NEWSLETTER OF THE ENGLISH HERITAGE RESEARCH DEPARTMENT

RESEARCH NEWS

The historic settlement and surrounding military heritage at East Tilbury village - story on page 16

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Research News 5 concentrated on the research work being carried out at Apethorpe Hall in Northants. In this issue further insights on Apethorpe are reported, coming from excavation work by the Archaeological Projects Team which revealed evidence for some of the earlier phases of the house, and the investigation of one of the later stages in its life – its use as an approved school between 1949 and 1982. During the restoration work, the evidence for the latter period, the classrooms, graffiti, and the partitions and ceilings have been almost completely swept away. As we report here, however, this has not gone without record – Sid Vicious appears in *Research News* for the first and probably the last time!

In these pages we have frequently highlighted the application of new methodologies to work in the historic environment. This issue is no exception. MoRPHE (Management of Research Projects in the Historic Environment) is the new set of guidelines for project management within the sector, developed within Research Department, which now underpins the structure of our own projects and those we commission from others through our grant programmes. Among new technical applications the potential of GIS for the analysis of the myriad data in Domesday Book shows huge promise for the development of understanding of this most basic and unique early medieval source.

Elsewhere Research Department Teams have been responding to a number of issues. It is predicted that the kind of flooding which affected so much of the Midlands last year will increase in frequency. The planning of flood mitigation measures at Hailes Abbey necessitated an archaeological evalution, which has revealed evidence for past water control measures. The great development of the Thames Gateway will have a great impact on existing settlements, altering their character. One such place is East Tilbury where two very contrasting types of settlement have been surveyed. Similarly at Manningham in Bradford much needed urban renewal will alter the historic character of this township. Work here will contribute to the informed conservation of the area. On a wider scale, our Maritime Team have been looking at ways of reducing the threat to Britain's protected historic shipwreck sites.

The continuing Mendip Hills AONB Survey has examined the character of dispersed settlement in the Region, and new work throws up unexpected results, like the re-identification of the architect responsible for the restoration of the church at Mansfield Woodhouse. Research Department staff continue to contribute to education and training, in this case through participation in an MA course in archaeological illustration.

Christopher Scull
Research Director
Research and Standards Group

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Comment should be sent to Tony Wilmott at: English Heritage, Fort Cumberland, Fort Cumberland Road, Eastney, Portsmouth, PO4 9LD.
Telephone: 023 9285 6700. Fax: 023 9285 6701.
Email: fort.cumberland@english-heritage.org.uk

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Mapping Domesday Book using GIS

New technology will allow more detailed interrogation and analysis of one of England's most important and iconic medieval documentary sources.

Domesday Book is one of the most iconic documents of medieval England. It is the record of the detailed survey made in 1086 of all the land held by William the Conqueror and his chief tenants. Put simply, Domesday Book describes the tax assessments and values of manors, a wide range of the resources pertaining to those manors, and who held them both in 1066 and in 1086.

A great deal of information from Domesday Book was mapped by H. C. Darby and his collaborators in the *Domesday Geography* series – volumes rightly recognised as landmarks in the study of Domesday Book and in the historical geography of England. But Darby's *Domesday Geographies* had a limited approach to dealing with Domesday statistics, had static, fairly small-scale maps, and did not address information about landholders at all.

Further rigorous analysis of the geography of Domesday-era England has been hampered by the sheer bulk and complexity of the document. But now, by combining a previously unavailable database with Geographic Information Systems (GIS) software, it has proved possible to begin to examine this rich source of information about a key period of English history in new ways.

Between 1983 and 1986, a team led by Robin Fleming and funded by the United States National Endowment for the Humanities and the University of California at Santa Barbara created a comprehensive database of the placename, landholding

