomatic incident often ignored by those historians who have made any mention of him and which indicates that he was indeed considered by his contemporaries to be ‘a most remarkable and eminent man in his time’ but which, at the same time, reveals a darker side to his nature which is in contrast to his undoubted chivalric standing.

For all that, he has left relatively little trace in the English archives. His activities are however documented more substantially in the archives of the Alsatian noble family von Rappoltstein by whom he was held captive for a number of years. It is these archives that cast some light on Harlestone’s more shadowy activities. To gain some understanding of why Harlestone’s fate engaged the interest of Richard II of England and his first queen, Anne of Bohemia, Wenceslas IV, king of the Romans, Pope Urban VI and many others of high rank, this article summarises what little is known of this Essex knight.²

Early Life

The evidence for Harlestone’s origins is sparse. There is unsupported genealogical data that suggests Harlestone was born in Essex in 1327 in the manor of Wanton. If this is correct it connects him to a well-documented Essex Harleston family albeit in a manner which cannot be divined unambiguously from the available sources. The position is far from clear but given the facts of his later life, an Essex family connection for Sir John Harlestone seems plausible. Both Ward³ and Given-Wilson⁴ treat him as an Essex man.⁵

Harlestone first appears in the royal archive in the middle of the fourteenth century. The initial mention is as witness to a deed in January 1342.⁶ There is no evidence that Harlestone fought at Crecy or Poitiers or that he engaged in any military activity at this time. His duties for a number of years appear to have been confined to the further witnessing of deeds and the occasional arrest of felons. These years of service were however the foundation for a more prominent future role.

The first mention of Harlestone as a soldier occurs in 1359 when he was credited with the capture of Flavigny-sur-Ozerain, some thirty miles north-west of Dijon. The French considered Flavigny sufficiently secure to have stored a substantial quantity of provisions within the town; enough, Froissart says, to feed Edward III’s army for a month.⁷ The town itself was almost immediately handed back to the French during the negotiations leading to the Treaty of Brétigny but Harlestone’s role in capturing a substantial quantity of desperately needed supplies and such a valuable fortress is unlikely to have passed the notice of the king and his senior commanders.⁸

Following his success at Flavigny, Harlestone’s official military career appears to have stagnated during the years of truce between England and France but it is clear that he did not spend the whole of his time in England. There is only one mention of his name in the royal archive in this period, relating to his appointment of attorneys while ‘going beyond the seas by the king’s licence’ in July 1366.⁹ This entry, together with the absence of any record of duties at court during the whole of the 1360s suggests that Harlestone may have been abroad for a substantial part of this time. The question of what activities he might have been engaged in during this period is considered below.

With the resumption of hostilities between England and France in 1369, Harlestone was appointed to his first significant post as Captain of Guines in July 1370 and held this post until at least November 1376. For part of 1379 he was Captain of Cherbourg.¹⁰ The progression from Guines to Cherbourg was a natural concomitant of successful service.

Military Reputation

It is during the decade following 1369 that Harlestone appears most regularly in the chronicles of that period. Froissart mentions him on several occasions.¹¹ In most cases he is named only in passing but in others he is central to the matter. The best known of these episodes is the capture of the French knight, William de Bordes, in the vicinity of Cherbourg in July 1379. During this engagement Froissart describes Harlestone in combat: ‘D’autre part, messires Jehans Harleston, capitaine de Chierbourg, se combatoit bien et vaillaument, une hache en sa main, pié avant l’autre, et bien y besoignoit, car il avoit à dure partie affaire et durs combatans.’¹² Harlestone appears to have profited substantially from the capture of William de Bordes. The prisoner was

handed over to Richard II in return for which Harlestone received a grant of ten thousand francs.¹³

This positive view of Harlestone as a fighting man is echoed by other chroniclers. He is mentioned on various occasions in Walsingham's *St Albans Chronicle*.¹⁴ Once again he is depicted as a fighting man, given to chivalric words and deeds. In another episode from 1379 he is depicted as leading the mercenary soldiers who formed the garrison at Cherbourg on a raid into the countryside in an attempt to secure provisions. The French had apparently blockaded most of the approaches to Cherbourg and the situation was becoming desperate. After professing himself as 'prepared to face life or death' for the welfare of his men, Harlestone led them on a successful raid but was ambushed on the return journey. Once again, Harlestone was at the heart of the battle, as described by Walsingham: 'Sir John Harlestone, commander-in-chief of the English was the first to fall: he attacked the French with courage, but was horribly cut down and pitifully laid low, a host of the enemy surrounding him like bees.'¹⁵ On this occasion he was rescued by Sir Geoffrey Worsley who led the reserve force onto the field at a critical point in the skirmish.

The capture of William de Bordes described above by Froissart is also recorded in *The Anonimale Chronicle*, where Harlestone is once more seen in the heart of the battle. Harlestone was again apparently knocked to the ground and rescued by his companions – possibly led again by Sir Geoffrey Worsley.¹⁶ Restored to his feet, Harlestone continued to fight until victory was achieved.¹⁷

Interestingly, Harlestone is reported to have fallen in combat and to have been rescued by his companions in both of the episodes described above. There is a further episode in Froissart where something similar occurs. During Thomas of Woodstock's campaign of 1380 Harlestone was instrumental in fighting off a raid by French knights whilst the English were besieging Nantes. In this engagement, Harlestone and his men were surrounded and attacked in their lodgings at daybreak. Dressing and arming themselves quickly they defended their position but would, apparently, have been overcome but for the arrival of reinforcements.¹⁸

None of the chroniclers treats these setbacks as a sign of any weakness or lack of fighting skill on Harlestone's part. Rather, his willingness to be at the heart of the fighting, whatever the odds, is seen as a confirmation of his courage in the field and of his chivalric standing. In a later passage Walsingham includes Harlestone in a list of captains described as 'men to whom each of the armies could with good reason have been entrusted because of their wisdom, their fortitude, and their military ability'.¹⁹ and in his biographical note on Harlestone at the end of his edition of Froissart's chronicles, Kervyn de Lettenhove sums up with this view of Harlestone, 'Dans un temps de décadence pour l'Angleterre, il avait fait revivre les plus nobles traditions de la chevalerie'.²⁰ Allowing for a point of view that is distinctly French, this may, in the light of other events, be an overstatement of Harlestone's reputation but as Maurice Keen says, 'those

who were remembered as the flower of knighthood earned their name and fame hard, in face of real and ugly dangers'.²¹

Following his brief tenure at Cherbourg, Harlestone's next substantive appearance is in the context of the Peasants' Revolt of 1381. On July 10 1381 Harlestone was commissioned, under the leadership of Woodstock, to punish insurgents in Essex and on October 26 he received a further commission to arrest and punish traitors in the Essex and Kent.²² Once again, Harlestone's deeds were recorded by a contemporary chronicler. In the *St Alban's Chronicle*, Walsingham relates how the rebels of Essex were pursued to Sudbury, Suffolk by the king's men. He describes their fate in stark terms. 'Lord FitzWalter and Sir John Harlestone, ... , pursued them with armed men, and when the peasants were making their customary proclamations on behalf of the common people, the lords suddenly and unexpectedly assailed them, and killed as many as they wished.'²³ In the early years of the 20th century a pit was uncovered at Sudbury and was found to contain some 30 headless skeletons. It was suggested, probably fairly, that these bodies were the remains of peasants killed in the aftermath of the 1381 revolt. If this is correct, it is likely that Harlestone's axe was responsible for more than one of these deaths. Although not specifically named in other commissions, it is known that Harlestone was also involved in the slaughter of Essex rebels near Billericay²⁴ under Woodstock's command and it is possible that he would have been amongst the forces commanded by Woodstock in Oxfordshire, Gloucestershire and Herefordshire.²⁵ He was clearly a man for whom extreme violence was a part of daily life.

Outside of the writings of chroniclers there is other evidence of Harlestone's military activities. He took part in the ill-fated 'crusade' led by Henry Despenser, Bishop of Norwich in 1383.²⁶ It is also known that he was able to muster a substantial retinue of followers for military campaigns. Harlestone's indenture for service as a part of Woodstock's 1380 expedition survives. In this he contracts to supply six bannerets, seventy three knights and eighty archers.²⁷

Alongside his role as a military leader there is occasional mention of Harlestone in the context of diplomatic missions. Lettenhove states that Harlestone 'eut un débat devant le conseil du roi de France contre le sire de Camprémy' in 1364 and that Edward III gave him 'de pleins pouvoirs' in January 1366, although it is not clear in what context these were granted. He further mentions that in October 1376, Harlestone was 'un des conservateurs des trêves conclues avec France'.²⁸ This latter mission was connected with the implementation of a truce concluded in June 1375 for which Harlestone was chosen as one of four 'conservators'.²⁹ While captain of Cherbourg, Harlestone is recorded by Froissart as having played a minor role in securing the freedom of John of Brittany, cousin of the duke of Brittany, who was at that time being held for ransom in England.³⁰ Toward the end of his life the *Westminster Chronicle* records him as being with Woodstock in the context of negotiations with the

French to prolong the 1389 truce of Leulingam³¹ and Lettenhove has him 'chargé d'une mission outre mer' in 1398.³² None of these accounts suggests that Harlestone was instrumental in the negotiating process itself. Given his background it seems more likely that he was included in these various retinues for what might best be described as 'security' purposes.

Thomas of Woodstock

Harlestone's relationship with Thomas of Woodstock, youngest son of Edward III, earl of Cambridge and duke of Gloucester, is worthy of closer examination. Woodstock most probably first met Harlestone while he was growing up at his father's court.³³ The first record of Harlestone's service with Woodstock is an entry in the Patent Rolls relating to Harlestone sitting with Woodstock in a military court in March 1380.³⁴ By this time Woodstock would have been 25 years old and already engaged in building his own affinity.

At the time of his father's death in 1377 Woodstock had no title and had been left no land as a source of income. Woodstock's only substantial lands, situated in Essex and including his seat at Pleshey Castle, had come to him through marriage to a daughter of Humphrey of Bohun, Earl of Hereford. Richard II had raised Woodstock to an earldom at the time of his coronation and had provided him with an endowment of £1,000 per annum to support his new lifestyle. It has been suggested, however, that the alien priories that were to provide this revenue were in financial difficulties and that he was unlikely ever to have received full payment. Upon his later elevation to a dukedom in 1385 Woodstock received a further annuity of the same sum but Richard never showed any inclination to swap the cash grants for lands of an equivalent value, leaving Woodstock dependent on an exchequer that was itself pressed for cash during the 1380s. On top of this, Woodstock found himself in competition with the de Vere family for influence within Essex and must have resented the de Vere's greater favour at court. Nigel Saul says, 'He needed a powerful following of his own both to bolster his own prestige and to keep watch over his interests in the county, but ... he found it difficult to recruit one. His greatest attraction to the gentry was probably his ability to offer them opportunities to seek honour and renown in war.'³⁵ Harlestone, an established military figure of some repute by the late 1370s and someone that he had probably known since childhood, would have been an ideal person to form the core of such a following. The close nature of the relationship between Harlestone and Woodstock is further illustrated in the foundation statutes of the religious college that Woodstock established at Pleshey in 1393.³⁶ In statute 22 Harlestone is listed amongst those for whom Mass was to be said on designated dates. In 1395 Harlestone was one of those to whom Woodstock granted his Stafford and Moleyns wardships.³⁷

Capture and Imprisonment in Alsace

In 1384 Harlestone was travelling through Alsace on pilgrimage (Fig. 1) when he was captured and

imprisoned by Bruno von Rappoltstein, the head of an important Alsatian noble dynasty.³⁸ This action was to have repercussions across Europe and, at the same time, leads to an indication of what exactly Harlestone may have been doing in his unexplained time away from England during the 1360s decade of truce between England and France. It thus throws some light on the real nature of those knights who were considered by the chroniclers to be such exemplars of chivalric values.

The root cause of Bruno's capture of Harlestone dates back to 1369 and the marriage of Philip the Bold, duke of Burgundy, to Margaret, daughter of the count of Flanders, in Ghent. Present at the wedding and the subsequent tournament was Bruno von Rappoltstein, together with fifty followers. This, and Bruno's involvement in the subsequent events of that year, are recorded in a memorandum preserved in the Rappoltstein family archive.³⁹

Bruno's memorandum explains that after the wedding celebrations, he accompanied Philip to Paris to attend the French king, Charles V. On 15 July he departed with the king and Philip to Normandy where a fleet was in preparation at Harfleur for an attack on England. It would appear that Bruno expected to be a part of this expedition which was to be led by Philip. The plan was interrupted by news of the landing of John of Gaunt, duke of Lancaster at Calais in early August and the latter's devastation of the surrounding countryside. Philip and his forces were despatched to deal with this incursion and, after a period of stand-off near Tournehem-sur-la-Hem, Philip withdrew some fifty miles to the southeast and sent a company of knights, including Bruno, to occupy the town of Abbeville. Upon learning of Philip's withdrawal Lancaster departed towards Harfleur with the intention of burning the assembled French fleet. Having failed to achieve this, Lancaster retraced his steps and in an engagement close to Abbeville (probably during the month of September) he captured Hugo de Châtillon, the French Master of the Artillery and a number of his company, including Bruno. The prisoners were taken to Calais where Bruno was held for several months awaiting payment of his ransom.

It was during his adventure in France that Bruno appears to have first met Harlestone. In his account, Bruno describes an initial encounter with Harlestone as having taken place at this time. He explains that he had captured Harlestone but was forced to release him because Harlestone's men had taken 160 prisoners (some of whom belonged to Bruno's wife) in the town of *Schexyë* (possibly the modern village of Chuignes on the route from Ghent to Paris) and had threatened to kill them if Harlestone were not released. In these circumstances Bruno felt he had no choice but to comply. The two parted on bad terms and Bruno states in his memorandum 'vnnd ist [er] auch vor vndt seitmahlen allgewenn mein offen feindt gewesen'⁴⁰ Bruno makes the point specifically that the kings of England and France were still at peace and that Harlestone was acting as 'ein gesellschafft man',⁴¹ a reference to the "free companies" of knights which had terrorised various parts

of Europe during the 1360s. Either way, Harlestone was not prepared to accept his capture in any chivalrous manner and his alleged behaviour reflects perhaps the reality of such small-scale skirmishes as opposed to what might be expected in the course of a more formal engagement. If indeed, Harlestone was engaged is less than chivalrous activities on his own behalf, this might account for his failure to accept his capture and his subsequent bad feeling towards Bruno.

Following this encounter Harlestone allegedly attacked several of Bruno's French properties. The exact timing is unclear but Bruno states that at that time 'dir könige von Franckhreich vnd Engellandt friedt vnd friedtliche stallung miteinander hatten.'⁴² A formal state of war between England and France did not begin until the French confiscation of Aquitaine in November 1369 and thus the attacks most likely took place between the end of June and November, possibly while Bruno was incarcerated in Calais. Bruno's accusations are very detailed. He names six villages as having suffered from Harlestone's attentions. He claims that a total of more than twenty men were murdered and details the method of their demise 'erschlugent, ertranckelnt vnnndt ann die baum hängent.'⁴³ He also mentions one more fortunate man who merely had his teeth knocked out! He accuses Harlestone and his companions of raping and carrying off a number of women and young girls as well as the theft of many animals (large and small) and of other moveable property. In each case he states that the village was burnt along with one church and one monastery, from which the treasury was stolen. He spells out the financial cost to him of these depredations in some detail. The villages allegedly attacked are spread over a substantial area and the distances covered suggest that Harlestone had information permitting him to seek out specific properties, indicating that the attacks were personal.

At this point, the archive is silent. There is no indication of any action by Bruno at the time while Harlestone's career was entering a period of advancement. In 1384, a full fifteen years after their initial encounter, the paths of Bruno and Harlestone were to cross again.⁴⁴

In the early part of this year, Harlestone began a pilgrimage to Loreto via Rome which Kenneth Fowler cites as an example of someone seeking absolution for past sins against the church.⁴⁵ Such a journey was in compliance with a papal bull of 16 November 1366 which specified pilgrimage to Rome as one of the acceptable penances.⁴⁶ By the time of this journey, Harlestone was possibly in his late fifties and may have begun to consider the fate of his soul. As Fowler suggests (writing specifically about Harlestone), 'it is probable that it was only the more successful of the mercenaries, those who had good reason to safeguard their profits and were concerned about their position and advancement in society, who sought papal absolution'. Failure to do so would have left Harlestone excommunicated under a series of measures pronounced by Pope Urban VI in an attempt to stem the activities of the *rou tiers*.⁴⁷

In the course of his journey he passed through Alsace under the protection of a safe-conduct issued by Primissel, duke of Teschen in the name of Wenceslas IV for his passage through the territory of the Empire. This is attested in a number of letters subsequently written to demand the release of Harlestone.⁴⁸ The choice of a route via Alsace would appear reasonable for Harlestone who would not perhaps have wished to run the risk of travelling through France, given his previous military involvement in that area.

Travelling through the territory of the Empire (with which Richard II had allied himself in 1381 following his marriage to Anne of Bohemia, the half-sister of Wenceslas



Fig. 1 The properties of Bruno von Rappoltstein allegedly attacked by Harlestone and Bruno's home in Alsace

IV, Harlestone would have been obliged to travel through the heart of Bruno’s territory between Strassburg and Basel. Bruno recounts that Harlestone was lodging in a town not far from the Rappoltstein castles at Rappoltweiler (some 30 miles south of Strassburg) and that he was making generally insulting and disparaging remarks about Bruno, whom Harlestone claimed to hate more than anyone else. These remarks were reported back to Bruno who sent men to capture Harlestone. The latter made good his escape but was overtaken and captured on the road to Basel. Given that he was travelling as a pilgrim with only a small number of companions Harlestone was in no position to repeat the defiance of his previous capture by Bruno.

In July 1384 Harlestone added his seal together with those of three companions to a letter agreeing the terms of his ransom.⁴⁹ From the captive’s viewpoint, whatever the rights and wrongs of his imprisonment, he would appear to have had no choice but to seal the deed. Harlestone was a long way from his home and his supporters, incarcerated in a formidable castle atop a steep hill with little or no hope of freedom other than by accepting whatever terms Bruno might propose. Bruno’s castle at Hoh Rappoltstein (Fig. 2) was hardly a palace and Richard Barber relates that the Germans had a bad reputation regarding the treatment of prisoners, quoting

Froissart’s view that the Germans would shackle their prisoners and hold them in prison to obtain a better ransom.⁵⁰

These terms demanded by Bruno were quite onerous. In return for the freedom of Harlestone and his three companions (a priest and two squires) Bruno required payment of thirty thousand gold francs, twenty good bolts of English cloth together with twenty swords and twenty daggers. Given that the companions (of whom nothing further is known) were of limited value as hostages, one must assume that the bulk of this demand was made on the basis of Harlestone himself. The letter further required that an instalment of six thousand francs be paid before October 1 1384. There is no evidence that Harlestone was an especially rich man and Bruno’s demands seem excessive, but this was not in itself unusual.⁵¹ One may assume that he had in mind the sums which he considered he had lost in Harlestone’s attacks of 1369 plus the ransom which Bruno had paid to secure his release from captivity in Calais. The demands for equipment seem opportunistic but were not unusual.⁵²

No detail survives as regards how the money for the first instalment of the ransom was raised and by whom, but later correspondence indicates that the six thousand francs were duly paid.⁵³ Harlestone’s close relationship with Thomas of Woodstock, his recent service to Richard



Fig. 2 The castle of Hoh Rappoltstein looking east towards the Rhine

II in the wake of the Peasants' Revolt and his general good standing and reputation as a loyal soldier over many years may have assisted in this regard but there is no record of this. It has been suggested that this initial payment was to have secured Harlestone's freedom and that Bruno reneged on this after receipt of the money, demanding a greater advance.⁵⁴ There is nothing in the surviving deed of ransom which could be construed as a promise to release Harlestone after the first payment and there would appear to be no other surviving documents on this matter.

Harlestone was first held at Hoh Rappoltstein but subsequently moved to Burgundy. In February 1387 Harlestone gave a letter agreeing to remain as Bruno's prisoner whilst in the custody of Guy de Pontaillier, the Marshall of Burgundy and further promised to return to custody within eight days if anyone were to free him.⁵⁵ The letter makes mention of the fact that Harlestone had previously undertaken a pilgrimage to the shrine of Our Lady of Nazareth with Pontaillier 'au temps, que pais et concorde estoient entre les roys de France et d'Angleterre' which probably refers to the truce between 1360 and 1369.⁵⁶ The two were bound by an oath of that time to assist each other and Harlestone had sought Pontaillier's help in freeing him from Bruno's clutches, presumably in the hope of securing more comfortable lodgings during his captivity. All of the various letters written by Richard II on Harlestone's behalf refer to the harsh regime of his imprisonment, although it has to be accepted that this may simply have been a conventional device to increase the impact of the appeals.

The relationship between Harlestone and Guy de Pontaillier is unclear but their joint pilgrimage suggests friendship. The latter was Marshall of Burgundy from 1364 to 1392. Alongside the Duchy and County of Burgundy, Philip the Bold's territory encompassed the 'terres de Champagne', usually seen as a dependency of the Duchy.⁵⁷ Some of Bruno's possessions may have fallen within this area. Little can be said about this web of interconnection in the absence of source material, other than to reflect that the personal relationships forged between knights sometimes transcended the simple divide between warring factions and thus there may be further dimensions to the antipathy between Harlestone and Bruno that arose in ways that are unlikely ever to become clear. Bruno's connections with Burgundy and Harlestone's friendship with de Pontaillier may have played their part in Bruno's agreement to release Harlestone from Hoh Rappoltstein but other factors may also have been at work.

Interventions and Release

In June 1385 Richard II wrote to the city authorities in Strassburg to seek their assistance in obtaining Harlestone's release.⁵⁸ In his letter he pointed out that Bruno was a citizen of Strassburg and it was on this basis that he requested the intervention of the authorities. Bruno had, in fact, been granted status as an *Ausbürger* in October 1383.⁵⁹ Richard also pointed out in the same letter that Harlestone could not have been guilty of the

depredations alleged by Bruno since, at the time, he was 'in partibus ultramarinis contra inimicos crucis Christ.'⁶⁰ Some writers have seen this as suggesting that Harlestone had visited the Holy Land but there is no other evidence to support this and it is more likely to refer to the journey made with Guy de Pontaillier or, quite possibly, to be a complete invention.

According to the Strassburg chronicler, Jakob Twinger von Koenigshofen, Bruno was summoned to appear before the council and to justify his capture of Harlestone.⁶¹ It is in this context that his memorandum was most likely composed. The matter was left in abeyance at this point.

Further letters from Richard were then received by the authorities, not all of which have survived.⁶² Eventually the authorities wrote back to Richard explaining that the matters giving rise to Bruno's capture of Harlestone predated his citizenship and that the citizenship agreement between Bruno and the city expressly excluded their becoming involved in such disputes which, accordingly, was nothing to do with them! The chronicler notes that several respected persons suggested that pressure should be brought to bear on Bruno in case their failure to act were to cause problems for the city in the future. Others treated this view with contempt, commenting that 'es mueste ein lang swert sin das von Engelant untze gen Strosburg reichte'.⁶³ In fact, this attitude of the city authorities later provided an opportunity for Wenceslas to place Strassburg under the Imperial Bann and to extract a substantial payment in return for its release.

In the absence of any practical help from the authorities in Strassburg, Richard turned to others. He wrote a series of letters to his brother-in-law, Wenceslas IV, Pope Urban VI, Primissel duke of Teschen and the dukes of Lorraine and Luxemburg. In each case Richard asked for intervention to help secure the release of Harlestone.⁶⁴ At this point, the pressure began to build for Bruno and his response was dramatic.

In September 1386 Bruno swore perpetual allegiance to Charles VI of France.⁶⁵ In return for eight thousand francs Bruno pledged to hold his castles open to the king and to support him in his war against the king of England and the latter's allies, including specifically the king of the Romans. The only exclusions from Bruno's obligations were the duke of Burgundy, the duke of Austria (to whom Bruno had pledged allegiance for three years in April 1384), the duke of Lorraine, the bishops of Basel and Strassburg and the city of Strassburg.⁶⁶ Bruno undertook to capture any English subjects or possessions that he could and also not to free any English prisoners without the prior approval of the king. In a further document of 1388, Charles VI instructed Bruno to capture any Englishman travelling without a safe-conduct issued by Charles or in his name.⁶⁷ Thus, Bruno appears to have re-entered the Hundred Years' War and transformed Harlestone into a prisoner of war.

Harlestone remained in Burgundy for the duration of his captivity. A further letter dated 10 March 1388 restates his obligation as Bruno's prisoner whilst moving

to a new location in Burgundy. For Bruno, who understandably chose not to publicise his French connection (he was, of course, a subject of the Holy Roman Empire) the pressure continued. Letters were written to the Strassburg city authorities by Wenceslas IV, Pope Urban VI and the dukes of Lorraine, Luxemburg and Teschen, all of whom requested the city to use its influence with its errant citizen. Wenceslas IV wrote additionally to all towns in the *Landvogtei* of Alsace to order them to press Bruno to release his captive.⁶⁸

Wenceslas IV wrote to Bruno himself in February 1387.⁶⁹ He refers to letters and ambassadors that he has previously sent to Bruno requiring him to release Harlestone or to present himself before the princes of the Empire to justify the captivity and to the fact that neither of these things has happened. This letter suggests that Wenceslas IV was running out of patience with Bruno but it had no effect. In December 1387 Bruno received a further letter from the king of France instructing him to imprison all English soldiers and their supporters unless they held letters of safe-conduct.⁷⁰ Matters dragged on and eventually Wenceslas IV did finally run out of patience and Bruno was placed under the Imperial Bann in 1388.

Finally the pressure had the desired effect. The release of Harlestone is not documented directly but can be implied from other sources. A document dated to early 1392 refers both to Harlestone as released and Bruno as free of the Bann.⁷¹ In fact, it would seem that Harlestone had been released rather earlier as he was paid the arrears of his pension in England in December 1389.⁷²

Harlestone's capture by Bruno was, in some ways, the greatest good fortune of his life. In 1386 Woodstock, as duke of Gloucester, was one of the leading members of the Lords Appellant, that group of nobles who came so close to deposing Richard II. By this time, Harlestone had been away from domestic politics for a considerable period and seems thus to have escaped any implication in the matter, unlike many of Woodstock's other knightly adherents. Indeed, in February 1393, after his release by Bruno, Harlestone was granted an annuity by Richard II of 100 marks for life specifically to compensate him for losses whilst imprisoned in Germany.⁷³

A possible further factor in the absence of any consequences to Harlestone when Woodstock fell is the fact that Harlestone appears to have played no active role in domestic politics. There is no evidence for him being involved, at any level, with local or central government outside of his military activities, a fact that may be connected with limited landed wealth. Although there is evidence that he held some lands in Essex he does not appear to have been a man of substantial property interests. Harlestone's share in the ransom of William de Bordes was ten thousand marks. He is known to have sold other prisoners to the king. McKisack mentions his share in the proceeds of the ransom of a French knight as £1,583 6s 8d.⁷⁴ This most likely relates to the sale of two prisoners to Edward III in 1374, while Harlestone was captain of Guines. The extent to which Harlestone also enjoyed the fruits of war gained from less chivalrous

activities is closely connected to the reason for his capture and imprisonment by Bruno von Rappoltstein in 1384 and relates to the unanswered question of what he may have been doing during the years prior to his appointment as captain of Guines.

Brigandage in France

As a part of his complaint against Harlestone, Bruno cited an episode, told to him by another knight who claimed to have seen Harlestone and his followers with their table set with more than one hundred chalices which they had stolen from a variety of religious houses, including those in Bruno's villages. To underline the horror of this, Bruno relates that the knight in question could not bring himself to drink from a chalice looted from the Church and was accordingly brought another drinking vessel.

It should be borne in mind that Bruno had good reason to paint as black a picture as possible of Harlestone to the Strassburg authorities. Alongside the general accusations of looting, murder and pillage, none of which was necessarily unusual behaviour for English knights on campaign during the Hundred Years War, the accusation of membership of the free companies would have had a special resonance with the authorities in Strassburg which had suffered from their attentions under the leadership of the Archpriest, Arnaud de Cervole in 1365.⁷⁵ The final accusation of Harlestone as a despoiler of churches and looter of holy chalices would have served to put him fully beyond the pale.

By piling these accusations one upon another, Bruno could portray Harlestone as the epitome of evil and himself as the victim seeking recompense for his losses through ransom and as a good Christian in avenging wrongs done to the Church. The question thus arises as to whether these accusations were justified or simply a construct by Bruno to justify his actions.

Taking the question of Harlestone's membership of the free companies first, it must be said that there is no evidence of his formal involvement. In his study of this subject Fowler does not list Harlestone as a captain or member of any of the companies.⁷⁶ No mention is made of him by Sumption or Wright in their work in this area.⁷⁷ In fact, none of the modern or contemporary sources which refer to Harlestone give any indication that he was a member of any company. It seems likely therefore that this aspect of Bruno's complaint may well be fiction and added to the more specific charges in order to sway his audience.

Moving to the question of the despoilment of churches and the looting of church property, there is evidence to support the story told by Bruno of the chalices on Harlestone's table. Fowler's sole mention of Harlestone is in connection with this story. Describing Harlestone as 'infamous in his exploits', he goes on to tell exactly the same tale as is told by Bruno by reference to an inquest into pillaging held in Champagne in 1375.⁷⁸ It is not entirely clear as to the period covered by this enquiry. Fowler's source for this is a 19th Century French study of the Companies by De Fréville.⁷⁹ In this,

De Fréville writes, ‘Tous les historiens s’entendent sur le luxe effréné des gens de guerre; mais toutes les declamations ne valent pas le fait suivant: dans une enquête au sujet du pillage de la Champagne, en 1375, un témoin déclare qu’il a vu sur la table ou Jean de Harlestone, capitaine anglais, soupaît avec ses camarades, plus de cent calices qui leur servaient de verres.’⁸⁰

As three of Bruno’s villages allegedly pillaged by Harlestone are named in the letter of 1385 as being in the county of Champagne, it seems reasonable to imagine that Bruno would have been aware of such matters and that he would naturally have kept himself informed of events in an area in which he held substantial interests. Bruno’s retelling of the knight’s story does therefore have some weight.⁸¹

Finally, there remains the question of whether Harlestone was guilty of the alleged offences against Bruno’s people and properties. There is no firm evidence to support Bruno’s contentions. Against this, the charge of looting churches looks to have some foundation and Bruno’s specific charges of violence against his properties and the circumstances in which they arose are persuasive, even allowing for a degree of exaggeration that Bruno may have added to help his case with the authorities in Strassburg. There is no evidence to support a case for Harlestone as a member of the free companies but this, in itself, is not proof that he did not have a connection with them at some point. After all, Sir Geoffrey Worsley who served under Harlestone at Cherbourg and who saved Harlestone’s life on at least one occasion was most certainly ‘a company man’.⁸² Overall, it is reasonable to conclude that Harlestone was no better and no worse than many English fighting knights of that period.⁸³

Following his return to England Harlestone seems to have lived a quieter life and appears only infrequently in the archives. In 1393 Harlestone was granted an annuity of 100 marks for life as compensation for losses whilst imprisoned. This annuity was subsequently confirmed by Henry IV in October 1399.⁸⁴ He was not, however, entirely inactive at court. In 1397 he was a guarantor for the appearance before the Council of Thomas Feriby, Woodstock’s secretary, who was being held in the Tower.⁸⁵ He is further recorded in 1395 as being a supporter of the Order of the Passion, a short-lived crusading order founded by Philippe de Mézières, a friend and advisor to Charles V of France.⁸⁶ It seems unlikely that Harlestone was seriously considering participation in a crusade at this stage of his life. His inclusion in a list of patrons and members of the order alongside John of Gaunt, his friend Woodstock and many others, suggests that he was invited to add his name and reputation to the venture primarily as an encouragement to other potential recruits.

The date of Harlestone’s death is not recorded but the writ for Harlestone’s *inquisition post mortem* was issued on 25 January 1406.⁸⁷ The writ refers to lands held in Kent but there is no subsequent record of the *inquisition* itself. As the annuity of one hundred marks granted in 1393 was to be paid from the issues of Kent, it is possible that there was a belief that he had held lands in that

county from the king. It may be that this was shown to be erroneous and thus the *inquisition* itself rendered unnecessary.

Sir John Harlestone typifies the contradictory nature of the professional medieval knight. On the one hand he was revered by his contemporaries as a man of great chivalric standing. His reputation was sufficient to bring about the intervention of several great figures when he was taken prisoner in 1384. Yet, there is enough evidence to suggest that he had undertaken distinctly unchivalric activities in France for personal gain, even if he was not specifically a “company man”. Such contradictions would not necessarily have been seen as such in the 14th century as Nicholas Wright summarises when he observes, ‘the lines of demarcation between war and brigandage, and between chivalrous knights and highway robbers, were not at all clear in practice.’⁸⁸

Notes

- ¹ Francis Blomefield and Charles Parkin, *An Essay Towards a Topographical History of the County of Norfolk, etc* (London: William Miller, 1805), iii, p. 111 Note.
- ² For Urban VI see J. N. D. Kelly, *The Oxford Dictionary of Popes* (Oxford: Oxford University Press, 1988, 1986), pp. 227–28.
- ³ Jennifer C Ward, *The Essex Gentry and the County Community in the Fourteenth Century, Studies in Essex history ; 2* (Essex Record Office, 1991), p. 9. Ward includes Harlestone in a table of ‘Essex Gentry on Commissions of Array 1377 – 1392’.
- ⁴ Chris Given-Wilson, *The Royal Household and the King’s Affinity: Service, Politics, and Finance in England, 1360–1413* (New Haven ; London: Yale University Press, 1986), p. 283. Given-Wilson includes Harlestone in a table of ‘Knights of the chamber and lay officers of the household’ under Richard II and indicates his area of ‘Local Interests’ as Essex.
- ⁵ I am grateful for assistance received from Mr Paul Reed in connection with the Essex Harlestone family. Mr Reed, Fellow of the American Society of Genealogists, has researched the medieval origins of the family in connection with his article, *The English Origins of John Harleston, Colonial Immigrant to South Carolina*, (The Genealogist, Fall 1988). There is a substantial amount of genealogical data on various medieval Harlestone families at <http://www.familysearch.org/>. Some of this data has been provided by Mr Reed. Other data has been compiled anonymously without supporting detail of its source, including the entry relating to the birth of ‘John de Harleston’ at Wantons Manor, Essex circa 1327 and that of ‘Sir John Herloveston’ circa 1300.
- ⁶ *Calendar of the Close Rolls*, 1341–43, 470.
- ⁷ Jean Froissart and J. M. B. C. Kervyn de Lettenhove, *Chroniques, Oeuvres de Froissart* (Bruxelles: Devaux, 1871), VI, 256.
- ⁸ Thomas Gray, *Scalacronica. The Reigns of Edward I, Edward II and Edward III*, tr. Herbert Maxwell (Glasgow: 1907), p. 148–59.

- ⁹ *Calendar of the Patent Rolls*, 1364–67, 291.
- ¹⁰ Anthony Goodman, *The Loyal Conspiracy : the Lords Appellant under Richard II* (London: Routledge & Kegan Paul, 1971), p. 99. The indenture for Harlestone's custody of the castle and town of Cherbourg survives in the National Archives at E101, *Exchequer, King's Remembrancer, Accounts Various*, E101/68/8 78 & 79.
- ¹¹ Froissart and Kervyn de Lettenhove, *Chroniques*. The references to Harlestone may be found at : VIII, 280; VIII, 328ff; VIII, 399; VIII, 403; VIII, 414; IX, 92ff; IX, 96; IX, 134ff; IX, 244; IX, 306 and XII, 60ff.
- ¹² *Ibid.*, IX, 138. Author's Translation: "On the other hand, Sir John Harlestone, Captain of Cherbourg, fought well and valiantly, an axe in his hand, one foot in front of the other, as well he needed to, because he was engaged in a hard fight with tough adversaries."
- ¹³ VH (ed) Galbraith, *The Anonimale Chronicle 1333 to 1381* (Manchester: The University Press, 1927), 1377–81: 311, 495, 543 & 586.
- ¹⁴ John Taylor, Wendy R. Childs, and Leslie Watkiss, *The St Albans Chronicle : The Chronica Maiora of Thomas Walsingham. I, 1376–1394, Oxford Medieval Texts*. (Oxford: Clarendon, 2003), The references are at pages 269, 83–89, 343, 65–67, and 515–17.
- ¹⁵ *Ibid.*, p. 287.
- ¹⁶ Froissart and Kervyn de Lettenhove, *Chroniques*. In his biographical note on Harlestone, Lettenhove writes, : 'Ce fut Gauthier Worsley qui sauva la vie à Jean d'Harleston et qui décida la victoire des Anglais au combat de Cherbourg en 1379'. As he had previously written a lengthy note concerning the passage in the St Alban's Chronicle and the role of Worsley, it is likely that this later section refers to the action in which William de Bordes was captured. The role of Worsley in that battle is not mentioned in the accounts of Froissart or *The Anonimale Chronicle* and Lettenhove gives no reference for his assertion.
- ¹⁷ Galbraith, *The Anonimale Chronicle 1333 to 1381*, p. 130.
- ¹⁸ Froissart and Kervyn de Lettenhove, *Chroniques*, IX, 306.
- ¹⁹ Taylor, Childs, and Watkiss, *The St Albans Chronicle : The Chronica Maiora of Thomas Walsingham. I, 1376–1394*, p. 365.
- ²⁰ Author's Translation: "At a time of decadence for England, he revived the most noble traditions of chivalry".
- ²¹ Maurice Keen, *Chivalry* (New Haven ; London: Yale University Press, 1984), p. 223.
- ²² *Calendar of the Patent Rolls*, 1381–85, 73 & 79.
- ²³ Taylor, Childs, and Watkiss, *The St Albans Chronicle : The Chronica Maiora of Thomas Walsingham. I, 1376–1394*, p. 517.
- ²⁴ Alastair Dunn, *The Peasants' Revolt. England's Failed Revolution of 1381* (Stroud: Tempus Publishing, 2004), pp. 169–70.
- ²⁵ Taylor, Childs, and Watkiss, *The St Albans Chronicle : The Chronica Maiora of Thomas Walsingham. I, 1376–1394*, p. 516 note.
- ²⁶ Nigel Saul, *Richard II* (New Haven, Conn. ; London: Yale University Press, 1997), p. 52. Edouard Perroy, *The Diplomatic Correspondence of Richard II* (London: The Camden Society, 1933), p. 196.
- ²⁷ JW Sherbourne, 'Indentured Retinues and English Expeditions to France, 1369–1380,' *The English Historical Review*, 79, no. 313 (1964): p. 732.
- ²⁸ Froissart and Kervyn de Lettenhove, *Chroniques*, XXI, 525. Author's translation : "took part in a debate against the Sire de Camprémy before the king of France's Council" The phrase "de pleins pouvoirs" normally indicates the powers granted to a diplomat for the purposes of negotiations. Author's translation : "Harlestone was one of the 'conservators' of truces agreed with France." This role was an agreed means of each side assuring itself that the terms of the treaty were implemented and maintained.
- ²⁹ Kenneth Alan Fowler, *Medieval Mercenaries* (Oxford: Blackwell, 2001), pp. 195–97. The arrangements for the truce were considered a novel attempt to secure compliance. Fowler describes the role of Harlestone and his fellows in some detail.
- ³⁰ Froissart and Kervyn de Lettenhove, *Chroniques*, XII, 60ff.
- ³¹ L. C. Hector, Barbara F. Harvey, and Corpus Christi College (University of Cambridge). Library., *The Westminster Chronicle, 1381–1394, Oxford medieval texts*. (Oxford New York: Clarendon Press; Oxford University Press, 1982), p. 515.
- ³² Froissart and Kervyn de Lettenhove, *Chroniques*, XXI, 525.
- ³³ Goodman, *The Loyal Conspiracy*, p. 102.
- ³⁴ *Calendar of the Patent Rolls*, 1377–81, 485.
- ³⁵ Saul, *Richard II*, pp. 178–79 See also Anthony Tuck, *Thomas , Duke of Gloucester (1355–1397), Oxford Dictionary of National Biography* (Oxford: Oxford University Press, 2004).
- ³⁶ The foundation statutes of Pleshey College are reproduced in full in Richard Gough, *The History and Antiquities of Pleshy, in the County of Essex* (London, 1803), Appendix, 69ff.
- ³⁷ Goodman, *The Loyal Conspiracy*, p. 100.
- ³⁸ For a full discussion of the involvement of Harlestone with the von Rappoltstein family and the ramifications see Geoffrey Carter, 'Bruno von Rappoltstein. Power Relationships in Later Medieval Alsace.' (Durham University, 2007).
- ³⁹ Karl Friedrich Hermann Albrecht, *Rappoltsteinisches Urkundenbuch*, 5 vols. (Colmar: 1891), 2, No. 63.
- ⁴⁰ Author's translation: "and he has always, both before and since, been my sworn enemy."
- ⁴¹ Author's translation: "a company man"
- ⁴² Author's translation: "the kings of France and England maintained peace and a friendly relationship between themselves."
- ⁴³ Author's translation: "struck dead, drowned, and hanged from trees."
- ⁴⁴ The dating of this can be inferred from a letter written in 1384 by Harlestone regarding his ransom. See Albrecht, *RU*, 12, No. 234. This date is accepted by

- Perroy in Perroy, *Richard II*, p. 196. Twinger sets the date as 1388 but this is clearly wrong as is indicated by the editor in his notes. See Jakob Twinger von Königshofen, *Die Chroniken der Oberrheinischen Städte : Strassburg*, ed. C Hegel, 2 vols. (Göttingen: Vandenhoeck u. Ruprecht, 1961), 9, p. 680. Twinger's dates continue to be wrong but not always by the same margin, despite the events being contemporary.
- ⁴⁵ Fowler, *Medieval Mercenaries*, p. 146.
- ⁴⁶ Ibid., p. 145. See also Diana Webb, *Medieval European Pilgrimage, c.700–c.1500* (Basingstoke: Palgrave, 2002), p. 50.
- ⁴⁷ Fowler, *Medieval Mercenaries*, p. 146.
- ⁴⁸ Richard II wrote to the Wenceslas IV, the dukes of Lorraine and Luxembourg and the city of Strassburg on this matter. In each case he refers to Harlestone as having been “*sub salvo conductu ducis tessinensis*” or the equivalent. He also wrote to the duke of Teschen himself using the phrase “*litteris vestris de salvo conducto*”. The letters are reproduced in Perroy, *Richard II*, pp. 28–31.
- ⁴⁹ Albrecht, *RU*, 2, No. 234.
- ⁵⁰ Richard Barber, *The Knight and Chivalry* (Woodbridge: Boydell Press, 1995), p. 242.
- ⁵¹ There seems to have been no hard and fast rule as to what was a reasonable ransom. Keen indicates that it was based on a rough and ready assessment of what the captor thought he could get and what he thought the captive could pay and concludes that ‘the resulting demand was nearly always excessive’. Maurice Hugh Keen, *The Laws of War in the Late Middle Ages, Studies in Political History* (pp. xi. 291. Routledge & Kegan Paul: London; University of Toronto Press: Toronto, 1965), pp. 158–59. In the case in question, Bruno is unlikely to have had any clear idea of Harlestone's resources and most likely therefore sought to regain his estimate of his own earlier losses as a starting point.
- ⁵² Ibid., p. 168.
- ⁵³ Albrecht, *RU*, 2, No. 230. Urban's letter to Strassburg mentions this point.
- ⁵⁴ Guy Trendel, ‘L’Affaire de Brunon de Ribeaupierre,’ *Recherches Medievales*, 60 / 61 (1999): pp. 3–20.
- ⁵⁵ Albrecht, *RU*, 2, No. 277.
- ⁵⁶ Author's translation: “at a time when peace and harmony existed between the kings of France and England”.
- ⁵⁷ Vaughan, *Philip the Bold*, p. 114.
- ⁵⁸ Albrecht, *RU*, 2, No. 245.
- ⁵⁹ Ibid., 2, No. 226. There is no direct translation of *Ausbürger*. The term relates to the practice of cities whereby “external citizenship” was granted to members of the local nobility.
- ⁶⁰ Author's translation: “overseas against the enemies of the crucified Christ”.
- ⁶¹ The following section draws on Twinger's chronicle and the direct quotes are taken from here unless otherwise referenced. The relevant section of the chronicle may be at found at : Königshofen, *Strassburg*, 9, pp. 680–82.
- ⁶² Perroy reproduces one further letter in Perroy, *Richard II*, p. 30. Königshofen however seems clear that there were several letters.
- ⁶³ Author's translation: “it must be a long sword that reaches from England to Strassburg”.
- ⁶⁴ Ibid., pp. 28–31.
- ⁶⁵ Albrecht, *RU*, 2, No. 263.
- ⁶⁶ Ibid., 2, No. 233.
- ⁶⁷ Ibid., 2, No. 289.
- ⁶⁸ Ibid., 2, Nos. 273, 74, 75 and 78.
- ⁶⁹ Ibid., 2, No. 276.
- ⁷⁰ Ibid., 2, No. 248.
- ⁷¹ Ibid., 2, No. 337.
- ⁷² Perroy, *Richard II*, p. 197.
- ⁷³ *Calendar of the Patent Rolls, 1391–96*, 240.
- ⁷⁴ May McKisack, *The Fourteenth Century, 1307–1399*, *Oxford History of England* (Oxford, 1959), p. 247, citing Issues of the Exchequer (Devon, 1837) 153 & 217.
- ⁷⁵ Fowler, *Medieval Mercenaries*, p. 130ff.
- ⁷⁶ Ibid.
- ⁷⁷ Jonathan Sumption, *The Hundred Years War*, vol. II Trial By Fire (London: Faber, 1999). Nicholas Wright, *Knights and Peasants : the Hundred Years War in the French Countryside, Warfare in History* (Woodbridge, Suffolk: Boydell, 1998).
- ⁷⁸ Fowler, *Medieval Mercenaries*, p. 146.
- ⁷⁹ de Fréville De Lorme Charles Ernest, *Des grandes Compagnies au quatorzième Siècle* (1842–44., 1842).
- ⁸⁰ Ibid., ii, 246, Note. Author's translation: “All historians are in agreement about the extravagant luxuries of fighting men, but these declamations pale beside the following fact: in an enquiry into the subject of the pillage of Champagne in 1375, a witness declares that he saw more than one hundred communion chalices which were being used as glasses on the table where John Harlestone, the English captain, was dining with his comrades.”
- ⁸¹ Albrecht, *RU*, 2, No. 205. The three villages are named as ‘Humbescort’, ‘Vrvil uff der Marnen’ and ‘Ruffier.’
- ⁸² Fowler, *Medieval Mercenaries*, p. 300.
- ⁸³ For a detailed discussion of ‘Chivalry & War’ see Keen, *Chivalry*, especially Ch 12.
- ⁸⁴ *Calendar of the Patent Rolls, 1399 -1410*, 29 & 123.
- ⁸⁵ Goodman, *The Loyal Conspiracy*, p. 100. Rolls, 1396–99, 155.
- ⁸⁶ Maude Violet Clarke, L. S. Sutherland, and M. McKisack, *Fourteenth Century Studies* (Oxford: Clarendon Press, 1937), p. 288.
- ⁸⁷ *Calendar of Inquisitions Post Mortem, 1405–13*, 2.
- ⁸⁸ Wright, *Knights and Peasants : the Hundred Years War in the French Countryside*, p. 53.

Archaeology in Essex 2008

Edited by A. Bennett

This annual report, prepared at the request of the Advisory Committee for Archaeology in Essex, comprises summaries of archaeological fieldwork carried out during the year. The longevity of many projects often results in a lengthy post-excavation and publication process. The publication of these summaries therefore provides a useful guide to current archaeological research, and the opportunity to take an overview of significant advances. This year 88 projects are reported (Fig. 1).

Sites are listed alphabetically by parish; the directors of excavations, organisations involved and information regarding the location of archives, including finds, are listed where known. Projects continuing from previous years are indicated by reference to previous summaries in the relevant 'Archaeology in Essex'.

Contributors are once more warmly thanked for providing information. The illustration is by A. Bennett.

The original summaries, and any associated limited circulation reports, have been added to the Essex Historic Environment Record (EHER) held by the Historic Environment Branch, at Essex County Council, Environment, Sustainability and Highways, County Hall, Chelmsford CM1 1QH. Regarding sites in the London Boroughs of Barking and Dagenham, Havering, Newham, Redbridge, and Waltham Forest enquirers should contact the Greater London SMR, English Heritage London Region, 1 Waterhouse Square, 138–142 Holborn, London, EC1N 2ST.

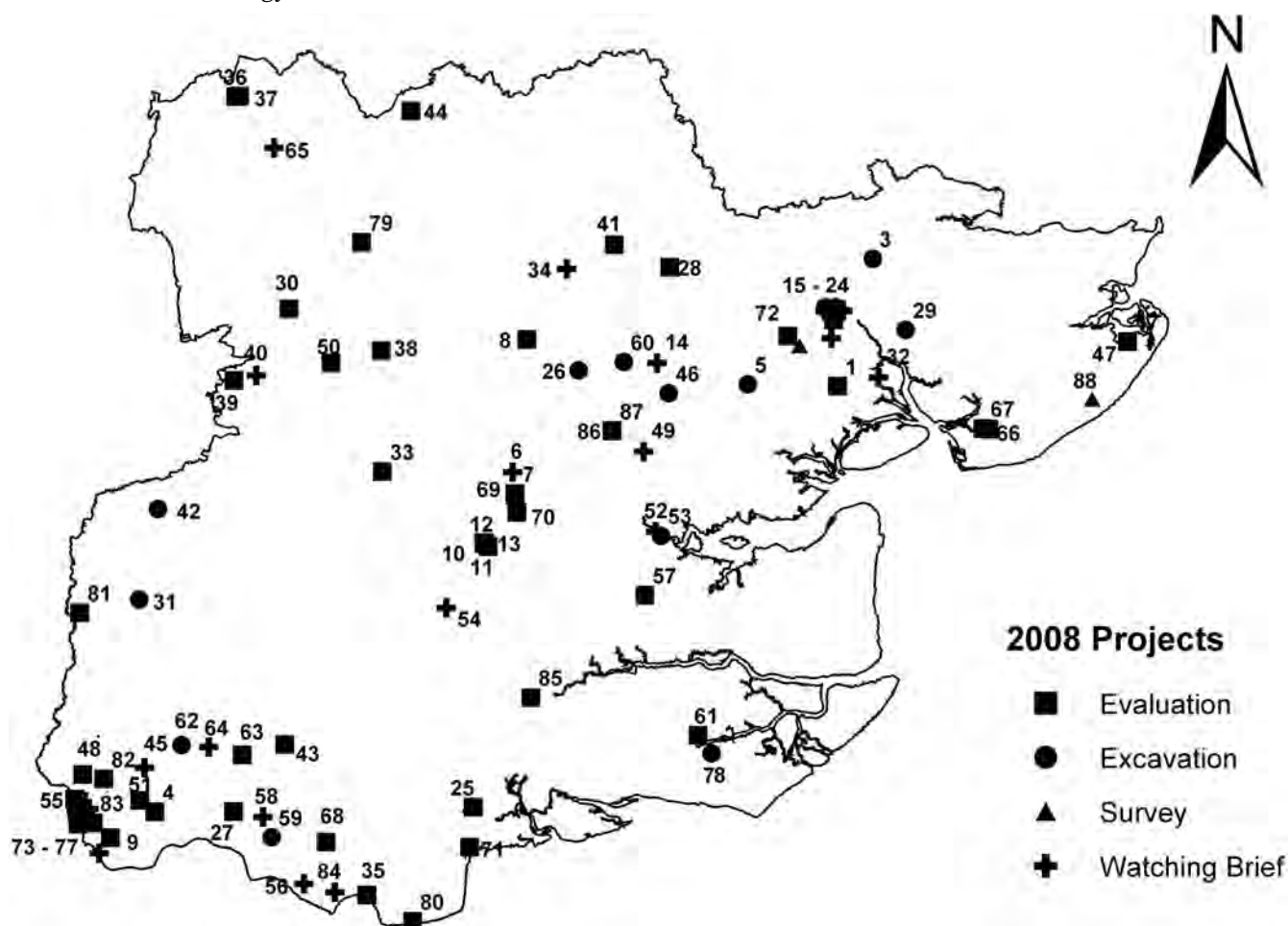


Fig. 1

Progress in Essex Archaeology

Introduction

This year the total number of summaries submitted to the HER was 134, 88 of which are reported here. This includes 61 evaluations and 20 excavations. Eleven projects followed on from work in previous years. This year two projects have been carried out by local societies. Only the most significant summaries are mentioned in the following paragraphs.

Prehistoric

At Canning Town (9) evidence of waterlogged marshland and alluvial deposits were recorded. Former watercourses and palaeo channels were revealed at Stratford (77 – PDZ2 and PDZ6.08). A collection of Palaeolithic flints and evidence of Mesolithic activity came from Stanfords-le-Hope (71). A sequence of deposits of alluvial activity from the Neolithic through to the Iron Age, with finds of Neolithic pottery was recorded at Stratford (77 – PDZ12). Bronze Age features were recorded at Birch (5), on the Cressing to Terling pipeline (26), and from Rochford (61). Middle to Late Bronze Age occupation was excavated at Stratford (77 – PDZ1.12 and PDZ3). Middle Iron Age settlement was recorded at Stanway (72). Late Iron Age settlement was excavated at Ardleigh (3) and Elmstead Market (29). At Rainham (59) Late Iron Age cremations were recorded. Late Iron Age/early Roman cremations were excavated at Romford (64). Evidence of industrial activity has come from the edge of the Late Iron Age/early Roman Sheepen site at Colchester (23).

Roman

Work continues on the Colchester Garrison site (16), revealing the Roman agricultural landscape including ditches of a co-axial field system and a possible enclosure. Within Colchester town, evidence was found of buildings (20), burials (21), quarries (19), roads (18, 24), and a gateway (22). Evidence of Roman occupation came from Chelmsford (11, 12) and Great Chesterford (37).

Saxon

Saxon cremations and a ditch were excavated at Romford (64). No other Saxon finds were reported.

Medieval

Medieval settlement was recorded at Ardleigh (3), Little Canfield (50), Springfield (69) and Sutton (78). Remains associated with the abbeys of St John, Colchester (16) and St Mary Stratford Langthorne, West Ham (83) were excavated. A relict channel with remains of a revetment or jetty was recorded at Chelmsford (13). An industrial site was excavated at Maldon (53).

Post-medieval

Remains of buildings associated with a silk mill and the first Marconi radio electronics factory were recorded in Chelmsford (11). Further recording work was carried out at Copped Hall (31). Evidence of timber waterfront revetments and a waterworks mill were excavated at

Stratford (75). World War II defences have been recorded in Chelmsford, Clacton and Maldon (88).

1 Abberton, Abberton Reservoir (TL 5998 2191)

B. Holloway, C.A.T.

A modern track approaching the north-east corner of Abberton reservoir is on Henry Laver's postulated route of the Roman road from Colchester to Mersea Island. A trench was positioned across the track to test this hypothesis. The track was 4m wide and formed of roughly compacted gravel and medium- to large-sized cobbles, containing in its lower fill crushed brick and salt-glazed pipe fragments. This would indicate that the track is in fact a post-medieval/modern farm-track.

Archive: C.M.

Report: C.A.T. Report 478

2 Aerial Survey 2008

H. Saunders, E.C.C. (H.E.R.)

The 2008 aerial reconnaissance programme was funded by English Heritage and all flights were taken from Stapleford flight centre. Seven flights were carried out over the course of the summer, totalling 12 hours of flying. The main aim of these flights was to record cropmarks and other aspects of the historic environment. Although the weather for cropmark development had not been ideal, reconnaissance during the season recorded several new sites and many known sites.

One of the first flights of the year was taken in July. A new site of a rectilinear enclosure with several pits at Beaumont-cum-Moze was recorded (EHER 46666); this site was photographed again in August and further detail and features were recorded. Other new sites recorded during the season included cropmarks of a possible enclosure and former field boundaries near Little Chesterford (EHER 46663), a possible enclosure near Radwinter (EHER 46664), a possible trackway and linear features near Tolleshunt Major (EHER 46665) and an area of possible stretch near Southminster (EHER 46667), amongst others.

The 2008 reconnaissance programme also highlighted the importance of continued and repeated recording of sites, as several known sites revealed greater detail than had previously been recorded. This included a cluster of four more small ring-ditches at a site that had been partially excavated along the Clacton bypass (EHER 2883). This site consisted of two large ring-ditches which are visible on a regular basis under a number of different crops. However, the new ring-ditches are located to the north and had not been recorded previously.

Other known sites where new detail was recorded included the well known site at Little Bentley (EHER 3092) where a new enclosure was recorded and a site at Frating (EHER 2546) where greater detail of the enclosure is visible and several new linear features were recorded for the first time.

The EHER was updated for all the sites recorded over the course of the season and are available to view within

the Historic Environment Record at County Hall and via the Unlocking Essex's web page (unlockingessex.essexcc.gov.uk)

3 Ardleigh, Wick Farm, Wick Lane (TM 0268 2950)

M. Germany, E.C.C. (F.A.U.)

Two archaeological sites dating to the Late Iron Age/early Roman period (mid-1st century BC to mid-1st century AD) were excavated during preliminary works for the construction of a large reservoir. These had been identified by an earlier trial-trenching evaluation in 2006 (Bennett and Havis 2007).

Small-scale prehistoric remains were confined to site C, consisting of two pits containing burnt flints and two pits containing Middle Iron Age pottery, situated either side of a palaeochannel. This channel is probably of glacial origin.

Most of the Late Iron Age features and finds were concentrated in site D (north), between two boundary ditches aligned on the entrance to the cropmark of a Late Iron Age settlement enclosure to the south. A small rectangular ditched enclosure formed the focal point with at least twenty pits ranged around it. The features contained large amounts of pottery. Although no features were recorded in the interior of the enclosure, the enclosure ditch contained a deposit of ironworking waste from a furnace or smithing-hearth, including hammerscale and fragments of furnace lining with iron-rich, vitrified surfaces and evidence of a blowing-hole for a set of bellows. This suggests the enclosure was a craft-working area outside the main settlement.

The Late Iron Age remains in site D (north) and the enclosure to the south represent an extensive Late Iron Age settlement spanning the head of the valley. Site C in the valley to the east contained a narrow Late Iron Age trackway heading towards the settlement, and a few Late Iron Age pits, one of which may have been a well. The trackway is thought to have demarcated a boundary between the wet area along the valley floor and a field system to the south.

The medieval and later remains included boundary ditches, gullies and pits in both sites C and D (north), probably related to medieval and post-medieval forerunners of Wick Farm, and a moated enclosure to the south of the modern farm is thought to have been the site of the original farmstead. A boundary ditch in site D (north) was long-lived, originally dating from the late 12th to early 13th centuries, suggesting a medieval origin to the existing pattern of land division. In site C, medieval and post-medieval ditches and pits lay along the edge of the marginal land in the valley floor, and the post-medieval gullies which lay in the valley floor itself are interpreted as pens for livestock, possibly for watering animals at the nearby spring.

Archive: C.M.

Report: F.A.U. Report 1938

Previous summaries: Bennett and Havis 2007, 168

4 Barking, The Lintons, Linton Road (TQ 4414 8438)

P. Fitz, A.O.C.

The evaluation revealed an un-urned cremation, two pits and a ditch, all of which lacked dating evidence. However, struck flint found during the evaluation, and a build-up of sub-soil over these features suggests a prehistoric date. Two post-medieval field boundaries were identified.

The excavation was required to determine the presence of any further cremation burials. No further cremation burials were present, however, evidence of domestic Victorian activity relating to terraced housing as seen on the 1896 OS Map was present. The site was dominated by these remains, and the significant impact of the Lintons Estate, built in the 1960s.

Archive: A.O.C.

5 Birch, Birch Pit, Maldon Road. Stage 3 (TL 925 192 c) and Stage 4 (TL 925 193 c) extensions

S. Benfield, E. Spurgeon, and H. Brooks, C.A.T.

Archaeological excavations in 2007 and 2008 follow on from fieldwork carried out prior to extraction in 2004 and 2005–6, and have examined areas to the north and west of areas excavated in those seasons. The 2007 excavations revealed a Late Bronze Age pit, possibly a waterhole, which yielded a substantial group of Late Bronze Age pottery, and Late Iron Age and Roman ditches defining two sides of a large enclosure with a droveway on its west side. Although there were internal features such as pits and post holes, building plans were not readily evident. The medieval and post-medieval period saw the establishment of a field system with ditched tracks, but there was little evidence of occupation. In the modern period, this field system was replaced by arable fields.

In the 2008 season, a series of isolated Bronze Age pits were excavated, one containing a complete but bent bronze dress pin. In 2007 the northern edge of the Late Iron Age and Roman enclosure was identified, with a series of ditches defining a contemporary farmed landscape. A Roman oven was excavated in the north-east corner of the enclosure. Further medieval ditches define an area of medieval fields to the north-east of the Roman enclosure.

Archive: C.M.

Previous summaries: Havis 2006, 155; Bennett 2008

6 Boreham, Bulls Lodge Quarry (former Boreham Airfield) (TL 7331 1208)

T. Ennis, E.C.C. (F.A.U.)

Archaeological monitoring and rapid excavation was carried out on the latest area of topsoil strip at this former WWII airfield. A c.4.5ha area was investigated 40m north-west of the Late Bronze Age structure excavated in 2007.

Three features were investigated by excavation, a cremation burial, fire-pit and an 80m length of north-

south aligned ditch. No dating evidence was recovered from any of these features, though the ditch is not recorded on Ordnance Survey mapping. In addition, the positions of two post-medieval boundary ditches were noted, both of which are shown on the first four editions of the Ordnance Survey. A second north-south aligned ditch and a square concrete slab were clearly associated with the World War II airfield or later usage of the site. The central part of the stripped area, adjacent to the former airfield taxi-way, was heavily disturbed.

Archive: Ch.E.M.

Previous summaries: Havis 2006, 156

7 Boreham, New Hall School (TL 7351 1033)

T. Ennis, E.C.C. (F.A.U.)

An evaluation was carried out on the site of a proposed new classroom block at the north-east corner of the school buildings. A single T-shaped Trench was excavated.

The earliest feature was a pit tentatively dated to the 17th century. In the centre of the trench was the base of a substantial path, aligned north-north-west/south-south-east, comprising re-used Tudor bricks sealed by compact clayey gravel. The re-use of Tudor bricks suggests a mid 18th-century date for this path after the demolition of much of the Tudor building complex in 1737. Two parallel later features cutting the base may be planting pits or evidence of robbed out structures.

The overburden was 0.75m deep and of relatively modern date. At the base of the section was 0.3m of buried topsoil containing 19th/20th-century pottery and which appeared to have been previously cultivated. Close to the top of the section was a brick pathway of 20th century date leading in a north-easterly direction from the school to the position of a former outbuilding.

Archive: Ch.E.M.

Report: F.A.U. Report 1960

8 Braintree, Land to the rear of 305 Rayne Road (TL 7447 2291)

M. Pocock, E.C.C. (F.A.U.)

A trench-based evaluation was undertaken ahead of a residential development to the rear of the buildings currently standing on the plot. The site is situated in close proximity to known Roman rural settlement while finds of Palaeolithic implements and Pleistocene faunal remains were potentially made in nearby gravel quarries.

The evaluation established/confirmed the presence of both prehistoric and post-medieval remains. Beneath a thick layer of modern debris in the southern part of the site was evidence for successive layers of hill wash built up against the steeply sloping edge of a natural gravel terrace overlooking the River Brain. Within this, presumably residual but certainly not well-travelled, Neolithic worked and burnt flint and pottery were discovered 2.4m below the current ground surface, in the lower levels of the sequence. At the front of the property a large, probably late 19th-century, roadside quarry pit

was discovered, while the remaining areas investigated contained no archaeological features or deposits.

Archive: Bt.M.

Report: F.A.U. Report 1940

9 Canning Town, Lower Lea Crossing (TQ 3958 8099)

V. Yendell, M.o.L.A.S.

A geo-archaeological survey consisting of one borehole was carried out. The borehole located towards the centre of the site, contained natural sandy Pleistocene gravels beneath as the basal sediment. This was sealed by a layer of reed peat deposits and then more a terrestrial wood peat, representing waterlogged marshland environments. Overlying these deposits was a series of blue-grey silty clays representing alluvial overbank deposits of a nearby river channel. The alluvial layers were sealed by 17th to 18th-century and modern made ground and backfill. This is part of on going work as the results of dating and environmental analysis of the sediments have not yet been synthesised.

Archive: M.o.L.A.S.

10 Chelmsford, Land rear of 2-26 Goldlay Avenue (TL 7130 0600)

A. Wightman and H. Brooks, C.A.T.

An archaeological evaluation on a site on the periphery of the Roman town revealed twenty-five archaeological features, only three of which were of archaeological significance – a gully, a small Roman pit, and a prehistoric pit. Three prehistoric flints were found in residual contexts.

Archive: Ch.E.M.

Report: C.A.T. Report 458

11 Chelmsford, Essex and Suffolk Water Offices, Hall Street (TL 7097 0633)

P. Allen, E.C.C. (F.A.U.)

An archaeological evaluation by trial pits was carried out on the site of the Essex and Suffolk Water Company offices at Hall Street, Chelmsford. An earlier archaeological desk-based assessment concluded that the site contained significant remains related to Roman Chelmsford (Allen 2007). The trial pit evaluation was designed to establish the degree of survival of Roman deposits across the site area.

Roman stratigraphy survived in all five trial pits excavated in 2008. Trial Pit 4 identified the metallings of the Roman road running along the site's northern edge, as previously recorded in the 1985 trial pits. In Trial Pit 3 a sequence of brickearth surfaces immediately to the north of the road represents the floors of successive timber buildings. Trial Pit 5 failed to locate the suggested realignment of the Roman road to the south, but recorded a Roman buried soil. Trial Pits 1 and 2 also recorded a Roman buried soil, with patches of rough surfacing, representing an external area across the south

of the site, to the rear of (presumed) buildings along the south side of the Roman road. The small quantity of Roman pottery recovered cannot be closely dated, but suggests that Roman activity continued into the 3rd century, and probably also the 4th century, which is consistent with better-dated sequences from adjacent excavations.

In all the trial pits the Roman strata were sealed by the medieval/post-medieval cultivated soil previously recorded in the 1985 trial pits. This soil was up to 0.6m thick, contained post-medieval pottery and other artefacts, and was everywhere overlain by modern overburden or car park surfacing.

Trial Pits 3, 4 and 5 recorded the foundations of brick outbuildings related to the original water works of 1854–68 and John Hall's silk mill of 1858, converted by Guglielmo Marconi in 1899 into the world's first radio electronics factory, still surviving at the time of this evaluation.

Archive: Ch.E.M.

Report: F.A.U. Report 1867

Previous summaries: Priddy (ed.) 1986, 144

12 Chelmsford, 31 Mildmay Road (TL 7102 0625)

M. Germany, E.C.C. (F.A.U.)

An archaeological investigation consisting of three trenches was carried out in advance of a residential development. The investigation took place in the north-eastern sector of the Roman town, 30m south of the Roman road leading south-eastwards to Heybridge and Wickford, and outside the line of the later 2nd-century town defences.

The evaluation uncovered a dense concentration of Roman pits dating from the mid-2nd to late 3rd/early 4th century AD; these are thought to have been located at the rear of an area of settlement alongside the road. The pits were backfilled with domestic rubbish, but were probably originally dug as gravel quarries, while one pit is interpreted as a well. In the late 3rd and early 4th century the well was sealed over by an extensive rubbish deposit containing very large quantities of pottery, as well as tile, metalwork and animal bone. A small quantity of residual late Mesolithic/early Neolithic worked flint and Late Iron Age/early Roman pottery was also found.

Archive: Ch.E.M.

Report: F.A.U. Report 1745

13 Chelmsford, Salvation Army Citadel, 70 Baddow Road (TL 7119 0631)

M. Pocock, E.C.C. (F.A.U.)

A small excavation was carried out before rebuilding of the Salvation Army Citadel. Trenching prior to the original construction of the Citadel had uncovered a linear feature running east-west across the site, interpreted as a post-medieval hollow-way filled with alluvial flood deposits from the nearby River Can. It has been suggested (Wickenden 1992, 49–50) that the hollow-way perpetuated the line of a Roman road, a

forerunner of Baddow Road, whose gravels had been washed away by flooding. The 2008 excavation investigated areas that had not been disturbed by the 1971 building.

The trench excavated in the south-west of the site recorded a mixed alluvial deposit containing large amounts of Roman pottery dating to the mid-2nd to mid-3rd century, with a few sherds of medieval pottery representing later disturbance, and residual Mesolithic flint. This is consistent with evidence from the surrounding area, that the site lay in an area of rubbish disposal at the north eastern limit of the Roman town, outside the town defences and the extra-mural temple precinct. A second trench in the north-east of the site investigated the post-medieval hollow-way and re-interpreted it as a relict channel at the southern edge of the flood-plain of the River Can. The pottery from the 1971 trenching was re-examined and, together with the pottery recovered in 2008, has dated the sequence of infilling of the channel to the 14th to 16th centuries. There is no evidence for a Roman road crossing the site.

The earliest map of Chelmsford, drawn by John Walker in 1591, shows the Can flowing in a loop well to the south of its modern course, and the channel recorded on the site was apparently a meander of the river at the southern edge of its original flood-plain. Plant remains in samples taken from the waterlogged lower fills of the channel indicate that water conditions were stagnant, with periodic inundation from flooding, typical of a gradually silting backwater. A plank-and-post timber structure at the edge of the deepest part of the channel represents revetment of the bank or possibly a jetty. Pottery in the channel fills dates its final silting to the 14th century, and it was deliberately levelled-over in the 14th or 15th century by a thick layer of gravel mixed with organic rubbish, including the carcass of a horse. The channel and adjacent areas were levelled-up again in the late 15th to 16th century with a thick layer of soil.

The archaeological evidence from the site is consistent with Walker's map of 1591, which shows Baddow Road running along the south bank of the River Can, with no sign of the earlier (infilled) river channel. To the west, in the medieval town area, Baddow Road is first dated to the 14th century, the process of infilling and levelling over the channel appears to have begun at this date or soon after, and this reclamation work enabled Baddow Road to be extended eastwards along its present line in the late medieval period. The thick soil overlying the channel is also consistent with the 1591 map, which shows orchards, gardens and meadows alongside the river.

Archive: Ch.E.M.

Report: F.A.U. Report 1834

14 Coggeshall, Scrips Farm, Cuthedge Lane (TL 8508 2097)

M. Germany, E.C.C. (F.A.U.)

Monitoring was carried out on topsoil stripping for a tennis court. The EHER records that a Roman pit, coins

and pottery have been found within the grounds of the garden, Roman pottery in the field to the south of it (EHER 8665), and the remains of a Roman villa near Coggeshall Hall (EHER 8671). Aerial photography has identified cropmarks of archaeological features in the surrounding area, including a trackway, ring-ditches and enclosures to the north (EHER 8803), and trackways and linear features to the east (EHER 8771).

No archaeological deposits or features were exposed within the stripped area. The topsoil and subsoil contained modern artefacts and pieces of coal and burnt wood. They also contained four flint flakes, twelve pieces of burnt flint, and one and two small pieces respectively of medieval and post-medieval pottery. The medieval pot sherd was of sandy orange ware, dated to the 12th-13th century.

Archive: Bt.M.

Report: F.A.U. Report 1895

15 Colchester, 9 East Hill (TM 0025 2522)

A. Wightman, C.A.T.

Footings were excavated for a new development on the site of a car park on Priory Street between properties 52 and 54 and in front of 52a. The footprint of the new building overlay that of a building, fronting onto Priory Street, the remains of which were observable as numerous layers of demolition debris. A building on this plot of land can be seen on the 1923 Ordnance Survey map; the building has subsequently been demolished and replaced with a concreted car-parking area. Features of the old building were noted, including a north-south aligned brick drain, and a possible cellar. To the east of the new development, on the north-facing wall of property 52a, excavations for services uncovered an archway leading into what was once the cellar of this property. In the back garden of 9 East Hill, footings were dug for a new brick wall to enclose a garden attached to property 52a on Priory Street. A service trench from the back of 9 East Hill through to Priory Street was dug in the garden, exposing three wall foundations, two modern and one of late medieval or early post-medieval date.

Archive: C.M.

Report: C.A.T. Report 469

16 Colchester, Colchester New Garrison and Urban Village Development.

C. Lister, and B. Holloway, and H. Brooks, C.A.T., R. Masefield, R.P.S. (consultants)

Here follow a number of summaries of various projects connected with the continuing Colchester Garrison redevelopment project. Land plots released for development were previously referred to as GUV (Garrison Urban Village), but are now referred to as Garrison Alienated Land (GAL).

Colchester, Flagstaff Road, Colchester Garrison (TL 9965 2475)

This site lies immediately west of Abbey House and the western precinct wall of St John's Abbey. A watching brief

during a contractor's excavation of a thrust-bore pit revealed an *in situ* wall foundation, possibly associated with St John's Abbey or else a post-Dissolution structure built against the outer face of the Abbey precinct wall.

Archive: C.M.

Colchester, Colchester New Garrison (Phase 2) (TL 9930 2300 c)

C. Lister, C.A.T.

Phase 2 of construction work on the new garrison commenced in May 2006 and was accompanied by a watching brief during groundworks. Thirty-four archaeological features and a small number of stray finds were identified. Some of the features identified were Roman linear ditches known from cropmarks or previous excavation, whereas others are new additions to our knowledge of the oppidum of Camulodunum and later landscapes. Six World War II air raid shelters were identified and fully recorded, as well as a number of undated and modern features. The low number of archaeological features recorded does not necessarily indicate a low level of human activity in the areas monitored. Contributing factors could be poor ground conditions, machining techniques, insufficient depth of ground-reduction, and trench sheeting and other safety measures which restricted access and visibility.

Archive: C.M.

Colchester, Goojerat Barracks, Colchester Garrison (TL 9951 2451)

Goojerat Barracks (Colchester Garrison Alienated Land Area L/N) lies to the south of Goojerat Road and east of Cambrai Road. The principal remains revealed by the 62 evaluation trenches were the widespread remains of barrack buildings. Around and under the buildings there were extensive areas where the ground had been reduced or built-up during the construction (1900-1902) or rebuilding (1971-75) of the Barracks. Ground conditions have severely affected the survival of earlier archaeological horizons and features. Only nine Roman and two post-medieval ditches were identified, plus a number of Roman post holes. Post-medieval ditches defined parts of a pre-Garrison landscape, or may have been associated with the Civil War, when Colchester was besieged in 1648. The alignment of the Roman ditches in Area L/N indicates that there was a co-axial Roman farmed landscape here, aligned south-west to north-east, and possibly including an enclosure. The presence of over 11kg of Roman brick and tile indicates that there was Roman building in the enclosure.

Archive: C.M.

17 Colchester, Gosbecks Scheduled Monument (TL 967 224)

A. and D. Black, C.A.G.

A magnetic survey of the 13 hectare scheduled monument was undertaken. The site includes the

enclosure believed to be Cunobelin's farmstead. The survey showed a complex pattern of ditches which suggest the site was in use over a long period of time. No definite evidence was found for the position of the entrance to the farmstead enclosure or for any structures within the enclosure.

18 Colchester, Central Clinic, High Street (TM 0002 2532)

H. Brooks, C.A.T.

The site lies in Insulas 15/23 and 24 of the Roman town, and partially within a Scheduled Ancient Monument (Essex SAM no. 1).

An evaluation in 2006 identified Roman buildings on this site, lying on either side of the Roman gravel street dividing Insulas 15/23 and 24.

A watching brief was held in 2007–8 on the removal of the footings of the Central Clinic main buildings, and on other works associated with the construction of new residential accommodation on the site. The gravel surface of the Roman street was located at three points, but otherwise no significant strata were revealed.

Archive: C.M. (ref. 2006.54)

Report: C.A.T. Report 473

Previous summaries: Bennett and Havis 2007, 173

19 Colchester, 37 Oaks Drive (TL 9882 2517)

S. Benfield, C.A.T.

The site is a short distance south of the Late Iron Age and early Roman site of Camulodunum-Sheepen, and a number of Roman pottery kilns. A watching brief on the excavation of footing trenches for an extension revealed a Roman sand quarry containing Roman brick and tile, and Roman pottery datable to the 1st to 2nd/3rd-century.

Archive: C.M.

20 Colchester, Sixth Form College, North Hill (TL 9925 2532 c)

B. Holloway and H. Brooks, C.A.T.

An evaluation has identified the uppermost significant archaeological horizon (of Roman date) on the site of the proposed extension to the 'south site' buildings. This site lies on a significant slope, but Roman levels showed no evidence of terracing. Instead, they broadly reflect the natural north-south slope. Finds were dominated by Roman brick and tile, mortar, *opus signinum*, and *tesserae*. This material must be derived from the demolition of a Roman building first discovered on this spot in 1865.

Archive: C.M.

Report: C.A.T. Report 483

21 Colchester, Topfield (Phase II), Rawstorn Road (TL 9900 2520 c)

K. Orr and H. Brooks, C.A.T.

The Topfield site lies to the west of the walled Roman town, and immediately west of the former St Mary's hospital site (now the Balcerne Heights residential

development), where Roman burials and domestic activity have been recorded.

Previous excavation, evaluation and watching briefs on this site have shown that there is a great depth of topsoil on this site, masking at least six Roman inhumation burials, probably outliers of the Roman cemetery at the adjacent St Mary's hospital site, and a probable quarry-pit. The placement of these burials in the northern and more sloping part of the site may have been deliberate.

Roman pottery from a 2008 watching brief confirms presence of a Roman occupation site nearby. Although it cannot be proven, a case can be made that the site was initially used for sand-quarrying, with some nearby domestic occupation, but was later used as an inhumation cemetery, probably after the mid 3rd century. This change in use may be related to the contraction of the Roman suburbs, when sites previously built on became vacant and, in some cases, were used as burial grounds.

Archive: C.M.

Report: C.A.T. Report 480

Previous summaries: Bennett 2008, 181

22 Colchester, 21 St Peter's Street (TL 9959 2553)

A Wightman, C.A.T.

Three phases of work were undertaken by the Colchester Archaeological Trust on the former site of 21 St Peter's Street between April 2006 and February 2008. This site was partially below water level (6.25m OD), which has allowed for the preservation of organic remains including the remains of three wooden Roman drains.

An extremely well preserved wooden drain (F7) was discovered at a depth of 6.17mOD on a south-north alignment near the western edge of the excavated area. The 11.5m of exposed drain comprised two adjoining sections, each consisting of a base plank and two opposing upright planks either side, held apart by wooden struts. A plank partially covered the drain, supported by evenly spaced wooden struts connected to the upright planks by dovetail joints. Dendrochronological dating suggests an earliest construction date of AD 62. The drain was covered by a layer of septaria blocks and a mortuary construction layer, both of which may be contemporary with the construction of the Roman town wall (thus, the drain predates the town wall).

Two other wooden drains of the same construction and alignment were found 10.5m to the east of the drain F7. They were located either side of a gravel 'road' surface. The direction of the 'road' surface, the location of the drains and the absence of the town wall in the vicinity of the drain suggests that there may have been a gateway through the wall in this locality. Excavation to confirm this was not viable due to safety considerations.

Two features cut into the western side of the gravel surface held large, well-preserved wooden posts angled upwards at roughly 45° (pointing north away from the town) and held in place by packing stones. These features may have been defensive spikes (*lilia*). Three other pits containing wooden remains, one of which may have been a *lilium*.

Another potential defensive measure, possibly undertaken at the same time, was the digging of a ditch across the gravel surface, probably to extend the town ditch and prevent access to the town via the 'road'.

The gravel surface was also cut by two post-Roman ditches, one probably in the 13th-14th century and the later one in the post-medieval period. It is unclear whether these had a drainage or defensive purpose.

Archive: C.M.

23 Colchester, Colchester Institute, Sheepen Road (TL 9880 2552 c)

B. Holloway and H. Brooks, C.A.T.

Archaeological work continues in tandem with the large-scale redevelopment of the Institute site, which lies on the fringes of the Late Iron Age Sheepen site. Work in 2008 has identified further areas of Late Iron Age and early Roman industrial activity and occupation, principally ditches and pits. Finds include pottery, a glass jar with a face of Bacchus, a set of gaming counters, pillar-moulded glass bowl fragments, and, perhaps of the greatest interest, a complete wooden paddle.

Archive: C.M.

Previous reports: Bennett and Havis 2007, 175; Bennett 2008, 177

24 Colchester, 10 William's Walk (TL 9971 2535)

B. Holloway, C.A.T.

This site is in Insula 13 of the Roman town, to the south of the site of the Roman theatre. A trial-trenching evaluation found modern and post-medieval strata containing a quantity of residual Roman brick and tile and sealing Roman horizons at 1.3m–2.1m below present site level (i.e. the builder's yard surface). The trenches were not generally deep enough to penetrate the Roman strata or identify Roman buildings to the south of the theatre. The only certain identification was a small area of compacted gravel which is in the correct position to be the north-south Roman street between Insulas 12 and 13.

Archive: C.M.

25 Corringham, Land at Southend Road (TQ 7010 8475)

A.S.D.U./W.A.

A geomagnetic survey by Archaeological Services Durham University covered 17 areas totalling c. 40 hectares. Possible ditches and pits were identified, and traces of ridge and furrow cultivation. Some of the ditches may be former field boundaries.

An evaluation by Wessex Archaeology comprising 23 trenches revealed a group of tree-throw holes, some of which contained Middle-Late Bronze Age pottery, and a large, shallow, subcircular feature, possibly a dew pond or a bomb crater, that had been backfilled in the post-medieval or modern periods. Other finds included very small quantities of ceramic roof tile, fired clay, worked flint, burnt flint and slag.

26 Cressing to Terling pipeline (TL 7870 2038 to TL 7758 1508)

S. Percival, N.A.U.

Excavation and archaeological monitoring was carried out in advance of construction of a pipeline from Cressing to Terling and an associated compound area at White Notley. Finds of struck flint and pottery suggest a background noise of low level Mesolithic, Bronze Age and Iron Age activity. Excavations at both White Notley and on the route of the pipeline indicate a hitherto unknown later Bronze Age presence comprising scattered pits perhaps dating to around 900–800BC. Excavation at White Notley was able to confirm that a soil mark enclosure previously identified by aerial photography is of early Roman date (EHER 5994) and at Great Loye a vertical tile hearth located within the easement may mark the site of a putative medieval great hall. A number of possible natural features were also investigated.

Archive: Bt.M.

27 Dagenham, Cadiz Court, Rainham Road (TQ 5053 8439)

R. Humphrey, P.C.A.

Five trenches excavated across the site revealed natural sandy gravels between 6.20m OD and 6.54m OD. In the north of the site the natural deposits were cut by two north-south aligned Iron Age boundary ditches and by one Iron Age pit which also cut the westernmost ditch. In the rest of the site the natural deposits were cut by various natural features with the exception of an undated post hole recorded in the southern part of the site. Subsoil, in turn overlaid by modern topsoil, sealed both the natural deposits and features.

Archive: P.C.A.

28 Earls Colne, Land adjacent to 3 Church Hill (TL 8614 2881)

D. Shimmin, C.A.T.

An archaeological evaluation and a subsequent watching brief uncovered evidence for 16th- to 17th-century occupation, including several ditches and gullies, pits and gravelled surfaces, as well as a possible stokehole for an oven or kiln. A range of finds was recovered including evidence for antler-working.

Archive: Bt.M.

29 Elmstead Market, Fen Farm (TM 0538 2368)

T. Ennis, E.C.C. (E.A.U.)

An excavation was undertaken in advance of the construction of an agricultural reservoir. Previous trial-trenching had revealed the presence of a Middle Bronze Age barrow cemetery and a post-medieval field system. A number of Iron Age remains were also identified.

No Bronze Age remains were identified within the excavation area. This confirmed that the barrow cemetery was restricted to the south-east of the development area but shed no light as to the location of any accompanying

occupation site. The earliest excavated remains dated to the Early Iron Age, and of particular note were a group of pits, located in the south of the area, that all contained burnt material including charcoal and hearth waste. Similarities in the range of pottery suggest deliberate deposition indicative of 'ceremonial' or 'ritual' behaviour.

The majority of excavated features dated to the Late Iron Age and were part of a small isolated settlement. One curving boundary ditch was identified and a number of other features including two hearths and two four-post timber structures, interpreted as granaries. No specific dwellings were identified though domestic refuse such as pottery, loom weights and briquetage points to their existence in the near vicinity. Although settlement did not continue into the early Roman period, the presence of a few tentatively dated later Roman features might indicate limited agricultural activity.

After a considerable hiatus of activity a series of small rectangular fields were created in the post-medieval period. These were amalgamated over time to leave the development area within one large field by the time of the 1st edition Ordnance Survey map of c.1876.

Archive: C.M.

Report: F.A.U. Report 1793

Previous summaries: Bennett 2008, 183

30 Elsenham, Trisail Towers development (TL 5508 2540)

M. Bamforth, L.P.A.

Evaluation of nine trenches was carried out. Several residual Late Neolithic/Bronze Age flints were recovered from the west of the development area. Several ditches relating to a previous sub-division of the landscape were recorded, possibly of post-medieval date. Several post holes, pits and ditches were recorded in the centre of the development area, possibly relating to prehistoric occupation.

Archive: L.P.A.

31 Epping, Copped Hall (TL 4286 0170)

W.E.A.G. and C.H.T.A.P.

The Project is investigating the remains of 'old' Copped Hall, a 16th-century mansion with possible origins as a residence of the Abbots of Waltham, which was demolished c. 1750. Work since 2002 has shown that the lower portions of the brick walls of the south range and west wing (with evidence of at least three phases of building) survive beneath a thick layer of clay used to level the site post-demolition. Evidence of a possibly medieval water feature or moat has also been found to the south. After the old Hall was demolished the area was landscaped as the gardens of the 'new' Hall, built c. 250m to the south-east. Two 19th-century systems of land drains have been recorded, along with the beds of a late 19th-century rose garden with a central concrete pedestal.

The 2008 excavations removed clay landscaping layers to further expose brick masonry of the south

range, including inside a spiral stair of the first building phase, first exposed in 2003; 18th-century plans of the house in its final form show that it connected the great hall with the cellar below. Four steps were uncovered, from current ground level 0.90m down to the approximate level of the cellar floor. Possible foundation cuts for walls of this phase were also revealed and excavated. South-east of the spiral stair, one section of masonry appears to overlie a cut feature, the uppermost fill of which contained 7th to 9th-century pottery.

Excavation continued of a circular feature, approximately 7m in diameter, just south of the footprint of the old Hall. A carefully set out brick surface overlay a substantial, though partially robbed, circular brick foundation. The function, precise date, and relationship of this structure to the old Hall have still to be determined. A spread of rubble overlying the feature contained a number of specially shaped bricks from which a window mullion could be constructed; these are identical to examples found at neighbouring Hill Hall, and dated to the second half of the 16th-century.

A small trench in Copped Hall's walled garden followed a geophysical survey, looking for sub-surface remains of garden features, in particular, dipping ponds. Brick rubble, possibly a drain, was recorded running diagonally across the area.

Work is due to continue in 2009.

32 Fingringhoe, Fingringhoe Ballast Quarry, Colchester (TM 0315 1980)

R. Greene, A.S.

Archaeological monitoring and recording at Fingringhoe Ballast Quarry encompassed two areas: Area A, which measured 1.46 hectares, was to the north and slightly west of Area B, which measured 13.47 hectares. Both areas were to the east of the road corridor and a sub-square central area, which were the focus of a previous trial trench evaluation and excavation.

The previous evaluation and excavation revealed 17 cremation vessels of c. 2nd century date, all located along the edge of a contemporary boundary ditch. Additionally, four graves were identified, though only two contained human bone. Two possible pyre deposits or un-urned cremations were located c. 20m south of these features. Other features comprised a tentatively dated 1st-century BC/AD system of boundary ditches, its 2nd to 4th-century successor, and pits dating to both periods.

The 2008 monitoring revealed a Roman cremation (F3016), a pit (F3034) which contained Neolithic pottery and struck flint including a projectile point. Other archaeological features comprised boundary ditches, gullies, and pits/post holes. Numerous tree hollows and natural features were also investigated, some of which contained residual pottery fragments.

Archive: A.S.

Previous summaries: Bennett 2005, 155; Havis 2006, 160

33 Good Easter, Imbirds, Souther Cross Road (TL 6269 1214)

C.A.T.

Evaluation by three trenches uncovered two 19th-century rubbish pits which may be contemporary with the last few decades of a house which stood here in 1623 but had been demolished prior to 1839. Ten medieval architectural fragments found in a residual context under the piggery yard almost certainly derive from the nearby church of St Andrew. Documentary sources indicate a 12th-century origin for this site, but the date of the moat (now mostly filled in) is not known. Apart from the architectural fragments, no material contemporary with, or pre-dating, the 1623 house was revealed during this evaluation.

Archive: C.M.

Report: C.A.T. Report 491

34 Gosfield, Aylewards Farm, Gosfield Road (TL 7773 2865)

M. Germany, E.C.C. (F.A.U.)

A watching brief was undertaken on groundworks for the construction of a new house on the former site of a 17th-century farmhouse (EHER 29053). These revealed a medieval ditch and three medieval pits and the remains of the 17th-century farmhouse. The medieval features contained small amounts of pottery, mainly Heddingham Coarse Ware, and were of 12th/early-13th century date. The remains of the 17th-century timber-framed farmhouse comprised a brick cellar and two partially grubbed-out brick walls.

It is concluded from the presence of the medieval remains that Aylewards Farm dates back to *c.* AD 1200 or earlier.

Archive: Bt.M.

Report: F.A.U. Report 1881

35 Grays, South East Essex College, Kings Walk (TQ 6142 7759)

M. Germany, T. Ennis, M. Pocock, E.C.C. (F.A.U.)

Trial-trenching and excavation was carried out on the site of a temporary college facility. The trial-trenching was carried out to decide on the most suitable site for construction and after this had been decided the area was opened up for full excavation.

Overall, modern features dominated the site. Along the old High Street frontage, the modern walls and services of recent 1970's buildings were discovered, while the eastern half of the site contained services, wells, pits, ditches, a post hole, and other unexcavated but obviously modern disturbance. Post-medieval activity was implied by the presence of 17th to 18th-century pottery in two of the pits that were discovered. Medieval remains included a large pit located in the north-east corner of the site and an uncharacterised feature located beneath a modern concrete drain. Both were poorly dated by small quantities of mid-14th to 15th-century pottery, but do appear to suggest that the former High Street/ Kings

Walk area was a focus for activity in the medieval period. The results broadly support the assertion that the High Street area was the focus for settlement in the medieval period and underwent a period of expansion/growth in the late 17th to 18th century.

Archive: T.M.

Report: F.A.U. Report 1964

36 Great Chesterford, River Green House (TL 5072 4272)

A. Blowers, E.C.C. (F.A.U.)

An archaeological evaluation was undertaken prior to the demolition of the existing house before rebuilding it over a slightly larger footprint. The development is located in an area of high archaeological potential, either within or immediately outside the suggested extent of a Roman small town to the north-west and the medieval village to the north.

Two 1.5m × 1.5m test pits were excavated by hand, one to the north-west of the existing house and one to the south-east. The pit to the north-west uncovered a large uneven pit, possibly a shallow quarry, containing artefacts of late medieval date, the top 0.45m being truncated by subsequent landscaping and a modern soakaway trench. No significant archaeological remains were encountered in the second pit, other than a buried soil of late medieval date which had been truncated by later landscaping events. A modern pipe trench has also disturbed deposits.

Archive: S.W.M.

Report: F.A.U. Report 1915

37 Great Chesterford, Weldon Gap, Rose Lane (TL 5105 4276)

G. Rees, C.A.U.

Two trenches were excavated in advance of development. The trench to the north of the plot contained the remains of an intensively occupied 3rd-century Roman activity area. This included shallow cut inter-cutting pits, post holes and ditches as well as possible impressions of a beam-built structure. The trench to the south revealed a large boundary ditch that may have been 4m wide, although only half its width was uncovered. This ran parallel with the current boundary. Finds from this feature comprised butchered cattle bone, 3rd to 4th-century pottery and a large piece of ironworking debris. The quantity and nature of the pottery suggests a domestic area was nearby.

Three post holes cut into this ditch contained a single piece of 16th to 17th-century pottery and may attest to the continued use of the Roman boundary.

Archive: S.W.M.

Report: C.A.U. Report 1012

38 Great Dunmow, Junction of Chequers Lane and Stortford Road, and land to the rear of The Chequers (TL 6259 2199)

A. Robertson, E.C.C. (F.A.U.)

An archaeological evaluation was undertaken on the proposed site of two residential and commercial developments. The developments sit in an area of high archaeological potential, either within or immediately outside the suggested extent of a Roman small town and to the east of the medieval market place. Excavations on Chequers Lane in 1972, immediately to the south of the development area, uncovered a range of prehistoric to medieval remains, including a small 2nd-century cremation cemetery and 4th-century shrine (EHER 13864–13869).

Five trenches were opened; two along the road frontage of Chequers Lane and Stortford Road and three to the rear of the Chequers Inn. The trenches to the rear of the Chequers Inn contained no significant archaeological remains and their stratigraphic make-up suggests that this area has been landscaped in the past, effectively removing any features once present. The trenches along the road frontage revealed features predominantly dating to the 17th century or later, although one 14th-century pit and a single 2nd/3rd-century pit were also identified and it is likely that later activity has removed the majority of any Roman and medieval remains in the frontage area. Overall, little evidence for Roman, Saxon or medieval activity survived in either part of the site.

Archive: S.W.M.

Report: F.A.U. 1872

39 Great Hallingbury, The Crossing Point of a Thames Water Pipeline Across the M11 (TL 5061 1955 – TL 5054 1958)

R. Cummings, C.A.

The eastern site exposed a series of heavily truncated features including three intercutting pits, two linear features and a further small circular feature. Two sherds of worked flint were recovered including a Mesolithic/Neolithic blade and a possibly modified thermally shattered flake. A further series of probable plough furrows were recorded but not dated. Metal detecting recovered a lead bullet and two later items from topsoil.

The site on the west of the M11 showed evidence of heavy ground disturbance or reduction and no archaeological finds or features were recorded.

Natural glacial tills were observed between 67.28m and 73.89m OD.

Archive: S.W.M.

40 Great Hallingbury, Howlets, The Street (TL 5240 1997)

T. Ennis, E.C.C. (F.A.U.)

Archaeological monitoring was carried out during groundworks for an extension to the north side of the existing building. Howlets is a grade II listed building

dating to the late 16th or early 17th-century situated within a possible medieval moated-enclosure (EHER 4428). It is likely that the existing ditch originally continued further eastwards, past the northern side of the building, to the boundary with 'The Street' and as such would pass directly beneath the location of the new extension. Although not depicted on mapping, the woodland to the north of Howlets was also bounded by a large ditch and the current owner believes that at one time this continued south along the eastern edge of the property.

Three test pits machine-excavated to the base of the required strip level, a depth corresponding to c.0.5m below the floor level in the northern end of the existing building. This confirmed the presence of modern deposits along the entire length of the extension footprint. These continued below the required depth of excavation and are likely to be modern backfill of the former ditch/moat. A cut observed at the western end of one of the test pits may represent the edge of the ditch, cutting natural clay.

Archive: S.W.M.

Report: F.A.U. Report 1920

41 Halstead, Former Bayer site, Parsonage Street and Colchester Road (TL 8160 3065)

T. Ennis, E.C.C. (F.A.U.)

An archaeological evaluation was carried out prior to redevelopment of the site for housing. Ten trenches were excavated across the 5542 square metre development area.

Residual Roman finds point to the existence of a Roman rural settlement in the vicinity. No evidence pertaining to the perceived Saxon origins of Halstead was identified.

Medieval remains were confined to the north-west corner of the development area. A large, north-south aligned ditch was probably a former medieval boundary to St. Andrew's churchyard. Pottery recovered from the base of the ditch dated to the 14th century and was contemporary with that from pits located to the east. These pits were probably associated with property fronting onto Colchester Road and represent a limited eastwards expansion of the town in the late medieval/early post-medieval period. Buildings in this position are depicted on the Bois Hall estate map of c. 1625.

Further pitting occurred in the same area in the post-medieval period. By this time the churchyard ditch was infilled and the boundary re-aligned. In the 18th- or early 19th-century St Andrew's Lodge was constructed in the north-west corner of the site, two cottages were constructed to the east of No. 8 Colchester Road and a building of unknown function constructed in the south. The archaeological remains of these buildings correlate well with documentary and cartographic records. From the mid 19th-century the interior of the site became progressively built up, including the construction of the Friends (Quaker) Meeting House in 1850–1. The

Quaker burial ground was found to extend to the Parsonage Street frontage. One post-medieval burial was excavated that appeared to pre-date the Quaker burials. The Quaker burials themselves were subsequently removed by professional undertakers.

Archive: Bt.M.

Report: F.A.U. Report 1888

42 Harlow, Passmores House, Third Avenue (TL 4438 0908)

M. Pocock and P. Allen, E.C.C. (F.A.U.)

Three trenches were excavated and groundworks were monitored at Passmores House before its conversion into a residential care home. Passmores House is a Grade II listed Georgian country house dating to 1727, built on the site of a medieval manor house set within a moated enclosure, parts of which are still visible. The medieval moated site is a Scheduled Monument. A small excavation undertaken inside the south-western room of the house in 1999 (Andrews 1999) identified medieval and post-medieval remains relating to the earlier manor house. Two trenches were excavated outside the 1727 house, adjacent to the 1999 trench inside it, and their results were supplemented by monitoring of groundworks around all other sides of the house. Four main phases have been identified.

Phase 1 (15th to 16th-century). The northern end of a north-south wing of the manor house was recorded to the south-west of the 1727 house, with mortared flint sleeper walls for a timber-framed superstructure. This is probably related to a stone-lined garderobe pit recorded in the 1999 trench. Monitoring work recorded the eastern arm of the medieval moat, which was wide and shallow and aligned further to the east than originally thought, and part of a probably medieval plank-lined drain. The eastern limit of the scheduled area has been redefined as a result of the recording of the true line of the moat.

Phase 2 (17th-century). The wing of the manor-house was repaired with re-used Tudor bricks. This is related to a brick-built parlour with a fireplace added to the north and recorded in the 1999 trench. A brick culvert was inserted into the plank-lined drain.

Phase 3 (1727). The existing house was built, incorporating the footings of the phase 2 parlour in its south-western room. Monitoring work indicates that the moat and the drain were backfilled and levelled over at this time, and the area around the house landscaped.

Phase 4 (19th-century). A conservatory was added to the south-west of the house in the 19th-century, and stables and other outbuildings to its east and north-east. Only the stable block survives in the present-day house and all the other additions have been demolished.

A trench excavated in the area of the modern caretaker's house, to the east of the main house, before it

was demolished recorded only modern services and disturbances.

Archive: H.M.

Report: F.A.U. Report 1879

Previous summaries: Bennett 2008, 186

43 Harold Wood, Redden Court School, Cotswold Road (TQ 5472 8987)

P. Fitz, A.O.C.

An archaeological evaluation was undertaken at Redden Court School, Cotswold Road, on behalf of Mouchel Parkman Services. Four trenches were excavated by machine measuring 20m × 2m in size.

Natural clay was observed at a height between 39.43m and 37.89mOD across the site. Three of the four trenches contained no archaeological remains while the fourth contained three 19th- to 20th-century walls and a 19th- to 20th-century pit. These walls are probably a late part of Old Redden Court Manor in the period immediately before its demolition in the early 20th century.

Archive: L.A.A.R.C.

44 Helions Bumpstead, Crossroads, Water Lane (TL 6502 4155)

T. Ennis, E.C.C. (F.A.U.)

An archaeological evaluation was carried out in advance of a small residential development. The site is located in the centre of the historic village, which is recorded by the Domesday Survey as existing before 1066, and was considered to have a high potential for Saxon, medieval and post-medieval remains.

The evaluation trench was located in a garden area in the north of the site, and was L-shaped with two 10m long arms. Plot 1 was not investigated as it was occupied by the existing bungalow. The trenching identified no evidence of the Saxon or medieval village other than a single sherd of residual 13th to 14th-century pottery. Two small 17th century pits were recorded, but otherwise only modern features were found, dating to the 19th and 20th-century. The only evidence of the buildings showing on the 1st edition Ordnance Survey were 19th-century or later cobbled and clay surfaces in the extreme north of the site.

Archive: C.M.

Report: F.A.U. Report 1893

45 Ilford, Valentines Mansion (TQ 4328 8795)

K. Bower and J. Langthorne, P.C.A.

The watching brief monitored underpinning operations in the library and servants hall, the east quad, under the morning room, and in the basement as well as pipe trenches in the portico and outside the morning room to the east of the building. The watching brief also included an investigation of a tunnel that extended beneath the morning room. Historic building recording was undertaken in the butler's pantry and coal yard, the

kitchen, the vestibule, the library, the morning room, the bedroom directly above the morning room on the first floor, on the partition wall between a bedroom and the drawing room on the first floor, and within four attic rooms.

The earliest deposits found were natural sands, gravels and clay, which were sealed by subsoil in the western part of the property. Above these natural layers, brick structures pre-dating the current western part of the building were encountered, comprising garden walls and possible floors. Both the historic building recording and the archaeological watching brief subsequently encountered various features, such as the brick oven in the scullery, the sequence of structures in the coal yard, and the stud walls on the first and second floors, which allowed for greater comprehension of the development of the Valentines Mansion.

Archive: P.C.A.

46 Kelvedon, Land rear of 32 High Street (TL 8604 1852)

G. Barlow, A.S.

The excavation revealed evidence for four phases of activity at the site. The earliest evidence represented limited medieval activity, possibly related to 15th-century structures located to the west of the site. Phases 2 and 3 represented post-medieval backyard activity that is most likely related to the known post-medieval development immediately adjacent to the site. Later activity comprised the dumping of modern refuse.

Residual Late Iron Age and Romano-British pottery sherds recovered from a post hole are indicative of the known activity during these periods in the Kelvedon area but no features of this date were present on site.

Archive: Bt.M.

47 Kirby-le-Soken, Devereux Farm, Island Lane (TM 2346 2273)

A. Blowers, E.C.C. (F.A.U.)

An archaeological evaluation was undertaken in advance of managed re-alignment and habitat creation works. Nine evaluation trenches were excavated, nearly all of which revealed clean orange/brown clay at an average depth of 0.60m, the single exception was a trench in the eastern part of the area in which alluvial deposits were present at 1.20m.

No archaeological features were encountered in four of the trenches. A number of features of possible prehistoric date were recorded in a trench excavated to the west of Island Lane, and a 12th-century pit in a trench dug to the north-east, on the opposite side of the lane. Of the remaining features a curvilinear gully and animal burial were undated, while a linear feature seen in the trench dug in eastern part of the area may have been a natural channel or man-made drainage ditch.

Archive: C.M.

Report: F.A.U. Report 1961

48 Leyton, 606–638 High Road (TQ 3824 8741)

P. Fitz, A.O.C.

Eight trenches were excavated; there were few archaeological remains in most of the trenches. However, two trenches close to the High Road contained ditches, probably marking property or field boundaries, dating to around 1580–1700. A thick layer of organic topsoil across the majority of the site represents the use of most of the site as orchards until the late 19th century.

The history of the site is dominated by successive school buildings. The earliest was bought in 1708, and may be represented by a very fragmentary foundation. The second phase school was built in 1748, and had been mostly demolished. The most recent school building had very strong, deep foundations.

Archive: L.A.A.R.C.

49 Little Braxted, Crierswood to Witham pipeline, Hales Farm (TL 8415 1360)

T. Ennis, E.C.C. (F.A.U.)

Archaeological monitoring was undertaken during construction of the central section of the Crierswood to Witham water pipeline. Only one area of archaeological significance, a concentration of cropmarks (EHER 8870) to the west of Hale's Farm, had been identified. Monitoring was restricted to the immediate area of the cropmark concentration. The pipe-trench was between 1.5m and 2m in depth and was cut through varying deposits of brown clay-silt, sand and gravel. Several sections of trench were highly unstable and prone to collapse.

Six archaeological features (3, 7, 9, 11, 14 and 16) were observed in the sides of the pipe trench. Pits 3 and 7 were located 3m apart. Two lumps of baked clay were recovered from Pit 3, although there was no evidence of *in situ* burning. It is possible that the burnt material originated from nearby fire-pit 7. Reddened clay beneath this pit provided clear evidence of *in situ* burning. No finds were recovered. This is suggestive of a medieval or earlier date for these features. Two ditches (9 and 11), appearing in both sides of the trench section, were recorded towards the north-west end of the observed pipeline route. These could be a southerly continuation of a possible trackway indicated by two parallel ditches shown to the north on the cropmark plot. No finds were recovered from either feature.

A large feature (14), probably an infilled pond, was recorded at the south-east end of the observed route close to Hale's Farm. One piece of peg-tile was noted in section and an adjacent field drain was noted that may have drained into the pond when it was in use. This feature is therefore likely to be of post-medieval date. A second large feature (16) was located in the centre of the route. It was most likely a large pit or pond although does broadly align with a cropmark in the field to the north-east of the road and could conceivably be an earlier field boundary ditch. No finds were recovered. The one cropmark ditch depicted as crossing the pipeline, and shown as a boundary on 19th-century Ordnance Survey

maps, was not identified probably because it was located within one of several areas of trench collapse.

Archive: C.M.

Report: F.A.U. Report 1959

50 Little Canfield, Crumps Farm (TL 5849 2100)

T. Ennis, E.C.C. (F.A.U.)

An archaeological evaluation was carried out on land adjacent to an existing quarry/landfill site. Thirteen evaluation trenches were excavated across three areas; the respective sites for a new landscape bund, an environmental enhancement area and a green waste processing facility.

A variety of archaeological remains dating to the medieval, post-medieval and modern periods were recorded across the evaluation area. No earlier features were encountered, although the recovery of a small number of abraded Roman finds attest to activity of this date in the area.

A small cluster of medieval gullies and pits, dating from the 12th to later 13th century, were excavated in the south of the evaluation area. These features may represent small-scale settlement or agricultural activity close to the position of a former track-way. It is likely that the centre of this activity lies just outside the development area, adjacent to a dog-leg in the alignment of a former track. Medieval pottery was also recovered from a series of large field boundary ditches previously identified as cropmarks. As the majority of these ditches correspond with those shown on the 1842 tithe map, the medieval pottery is likely to be residual, possibly deriving from manuring, but does indicate that the field system may have had medieval origins.

No significant archaeological remains were identified in the northern part of the evaluation area, while the medieval features noted above were relatively few in number and unlikely to be greatly elucidated by further work.

Archive: S.W.M.

Report: F.A.U. Report 1852

51 Little Ilford, St Mary's Church, Church Road (TQ 4289 8529)

A. Miles, M.o.L.A.S.

A single evaluation trench was excavated in the graveyard. The trench was excavated to determine the presence or absence of burials in this area, in advance of the installation of a soakaway. Two burials were located in the trench, of 17th- or 18th-century date between 1.2m and 1.3m below ground surface. The burials were not fully exposed or excavated. Their positions were recorded and then preserved *in situ*.

Archive: M.o.L.A.S.

52 Maldon, Pump House, Cromwell Hill (TL 8497 0721)

T. Ennis, E.C.C. (F.A.U.)

Monitoring of groundworks for the construction of three new dwellings was carried out on the site of the former Pump House. Although the site had been heavily disturbed by previous construction works, a small number of archaeological remains were identified.

Two pits and an adjacent boundary ditch dating to the 13th to 14th-century were recorded in the north-western corner of the development area. It is likely that these features were located to the rear of a property that fronted onto Cromwell Hill, or a precursor, in the medieval period. One pit of probable post-medieval date was also identified, along with a curving area of truncation/terracing that predated the construction of the former Pump House. A short surviving fragment of 17th to 18th-century wall, that may have been a part of an earlier property boundary or structure, was recorded to the south of the development area.

The fieldwork has identified evidence of medieval settlement in a part of Maldon where no medieval remains have previously been found. This settlement predates by *c.* 150 years or more the earliest recorded activity in this part of Maldon, which is associated with the postulated construction of St. Helen's Chapel in the first half of the 16th century.

Archive: C.M.

Report: F.A.U. Report 1800

53 Maldon, 143–147 High Street (TL 8541 0689)

A. Wightman and H. Brooks, C.A.T.

This site lies approximately 200m east of Saxon Maldon, and was absorbed into the built-up area when the town expanded eastwards in the medieval period. An evaluation and excavation have revealed a sequence of post holes, beam-slots and ditches relating to two or three timber-built properties on the medieval and early post-medieval street frontage. Finds of Thetford Ware pottery may indicate an earlier phase of activity which is not represented in any of the structural features. A late medieval timber barrel, possibly used as a well, survived to the rear of the properties.

Interesting finds from this site include bones from large fish, presumably from fish landed at the Hythe, and small pieces of stone from Kent and further afield possibly Devon, the Lake District or Scotland. These presumably came to Maldon as ballast in boats.

Of the greatest interest was the discovery of a few droplets of mercury in a layer which also contained 11th-century pottery. It would be unwise to entirely exclude the possibility that the mercury has seeped down from above, but, on the basis of the excavated stratigraphy, there seems a strong probability that it is a genuine medieval find. If so, it is a reasonable assumption that the mercury was used in an industrial process on this site. Two industries which used mercury were gold-smithing and millinery (hat making), but there is no

other evidence that either of these trades was actually carried out here.

Archive: C.M.

54 Margaretting, Flood Management Scheme (TL 679 010)

A. Blowers, E.C.C. (F.A.U.)

An archaeological assessment of the flood management scheme was carried out in conjunction with a geotechnical trial pit investigation. The archaeological assessment covered two areas of proposed works on the west side of the valley floor of the river Wid, the main flood management area near Brook Farm, Margaretting, and a small area next to the Sewage Treatment Works at Ingatestone, 3km to the south-west. Twenty-three trial pits were monitored, on the line of the proposed embankment and the flood management area north-east of Brook Farm, Margaretting, and near the Sewage Treatment Works 3km to the south-west.

Palaeo-environmental or archaeological deposits or finds were identified in two trial pits on the west bank of the Wid (TP106 and 108) and one on the east bank (TP110), where alluvial deposits were recorded beneath subsoil and topsoil. Trial Pit 108 revealed a sequence of alluvial deposits at the edge of a former channel of the Wid that formed a meander to the west of the present river bank. A pit containing burnt flint and charcoal was recorded at a depth of 1.3–1.7m, cutting alluvial deposits of the former river channel and sealed beneath more recent alluvial deposits. Although the burnt flint deposit is undated, it is a typically Late Neolithic or Bronze Age feature. The lowest alluvial deposit in Trial Pit 108 may have some potential for surviving palaeo-environmental material.

The burnt flint deposit recorded in Trial Pit 108 suggests human activity along the valley floor of the Wid in the prehistoric period, although it is not certain whether this was transient or settled. However, known settlements in the Margaretting area from the Roman period onwards were located above the river floodplain along the valley sides and this would account for the general paucity of archaeological evidence from the trial pits.

Archive: Ch.E.M.

Report: F.A.U. Report 1982

55 Plaistow, 3 New Barn Street (TQ 4049 8227)

R. Humphrey, P.C.A.

An evaluation trench revealed an 18th-century brick drain lying directly on top of natural sandy silt. This was sealed by a series of late 18th/19th-century dump layers, the uppermost of which was cut by the foundation of a late 19th-century brick wall foundation. This possibly represents the rear property boundary wall of a building which fronted New Barn Street. A series of modern dump and demolition layers sealed the earlier layers and in the west of the site, the eastern external wall of the recently demolished building at no. 3 New Barn Street was recorded cutting through them.

56 Purfleet, Land at Esso Sports Field, North Road (TQ 5630 7850)

W.A.

A watching brief maintained during the digging of foundation trenches at the north-west and south-east corners of the site and of two soakaway complexes, confirmed the presence of two possibly Iron Age or Romano-British boundary ditches recorded during the earlier evaluation. The larger ditch was seen to extend beyond the western limits of the site. Two quarry pits, also previously identified, were observed as were a number of modern features and natural sinkholes.

57 Purleigh, The Old Rectory, Church Hill (TL 8408 0205)

A. Scruby, E.C.C. (F.A.U.)

An evaluation consisting of two trial trenches was carried out on the site of a new dwelling and associated landscaping works. The development plot lies in an area of some archaeological significance, close to the medieval parish church,

The first trench uncovered a heavily truncated north-west to south-east orientated ditch, the single greenish-grey silt clay fill produced no finds. The second trench was located within the footprint of a former cottage and observation of the former footings coupled with the trench clearly demonstrated that the area had been extensively terraced in the 19th century, completely removing any earlier deposits. It appears that any archaeological remains which may have been present have been very badly truncated by 19th century landscaping/development connected with the construction of the Old Rectory and associated gardens and outbuildings.

Archive: C.M.

Report: F.A.U. Report 1955

58 Rainham, Albys Farm, South End Road (TQ 5294 8394)

E. Dwyer, T. Braybrooke, M.o.L.A.S.

Excavation of the foundation trenches to support new internal walls within the barn was monitored during the redevelopment of the barn into a house. A single north-south aligned trench was excavated, extending southward centrally from the northern wall within the 19th-century extension of the barn.

Natural flinty gravel with coarse sand was sealed (over two-thirds of the trench) by sandy silty clay representative of the local worked soil, which also served as a floor for the rear (northern) half of the barn. In the south of the trench, the edge of an east-west aligned ditch was observed which was in line with the southern wall of phase 1 of the barn and was a boundary or drainage ditch in use before the construction of the 19th-century extension. This contained re-deposited soil and gravels with fragments of roof tile, sealed by a modern concrete and gravel bedding layer and polythene membrane. In the southern third of the trench, the backfilling was sealed by a series of thin layers representing a series of floors

for the front, open side of the barn beneath modern bedding, polythene and concrete.

Archive: M.o.L.A.S.

59 Rainham, Spring Farm (TQ 5365 8230)

K. Doyle, A.S.

Two phases of archaeological excavation revealed prehistoric activity on the site, comprising two Late Iron Age cremation pits. Another Late Iron Age pit yielded a significant amount of pottery, as did an isolated post hole F1138. A post-medieval field system was partially comparable to cartographic sources dating from 1799, whilst a modern field system was also recorded. Other features were modern or undated and included numerous ditches and pits.

Archive: L.A.A.R.C.

Previous summaries: Bennett 2008, 190

60 Rivenhall, Bradwell Quarry, formerly Rivenhall Airfield (TL 8237 2107)

M. Germany, E.C.C. (F.A.U.)

Topsoil stripping revealed a small quantity of unstratified worked flint and two small Middle Iron Age pits. The flint lay thinly scattered and there were no concentrations. The two pits were intercutting and were uncovered at the far northern end of the stripped area. Both contained small quantities of burnt flint and Middle Iron Age pottery. These finds add to previous discoveries at Bradwell Quarry, suggesting that the area of the quarry was extensively settled during the Middle Iron Age.

Archive: Bt.M.

Report: F.A.U. Report 1937

Previous summaries: Bennett 2008, 190

61 Rochford, Land at Coombes Farm (TQ 8843 9061)

W.A.

An evaluation comprising 88 trenches revealed two concentrations of archaeological features – in the north-east and south-west corners of the site. These were characterised by land division and drainage ditches dating to the Late Bronze Age/Early Iron Age at the north-east, and the Middle Bronze Age and Middle/Late Iron Age at the south-west. Also at the south-west, a concentration of worked flint of broadly Mesolithic date was recovered from the ploughsoil, the subsoil and the underlying alluvial deposits. This included a number of flint flakes, tools and cores which exhibited varying degrees of abrasion.

62 Romford, Fairlop Quarry, Aldborough Hall Farm (TQ 4630 8982)

M. Rozwadowski, A.S.

Three main phases of occupation could be distinguished. The earliest phase of activity at site dated to the Bronze/Iron Age. Only a few features interpreted as shelters and boundary ditches could be dated to this

period showing small scale pastoral and agricultural activity. Field boundaries and land drains from the later post-medieval period to the 19th century were also recorded, along with a possible animal enclosure located in the south-eastern part of the site. Later activity was associated with a nearby municipal airfield and WWII activity, with signs of truck traffic and possible gun emplacements, as well as remains of a small wooden building.

Archive: L.A.A.R.C.

63 Romford, Market Place, St Edward's Way (TQ 5126 8903)

S. Anthony, M.o.L.A.S.

This site had been excavated in 2002. Work under the new code consisted of two evaluation trenches adjacent to the Market Place. One located pits, a gully and a large 18th century brick building divided into four separate dwellings with brick floors and fireplaces. This trench was enlarged and converted into an excavation to uncover the entire structure and associated features. The other uncovered only a boundary wall and well of late 18th to 19th-century date. A watching brief on the rest of the site uncovered only two other 19th-century soakways as further truncation from the 20th-century shopping centre had truncated most of the site.

Archive: M.o.L.A.S.

64 Romford, Marks Warren Quarry, Whalebone Lane North (TQ 4852 8965)

K. Doyle, Z. Pozorski, A.S.

Previous archaeological investigation into the area identified prehistoric activity, including an Iron Age ditched enclosure, a Roman enclosure, the flint foundations of a Roman building and a Late Iron Age/Roman field system, post-medieval drainage ditches and 20th-century activity.

Two phases of archaeological monitoring took place. The first identified five phases of activity. Phase 1 comprised Late Bronze Age/Early Iron Age pits, post holes and a Bronze Age barrow. Excavation of several of these features, including other phased features, was restricted as English Heritage introduced a new protection zone on the barrow and its associated features. Phase 2 was Late Iron Age/Roman and comprised cremations, a possible inhumation and pits. Saxon evidence was assigned to Phase 3 and included cremations and a ditch. Phase 4 evidence was dated to the mid to late medieval period and comprised a windmill base. Post-medieval activity was assigned to Phase 5 and included pits and post holes. Several undated features were identified across the site.

The second phase of monitoring identified four phases of activity. Phase 1 comprised Late Bronze Age/Early Iron Age ditches, possibly part of an enclosure, pits and post holes. Phase 2 was Roman and comprised cremation, pits and possibly a ditch as part of an enclosure. Phase 3 evidence comprised a single medieval

post hole. Post-medieval and modern activity was assigned to Phase 4 and included ditches, a pit, field drains and a plough damage layer. Several undated features were identified across the site.

Archive: L.A.A.R.C.

Previous summaries: Bennett 2008

65 Saffron Walden, 1–3 Market Hill (TL 5385 3854)

P. Crawley, N.A.U.

Following the evaluation in 2007, which identified five probable chalk quarry pits of possibly 16th to 18th-century date and four small probable post holes, a watching brief was undertaken during groundworks for the installation of a tower crane and the levelling of an area prior to the construction of a warehouse. A possible ditch, a probable medieval quarry pit and two undated wells were uncovered, amongst other more recent quarry pits. The wells had been capped in the 20th century. A part of the wall of the listed building (1–3 Market Hill) was also recorded during the watching brief.

Archive: N.A.U.

Report: N.A.U. Report 1739

Previous summaries: Bennett 2008, 190

66 St Osyth, Proposed new access, The Bury, St Osyth Priory (TM 1215 1560)

L. Smith, A.S.

The trial trench evaluation revealed a small number of archaeological features comprising two ditches (F1006 and F1016), a post hole (F1009) and a series of surfaces on the same alignment as the modern road leading from the gatehouse to Mill Street.

Archive: C.M.

67 St Osyth, St Osyth Priory Park (TM 1167 1566)

S. Unger, A.S.

The site lies within St Osyth Priory Park adjacent to the Scheduled Ancient Monument (SAM no. 24) associated with the priory and the registered park and garden. It occupies an area of known cropmarks plotted by the National Mapping Programme (NMP). To the south of the site is a substantial residential development whilst the edge of St Osyth Creek lies to the immediate south-west. Land to the north of the site is agricultural in character and encompasses part of the Priory Park. The remains of the priory lie to the east of the site.

The evaluation consisted of 35 trenches. One hundred features were excavated in all, most of which were discrete ditches and pits. Finds were generally sparse throughout the site, although a number interesting features were securely dated providing a general occupation range from the high medieval to the 19th century.

Among the excavated features was a post-medieval waterlogged timber structure in the vicinity of the older

creek bed, an early post-medieval up-draught kiln with two firing tunnels for the production of peg-tiles, associated waster pits, a road with a metalled surface and lateral drainage ditches, a series of post-medieval garden features, and medieval backyard rubbish pits.

Archive: C.M.

68 South Ockenden, Ockenden School, Erriff Drive (TQ 5806 8186)

T. Ennis, E.C.C. (F.A.U.)

An evaluation was carried out in advance of the construction of a new assembly hall. The development site lies in an area of high archaeological potential and a series of cropmarks (EHER 14665), including a number of linear features, an enclosure and a range of pits have previously been identified in the school grounds. Excavation to the north of the school in 2007 revealed a number of pits, ditches and ring-gullies belonging to a Middle Iron Age occupation site.

Two trenches were excavated; the sole feature encountered was a ditch that aligned exactly with a field boundary ditch depicted on the 1st edition Ordnance Survey map (c.1876). The ditch did not appear on later editions suggesting that it had gone out of use by the end of the 19th century.

Archive: T.M.

Report: F.A.U. Report 1766

69 Springfield, Greater Beaulieu Park (TL 735 102)

M. Pocock, E.C.C. (F.A.U.)

The evaluation by trial trenching of Sites 2, 3, 4, 5, 7, 8, 10 and 11 within the proposed Greater Beaulieu Park development, Chelmsford, has established the presence, nature and survival of a range of archaeological features representing the Iron Age, Roman, medieval, post-medieval and modern periods. Of particular significance was the survival of two scove or clamp kilns in Site 3 that likely had some association with the construction of the nearby farmhouse at Bulls Lodge Farm, and a potentially complex area of Iron Age and Early Roman occupation in Site 8.

Archaeological remains in Sites 2 and 4 allude to the evolution and use of the landscape during the post-medieval period, while the presence of a single ditch in Site 5 suggests that some degree of prehistoric activity survives nearby. At Site 7, medieval remains were uncovered which may indicate the location of a predecessor to the now-demolished Belstead Hall, while Sites 10 and 11 both produced evidence for activity in the late medieval to early post-medieval period, particularly at Site 10 where a farmstead or possible warreners lodge was uncovered. Some features identified by the geophysical survey at Sites 5 and 7, and to a lesser extent 11, were demonstrated to be natural or geological features.

With the exception of the Late Iron Age to Early Roman settlement at Site 8, and the hint of nearby

prehistoric activity at Site 5, the landscape investigated during the course of the fieldwork contains very little evidence for Prehistoric, Roman or Saxon occupation, possibly a reflection of the heavy clay soils, in contrast to the free-draining soils of the Chelmer Valley to the south. However, evidence for late medieval and early post-medieval activity was more widespread and appears to largely reflect the process of emparkment and subsequent landuse in the Tudor and Stuart periods.

Archive: Ch.E.M.
Report: F.A.U. Report 1905

70 Springfield, Lind Ltd, Colchester Road (TL 7366 0880)

B. Holloway and H. Brooks, C.A.T.

The site lies on the south edge of the Roman road from Colchester to Chelmsford. The only features revealed in the three evaluation trenches were one post-medieval pit and a possible tree-throw pit.

Archive: Ch.E.M.
Report: C.A.T. Report 479

71 Stanford-le-Hope, Stanhope Park, Wharf Road (TQ 698 815 c)

C. Lister, C.A.T.

The site is located on the Thames estuary in an area that has been densely populated from the Roman period onwards, and consequently was considered to be of archaeological potential. An evaluation by 35 trial-trenches revealed thinly-spread Mesolithic to modern activity. Approximately one-third of the features excavated were modern, reflecting the impact of developing industries in the area over the past 100 years. This probably explains the paucity of surviving archaeological features and finds, as the industrial use of the site and later stripping of topsoil to remove contaminants has severely affected *in situ* preservation. Significant features and finds included a Roman pit, a medieval ditch, and a collection of unstratified Palaeolithic flints. The low incidence of datable archaeological features is surprising, given the proximity of the Mucking site to the south-west, and the number of find-spots of Roman pottery from the foreshore and Mucking Creek.

Archive: T.M.
Report: C.A.T. Report 488

72 Stanway, Fiveways Fruit Farm, Dyer's Road (TL 9576 2320 c)

B. Holloway, C.A.T.

This site lies 500m to the north of the elite, Late Iron Age burial site excavated in Stanway Quarry between 1987 and 2003.

Prior to a planning proposal for the expansion of an aggregate quarry, a 5% evaluation was carried out by means of 107 trenches totalling over 3,000m in length.

Archaeological features were thinly distributed across the site, but were more concentrated in its south-eastern corner. Most of the identified features were prehistoric pits and ditches, and there were smaller numbers of Roman, post-medieval and modern features. Some of the Roman ditches may define an enclosure.

Archive: C.M.
Report: C.A.T. Report 493

73 Stratford, Abbey Road (TQ 3909 8347)

Tony Mackinder, M.o.L.A.S.

The site lies within the precinct of the medieval Stratford Langthorne Abbey. Three evaluation trenches were excavated in the northern part of the site. A 19th-century brick structure, possibly a cellar, was found in the area parallel to the railway track. There was a thick undated soil horizon found both to the north and south of this. The only other deposits found were 19th century dumps. There was no evidence of the expected cemetery associated with the abbey.

Archive: M.o.L.A.S.

74 Stratford, Land at Angel Lane (TQ 3875 8460)

M. Nicholls, M.o.L.A.S.

Geoarchaeological monitoring was carried out on five boreholes and eleven window samples in the south of the site. The site is located on the east side of the Lea Valley and would have occupied a prominent position overlooking the Lea floodplain. It may have been chosen for occupation in both prehistoric and historic periods, although preservation of archaeology and the potential for past environment reconstruction was poor due to hillslope processes, modern truncation and the lack of organic deposits on the dry, valley-side.

The sequence generally comprised bedrock, overlain by gravels, brickearth and some weathered alluvium under 19th-century and modern make-up. The geology was highly variable, most likely due to the slope of the valley side, leading to exposure of different bedrock types. Thanet Sands were observed overlain by the Lambeth Group. This comprised both stiff grey clay of the younger Palaeocene Reading Beds and mollusc-rich, dark silty Woolwich Shell Beds. Pleistocene terrace gravels (deposited by former river channels with heavy bed-loads) were seen in few boreholes between 1 and 3.5m below ground level, with firm orange-brown sandy clay brickearth present in almost all interventions. Bands of gravel within the brickearth further indicate the action of hillslope processes. Weathered alluvial clay representing historic flood-deposited material was evident in two boreholes overlain by dark silt containing flint and ceramic building material, likely to represent 19th-century land-raising associated with the nearby railway. Modern made ground and concrete completed the sequence.

Archive: M.o.L.A.S.

75 Stratford, Warton House, 150 High Street (TQ 3835 8372)

A. Westman, B. Ferguson, M.o.L.A.S.

Following demolition, an evaluation was carried out, consisting of nine trenches spread evenly across the site of which two were later expanded for full excavation. This phase revealed the remains of timber waterfront revetments belonging to the original Waterworks River dating from the 17th to 18th century to its backfilling and re-alignment in the 1930s. These showed evidence of large and small-scale repairs, and a major mid-19th-century refurbishment in response to severe local flooding. A small brick-and-flint building and the base of a timber crane indicated the presence of industrial activity on the south bank. An Ordnance Survey map of 1869 showed a timber yard on the site.

The excavation phase at the north end of the site revealed natural gravels cut by Roman quarry pits, which were later truncated for the cutting of an irrigation channel during the early medieval period. This channel was truncated by another channel of possible 15th to 17th-century date, which suffered from flooding and silting up, leading to the construction of the timber revetments recorded during the evaluation.

Excavation at the south end of the site exposed the substantial brick remains of a mid-18th-century pump house, navigation channel and wheel-race to the former West Ham Waterworks Company 'Waterworks Mill'. The navigation channel displayed evidence of damage caused by a barge striking the brick revetment walls. The pump house and mill race showed at least one phase of re-fitting, possibly with an iron waterwheel. The pump house also showed evidence of structural alterations indicating a change of function, possibly as a factory, although it was unclear whether the waterwheel was still used. There were also signs that the 18th-century pump house was incorporated into the remains of a 17th-century corn mill which once occupied the site. Removal of the 17th-century brick walls exposed the truncated remains of a peg-tile and mortar sill-beam to a potential timber building, possibly a mill of medieval date.

Archive: M.o.L.A.S.

76 Stratford, 1A Lett Road (TQ 3847 8390)

G. Brogan, A.S.

The excavation revealed the remains of an 18th-century house. A brick and mortar wall located on the east side of the structure was intact to a height of 0.80 m, along with the floors of three rooms. Also revealed were the remains of two fireplaces, a second wall for the west side of the structure, a partition wall oriented east to west that divided the structure in half and a pathway that extended westward away from the south-west corner. Two pits, one containing animal bone, cut the brick floor. Following the abandonment of the structure, the site was raised by substantial tips of ballast before a late 19th-century

granite sett courtyard was constructed and the site developed for industrial use.

Archive: L.A.A.R.C.

**77 Stratford, Olympic development site
Work package 7, Planning Delivery Zone 1
(TQ 3800 8430)**

K. Tyler, T. Adfield, P.C.A./ M.o.L.A.S.

Work carried out under the site code OL-01106 begun in 2006 continued in to 2008 with the evaluation trenches PDZ1.01, 1.06/7, 1.08 and 1.09. The evaluation has shown that undisturbed deposits survive beneath the 19th to 20th-century made ground in the vicinity of the Waterworks River wall. These comprise prehistoric land surfaces with associated occupation and evidence for a river channel, perhaps a former course of the Waterworks River, and its abandonment. The deposit sequence in the lower-lying part of the site resembles that found to the east (site OL-01507), with thick sand deposits, accumulated as sand bars within, and at the margins of, a former river channel forming a series of ridges, interspersed with, and overlain by, peaty clays and organic silts, accumulated in backwaters and marshy hollows left behind as the river migrated away from the edge of the terrace. Microfossils, and in particular pollen and diatoms, are likely to be preserved in the monolith and auger hole grab samples taken. Timber posts and timber, metal and concrete revetments, all of increasingly late 17th to 19th-century date truncated the alluvial deposits. The deposits and features of archaeological interest were subsequently sealed by 19th to 20th-century made ground and landfill deposits covered by concrete.

Archive: P.C.A.

**Trench PDZ1.12, Planning Delivery Zone 1,
Carpenters Road (TQ 3812 8417)**

K. Tyler/J. Payne, P.C.A./ M.o.L.A.S.

Excavations at the Olympic Park on the site designated PDZ 1.12 revealed several phases of archaeological activity that span the periods from the later Middle to Late Bronze Age through to the Roman period and beyond. The site was located on a low gravel terrace that was probably dry land during much of its history, probably a gravel island associated with the braided river channels of the Lea Valley. A segmented ditch system ran across the eastern and northern part of site. This contained good assemblages of Middle Bronze Age and Late Bronze Age ceramics. Two crouched inhumations may also be associated with this phase of activity. The absence of residual ceramics suggests the area was not intensively used at the time of burial. The main occupation phase comprised numerous small pits/post holes plus the partial remains of four 'drip gully' features. An enclosure ditch, heavily truncated by later activity, was also recognised and is believed to be contemporary. Late Bronze Age ceramics were recovered from the enclosure ditch as well as many of the settlement features.

The remains of three larger “drip gully” features that contained ceramics of Middle Iron Age date were also present. Associated features were noticeably scarce when compared with the preceding activity. A second enclosure ditch was present which partly truncated two of the Middle Iron Age drip gullies. This enclosure had two opposing entrances and was located at the western end of a contemporary east-west orientated ditch, which was integral with the enclosure.

A substantial ditch which partly truncated the Middle Iron Age ditch system contained small amounts of Roman material. This ditch revealed at least two phases of re-cutting. Two flexed inhumation burials are believed to be associated with this phase of activity, although unfortunately neither contained associated grave goods. One was adjacent to the Roman ditch system and orientated east-west, whilst the second was adjacent to the Middle Iron Age ditch system and was orientated north-south. This second burial suggests that the Middle Iron Age ditch was still a recognised boundary in the Roman period, which possibly survived as a low bank or hedgerow.

Two north-south aligned parallel ditches appear to form part of a large post Roman field system.

Archive: P.C.A.

Trench PDZ1.23, Planning Delivery Zone 1, Carpenters Road (TQ 3817 8396)

K. Tyler/M. Bazley, P.C.A./ M.o.L.A.S.

An isolated stepped evaluation trench was undertaken at the south edge of PDZ1, immediately east of Warton Road and north of the Great Eastern Railway viaduct. The trench recorded a sequence of natural gravels and sands sealed by 19th to 20th-century deposits and structures. The natural gravel was sealed by an undated weathered clay/silt, which in turn was sealed by a thick deposit of re-deposited alluvium, that was alternately truncated and sealed by probable late 19th to 20th-century structures and made ground deposits, including a brick and concrete basement, rubble backfill, tips of industrial and domestic dumps and lenses of coal and clinker probably derived from the nearby railway construction. The basement truncated the sequence across the northern part of the trench, into the natural gravels.

Archive: P.C.A.

Planning Delivery Zone 2 (TQ 3802 8403)

K. Tyler, V. Yendell, P.C.A./ M.o.L.A.S.

Three geoarchaeological boreholes (NBHCZ2b-700, 701 and 702) were drilled to replace proposed evaluation trench PDZ2.19, which could not be excavated owing to the thickness of made ground at its selected position. Preliminary interpretations from the borehole logs suggest that a watercourse formerly crossed close to the boreholes at c. 1m to 1.5m OD. Evidence of a later nearby watercourse was also located to the north, in trench PDZ2.24/25 (OL-01707). Although as yet

undated, the watercourses might be dated by radiocarbon, as the silts and sands that accumulated on the riverbed or channel margins contain seeds and other plant remains suitable for radiocarbon dating.

Archive: M.o.L.A.S.

Trench PDZ2.24/25, Planning Delivery Zone 2, Marshgate Lane (TQ 3779 8434)

K. Tyler, J. Payne, P.C.A./ M.o.L.A.S.

An evaluation was carried out at the west side of Marshgate Lane, where two trenches were merged due to access and depth of made ground constraints. The trench recorded sand and gravel flood plain deposits, probed by auger to a surface height of c. 1.5m OD; a sequence of sandy silts, likely to represent the natural migration or deliberately diverted passage of the river across the trench sealed the natural gravels. The upper part of this sequence may represent deposits associated with the adjacent Waterworks River, whilst the lower deposits may be of late or immediate post-glacial origin. The top of the alluvial sequence was recorded at levels of between 2.64m OD and 2.50m OD. Thick deposits of 19th to 20th-century made-ground, associated with the construction or maintenance of adjacent waterways overlay the alluvium to the top of the trench.

Archive: P.C.A.

Work package 4, Planning Delivery Zone 3 (TQ 3778 8383)

K. Tyler, D. Sorapure, P.C.A./ M.o.L.A.S.

All three trenches reached the level of the natural gravels. Overlying these was an alluvial sequence, indicating an environment that was subjected to numerous episodes of seasonal flooding over a long period. In Trench PDZ3.17/18 features of archaeological significance included prehistoric cuts, post holes and pits. A firm, dark-grey alluvial clay that extended over the entire trench contained fragments of prehistoric pottery, fire-cracked flints and charcoal flecks suggesting a prehistoric land surface had subsequently developed. A cremation burial has been made into this deposit. In all trenches, 19th to 20th-century made ground/landfill deposits sealed the sequences of archaeological interest.

A mitigation excavation was carried out in response to an evaluation under the same site code at Trench PDZ3.17/18. Numerous prehistoric features were identified, mainly comprising pits, post holes and ditches with evidence of occupation debris and buried soil/land surfaces. Preliminary analysis shows a possible roundhouse structure comprising post holes, within a conjectured ditched enclosure. Supporting evidence shows sporadic use of a nearby open area for rubbish disposal, unidentified structures and a single adult cremation. Radiocarbon dating shows that the features cut into Neolithic alluvial/dry land surfaces and were sealed by alluvial deposits formed from c. 1200 BC. The site was flooded from the Late Bronze Age with alluvial deposits stabilising to represent seasonally inundated

wetland-marsh eventually used for land reclamation in the late 18th century.

Archive: M.o.L.A.S.

Trench PDZ6.08, Work package 4, Planning Delivery Zone 6 (TQ 3792 8522)

K. Tyler, S. Barrowman, P.C.A./ M.o.L.A.S.

Natural river terrace gravels were recorded across the site at 1.77m OD and 1.95m OD. A palaeo-channel cut the gravels in the east of the site. Alluvial sequences were present across the trench, measuring from 0.6m to 1.4m in thickness. This may reflect the site's location upon what was floodplain, or possibly the historic Leyton River. No archaeological remains were present within the alluvium. A possible 17th to 19th-century ploughsoil survived across the trench, with associated ridge and furrow features. The site was sealed by a considerable depth of made ground placed across the site prior to construction of the recently demolished 20th-century residential development.

Archive: P.C.A.

PDZ 6.01, Planning Delivery Zone 6, Temple Mills (TQ 3761 8542)

K. Tyler, A. Douglas, P.C.A./ M.o.L.A.S.

Natural sands and gravels were overlain by a sequence of alluvial deposits. A few sherds of early medieval pottery were recovered from the lower levels of the alluvial clay. Unearthed within the alluvial deposits were two north-south orientated parallel lines of timber piles set apparently in pairs. These piles may have been the foundations for an elevated walkway that traversed a waterlogged or marshy area and may date to the 16th century. By perhaps the late 17th or early 18th century the land appears to have been drained and a foundry or smithy established as evidence was uncovered in the south of the site for a building that enclosed a furnace and a possible mill race. In the late 18th century the foundry/smithy structure was demolished and replaced with another building that may have had an industrial purpose. A cobbled surface associated with this building was also exposed. Dating to the early 19th-century on the west side of the site was a row of workers' cottages and a cobbled street, and on the east side a stream that had a substantial timber revetment.

Archive: P.C.A.

Work Package 3, Planning Delivery Zone 6 (TQ 3761 8542)

K. Tyler, A. Douglas, P.C.A./ M.o.L.A.S.

The evaluation was followed contiguously by a phase of mitigation works (excavation). This was carried out within a sheet steel piled cofferdam and a mechanical excavator removed a substantial thickness of modern overburden before archaeological deposits were exposed. Natural gravel was overlain by silty sand beneath patches of clayey sandy peat deposits. Prehistoric artefacts

comprising flint flakes, charcoal flecks and daub contained within the peat indicate the earliest evidence for human activity within the trench. The natural deposits and peaty clay were sealed by an alluvial layer approximately 2.5m thick.

Two parallel north-south aligned lines of timber piles formed the earliest structure, dated to the 16th century on woodwork typological grounds. Part of a timber-revetted water channel was unearthed in the south of the trench that may date to the 17th century, possibly used as a mill race or leat. The earliest brick building, which may date to the late 17th or 18th century, was also located in the south of the trench. This was rectangular and probably had an industrial purpose as an adjacent sunken brick feature probably represented a furnace. The remnants of a cobbled surface may possibly be associated with the masonry remains. Possibly in phase with the industrial structures was an 'anchor' for a tie-back revealed in the south-west part of the trench. This would have formed part of the revetment to a water channel located beyond the west limit of the excavation. The late 17th to 18th-century structures described above were overlain by made ground upon which a late 18th to early 19th-century phase of building and associated surfaces was constructed. This included the east side of a north-south aligned terrace of six cottages, which would have backed onto the Temple Mill Stream (as indicated on the Ordnance Survey 1867 first edition map). To the east the cottages fronted onto a stone slab pavement. The row of cottages was separated from a north-south cobbled road by an open metalled area approximately 11m wide. This Victorian ground horizon was at 4.5m OD. A revetted stream running north-south was recorded to the east of the cobbled road.

Archive: P.C.A.

Work Package 6, Planning Delivery Zone 6 (TQ 3771 8496)

K. Tyler, S. Barrowman, P.C.A./ M.o.L.A.S.

Two trenches were undertaken to assess the archaeological potential of the area prior to construction work on a footbridge. Natural floodplain gravels were recorded at the base of the trenches, overlain in one trench by a possible Later Roman consolidation deposit, and later alluvial sediments. Furrows truncated the surface of the alluvium, buried *in situ* by late 19th to 20th-century levelling dumps.

Archive: P.C.A.

Work Package 1, Planning Delivery Zone 8 (TQ 3804 8367)

K. Tyler, S. Barrowman, P.C.A./ M.o.L.A.S.

Four evaluation trenches were excavated. The trenches were examined to the level of the natural gravels, with these being overlain by alluvial sequences, followed by a layer of peat, sealed by further alluvial deposits. In one trench prehistoric evidence and features were observed within, and cutting, the lower levels of the alluvial

sequence, whilst in several trenches late 17th to 19th-century features were observed either within or cutting the alluvial sequence. A possible late 17th to 19th-century relict land surface was also observed overlying the alluvial sequence in one trench. All the trenches were sealed by layers of re-deposited clays or silts, overlain by 19th to 20th-century made ground deposits.

Archive: P.C.A.

**Work Package 2, Planning Delivery Zone 8
(TQ 3788 8337)**

K. Tyler, S. Barrowman, P.C.A./ M.o.L.A.S.

Three trenches were excavated. One trench produced evidence of a natural depositional sequence (examined via auguring), of gravels overlain by silts, humic clay, and alluvium. This was cut by a pit, followed by a ditch, and a wooden stake with associated packing cut, all dating to the late 17th to 19th century. The trench was sealed by 19th to 20th-century made ground. The remaining two trenches were abandoned due to flooding and contamination concerns.

Archive: P.C.A.

**Work Package 1 Planning Delivery Zone 12
(TQ 3842 8363)**

K. Tyler, E. Eastbury, I. Howell, P.C.A./ M.o.L.A.S.

A stepped evaluation trench was excavated to the south of Stratford High Street. A mitigation excavation followed after the initial results of the evaluation. The site sequence broadly consisted of a site that lay at the eastern margins of the prehistoric river and exposed gravels of late Pleistocene/early Holocene date, overlain by prehistoric and historic alluvium containing evidence for human activity. The alluvium was sealed by substantial depths of made ground. The alluvial deposit sequence present on the site records several phases of channel activity from the Neolithic to Iron Age. Interbedded sands, clays and gravels of likely prehistoric date were recorded at the base of trench PDZ12.01. These deposits accumulated on channel bars within shifting stream channels. A gravel horizon within the sand bars produced flint debitage and a number of unabraded sherds of Neolithic pottery; an assemblage of animal remains, including horse, and a possible wooden stake structure. The sand bar deposits were truncated by a channel containing a possible dislodged/disaggregated wooden structure comprising the remnants of at least four roundwood timbers. The remains are presently undated but are not thought to predate the Iron Age.

The active channel deposits across the base of the trench were overlain by a sequence of organic clays and peats, which are likely to represent a channel marginal backwater environment that gradually silted up. An early medieval channel consistent with a possible site of a mill works was identified in the upper part of the alluvium. Substantial gravel dumps were laid down to consolidate the ground above the alluvium prior to construction which, characterised by a range of wells, cesspits, brick

walls and drains, was present in the upper levels of the sites, dated to the 17th century. A number of walls recorded in section at the northern end of the site were clearly Victorian in origin and are likely to relate to the former Christ Church known to have been located in this part of PDZ12.

Archive: M.o.L.A.S.

78 Sutton, Fossetts Farm overhead line diversion (TQ 8955 8915 – TQ 8855 8830)

T. Ennis, E.C.C. (F.A.U.)

Monitoring and excavation took place at several sites along the 1.6km route of the overhead line diversion. The scheme involved the construction of a new underground electricity cable trench across farmland from the roundabout in Sutton Road, just west of Smither's Farm, in a north-easterly direction to the electricity sub-station in Shopland Road.

Three pits and a ditch of Middle Iron Age date were recorded in the northern part of the route and residual undetermined prehistoric pottery was recovered from the south. Also in the north, was a small cluster of early medieval pits and post holes, two late medieval deposits perhaps infilling a pond or hollow and two post-medieval boundary ditches that formerly separated the field from Shopland Road. Further significant deposits of late medieval date were recorded in the south of the route, close to Sutton Road. Possible structural remains in the form of rubble limestone footings for a timber building lay alongside pebble and shell surfaces. Worked stone, presumably re-used from a building elsewhere, was also present. Ditches, in-filled with predominantly later 15th-century material, may have formed part of an enclosure around the building and its yard site and suggest that it survived into the 16th century. The finds from the enclosure ditches and a nearby pit were of a range and quantity to imply domestic occupation.

Archive: S.M.

Report: E.C.C. F.A.U. Report 1797

79 Thaxted, Burial Ground extension, North of Thaxted Windmill (TL 6098 3083)

M. Rozwadowski, A.S.

The site is located on the top of a ridge which slopes gently down with excellent views to east and south and the Chelmer river valley to the west. The evaluation revealed a ditch containing Late Bronze Age to Early Iron Age pottery, a medieval feature and a large post medieval feature which may represent the remains of a cut for a windmill. Small quantities of residual struck flints were recovered from three features, and residual medieval pottery was found in two features.

Archive: A.S.

Report: A.S. Report 3226

80 Tilbury, West magazine north blast wall, Tilbury Fort (TQ 6515 7543)

M. Pocock, E.C.C. (F.A.U.)

An archaeological evaluation was undertaken to record any archaeological remains that would be disturbed during conservation engineering works to support the north blast wall of the western powder magazine. The archaeological work included the observation and recording of three boreholes, hand excavation of sixteen temporary access pits for ground anchors, and further hand augering in three of the access pits.

Alluvial marshland silts and the water table were encountered at c.2.8m OD by both the boreholes and hand augering. Overlying this were multiple soil layers relating to the construction of the fort, but more specifically to the build-up of the earthen bank to the rear of the northern curtain wall and the construction of the blast wall surrounding the powder magazine. The 0.6m-deep access pits encountered only a single demolition spread that contained a variety of modern domestic waste and building debris. An incomplete lower portion of a buttress located against the western side of the master gunner's store was also recorded within the most easterly of the access pits.

Parallels can be found with previous archaeological investigations, specifically the trench that was cut through the bank to the rear of the western curtain wall. The midden deposits that were previously encountered within the western wall's bank material were not seen in this investigation. This may have been because of the confined nature of these works but is more likely due to the difference in activity between the two areas of the fort.

Archive: T.M.

Report: F.A.U. Report 1891

81 Waltham Abbey, 23A High Bridge Street (TL 380 006)

S. Unger, A.S.

Evaluation revealed two shallow pits of medieval date beneath 1.80m of post-medieval and modern made ground. These were cut into an alluvial layer that contained early medieval pottery. Due to waterlogging, preservation of organic material was good.

Archive: E.F.D.M.

Report: A.S. Report 3139

82 Wanstead, Thames Gateway Water Treatment (Plant Distribution Pipeline) (TQ 3996 8705)

W. Johnston, P.C.A.

Two evaluation trenches that were excavated to the north and to the south of a public footpath recorded Taplow Terrace gravel sealed by weathered subsoil. An undated linear feature and two large 19th to 20th-century circular features, possibly representing gravel extraction pits or ponds, truncated the subsoil. Modern topsoil sealed the site.

83 West Ham, Part of the site of the abbey of St Mary Stratford Langthorne, Bakers Row (TQ 3909 8347)

B. Cowie, M.o.L.A.S.

Further excavations were undertaken to assess the level, nature and condition of structures on the Scheduled Ancient Monument in advance of landscaping. Specific aims were to investigate the interior of a medieval building that had been excavated and reburied in the 1970s, and to expose its exterior for consolidation and display. The building had been identified as the abbey guesthouse, but the results of a desk-based assessment in August 2007 suggested that it was the abbey gatehouse (Great Gate). This was confirmed by the discovery of hitherto unknown walls extending south from the previously recorded part of the building, suggesting that the structure once straddled the access road to the abbey (now Bakers Row). The gatehouse had been constructed in two major phases. The earliest part, to the south, was divided into two rooms that probably lay on the north side of the entrance passage. Later in the medieval period the gatehouse was enlarged by the addition of a rectangular extension on its north side. Several cut features and layers close to the building produced medieval pottery or building material and might be contemporaneous with the abbey. A stone wall to the east of the gatehouse was also probably medieval, and may have been part of the abbey precinct wall. The gatehouse was further extended and altered in the 16th/17th century, and two brick-lined cesspits were built next to it in the 16th/mid 17th century and mid 17th/18th century respectively. Other post-medieval features and strata included the remains of a 17th-century brick building, a drain, walls, gravel paths, moat fills and garden/agricultural soil. The latest features were the remains of Victorian terraced houses fronting onto Bakers Row, and associated features including yard surfaces, brick-lined cesspits and possible garden paths. The walls of the medieval gatehouse were not robust enough for display and were reburied after consolidation. Their outline is indicated at ground level by a modern mortar and flint capping.

Archive: M.o.L.A.S.

Previous summaries: Bennett 2008

84 West Thurrock, Sandy Lane (TQ 588 778)

P. Fitz, A.O.C.

Following on from earlier evaluations a watching brief was conducted on trenching and ground reduction for the new development. The watching brief comprised the machine excavation of strip foundation trenches, service runs and ground reduction. Natural alluvial and brickearth deposits were identified on site between 0.75m and 0.35m below ground level. Cutting into the brickearth were three features. One pit, one linear ditch and a post hole/pit were recorded in the north and north-west of the site demonstrating occupational activity on site during the 17th to 19th centuries. Sealing the features and across the remainder of the site was a layer

of subsoil followed by a layer of either topsoil or made ground.

Archive: T.M.

85 Wickford, 3–31 Runwell Road (TQ 7480 9370)

T. Adfield, P.C.A.

An archaeological strip, map and record investigation was carried out within the car park of a showroom. Natural sandy clay, recorded between 6.61m OD and 6.46m OD, was cut by a number of Roman, medieval and post-medieval features. These comprised a southeast-northwest aligned ditch dated to the 2nd/3rd century AD, two east-west aligned medieval gullies, several 18th-century posts, possibly representing livestock management, and 19th-century brick structures and external surfaces.

Archive: P.C.A.

86 Witham, Land off Bramble Road, Previously Kingdom Hall, Powers Hall End, Phase 4 (TL 8143 1548)

P. Sparrow, A.S.

The fourth and final phase of trial trenching at Land off Bramble Road revealed archaeological features comprising a wall (Tr.4, F1021), a pit (Tr.4, F1025), a gully (Tr.3B, F1016) and a ditch (Tr.4, F1018). The wall encountered in Trench 4, F1021, was modern and aligned with the site boundary to the north-east. The ditch (F1018) and pit (F1025) were post-medieval and probably relate to activity associated with the mill. The archaeological features are comparable to those recorded during the previous phases of the evaluation.

Archive: Bt.M.

Report: Report A.S. 3155

87 Witham, Land Rear of Spring Lodge Community Centre (TL 8143 1544)

L. Smith, A.S.

An archaeological evaluation was undertaken in advance of the creation of 52 new car parking spaces. The trial trenches revealed a small number of archaeological features comprising a ditch, a gully terminus, two pits and a post hole. The majority of archaeological features were identified towards the western edge of the site (Trenches 1 and 2), and were post-medieval.

Archive: Bt.M.

Report: Report A.S. 3023

88 World War II Defences of Essex survey 2008

F. Nash, E.C.C. (H.E.R.)

The culmination of the 2008 survey of Chelmsford wartime defences saw the publication of the report ‘*Survey of World War Two Defences in the Borough of Chelmsford*’, funded jointly by Chelmsford Borough Council and Essex County Council. Using wartime

records, 1940’s aerial photographs and the memory of local people, the great majority of the concrete and steel defence works are thought to have been tracked down and recorded for planning, preservation and educational purposes. Of the 417 sites recorded, 167 still survive, varying from pillboxes to Home Guard gun emplacements and ammunition shelters. In the Second World War, Chelmsford Borough found itself literally at the crossroads of strategic defence, lying directly across any invasion of the east coast pushing towards the capital. As a consequence, Britain’s major defence line, the GHQ Line, ran through the Borough, shielding the town with its pillboxes and anti-tank defences. Immediately behind this, the town itself was ringed by the defences of the Home Guard. Heavy anti-aircraft gun sites encircled the town; Boreham Airfield lay on the outskirts. The Borough was one of the most heavily defended parts of Essex.

A survey of the wartime defences of Clacton-on-Sea has also been completed. This was undertaken by the Clacton VCH Group local society, working under the direction of the Historic Environment Branch, funded by the Heritage Lottery Fund and Essex County Council. This has been a two year project, enthusiastically recorded by the community to provide a near-definitive account of Clacton’s wartime defence measures. Contemporary records, discovered in local and county archives, have been an important element of the detective work. The survival of a great many wartime and 1950’s photographs, already held as a collection by the group, has provided graphic evidence of the wartime records. In all, 135 beach barriers, road blocks, machine-gun posts and anti-tank obstacles have been recorded and mapped. At the end of the war, the seaside towns were among the first to clear away the defence sites and at Clacton just ten still survive to underline the importance of assessing those that still remain. In May 2008 the final report on the project was produced with details of each of the sites discovered.

For a number of years, surveying has been progressing in the District of Maldon. In 2008, with funding from Maldon District Council and Essex County Council, work began on recording the last part of the defence jigsaw. This area, the Dengie Peninsular from Burnham-on-Crouch northwards to Bradwell-on-Sea, has proved to be immensely fruitful. To accompany the Minefield Control Tower at Holliwell Point, now scheduled and adopted as the logo for the World War Two Defence in Essex Project, the county’s largest pillbox has now been recorded east of Southminster. Described as a ‘Blockhouse’ in surviving wartime records, it is constructed from an amalgam of two pillboxes a few yards apart, linked by a central firing gallery and backed by an anti-aircraft machine-gun well. In addition, Bradwell Bay airfield, a wartime bombing range off the coast, the Combined Operations training base at Burnham-on-Crouch, a German prisoner-of-war camp and over 20 heavy anti-aircraft gun batteries sited to fire at V1 flying bombs are all being documented.

Abbreviations

A.O.C.	AOC Archaeology Group
A.S.	Archaeological Solutions
A.S.D.U.	Archaeological Services Durham University
Bt.M.	Braintree Museum
C.A.	Compass Archaeology
C.A.U.	Cambridge Archaeology Unit
C.A.G.	Colchester Archaeological Group
C.A.T.	Colchester Archaeological Trust
C.H.T.A.P.	Copped Hall Trust Archaeological Project
C.M.	Colchester and Ipswich Museums
Ch.E.M.	Chelmsford and Essex Museum
E.C.C. (H.E.R.)	Essex County Council (Historic Environment Records)
E.C.C. (F.A.U.)	Essex County Council (Field Archaeology Unit)
E.F.D.M.	Epping Forest District Museum
H.M.	Harlow Museum
L.A.A.R.C.	London Archaeological Archive and Research Centre
L.P.A.	L-P Archaeology
M.o.L.A.S.	Museum of London Archaeology Service
N.A.U.	Norfolk Archaeology Unit
P.C.A.	Pre-Construct Archaeology Ltd
R.P.S.	R.P.S. Clouston
S.M.	Southend Museum
S.W.M.	Saffron Walden Museum
W.A.	Wessex Archaeology
W.E.A.G	West Essex Archaeology Group

BIBLIOGRAPHY

- Allen, P. 2007 Essex and Suffolk Water Offices, Hall Street, Chelmsford, Essex. Archaeological desk-based assessment. Essex CC report 1767. Essex Historic Environment Record
- Andrews, D.D. 1999 *Passmores Museum, Harlow, Excavation Summary Report*. Unpublished report in EHER
- Bennett, A. (ed.) 2005 'Archaeology in Essex 2004' *Essex Archaeol. Hist.* **35**
- Bennett, A. and Havis, R. (ed.) 2007 'Archaeology in Essex 2006' *Essex Archaeol. Hist.* **37**
- Bennett, A. (ed.) 2008 'Archaeology in Essex 2007' *Essex Archaeol. Hist.* **38**
- Havis, R. 2006 'Archaeology in Essex 2005', *Essex Archaeol. Hist.* **36**
- Priddy, D. (ed.) 1986, Excavations in Essex 1985, *Essex Archaeol. Hist.* **17**, 144
- Wickenden, N.P. 1992 *The temple and other sites in the north-eastern sector of Caesarmagus*, Chelmsford Archaeol. Trust Rep. **9**, CBA Res. Rep. **75**

Historic buildings and church notes and surveys

Edited by David Andrews

The buildings described here have been recorded either through private research, or else in the course of planning development control work, usually according to the provisions of Central Government Planning Policy Guidance notes 15 and 16 (November 1990). We are grateful to the owners, agents and contractors whose help and co-operation has made this work possible.

The Essex Historic Environment Record

Laura Belton

Table 1 lists the survey reports received by the Essex Historic Environment Record (EHER) curated at County Hall for 2008, and thus gives a picture of the range and scope of building recording in the county. Summaries of the more interesting reports are given below.

Chelmsford Cathedral, the west end of the south aisle (EHER 48786)

Five building phases were identified on the west end of the south aisle ranging from the late 15th to the early

20th centuries, corresponding with documentary evidence that the Cathedral took its present form after an extensive programme of reconstruction during the 15th and 16th century. An annotated plan drawing was laid over a high resolution photograph scaled at 1:50 to identify the various building phases. It was found that the south aisle initially extended only as far as the east side of the tower, only later being extended to enclose the base of the tower.

Little Nuntty's Farm, Nuntty's Lane, Coggeshall (EHER 46782)

Recording works were carried out on Little Nuntty's Farm which was established in the mid 19th century as a planned farm, tied to the Holford Grange estate. The establishment of farms on new sites is relatively rare as most landowners 'improved' their existing farms (often developed during the 17th and 18th century agrarian revolution) to take advantage of mixed farming improvements during the so-called Victorian Golden Age of Agriculture. A new farm such as this indicates the

District	Parish	Site	Contractor	Eher
BTE	Braintree	Swan Side water tower and fire station	ECC FAU	15591
BTE	Coggeshall	Little Nuntty's Farm	ECC FAU	46782
BTE	Pattiswick	Great Nuntty's Farm	ECC FAU	40871
BTE	Finchingfield	Unwins Farm Barns, Spains Hall Road	ECC FAU	40861
BTE	Rayne	Rayne Foundry	CAT	55447
BRW	Brentwood	Brentwood School, Ingrave Road	ECC FAU	40860
CHL	Chelmsford	Chelmsford Cathedral	ECC HB & C	48786
EPF	Epping	208–212 High Street	E & B Watkin	40862
MAL	Latchingdon	Former water tower, Lower Burnham Road	ECC FAU	46830
THU	North Stifford	Ford Place	O' Rourke/Littler	35360
THU	Rainham	Albys Farm barn, South End Road	MoLAS	N/A
UTT	Great Hallingbury	Old Forge, Hop Poles PH, Bedlars Green	E & B Watkin	40859
UTT	Great Hallingbury	Harps Farm Stables, Bedlars Green	AOC	40859
UTT	High Roding	Mission Hall, The Street, Lower Dunmow Road	E & B Watkin	40858
UTT	Stansted	Parsonage Farm	AS	4563
UTT	Stansted	former Peter Kirk School	AS	4563
UTT	Stebbing	Old Chapel, Mill Lane	ECC FAU	46835

- Notes**
- 1) ECC FAU – Essex County Council Field Archaeology Unit.
 - 2) ECC HB & C – Essex County Council Historic Buildings and Conservation.
 - 3) CAT – Colchester Archaeological Trust.
 - 4) AS – Archaeological Solutions.
 - 5) MoLAS – Museum of London Archaeological Services.

Table 1 Historic building reports received by the Essex Historic Environment Record for 2008

enthusiasm for country estates to take advantage of the boom in agriculture and healthy markets brought about by good harvests, increased population and higher standards of living during the period of rapid industrialisation. The farm expanded slightly in the late 19th century and the conversion of the cow shed to stables was noted during the survey. With the introduction of large-scale mechanised grain storage in the 20th century, many of the old farm structures disappeared. The barn and stables are significant as a small surviving part of a 19th-century fully-planned Victorian farm.

It followed a mixed farming regime, as evidenced by the presence of buildings for crop storage and livestock, typical of other Essex farms. The buildings were timber-framed and weather-boarded, typical of their type.

Unwins Farm Barns, Spains Hall Road, Finchfield (EHER 40861)

Recording was undertaken on two 18th-century barns at Unwins Farm, Finchfield, prior to conversion to mixed residential and commercial use. The two barns at Unwins Farm are significant relics of a post-medieval farmstead whose origins may go back to the medieval period. They represent the process of 18th century improvement in agricultural practice by a gradual redevelopment of the existing farmstead followed by more intense improvement during the Victorian period. Unwins Farm appears to have had a more complicated development than most Essex farms, but is typical in adopting the improved courtyard layout in the Victorian era and utilising its two earlier barns. Unlike other farms, it continued to concentrate on arable farming, probably because it was suited to the soil. The use of good timber in both structures at a time of scarcity is presumably indicative of the wealth of the Belcumber Hall estate in the 18th century. Weather boarding, lime render and thatch are part of the vernacular Essex farming tradition and the barns, together with their contemporary structures, would have formed an attractive group. Unfortunately, the abandonment of traditional for cheap low-maintenance building materials in the 20th century has harmed their appearance and character.

Mission Hall, The Street, Dunmow Road, High Roding (EHER 40858)

Recording was carried out prior to conversion to residential use. The building is a typical example of a late 19th-century 'kit' building, the period c.1870–1910 being when many mission halls were erected. Many buildings of this type are covered in corrugated iron, however much of the original detail on this building remains unchanged. Of special interest are the vertical sliding, sash windows that have three vertical panes over three lower panes with obscured glass. The addition of the porch, decorated gables, the transverse 'transept feature' type gables, and the fine ashlar lined finish to the lime render, provide a customisation which gives the building an individual character.

Ford Place, North Stifford (EHER 35360)

In 2008 a survey was undertaken to argue that despite fire damage in 1987, enough of the Tudor, 17th and 18th century building with surrounding walled gardens remains to warrant listed status and restoration. Of particular importance are the Tuscan pilasters on either side of the staircase windows, on the east elevation, datable to 1655, rising from first floor level corbels to support a heavy brick cornice. This use of the Tuscan Order at Ford Place may be the oldest example of Artisan Mannerism in Essex.

Great Nunt's Farm, Nunt's Lane, Pattiswick (EHER 30175)

Building recording was undertaken on the extensive remains of this post-medieval farmstead prior to conversion to a single residential dwelling. The farm had been redundant for some time and consisted of five timber-framed structures and the remains of two brick buildings surrounding a square yard open to the north. They are curtilage listed by association with the grade II cross-winged farmhouse which stands opposite and which dates to the 16th and 17th centuries. The farm represents the remains of an important group of probable late 18th-century weatherboarded, plastered and thatched buildings, incorporating an earlier structure from an earlier farmstead contemporary with the farmhouse. This two-bay building is interpreted as a 17th-century byre, and as such is the most interesting of the buildings, though all of them possessed fixtures and fittings of significance, in particular the threshing floor and hay loft, as well as various feeding troughs and racks. For farm structures of this age, they display a relatively high standard of timber and a low level of reuse, except in the south barn which appears to be built from two slightly earlier structures, identified by their contrasting construction style.

Stansted Mountfitchet – former Peter Kirk School (EHER 46836)

The building is an interesting example of its type and date, because as a fairly late example of the British School system it anticipates the later forms of architecture which are so common in Victorian and Edwardian schools; large classrooms and a fondness for gables which allowed high ceilings and tall windows, for example.

The Old Chapel, Mill Lane, Stebbing (EHER 46835)

The old Congregational Chapel was constructed in 1793 as a large utilitarian building, built of lath and plaster on a timber frame. It was partly rebuilt c.1865 with a smart neo-Georgian facade and vestry (both of brick), replacement roof and an inserted internal gallery. Despite its conversion to a light electrical industrial use, following decommissioning in 1971, the gallery survived. Although many features have been lost over time, the chapel is significant for its relatively grand size (for a congregation of about 500), the survival of its Victorian gallery and the panelling around the two sets of stairs as well. Externally,

Parish	Building	Timbers	Date	Analyst	Report
Coggeshall	11 East Street	Stud	1404–40	I. Tyers	
Coggeshall	14 East Street	?joists	c.1430–50	I. Tyers	
Finchingfield	Spains Hall	Early king-post roof	Failed to date	M. Bridge	

Table 2 Recent tree-ring results for Essex

the brick frontage survives in good condition, together with some elements of its wall and iron railings along the lane edge. It is unusual to find such a large chapel in a village location, which illustrates the popularity and growth of the Non-Conformist movement in the 19th- and early 20th-centuries in north-west Essex.

Essex Tree-ring Dating Project

For about twenty years, Essex County Council has promoted the use of tree-ring dating in the study of timber-framed buildings, and has co-ordinated the dissemination of the results. New dates obtained for buildings in the county are presented in Table 2. Further details may be available in the Tree-Ring Date Lists in the journal *Vernacular Architecture*.

Luminescence dating of medieval brickwork in Essex

Tom Gurling

In an earlier volume of this journal (Gurling 2006) a project was outlined detailing a series of medieval and Tudor structures in Essex which contained historic brickwork that was being studied by the scientific dating technique of Optically Stimulated Luminescence (OSL). The project included brickwork that covered the three main brick types that constitute the typologies which have been developed for medieval brickwork in Essex, namely Coggeshall type brick, 'Flemish' type brick and red 'Tudor' brick (Ryan and Andrews 1993). This short note conveys a brief summary of the outcome of that research project.

The most significant discovery was that Coggeshall type bricks were made earlier than the mid-12th century date that has commonly been attributed to this brick type. Indeed, at one site, Boreham church, there may be Coggeshall type bricks *in situ* in a late Saxon context, suggesting that this brick type was being used from the 11th century. For reasons which were unknown, it was not possible to obtain OSL signals from 'Flemish' type bricks. The final revelation was the extent to which red 'Tudor' bricks were being re-used during the late 15th and 16th centuries. Two thirds of the bricks sampled from this period for this project suggested re-use and has expanded the accepted range of building materials which were being re-used in the past to include bricks as well as timber and stonework. This in turn has led to the revising of the construction histories of several buildings from this period. It is also clear that Coggeshall type brick from earlier periods was also re-used in the later medieval period.

Bibliography

- Gurling, T., 2006, Luminescence dating of medieval brickwork in Essex. *Essex Archaeology and History* 37, 179–181.
 Ryan, P. and Andrews, D., 1993, A Brick and Tile Typology for Crossing Temple. In Andrews, D. (ed.) *Crossing Temple: A Templar and Hospitaller Manor in Essex*, 93–103. Chelmsford, Essex County Council.

Brentwood, demolition of 141–147 High Street

In 2009, the Sir Charles Napier public house at the corner of the High Street and Weald Road, and nos 143–145 High Street adjacent to it (Fig. 1 and Plate 1), were demolished to allow construction of a slip road to ease traffic flows from this western end of the High Street to William Hunter Way.¹ These were good buildings, though not of listable quality, within the Brentwood Conservation Area. Maps of the town made in 1717 and 1788 show that it was only between these dates that the site of these buildings became developed. The Sir Charles Napier was built in the 1930s, but replaced an older building, also a public house of the same name, which to judge from old photographs dated from the 18th century. In the Arts and Crafts style, it was built of red brick with false half timbering at the first floor. Internal features included exposed beams, a fireplace with a panelled timber over-mantle, a staircase with square newels and balusters, and well detailed door and window furniture.

Nos 141–145 were a terrace of three red brick houses with Regency features datable to the first half of the 19th century, that had suffered damaging modern alterations and 'improvements'. They were red brick and of three storeys, with slated narrow span roofs behind a parapet. The only surviving ground floor doorway, and the first floor windows, had semi-circular heads made of gauged



Fig. 1 The 1st edition OS map of Brentwood surveyed 1872, with nos 141–147 indicated in black. This shows the Sir Charles Napier before it was rebuilt, and the south end of Weald Road before it was widened. Back Street is now Hart Street.

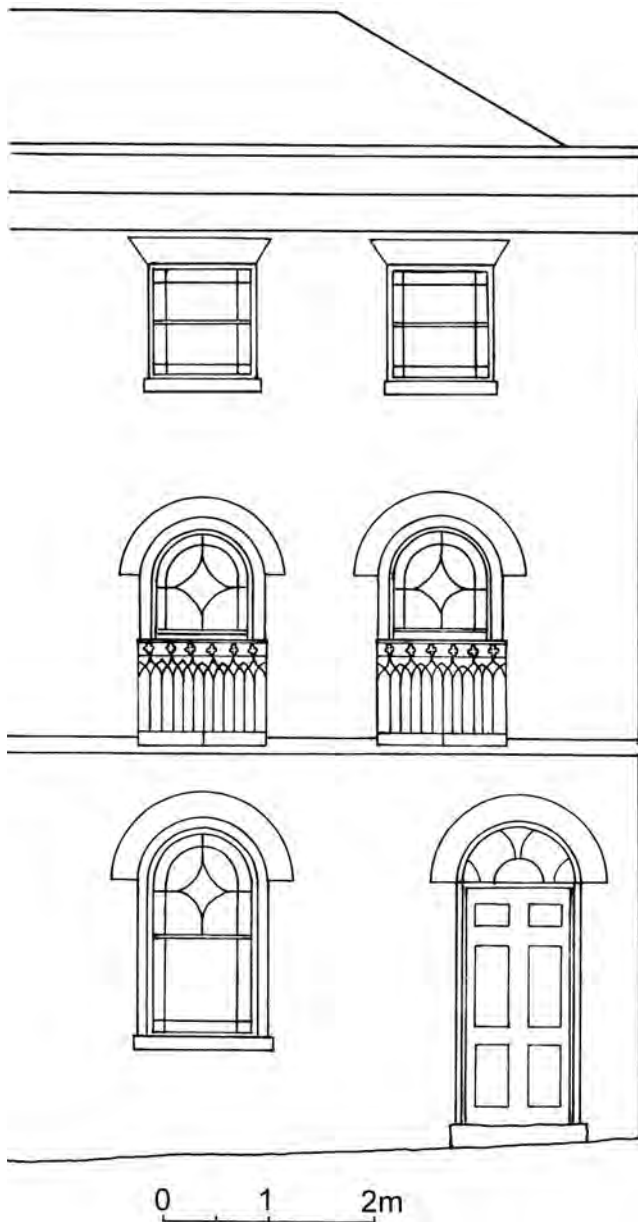


Fig. 2 Reconstructed elevation of no. 145 High Street

brickwork. The first floor windows had upper lights with marginal and spider's web glazing bars, and had cast-iron balconies. An original door in no. 145 had reeded architraves with rosettes at the corners (Fig. 2). No. 143 preserved a plain white marble fireplace. In plan, the houses were long and narrow, with two rooms set either side of a central staircase, accessed at ground floor from a passage from the front door (Fig. 3). Each room had a fireplace. The chimneys had square white clay pots. Urban terraced housing of this period and quality are rare if not unique in Essex, but would not have been unusual in London. It is very probable the terrace was built as a speculative development for rent.

Note

1. This account is based on a report by Corrie Newell and Libby Brown.

The former Adams brewery and maltings, Trinity Street, Halstead

Brenda and Elphin Watkin

This survey was undertaken in 2005 to add to the information already gained from a Historic Building Appraisal carried out in December 1999 by the Field Archaeology Unit of Essex County Council. It was to assess the importance of the extant brewery buildings, determine their mode of operation, identify surviving technological features, and to locate alterations and modifications including areas blocked, added to, or demolished. Sketch plans only were produced at the initial stage. As part of the survey detail drawings of the kiln area were produced. This summary covers a general description of the malthouse with detail on the surviving kiln. The full record is available in the Essex Record Office and the Essex Historic Environment Record (Watkin 2005).

Sited beyond the confines of the historic town but within the Halstead Conservation Area, the former Adams brewery site lies adjacent to Holy Trinity Church and fronts onto Trinity Street (NGR TL 8093 3050). It has in the recent past been in use as a stores department and offices for Braintree District Council. The brewery site, most of which has been demolished, still comprises an Arts and Craft style brewery owners house, a malthouse, a workshop and remnants of the former brewhouse, including the tun room and foundation area of a wine store. The Grade II listed malthouse is the only building on site afforded statutory protection. The site has now been converted to domestic living units by Vaughan & Blyth Ltd.

Historical background

In 1850 Thomas Francis Adams embarked upon his career in the brewing trade working for the Hourglass Brewery, Upper Thames Street, London. By 1876, Adams came to Halstead with the intention of finding a brewery for his and his family's future. He visited the Halstead Brewery, owned and extended from a maltings complex when bought by Charles Stanton Gray of Chelmsford, in 1859. The site had been extended by Gray in 1873. On the 5th of July 1876 contracts were exchanged and the brewery passed into the hands of T.F. Adams and Sons. Adams died in 1878 but his sons Edgar and Percy carried on the business. The brewery was developed and extended from what appears to be a reasonably sized maltings with possibly a small brewery. In 1859 it included an unusual steam engine with an overhead crankshaft that was built by Hunts of Earls Colne. In 1939 the Adams brewery was sold to Isherwood, Foster, and Stacey a subsidiary of Fremfils although the Adams family retained the brewery chapel, adjacent cottage, a mineral water business and rights to supply malt.

The site was purchased by the Halstead Urban District Council in 1965 for use as offices, workshops and stores, at which point the covered yard and the bulk of the brewhouse were demolished. It has been confirmed that some considerable quantity of information

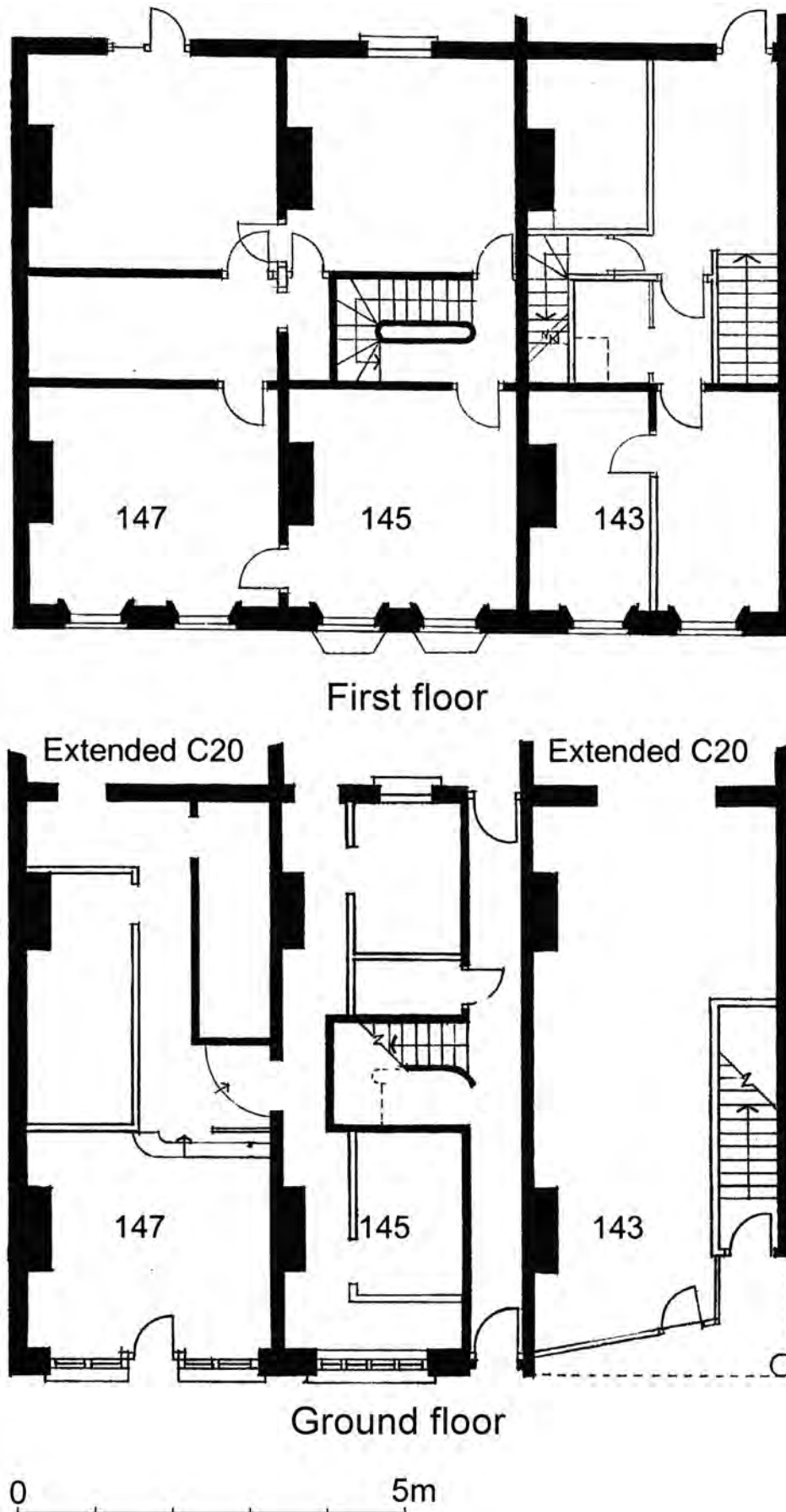


Fig. 3 Plans of 141–145 High Street, Brentwood (Corrie Newell). Only No. 145 preserves the original ground plan



Plate 1 Brentwood High Street, the Sir Charles Napier and nos 141–145

amounting to 92 boxes, including maps, exists uncatalogued in the Essex Record Office concerning Adams Brewery, and that many more editions of the Halstead Board of Health Minute books exist that may throw more light on the building sequences in the future.

The Malthouse

A malthouse converts the barley to malt by first soaking, then germinating and growing the seed. When the shoot reached approximately three-quarters of the length of a grain, the starch change to sugar was at its maximum. At this stage it was gently ‘cooked’ to arrest further germination, on a warm kiln floor with ventilation from beneath. In early buildings this would usually have been on a horsehair mat stretched over the joists. Wire mesh was frequently used from the late 18th century and numerous wire weavers are listed in directories of the time. Woven wire floors have been recorded from as early as 1710. At the end of the century the wedge wired floor as at Halstead was developed. This is thinner and tighter in form than the woven wire. In the 19th century, kiln floors might be of rectangular or later square perforated cast iron or clay tiles set onto a suspended iron framed floor.

General Description

Aligned approximately north-south and forming the eastern boundary to the brewery courtyard the malthouse is a simple two-storey range with gabled slate covered roofs (Fig. 4 and Plate 2). Built on the same

alignment and forming a double gable at its northern end is a much later two-storey six-bay storage range with a gambrel roof. To the south and fronting Trinity Street, is a three-bay brewery office with, to the rear, a barley store with a gabled sack hoist and taking-in door. These southernmost bays are distinct from the rest of the building in the use of a mixture of grey gault and Suffolk white brick as opposed to the soft red bricks and flint panels of the growing floors and kiln areas. All brickwork is laid in Flemish bond and the flint panels ornamented with ‘kicked-up’ bottle bases set in a quadripartite design. The east wall is mainly plain with large areas of flint panel. Incised into some of the brickwork of the front offices by the main entrance are the initials of the brewers’ family members and possibly managers, with the incised date 1896. The bulk of the range comprises a ten-bay growing floor area, with a steep at the southern end and drying kiln and storage areas to the north and a later barley store and office to the south. The layout of the malthouse is of a type that is common in East Anglia, and is categorised as a Ware Pattern malthouse.

A fire had destroyed much of the historic features of the building, including the detail of the method of working at the steep end. The roof was completely rebuilt.

What is important is that this building was already in place and working before Stanton Gray built his brewery here in 1859. It has no definite dating features, but the general character of the building suggests it was most likely built within the first twenty years of the 19th

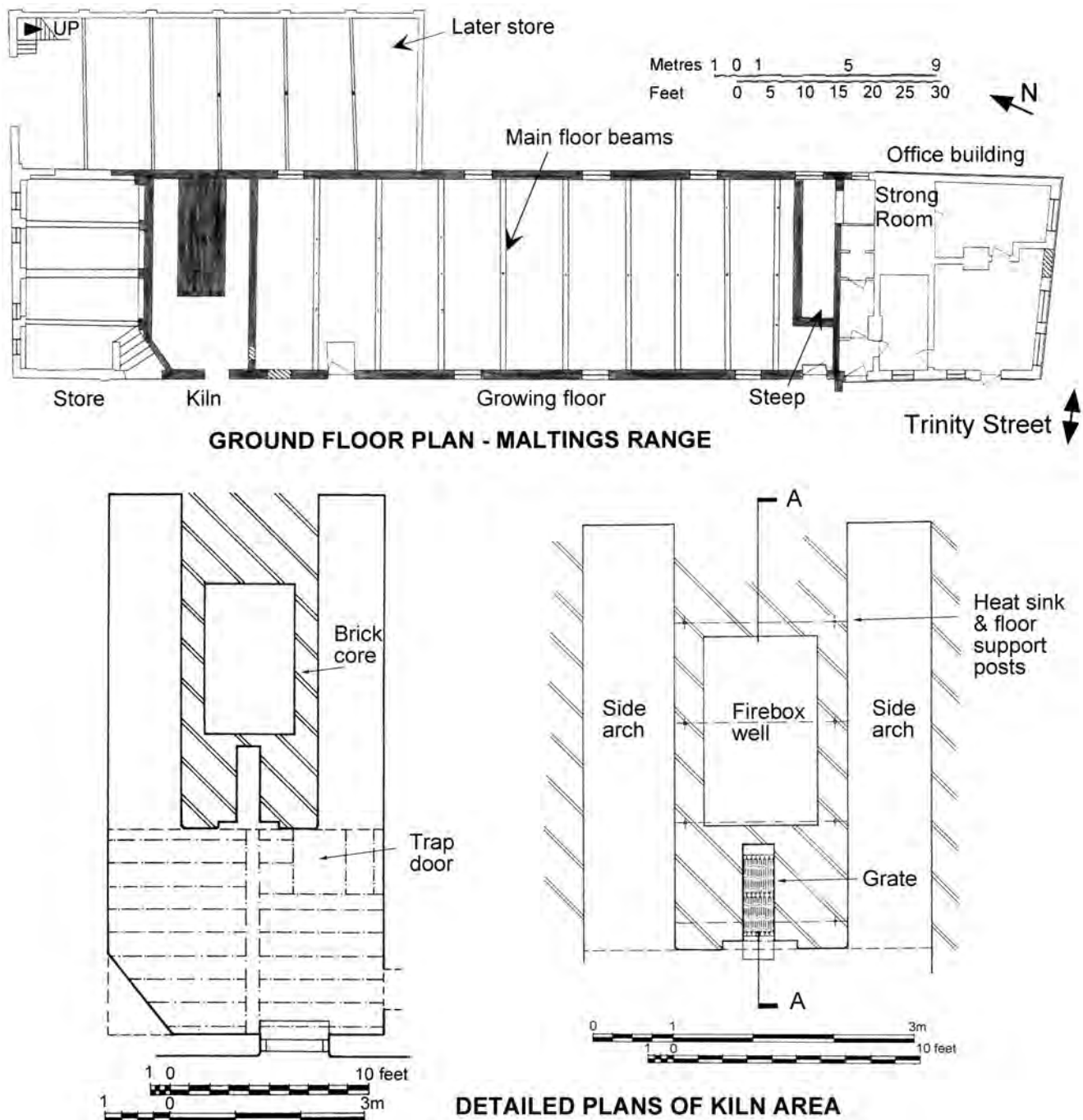


Fig. 4 Halstead, Adams Brewery, ground floor plan of the malting range, with plans of the kiln area

century. Early maps from before Stanton Gray took on the site show a typical long building in the position of the maltings. It was built as a complete unit of outer walls initially, as were other known examples, with the necessary fittings being built within that structure. The kiln is built within the outer walls although it uses the east wall as its back.

The kiln

At the northern end of the growing floors is the drying kiln. It is not immediately obvious if viewed externally due to the removal of its distinctive conical roof. This does just appear in one of the early photos of Halstead but the cone had been removed some time before the

brewery ceased to operate and was already re-roofed before the fire that required the building of the present roof. The kiln area below survives remarkably intact (Figs. 4 and 5). A door at ground level on the west elevation gives access to the firing area, with a brick floor, sited below the kiln floor level. Built of brick in English bond with spreading arches to the north, south and east, this unusually complete example still retains its central priming and stoke holes, iron grates and dogs. Fuel in the form of coal would have been stored for immediate use, either in the flanking arches or against the west wall of the firing area. A hatch set into the first floor allows access from the ground floor onto the first floor, which would have been via a fixed ladder stair to allow the maltster



Plate 2 Halstead, Adams Brewery, the malting range

easy access between floors. Here the kiln floor can be reached via a door set into the western wall of the kiln. Also at this level hatches positioned in the southern wall allowed the germinated grain to be introduced into the kiln from the upper growing floor, while hatches in the north and the access door in the west wall opened to the malt stores where the kilned grain was shovelled, sieved and bagged. The hatches also allowed heat to dissipate at a considerably faster rate if opened after each batch, thus enabling the maltsters readier access. They were also used by the maltster to adjust the temperature in the kiln before patent damping devices were developed such as those by Free at Mistley. No visible method of operation for transfer of grain from ground floor to kiln floor survives. The original wedge-wire kiln floor still survives *in situ* and kiln floor tensioner bolts can be observed on all the outer faces of the kiln walls.

Although the conical roof has been removed, evidence of its form remains in the curved timbers set into the corners of the kiln top-plates to form an approximately round base ring beam from which to strike the cone. At the centre of each wall-plate in the kiln area is a mortise for a principal rafter, between which are scribed marks to show the position of the intermediate rafters although

the remaining nail positions for the rafter bases do not always appear in line with the scribed line. These would have risen to a cylindrical top surmounted by some form of deflector, at this time most likely a fixed plate. The shaped corner timbers are marked with heavy incised chiselled carpenters marks: I to the NE, II SE, III SW and IIII NW, which are repeated on the wall-plates. These timbers are attached to the wall-plates with through iron bolts at each end and iron spike nails. Below these, the tapering and rounding of the kiln's internal angles is formed by the use of lath and plaster infill. They are not consistent around the kiln, for instance the SW corner fillet has to be foreshortened to miss the access door and loading door. The NW fillet is also in place but the eastern ones are now only a scar on the wall. The replacement timber roof trusses sit directly on top of these partially truncated kiln wall-plates, the eastern plate being completely removed in the re-roofing. The extension of the east/west wall-plates to the west over the firing area are interesting in that they have painted numbers on them. The one to the north has a '1' and the southern plate a '2'.

The lower kiln area is based on a square firebox with walls approximately 2ft 3in (0.68m) high. The west face is broken centrally by the fire grate area which rises to a brick arched head all set one half brick into the wall. Into this is set a cast iron fire grate, a cast iron bar frame back, and, inside the fire-box affixed on straps to the inner face of the wall is a wrought iron bar frame to stop any items that might pass the fire back. On the wall face above this area is another brick arched head with a wooden shelf set under it. From the sides, brick spreader arches rise to finish under the kiln floor at full width. This is repeated to the east end of the firebox. The inside surface is smooth to encourage the warm air up and evenly around the kiln floor. The quarter-circular openings extend through to the east wall of the kiln/growing floor building. This shows the east wall of the building at lower level to be flint. The northern arch has a rendered mortar finish. Set from west to east on the inner edges of the firebox walls, from where the arches are struck, are seven

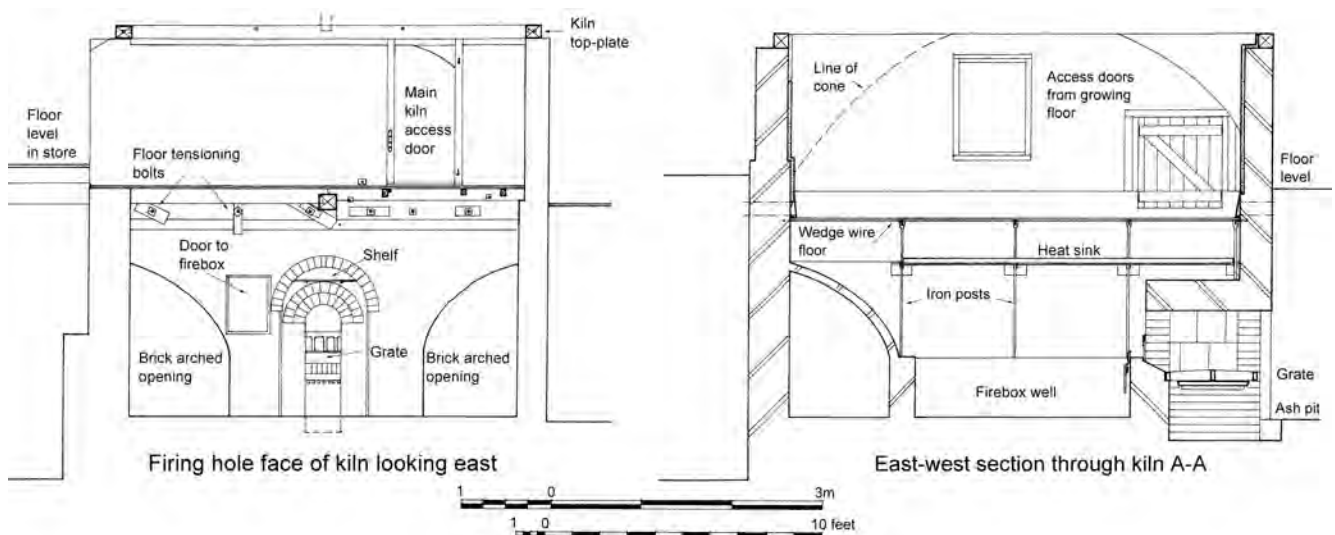


Fig. 5 Halstead, Adams Brewery, elevation of, and section through, the malting kiln



Plate 3 The wedge wire floor in the malting kiln



Plate 4 Detail of the construction of the wedge wire floor

vertical iron posts. The eighth post could not be placed as it would impede entry into the firebox. About half way up to kiln floor level forged yokes on these posts support four cross beams which end at north and south in brick pillars built up from the arches. Set east-west over the central area on the main posts are a series of iron bars supporting a tile and mortar heat sink which also acts as a spark arrester. At the top of each of the three eastern pairs of post pairs a further yoke supports a set of north-south bars into which are cut shallow slots to receive forty iron joists or bars set on edge (Plates 3 and 4). The ends of these are set into the walls to the east and west. Most of them are wire tied back to the main support bars. The main bars are not one piece across the kiln but in two parts joined by an S-form yoke. Onto this is laid the wedge wire floor mat folded around the edges with a bar to allow the ends of the through wall tensioning bolts to hook over and be adjusted to provide a taught wire floor. Around the edge of the kiln are plates held in place by through bolts to seal the sides of the kiln cleanly to form a closed corner with the wire floor and reduce grain loss. The floor tensioning system is very similar to that at the Great Dunmow maltings but there the floor is the earlier woven wire (Padfield and Bayford 1994). To the immediate north of the fire entry is an access door to the inner firebox. It has a timber frame but the door is missing. During this investigation access to the inside of the kiln was limited by large amounts of debris and high dust levels making the recording incomplete.

Above the floor over the kiln firing area is the access to the kiln directly from the trap entry in the floor. The south wall of the kiln has two heavily framed access doors, one set at a level with the doorway sill in-line with the top of the side plates of the kiln floor and most likely the main kiln loading door. The second is slightly higher and no physical remains survive to aid an explanation. The germinated grain from the ground floor had to be lifted up to the kiln but no evidence of the method used remains. The north wall has the outlet door to the malt store where it would have been sieved and bagged for storage. The east wall was originally plain but had a hatch cut in to access the adjoining store at a later date.

The north/south wall-plates of the kiln would originally have spanned the full width of the building. Now they are foreshortened at the ends following the re-roofing of the building. The north-south plates were mortise and tenoned into these. The south wall-plate has a similar carpenter's mark to that found on one of the girding beams in the growing floor. The entrance door from the yard on the west face of the building is original as is its frame with steps down into the firing area. The doorway set immediately above this door is a later addition set in place of an original window opening. The wall to the north of the entrance door has been changed at least twice, originally with a square corner, later modified to a splay to access the steps down into the end store (steps still in place) and even later the splay part filled on the outside for the present inserted door opening. The south wall of the kiln firing area had a narrow door cut into it but infilled again later.

Appraisal

The malthouse certainly merits its current statutory protection. The surviving evidence points to a build possibly in the early nineteenth century with changes in structure and extensions before the new brewery was built and more when the brewery was built in 1859. The partial destruction started when the site changed after 1939 when it is assumed that malting stopped and continued with the change to store and workshops. It still retains many features that are frequently lost in malthouses due to their re-use in either a light industrial context or in residential conversion. Although the roof has been replaced, within the building the original layout can easily be recognised, with both the internal divisions and floor levels remaining. The survival of a steeping tank is not common and this one appears to show a size increase from the original. No trace of the original water supply to the steep is known, or of the size and position of the couch in original or increased form. However the presence of a complete fire box arrangement with its main fittings and a complete wedge-wire floor in the kiln is exceptional. The malting processes can be simply determined from the surviving technology and extant levels, with a continual

process of steeping, growing and kilning running south to north, while the occurrence of features such as cat holes for vermin control add to the overall picture of a 19th-century malthouse. The pipework and parts of fittings indicative of gas lighting are rarer features. The survival of these places the malting on a level that is comparable to those rated as being of local and regional importance. Essex has lost many maltings buildings and this, with examples of equivalent status, showing the development of the malting industry, could be treated as nationally important buildings. The technology in the kiln area at Halstead, which can be seen as a development on the c.1780s technology of the Great Dunmow Maltings (Padfield and Bayford 1994), makes this an important site. They show how the size and scope of maltings buildings quickly changed and developed from the mid 18th century in an urban context.

Primary sources in Essex Record Office

D/CT 158B Copy of Halstead Tithe map, c.1841.

Tracing from small portion of the Area map of Halstead Board of Health c.1855.

D/HH5 1870–80 Minute book of the Halstead Board of Health. *'A plan was produced for the enlargement of Mr Grays malting on Mount Hill and was approved by the Board'*.

D/HH6 1880–88 Minute book of the Halstead Board of Health.

Uncatalogued material on Adams Brewery. ERO Accession No. A6357.

Bibliography

Padfield, A. and Bayford, A. (ed.) 1994 *The Maltings, Boyes Croft, Dunmow*, Essex Historic Buildings Group.

Watkin, E. and B. 2005 *The former Adams brewery site, Trinity Street, Halstead, Essex. Historic building site appraisal and recording of the malt kiln*, unpublished report.

Little Totham, All Saints. Replastering

David Andrews

In 2008, the hard render was removed from the south, east and north elevations (Plates 5 and 6). Some of this render had been applied as recently as the 1980s. The fabric revealed shed some light on the development and history of this small church, which comprises a 12th century nave with a Romanesque south door, chancel, 16th-century unfinished tower, and an extension dating from 2002.

The south nave wall showed evidence of having been built in at least six lifts. The bottom two, representing an initial build about 3ft (0.9m) high, were of ferricrete and some flint and septaria in a pale gritty mortar. Above, the ferricrete was set in a bright orange-brown mortar, which contained chips of what looked like Caen stone, possibly from working the south door. The same pattern of construction could be seen in the north wall, immediately east of the new extension. This marked contrast between the bottom and the tops of walls has been noted in other



Plate 5 Little Totham church, south elevation with render removed



Plate 6 Little Totham church, north elevation with render removed

12th-century (or earlier) churches, such as Rivenhall, Goldhanger and Tillingham. It presumably indicates that the foundations and bottom of the walls were constructed in an initial season's work, and the rest of the walls completed in the next (or subsequent) seasons. The south-east corner of the nave was formed without the use of quoin stones.

The masonry of the chancel walls is much more patched, but in the south wall there seemed to be a break in the masonry about 4m along, indicating that it had been extended in length by about 4.5m. This would have occurred in the 13th century to judge from the lancets in the east part of the chancel. Similar lancets were also inserted in the nave, doubtless enlarging smaller Romanesque windows. Where the original stonework of these windows has not been renewed, it is of Reigate. The quoins of the chancel are of Caen and Reigate. The later part of the south chancel wall is of a mixture of ferricrete and Kentish Rag, with a band of Tudor brick. The bottom of the east wall is also of a mixture of ferricrete and Rag laid in courses, but the upper part looks patched and refaced, with a band of 18th or 19th-century brick.

In the 15th century, a window of two cinquefoiled lights was inserted at the east end of the south nave wall. A similar but smaller window, unusual in that it was of terracotta, was inserted in the south chancel wall, perhaps about c.1600. Around it are Tudor-type bricks measuring

60mm high. Above this window are some very large ferricrete blocks, and below it some large Reigate ashlars, these presumably reused from elsewhere.

In the 19th century, a flue (now removed) for a stove was built against the north chancel wall. The east end of the north nave wall was refaced in coursed rubble stonework and bands of red and stock bricks, and the west end of the chancel was also refaced in rubble, this work apparently being earlier than that at the end of the nave.

Mundon, St. Mary. Underpinning 2008

David Andrews

Because of severe cracking in the east wall, and the apparent slumping of the north-east corner, the north and east walls of the chancel were underpinned in summer 2008. Piles were driven to a depth of up to 8m parallel with these walls inside and outside the chancel. A trench about 1m wide and 1m deep was dug along the external perimeter of the north and east walls. The foundation of these walls proved at all points to be in excess of 1m deep. Trenches were also dug through the foundations into the chancel so that concrete beams could be cast between the piles. The observations made are described below by area (Fig. 6).

The church comprises a nave, rendered but thought to be early 14th-century because of a window with Y tracery,

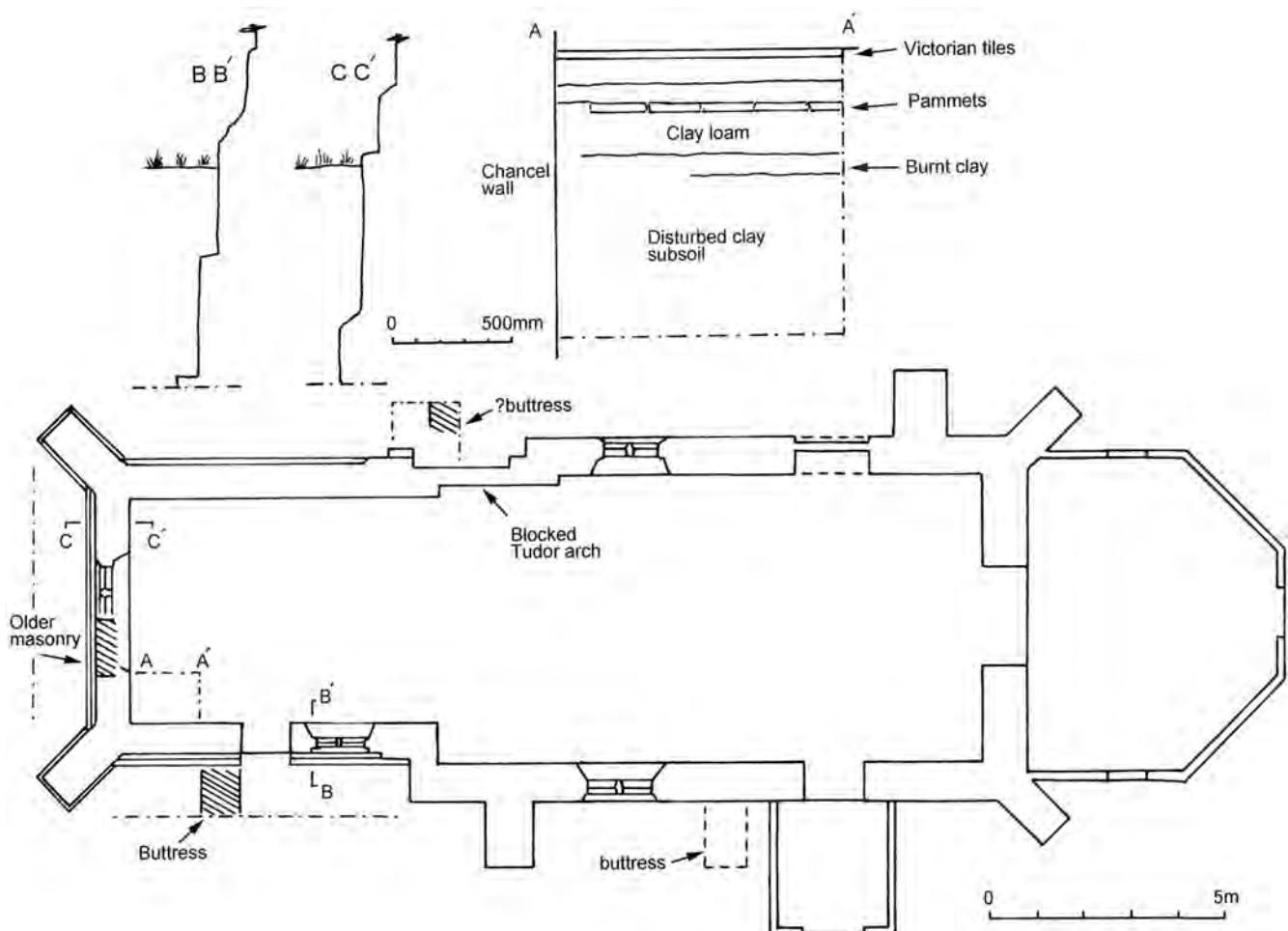


Fig. 6 Mundon St. Mary, plan and sections

a Tudor chapel in the south side of the nave represented now only by a blocked arch, a timber bell tower probably of c.1500, a timber porch of c.1600, and an early 18th-century brick chancel. Redundant, and cared for by the Friends of Friendless Churches, it is currently benefiting from a generous English Heritage grant.

North side of chancel

The north wall foundation was built of septaria with occasional pieces of other stone. There was an offset about 380mm below ground level and another at the bottom of the trench. A wall 900mm (3 ft) wide of septaria, made with a hard white and a softer more yellowish mortar projected from the chancel wall adjacent to the east side of the north door. Since no other wall was observed in the trench which was dug parallel to the chancel wall, this was probably a buttress rather than an indication of a vestry or similar adjacent structure. A very large block of Kentish Rag was present at the top of this wall. It may represent what was originally a chamfered course at an old ground level. Dressed blocks of Rag were present just below existing ground level on the west side of the door. They may represent the jambs of an earlier door contemporary with the foundation, which is unquestionably earlier than the early 18th-century brick wall of the chancel. Below these blocks there was a piece of ceramic building material which had been cut through exposing a very clean bright red fabric. This looked like a floor tile and the fabric would suggest a 15th- or 16th-century date. This is very slight evidence to hang a date upon, but it could indicate that the foundation is much the same date as the bell tower and the Tudor brick arch in the other side of the chancel.

East side of chancel

The east wall foundation had an offset about 700mm below ground level and was made of stones of various types, some of which were Rag. The trench here was not completely excavated, and the foundation therefore not fully exposed. But it did not look the same as that of the north wall, which was mainly of septaria blocks of fairly uniform size. This foundation seems to be associated with the 18th-century brick wall of the chancel.

In the northern part of the wall, directly beneath the crack in the brickwork, the foundation was built over an earlier structure about 1.1m wide, though it seemed to preserve no intact faces. This consisted mainly of septaria with some other stones, including chalk and two bricks which looked like Tudors. It was bonded with a soft earthy orange-brown mortar, unlike those evident elsewhere in the foundations. This structure explains the movement in the east chancel wall, but what it represents is less clear. If correctly identified, the bricks indicate a 15th- or 16th-century date.

Opposite this structure, in the side of the underpinning trench, there were some huge blocks of carved Kentish Rag. One was clearly from the apex of a gable parapet, with a fixing hole for a stone cross. Another was from the same gable, being the kneeler at

the bottom of it. The gable would have been a parapet to a pitched roof of about 45°, not a flat camber beam roof. These stones seemed to have been laid in courses on their sides, and had some brickwork attached to them, but to what intent is quite unclear.

In January 2009, in the course of repair work to the east wall, the outer skin of brickwork was found to be unstable and was largely taken down and rebuilt. Two horizontal oak timbers were found incorporated in the brickwork, one about 1.35m below the gable apex, apparently a collar, and the other at the base of the gable. They were flat in section and late medieval in character. Both were slightly shorter in width than the existing gable, the upper timber by at least 400mm and the lower by at least 1.3m. A tenon with an angled shoulder for insertion in a rafter was evident on the north side of the upper timber, which was decayed by wet rot and of which only a small portion survived. The lower timber was much better preserved. Pegholes were present in it for uprights or studs rising above it. On the soffit of both beams were oak laths set diagonally to them. Between the two timbers, there was a course of ten Kentish Rag boulders, comparable in size to the Ragstone blocks found in the underpinning work to the chancel. One or two other Rag boulders were also present in the brickwork. Lower down in the wall, several more timbers were found. The presence of these leads to the conclusion that they were lacing or bonding timbers of the sort often found in old brickwork. They seem to be from an earlier roof, in view of the presence of the Ragstone blocks one associated with the earlier chancel built of Ragstone.

South side of the chancel

A small hole dug at the junction of the 18th-century wall and the blocked Tudor arch revealed a Rag and septaria wall at least 560mm wide running at right angles to the church. This is probably a former buttress which would have been located at the junction of the nave and chancel.

Buttresses at the eastern corners of the chancel

These are built of a dark red brick and have deep concrete foundations. They are shown on the Royal Commission volume for south-east Essex published in 1923.

Interior of the chancel

The section in a hole 1.2m deep excavated for the insertion of pile caps was summarily recorded. At the bottom of it was the clay subsoil which was considered to be disturbed. At a depth of about 450mm was a layer of burnt clay, apparently representing a former surface. This was separated by a layer of clay loam and mortar from a former floor made of pammets 220mm square. Above this was a layer of lime concrete for the existing late Victorian tiled floor. A test hole elsewhere in the chancel dug in 2005 revealed a comparable but not identical sequence: two probable medieval floor make-up layers of clay with mortar, a floor made of Tudor bricks, and finally the existing floor made of pammets reset in lime concrete.

North-east angle of nave

The foundation of this was exposed. It is built of large blocks of Rag and some other stones of unusual type. One is orange in colour and sandy in appearance, perhaps a type of ferricrete. It includes some probable Roman brick. This looks like an old foundation, but the RCHM indicates this corner of the nave as having been rebuilt.

Discussion

The nave is apparently the oldest part of the church, 14th-century or earlier on the evidence of the Y-tracery window and the north door. Several pieces of Roman tile were noted in the fabric. The existing brick chancel was clearly preceded by one built with dressed Kentish Ragstone blocks of impressive dimensions. On the evidence, admittedly slender, of ceramic building material in the chancel foundations, this work is 15th-century. However, it may be compared to other Essex churches rebuilt in Ragstone at that time, such as Little Wigborough and Canewdon. The septaria foundations under the north wall of the chancel were presumably built reusing stone from an earlier phase of the church. Being of the same material, and also associated with Tudor-type bricks, the block of septaria masonry beneath the east wall which has caused the crack in it is presumably of the same date, but why this upstanding part of an earlier foundation should have been retained is unclear. The timbers incorporated in the early 18th-century brick wall are almost certainly from the roof of this phase of the chancel. Inside the chancel, the apparent floor level indicated by a layer of burnt clay may be associated with the Ragstone chancel. This level corresponded roughly with a possible earlier threshold by the north door represented by a dressed block of Rag. The pavement floor was either associated with the early 18th-century rebuild of the chancel or, in view of the fact that it looked cut by the foundation, earlier than it.

These observations raise questions not just about the history of the church, but also about the structural condition of the fabric. The movement which it has suffered is not caused by any lack of foundations, as these are at least 1m deep. The continual expansion and shrinkage of the London Clay may be a background factor, but the major split in the east wall is caused by it having been built over a lump of older masonry.

Acknowledgement

I am very grateful to Simon Wood and his staff at Bakers of Danbury for keeping me informed of discoveries made during the repairs to this church, and to Julian Limentani of Marshall Sisson for providing a plan of the church.

Bibliography

Royal Commission on Historical Monuments (England). *An inventory of the historical monuments in Essex. Vol. iv. South-east Essex*, 1923, London: HMSO

Southend-on-Sea. The Bournemouth Park Road tin tabernacle

David Andrews

This prefabricated church is said to have been first erected in Warrior Square and moved to Bournemouth Park Road in about 1923. It would have ceased to have been used as a church from about 1925 when the Congregationalists built a new brick and white rendered church adjacent to it. It has since been used as a parish hall and a theatre, and is a facility for community groups such as day nurseries. The building is parallel to the road and thus aligned north-south.

The size of the building distinguishes it from many tin tabernacles, surviving examples of which are usually single aisled. This is a full size church, of basilican form, with nave and aisles (Figs 7 and 8). At the front, there is a porch or narthex under a lean-to roof. At the north end, small rooms or 'vestries' project from each corner. The building is of six bays each about 3m long, divided by five pairs of tall softwood posts 190mm square with chamfered corners. These support lightweight A-frame roof trusses. King posts rise from the collar to the ridge piece, and are connected by vertical tie-rods to horizontal ones which perform the function of tie-beams. Between the top plate and the collar, and the collar and the king post, there are wide thin braces each decorated with a pierced trefoil. The roof itself, and indeed the whole interior, is match-boarded. The clearstorey windows, and the windows in the aisles, were all of the same pattern, of two trefoil headed lights, with top-opening hoppers. A very similar church, 70ft (22.5m) long by 40ft (12.8m) wide, is illustrated in the c.1900 catalogue of William Cooper Ltd of 761 Old Kent Road, London. It cost £435 'erected complete'.

Today kitchen and service facilities occupy the northern bay, and the stage for the theatre the bay next to it. In 1983, a planning application reveals that the clearstorey windows, and the principal window in the south elevation, were blocked off. This must have been because it was at that time that a false ceiling made of hardboard was inserted. The original roof structure and blocked windows all survive above this ceiling. The timber at this level is all stained dark brown, which must have made the interior uninviting. At the ground floor, the windows were replaced with square casements, though the gothic trefoil headed ones do survive behind modern glazing in the north wall. The corrugated iron cladding is of various ages: some can be seen to be relatively new replacement sheets, some are much older. It is painted green, but was previously painted a shade of brown. Concrete can be seen at the base of the aisle walls and the foundations may well have been underpinned.

There is virtually no evidence for how the building was used as a place of worship. The floor has a slight downward rake from south to north to aid visibility. In the partition wall dividing the kitchen wall from the stage, there is a blocked aperture 720mm wide which may have been related to the position of an organ. The vestry at the north-west corner has an original gothic arched door with strap hinges. Just south of it in the west wall, there is

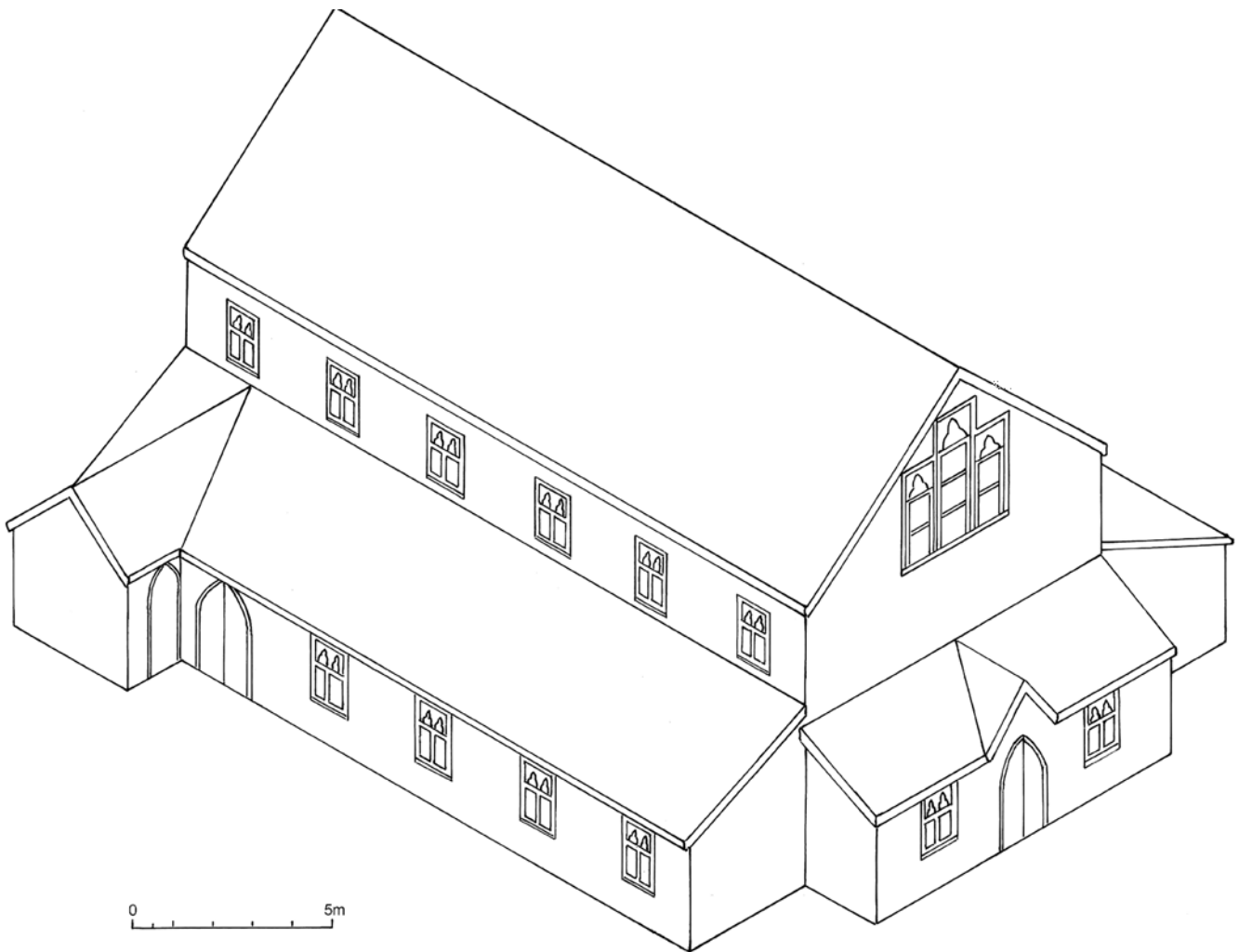


Fig. 7 Southend-on-Sea, the Bournemouth Park Road tin tabernacle

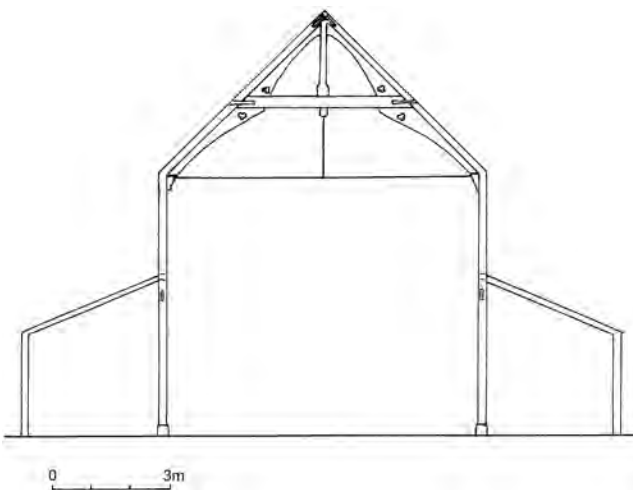


Fig. 8 Section through the Bournemouth Park Road tin tabernacle

a pair of modern doors, a modern replacement for a gothic arched double-leaf door. A door of this type is present in the corresponding position on the east side.

The building belongs to a tradition of prefabricated structures, the use of which became easier with the development of cast iron from the later 18th century and corrugated iron from the 1820s, but which could equally well be made from timber components. Stone churches could be built round a cast-iron frame, as at St George's, Everton. At Great Warley, a large timber-framed and timber clad church was erected in the rectory gardens whilst the new church was built. This was taken away in 1904 and is now the parish church of St James, Baildon, in Yorkshire.¹ Notable examples such as these are listed buildings, but relatively few tin tabernacles are protected in this way, and this example, despite its unusual size and relatively good condition, was rejected for listing in 2009 and is now demolished.

Note

1. See *Church Building* 116, 2009, p.52.

The Society is extremely grateful to Essex County Council for a generous grant towards the cost of publishing this article.

Ritual activity in Early Roman Romford

Jonathan Butler and Kevin Rielly

Evidence of possible ritual activity in the early Roman period was revealed in Romford with the discovery of a pot containing the remains of a cremated sheep forelimb which had been placed within a ditch.

INTRODUCTION

Between October and November 2007 Pre-Construct Archaeology Ltd. undertook an archaeological evaluation and excavation on land at Marks Lodge, Marks Road, Romford in the London Borough of Havering (TQ 5070 8870; Fig. 1). The site was bounded by Cottons Park to the south and west, by Marks Road to the north and by Cottons Approach to the east. The evaluation consisted of six trenches one of which, Trench 1, was found to contain Roman features. An area measuring approximately 10m by 10m was opened up centred on this trench as part of a mitigation strategy (Fig. 2).

The small Roman town of *Durolitum*, which is mentioned on the Antonine Itinerary, is thought to lie in the vicinity of Romford town centre although its exact location is not known (Margary 1955, 215). The site itself lies immediately to the north of the projected alignment of the Roman road from London to Colchester (Margary 1955, 215; Brown 2008, 88). Occasional coin finds have been made in Romford over the years with a Roman cemetery having been revealed 100m to the southwest in the 1930s (Darton 2007).

Roman Features

A northeast-southwest aligned ditch was revealed in Trench 1 (Fig. 3). It extended for at least 11m across the site, was up to 1.10m wide by 0.56m deep and continued beyond the eastern and western limits of excavation. The cut was roughly 'U' shaped and there was a slight drop in level of the base between the southwest and the northeast. Two sondages were excavated across the ditch, which was filled with a sandy silt deposit containing pottery dating to AD 43–80 from the western sondage and material dating to AD 100–150 from the eastern. This ditch was later recut on its southern side. The recut ditch was also roughly 'U' shaped up to 1.32m wide and slightly deeper being 0.83m in depth. Pottery recovered from the fill was dated to AD 70–120. The most significant find was a largely complete South Essex shell-tempered (SESH) jar dating to the late Iron Age-AD 60, which contained the cremated remains of a sheep forelimb. The rest of the small assemblage of pottery (537 sherds, 5,938g) from the site mainly comprised local coarse wares in a Late Iron Age / Early Roman tradition. There were also a few sherds from 'Roman' regional sources (such as Verulamium Region Whiteware and Highgate Wood C) located further afield. The Roman features were sealed by a 0.25m thick alluvial flood deposit.

Discussion

The ditch is roughly parallel to the projected line of the London to Colchester Roman road which would suggest that it probably denotes a field boundary. However, the presence of adult cattle, sheep and horse bone which were recovered from the ditches might indicate that a settlement or farmstead was not far away. The presence of a complete pot with cremated sheep remains within the ditch is suggestive of ritual activity. The deposition of objects such as pots, animal remains and even selected human remains within liminal contexts is well attested from the Bronze Age right into the Roman period (Hill 1995; Brück 1995; Beasley 2006; Butler 2006, 38–44). In this early Roman period the continuance of Celtic observances was perhaps at its strongest and indeed the vessel in which the cremated remains were placed was a transitional piece dating to the late Iron Age-AD 60.

The fact that no Roman activity was detected after the middle of the 2nd century AD and that the features were sealed by alluvial deposits most likely associated with the river Rom, some 300m to the east, might suggest that this area became prone to flooding and was not accessible. Flooding of the Rom dating to after 400 BC was observed to the northeast of the site, at a site adjacent to the river at North Street where early to middle Iron Age activity was sealed by similar alluvial deposits (Bishop *et al* forthcoming).

A brief review of the evidence concerning 'ritual' Roman cremated sheep remains unassociated with human burials

Kevin Rielly

This was prompted by the example from Romford, where the remains of a calcined adult sheep forelimb (scapula, humerus, radius, plus a carpal and a 2nd phalange) was found in the fill of a pot, in turn deposited within an enclosure ditch. The ditch fills were loosely dated to the late Iron Age/Roman period. No human bones were found in the vicinity or indeed at this site. It is assumed to represent a ritual deposit and while sheep bones have been commonly found in association with human cremations at several British sites (Sidell and Rielly 1998, 97), the recovery of cremated sheep without human remains is rather rare. Many sheep and ox bones were found at the 'Triangular Temple' at Verulamium with 'some juvenile and many calcined' (King 2006). Unfortunately, no further detail was forthcoming. In addition, there are three examples in London, one at Summertown Way, Thamesmead (Rielly 1998) and the

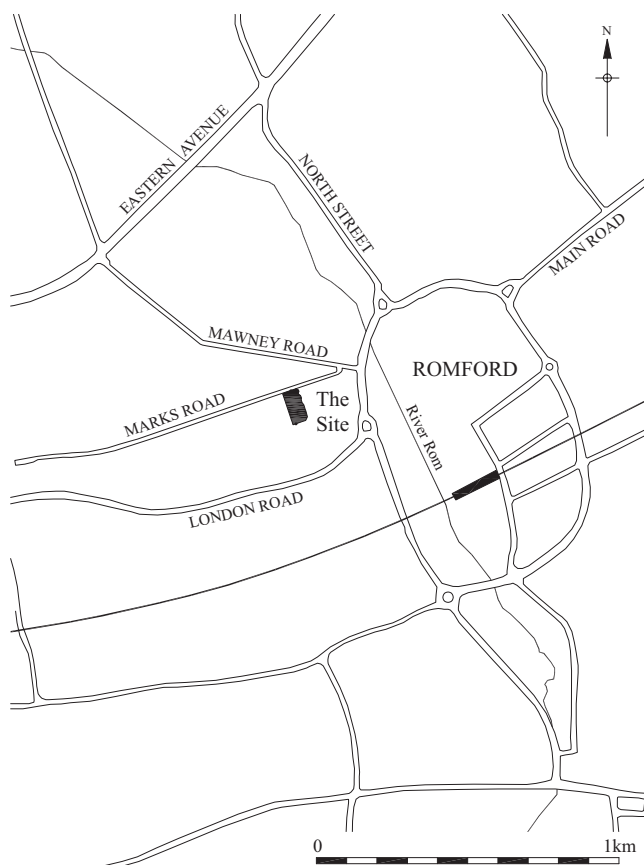


Fig. 1 Site location © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

other two in the city, at Throgmorton Avenue (Rielly 2001) and Tokenhouse Yard (Yeomans forthcoming). The latter examples were all taken from pits dated to the late Roman period (generally 3rd/4th centuries with the exception of the more precise AD 200–250 date for the Tokenhouse Yard pit) and comprise collections of calcined (cremated) bones probably representing the partial remains of whole carcasses. The absence of burning in these features suggests the cremation took place elsewhere and the transfer of bones to these sites could then explain the incomplete nature of the remains. These are different from the Romford example in this respect, the latter clearly representing only a particular part of the burnt animal (or perhaps the only part that was burnt). Yet they are also similar in that they represent the exclusive contents of these pits, clearly indicative of a deliberate burial. It should also be pointed out that two of these examples are within a short distance of each other in the Upper Walbrook in the northern part of the city.

Acknowledgements

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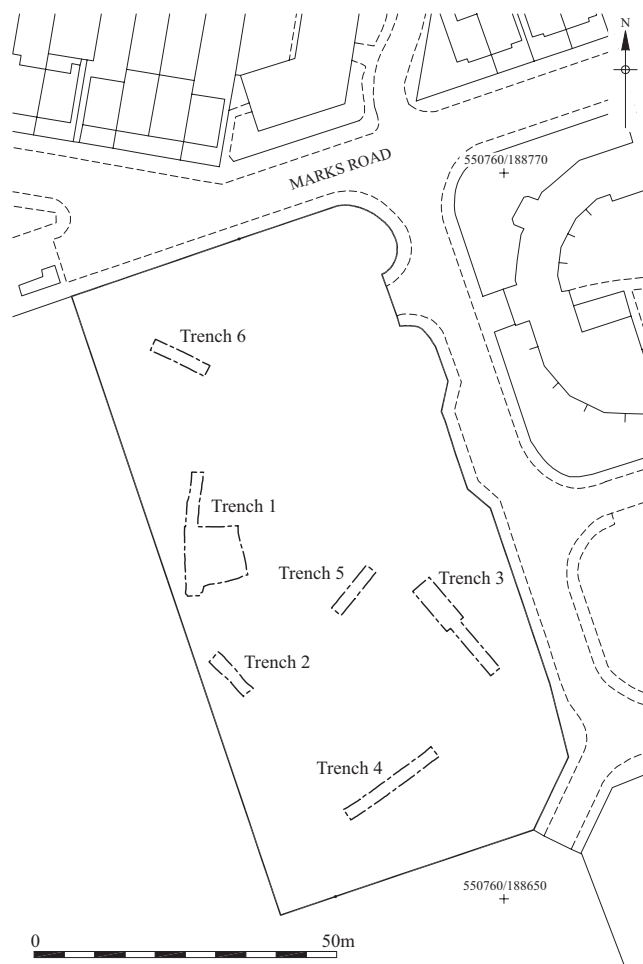


Fig. 2 Trench location © Crown copyright and/or database right. All rights reserved. Licence number 10001 4800

Graham Macarthur for their assistance on site, Jeremy Rodgers for his surveying skills and Lisa Lonsdale for providing logistical support. Thanks are also due to Josephine Brown for AutoCAD illustrations, James Gerrard for his Roman pottery analysis and Kevin Rielly for his analysis of the animal bone assemblage.

Bibliography

- Beasley, M. 2006 'Roman Boundaries, Roads and Ritual. Excavations at the Old Sorting Office, Swan Street, Southwark', *Transactions of the London and Middlesex Archaeological Society* 57, 23–68
- Bishop, B. with Armitage, P. and Goodburn, D. forthcoming 'Iron Age Romford; riverside activity during the mid first millennium BC', *Transactions of the London and Middlesex Archaeological Society*
- Brown, G. 2008 'Archaeological evidence for the Roman London to Colchester road between Aldgate and Harold Hill' in J. Clark, J. Cotton, J. Hall, R. Sherris and H. Swain (eds.) *Londinium and Beyond: Essays on Roman London and its hinterland for Harvey Sheldon*, Council for British Archaeology Research Report 156, 82–89
- Brück, J. 1995 'A place for the dead: the role of human remains in late Bronze Age Britain', *Proceedings of the Prehistoric Society* 61, 245–277
- Butler, J. 2006 *Reclaiming the Marsh: Archaeological Excavations at Moor House, City of London*, Pre-Construct Archaeology Monograph 6
- Darton, L. 2007 'Marks Lodge, Marks Road, Romford: Archaeological Desk Based Assessment', CgMs Consulting unpublished report
- Hill, J.D. 1995 'Ritual and Rubbish in the Iron Age of Wessex. A study in the Formation of a Specific Archaeological Record', British Archaeological Reports British Series 242

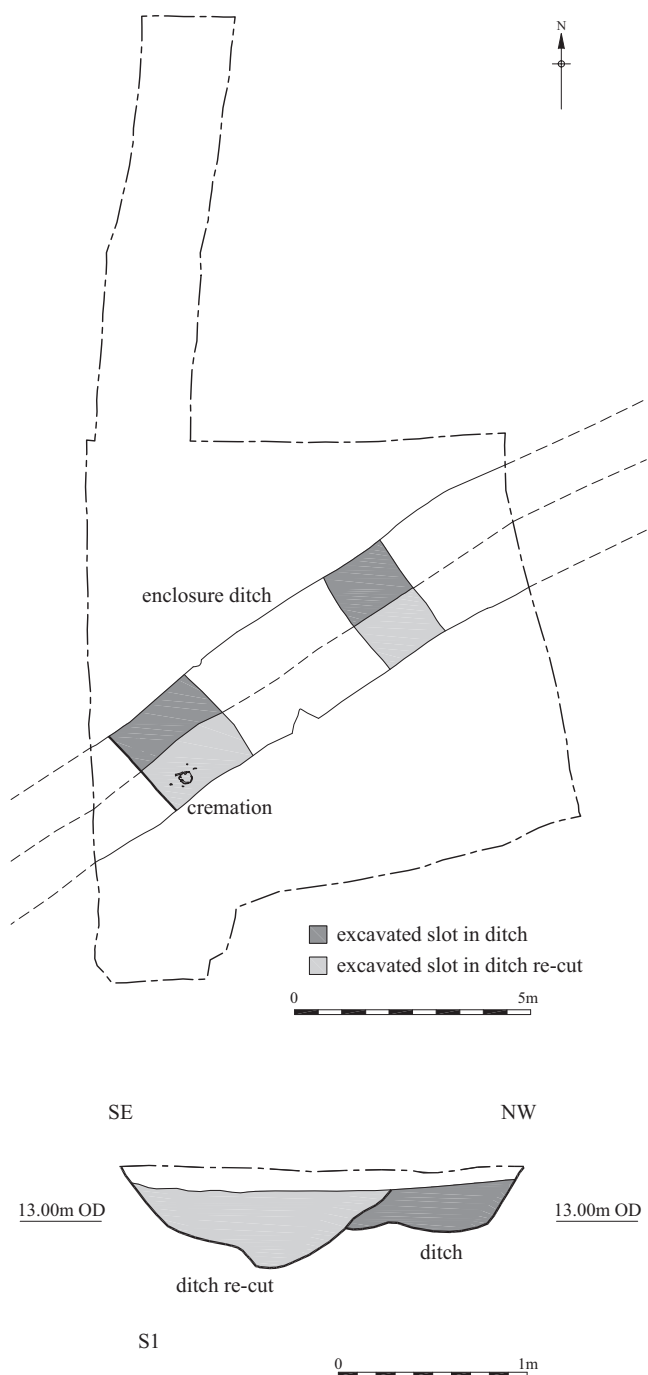


Fig. 3 Trench 1 Plan of enclosure ditch and cremation and section through ditch and recut

- King, A.C. 2006 'Animal Remains from temples in Roman Britain', *Britannia* 36, 329–369
- Margary, I. 1955 *Roman Roads in Britain 1: South of the Foss Way-Bristol Channel*, Phoenix House Ltd, London
- Rielly, K. 1998 'The animal bones from Summertown Way, Thamesmead, SE28, London Borough of Bexley', unpublished MoLAS Report BON/REP/01/98
- Rielly, K. 2001 'Assessment of the animal bones from 8–10 Throgmorton Avenue and 64–65 London Wall, London EC2 (TGM99)', unpublished MoLAS Report BON/ASS/08/01
- Sidell, E.J. and Rielly, K. 1998 'New evidence for the ritual use of animals in Roman London', in B. Watson (ed.) *Roman London: recent archaeological work*, Journal of Roman Archaeology Supplementary Series no.2, 95–109
- Yeomans, L. forthcoming 'The animal bones', in J. Leary and J. Butler, *Excavations at Tokenhouse Yard, London EC2*, Pre-Construct Archaeology Monograph Series

Reviews

Timby, J.R., Brown, R., Biddulph, E., Hardy, A. and Powell, A.B., 2007. *A Slice of Rural Essex: Recent Archaeological Discoveries from the A120 between Stansted Airport and Braintree* (Oxford Wessex Archaeology Monograph 1) (Oxford and Salisbury). 214pp., £14.95.

This book describes the results of fieldwork undertaken between 2000 and 2003 when a dual carriageway was built to relieve congestion on the old A120 highway. A corridor of land nineteen kilometres long was explored, with a land-take of some 115 hectares (Page 152). Most of the sites that turned up were later prehistoric or Roman. Of necessity, excavation was confined to the line of the new road; and the frustration of not being able to stray outside those limits when mouth-watering sites like the middle Iron Age village that turned up near Little Dunmow was keenly felt (Page 183). Bearing in mind that the book appeared only four years after the end of the fieldwork, the authors should be congratulated on the prompt publication of the excavations. The modest price of the book will place it within reach of a wide audience, and puts to shame the exorbitant price of so much other archaeological literature.

Visually, the book is pleasant enough. There are stout hard covers and the text is printed on glossy paper. A detailed list of contents and an exhaustive index are a huge help in navigating your way through the report. There are many colour plates that show the landscape explored and the features excavated. An engaging feature of the book is the number of the computer-generated reconstructions of how sites might have appeared in antiquity. The early Roman funeral pyre at Strood Hall is particularly evocative, and the mud-larking Saxon peasants at Takeley give the work a wit and humour seldom found in literature of this sort. There are very few misprints. One noticed (for instance) that Page 228 on the CD should have read 'considerably' rather than 'considerable', and Page 94 of the printed book should have 'Barford' not 'Barfield'.

There is much that is of interest and importance here. The middle Saxon hall from Takeley is one of the very few structures of that date in the county. Another Takeley site had an Iron Age roundhouse where – most unusually – two concentric gullies had survived, an inner one for the wall and an outer eaves-drip gully. The detailed account of the Strood Hall site is of interest because it represents the sort of humdrum rural settlement that one

suspects was a good deal more typical of life for most of the population of Roman Essex than the villas or towns. One of the interesting features of Strood Hall is the possibility that roundhouses of Iron Age type lasted well into the Roman period. But most of the structures in question are postulated on the basis of short arcs of gully. The largest was a semicircle, which it is suggested might only have been a windbreak. At this point reference should have been made to the important discussion of the semicircular structure from Gun Hill. All in all, the case for the longevity of the roundhouse tradition on the basis of the Strood Hall features can only be viewed as insecurely based.

Most of the text is devoted to site narratives. Pottery and finds reports get short shrift in the book itself. A major shortcoming is the failure to publish drawings of enough of the finds, and the colour photographs of a selected few are no substitute. Drawings are needed for readers to form their own assessment of excavated material without having to rely entirely on the written word, as (for instance) with the brooch from Grave 1381 at Strood Hall. It is described ambiguously as a Colchester-type on Page 121, but the drawing (Figure 3.32 no.4) actually shows it to be a Colchester-derivative.

Panels set in the body of the text give one summaries of the finds reports in the CD that whet the appetite for more, so one turns to that resource with anticipation. It is at this point that the book starts to unravel. When you open the CD text, it is irritating to find that the pages are set in double columns which means that you are constantly having to scroll up and down the page on your monitor. It would have been far better to have run the text right across pages. And when you print out pages from the CD they seldom have numbers, which the reader then has to add for himself. The pagination of the CD does not run on from that of the book in a continuous sequence but starts afresh at Page 1. This makes referencing difficult because one has to indicate if a page reference refers to the book or the CD. Sloppy editing of the text makes things worse still for the reader *e.g.* the CD catalogue of illustrated pre-Belgic prehistoric pottery refers to Figures 4.5–6, which it turns out are exactly the same as Figures 2.17 and 2.39 in the book. In the catalogue the illustrated sherds are numbered consecutively from one to twenty-five. As the same numbering is not followed in the second of the two figures, but starts again at one, the reader has to renumber

the last thirteen pots for himself. And if you try to find the early Iron Age Darmsden-Linton pottery from Strood Hall West mentioned in the summary on Page 43 of the book (with the implication that it is important), one is left hoping that it may include Figure 2.17 nos 9–10, although the CD calls no.9 middle Bronze Age on Page 212 and late Bronze Age on Page 220!

As one reads on, the quagmire gets deeper *e.g.* the printed book tells us that late Iron Age Pit 30132 near Little Dunmow had three iron objects, one of which is a buckle (Pages 62 and 68). Now there are next to no buckles in the Iron Age; the only local ones that immediately come to mind belong to the mail armour in the Lexden tumulus. This makes the Pit 30132 buckle of some interest, but none of the metalwork from the pit is drawn, or even mentioned in the CD catalogue on Pages 279–97. Here the one great merit of the CD comes to the rescue of the bemused reader because a computer search shows that the three items in question do not in fact feature anywhere in the CD other than on Page 160, where what little we are told in the text of the book is simply repeated. Staying with metalwork, Page 280 of the CD mentions a ‘Hod Hill Aucissa type [*sic*] brooch’ but as the body and catch-plate survive it is difficult to see why it could not be assigned one or other of these types of brooch.

The fired-clay Bronze Age moulds from a pingo on the Greenfields site are of truly national importance (a pingo is a natural hollow formed under periglacial conditions). These moulds are supposed to have been for the production of Ewart Park swords. How the swords were identified is beyond me because we have no moulds for the hilts and shoulders that would have allowed allocation to type, as Page 298 of the CD acknowledges. Nor are there any complete blade sections. Ewart Park swords belong to a late Bronze Age phase dated *c.* 1020–800 BC. But the report confidently tells us the mould debris was associated with both middle *and* late Bronze Age pottery. One wonders therefore what swords were being produced at Greenfields in the middle Bronze Age. The report suggests the find might represent two separate episodes of metal-working, and if the pottery has been identified correctly there may have been an interval of several centuries between them. In support of the two episodes theory we are told that moulds from different contexts sometimes had ‘distinct characteristics’ but we are never told what these are. One turns to the CD trusting that a fuller elucidation of the evidence will shed some light on the mystery. Hopes are raised when we read that some of the pottery might be transitional between the middle and late Bronze Ages (CD Page 214). But we then have to reconcile this with the information that one of the contexts (1061) with mould debris had early to middle Iron Age pottery, as well as late Bronze Age ware (CD Page 216). Three of these middle Iron Age pots – and they are the only vessels illustrated from the pingo – are shown on Figure 2.39 as nos 8–10. And that context is the one immediately above the basal fill of the pingo! Something is very wrong here,

and by now a reader could be forgiven for abandoning any attempt to make sense of these moulds.

This book demonstrates that slick presentation and computer wizardry are no substitutes for painstaking research, thorough scholarship and careful editing. The archaeology of Essex deserves better than this book, and one hopes that future excavation reports will learn from what has gone wrong here and do better.

Paul R. Sealey

Essex Place-Names: Places, Streets and People by James Kemble. Historical Publications, 2007. ISBN 978–1-905286–21–8. 160pp., £14.95.

As historians researching our wonderful county I suppose we are all used to reaching for Reaney’s invaluable *Place-names of Essex* (amazingly published over 70 years ago). However, whilst it is incredibly useful I often feel that I would like a little more explanation of the derivation of some of the names contained within it. There has been much research undertaken nationally over the past few years and many important books published on place-names but, outside many articles published in our own *Transactions* or within the pages of the *Essex Journal* or other local societies’ publications, not a single comprehensive study of Essex place-names. James Kemble has been associated for many years with the collection and explanation of place-names and is responsible for many of the articles that have appeared. He is well known as the co-ordinator of the Essex Place-Names Project so is well placed to bring to a wider audience the meanings of those names that we find familiar and everyday and which we probably use without thinking about.

Kemble begins the story with a lively discussion, *The Development of Place-names*. This sets the scene with tales of Celtic, Roman, Saxon and Norman origins for names. It is obvious that the further back one delves the fewer documentary sources there are to confirm the origins of some of the names so some of this work has to be speculative. Following on from this are two chapters, *The Saxon Influence* and *The Imposition of Norman and Anglo-Norman names*, which open up the discussion with more detailed examples. I wonder though, if the ‘fine princely burial discovered at Boreham’ (p.13) is really that found at Broomfield in the late nineteenth century? The next chapter discusses the influence of religion and paganism and it is a delight to read of names such as Hobgoblins Hole and Puck Lane.

The Evolution of Place-names contains a nice example of how Barking was first recorded in the seventh century and can be traced with certainty over the next four hundred years until Domesday. Perhaps it is wise to remember that not all locations are so well documented and conclusive. Kemble moves on to classify place-names into seven categories before considering field names. This latter study forms the core of the Place-Names Project

and the Tithe Awards from which much information is derived are a valuable and accessible source of information for all researchers. I feel uncomfortable with the assertion that many field names are derived from activity that took place on them; would a field called Dyers Ley (p. 26) really have been involved in the cloth colouring process or might it have been owned by a chap called Dyer? I'm sure there must be further documentary evidence to support claims such as this and others throughout the book.

Moving on to *The Estates* there is much detail on lands owned by institutions such as Barking Monastery before a chapter dedicated to the *Battle of Assandun*. This discusses the site of the battle using place-names as evidence and plumps for Hadstock as the most likely site. However the conclusion is reached though using church architecture rather than a place-name, perhaps demonstrating the limitations of their use. A chapter on forests is interesting and useful as is that on signal beacons.

The forty odd pages that make up the *Dictionary of Essex Parish, Manor and River names* lists exactly that. It is fine in itself but there are many small illustrations scattered throughout which do little to add to the text. Do we really need an illustration of the effigy of Robert de Vere and be told it was moved from Earls Colne to Bures or a picture of the River Stour near Dedham? Perhaps a smaller selection with fuller captions, and complete references to where the original can be found, would have been more appropriate. This section is followed by the *Dictionary of Street, Road and Local Names* which is laid out in a similar manner and full of interesting nuggets of information. There are some suggestions in *Other Origins* for those place-names that are not fully understood and a *Who's Who* of the most prominent medieval personalities who shaped the course of our history. To finish off there is a useful list of common word-elements, abbreviations used, a bibliography and an adequate index.

After all of that what do I think? I thoroughly enjoyed the discursive chapters in the first section of the book; Kemble writes fluidly and with immense understanding of a very complex subject. I'm sure that I will revisit these sections as there is much to take away from them. I somehow feel that the second main section of the book never really takes off; perhaps Historical Publications have missed a trick in the lay-out. This is not to detract from the information contained, but very much a visual disappointment. I also feel that the book deserved better maps and time spent on producing them would have been well rewarded. At £14.95 it is very reasonably priced and it should find a place on all our bookshelves. And what more proof of its success than I look forward to further articles from James Kemble as he discovers more about the origins of our Essex place-names.

Neil Wiffen

Labour in the East by Ian Grimwood, John Gyford, Don Mathew, Stan Newens and Matthew Worley. Labour Heritage 2009. 132pp., A5 format, £5.00.

This is an important set of essays dealing with a subject somewhat out of fashion today: the growth of organised Labour and its agencies at the local level. Such studies are scarce in the East of England; what we are considering is original research. We are reminded that, while contemporary prejudice and the 'first past the post' system, frustrated Labour's efforts to move or shake the Palace of Westminster, a parallel but interlocking presence in local affairs, even in the supposed backwaters of East Anglia, was inexorable driving forward that political potency which 'the working class' potentially possessed. The 'Great Victory' of 1945 owed much to the groundwork of the inter-war period.

John Gyford provides a general introduction, pointing up some of the themes the essays cover. He then contributes his own study of Labour politics on Essex County Council between 1930 and 1965. He shows how the pre-war Labour Group, functioning within the County Council's largely administrative role, focused on the twin social concerns of education and health and welfare. With the former they sought to promote a better funded (and thus wider), meritocratic access to secondary education, anticipating a regimes of secondary education for all. With the latter efforts were made to erode the remnants of the Poor Law embodied in the Public Assistance Committees. After 1946 with a majority on the County Council, Labour initiated a party political approach, taking all the chairs and controlling policy so long as they held a majority. Their task, however, had been transformed by the welfare and education measures enacted by central government, policies which they used to promote a 'policy of access' to personal dignity, to education, to the corridors of power. The key to any success they achieved seems to have been a close liaison between an Essex Labour Party Federation and the Labour Group on the council. In all this we see little Clause Four ideology, a policy more of 'labourism' than socialism.

Stan Newens covers a topic with which he has long been associated: the Co-Operative movement in Essex. His comprehensive cover ranges across every corner of our county. The 1860s seems to have been the first significant decade for the founding of societies. What is striking is how many Essex towns, even villages, spawned a consumer Co-Op of the 'Rochdale' variety, and how most in the early years failed. In several cases – Chelmsford, Coggeshall, Leyton, Witham – a second attempt, years later, was needed. The most successful – Stratford, Colchester, Grays, Harwich – not only helped ailing neighbours, but began to set up branch societies and, in the 20th century, to take over their smaller neighbours.

The movement was never just shops. From the outset almost all societies placed an emphasis on education, most setting aside a percentage of their takings to that

end. Co-Op halls, libraries, discussions, conferences, tea parties and visits helped make Co-Operation, for its most enthusiastic followers, a way of life. The end of the First World War proved something of a watershed. Hitherto individual Co-Op member might become active in socialist movements; from now onwards the Co-Op movement itself became more overtly involved: providing a base for political activity at its Co-Op Hall, even sponsoring its own Members of Parliament. After 1919 the long process of amalgamations began, a process which may not yet have finished, so that today only three large combines operate in the county: the Co-Operative Group, a national body, born initially of the Stratford Society, the Chelmsford Star Co-Operative Society and the East of England, an amalgam of the Colchester, Ipswich and Norwich Societies and their various satellites. Finally the author briefly covers activities like factory production, farming and housing which have also come under Co-Op attention.

For over 150 years the Co-op movement, still giving its 'divi', still supporting education activity, still electing its directors democratically, has been a major social and economic force in our county. The author ends with a legitimate plea for it to receive more attention from historians.

The three remaining essays can be considered synoptically since they cover the same broad ground: the development, indeed growth, of Labour in three towns – Ipswich, Lowestoft and Norwich.

The late Ian Grimwood tackles Ipswich, the town to which he gave so much as a councillor and local historian. A narrative history of Ipswich radicalism from the 17th century leads him via Chartism into the evolution of Labour politics, a product of trade unionism and the wish for working class political representation. Enter that familiar trio of a Trades Council, a season of Lib-Lab co-operation and a branch of the Independent Labour Party (ILP). With its docks and engineering, Ipswich had all three, but it was perhaps notably for its early and long-lasting ILP presence. Only after 1919 did a distinctive Labour Party emerge. The author highlights the role of three key individuals. George Hines, a self-educated Nonconformist, helped found the Ipswich Co-Operative Society in 1869, was the first Labour member of a School Board and the first President of a branch of the Fabian Society. Peter Jackson, a local trade unionist, was active in the formation of a branch of the ILP in 1906, a Labour Councillor in 1911 and the first Labour M.P. in 1929. Dick Stokes, heir to a leading Ipswich engineering firm, won the seat again for Labour in 1935 and held it until his death in 1957, becoming a minor figure in the post-war Labour governments. Between them these three reflect the familiar but diverse forms that working class efforts for political representation took.

Don Mathew looks at Labour in Lowestoft between 1918 and 1945. In a lengthy essay he matches the relatively slow growth of Labour against the fluctuations of fishing (and its allied trades), farming and manufacture. The author sees the First World War as a prime agency of change, with the growth of a more

militant trade unionism thereafter. Three general elections in two years strengthened Labour, its institutions and its credibility, while the Liberal Party suffered terminal decline. These were the years of soap boxes on street corners. When the government instigated wage cuts Lowestoft uniquely cut teachers pay by 10% instead of the universal 5%. The result was the Lowestoft Teacher's Strike, which not only won its objective, but made Labour more credible in middle class eyes. The long years of Depression seriously affected fishing and agriculture, while the 'betrayal' of Ramsey McDonald took its toll on Labour's electoral fortunes. The following decade from 1935 to 1945 the author aptly entitles 'From Nothing to Something'.

What greatly enriches this essay is its emphasis, less on dates and institutions, more on the realities of the workhouse, Means Testing, and life in those surrounding communities which formed part of the constituency. As well as the I.L.P. the author recognises the role of agencies outside the Labour Party which also sought to alleviate the distress. Above all, this essay is enriched by a wealth of oral history secured by the author in 1977–78 from labour activists who had lived through these years.

Matthew Worley discusses the rather unique experience of Labour in Norwich. Despite a lack of real heavy industry Norwich boasted one of the largest constituency Labour parties in Britain and early and consistently elected Labour M.P.'s. After a succinct summary of Labour's national developments, Worley proceeds to explore the roots of Norwich's untypical story. An electoral pact between the Liberals and the fledgling Labour Representation Committee saw Norwich elect George Roberts as a founding member of the Labour Party in 1906. Although Roberts subsequently joined the Conservatives in 1923, having been a Labour supporter of Lloyd George, he was replaced by his former agent Walter Smith, and, the following year, by an early female Labour M.P., Dorothy Jewson. Walter Smith was re-elected in 1929, but thereafter, sandwiched between successful Liberal and Conservative Parties, there was no further Labour victory until 1945. This again is untypical, given the marginalisation of Liberalism elsewhere. Lacking significant industry, the Norwich Labour Party was not dominated by trade unionism. It had a large personal membership which enabled it to develop a strong community spirit with whist drives, lectures, football and bowls. It meant it was able to concentrate on social issues – notably housing – a concentration it pursued when it secured control of the Borough Council in 1933. An intensive programme of house building was initiated with 'fair rents' set for council tenants. Health care and unemployment relief improved across the city, all this despite the strength of the ILP in the city and their disaffiliation with the main Labour Party in 1932. Once again Norwich was 'different'. Very few Borough Councils came under Labour control during these years.

What emerges from a study of these three regional centres is that their experiences were at once the same and different. They developed the same familiar arms of

the labour movement, but at different speeds and, occasionally, with different emphasis. They were affected by national political developments, but their own unique mix of social and economic factors, and the occasional drive of a particular individual, gave each town a different story.

And it is for these reasons that these five essays are so valuable.

It is appropriate to consider three essays synoptically. All say little about the role and achievements (if any) on the local councils. Town or Constituency?

Andrew Phillips

Essex Bibliography

Both monographs and periodic literature are included; articles published in festschrifts or in journals which are devoted exclusively to Essex history (e.g. Essex Journal) are not included. Items overlooked in previous bibliographies are included for comprehensive coverage.

Hankins, J.R. 2007. Crown, country and corporation in early 17th century Essex, *Sixteenth Century Journal* 38, 27–48

Carew, T., Eddisford, D., Pearce, J., and Vince, A. 2009. Axe Street, Barking, and the supply of medieval Mill-Green-type ware to London and South Essex, *London Archaeologist* No 5, 138–142

Clarke, C.P. and Lavender, N.J., 2009. An Early Neolithic Ring-ditch and Middle Bronze Age Cemetery: Excavation and Survey at Brightlingsea, Essex (East Anglian Archaeology Report 126) (Chelmsford)

Drury, P.J. and Simpson, R., 2009. Hill Hall: A Singular House Devised by a Tudor Intellectual (London)

Eckardt, H., 2009a. 'Roman barrows and their landscape context: a GIS case study at Bartlow, Cambridgeshire', *Britannia* 40, 65–98 [This paper is included because until a recent change in county boundaries, the hills were in Essex]

Eckardt, H., 2009b. 'The Bartlow Hills in context', *Proc. Cambridge Antiq. Soc.* 98, 47–64 [until a recent change in county boundaries, the hills were in Essex]

Hingley, R.C., 2009. 'Esoteric knowledge? Ancient bronze artefacts from Iron Age contexts', *Proc. Prehist. Soc.* 75, 143–65 [includes the Bronze Age palstave from the Lexden tumulus at Colchester]

Neal, D.S. and Cosh, S.R., 2009 *Roman Mosaics of Britain. Vol.3. South-east Britain. Part 1* (London) [The work has an illustrated corpus of all Essex mosaics]

Sealey, P.R., 2009. 'New light on the wine trade with Julio-Claudian Britain', *Britannia* 40, 1–40 [the study is based on two Essex sites, Stanway at Colchester and Elms Farm at Heybridge]

Andrew Phillips, Paul Sealey

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