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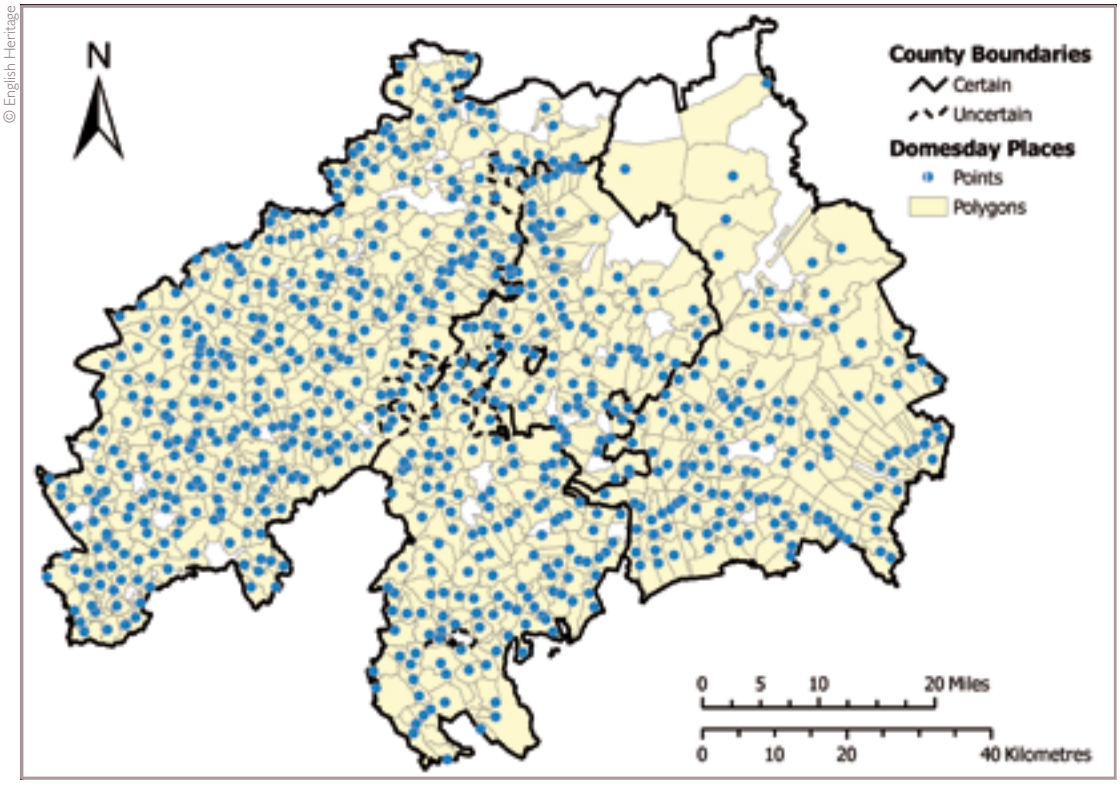
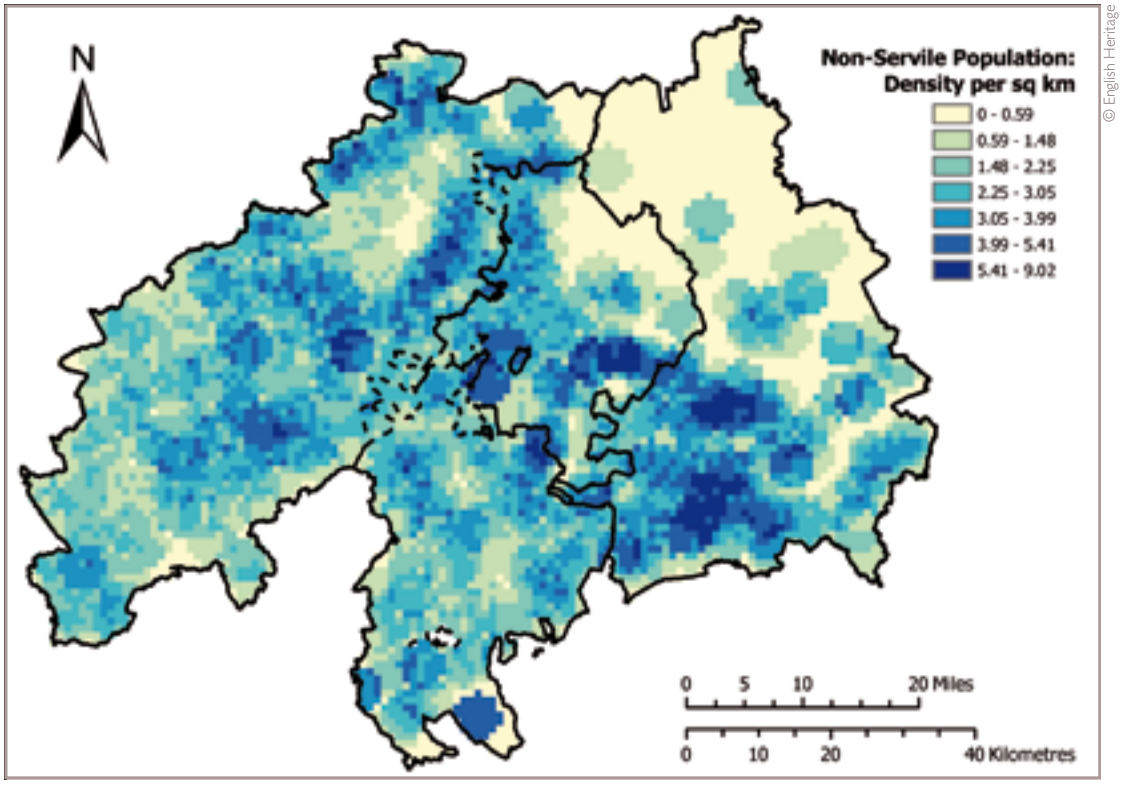


Domesday places in the four county study area identified by points and polygons



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Density of non-servile population across the four counties in 1086

and statistical information contained in Domesday Book, excluding the counties of Norfolk, Suffolk and Essex.

The data were captured for use on mainframe computers and required a sophisticated understanding of computer programming to analyse. In the days before the widespread availability of appropriate hardware and software, public dissemination was not considered. Fleming used the data extensively in her work in the late 1980s and early 1990s, but as her research interests changed and computer technology developed, the data became less and less useful and accessible. The data then lay dormant for over a decade.

In 2006, Fleming agreed to make available the data from four Domesday counties – Bedfordshire, Cambridgeshire, Huntingdonshire and Northamptonshire – for use in a pilot project. The aim was to see what would be involved in migrating the data to a more up-to-date format and then 'spatially enabling' them using GIS software. The original data were rescued from the increasingly aged computer on which they had been stored and transferred as a collection of text files.

The files from the four pilot counties – 142 in all – were carefully converted, reformatted and restructured into a relational database in Microsoft Access. Fleming created the data in a highly atomised fashion, reflecting the sometimes bewildering variety of ways different types of information are recorded in Domesday Book, and all of her variables have been retained. These variables record everything from the form of tenure by which one Anglo-Saxon thegn held land from another in 1066, to the number of female slaves belonging to an estate, to the amount of meadow recorded in acres, to the number of eels rendered from a fishery, to the value of a manor in pounds, shillings and pence in 1086. The pilot database contains about 400 different variables, roughly a quarter of the total number in Fleming's full dataset.

Incorporating the data into a GIS requires spatial representations of the places named in Domesday Book. Domesday Book does not describe actual settlements – the villages, hamlets and farms in which the people of late-eleventh-century England lived and worked – but rather units of manorial administration. Over the past century and a half, placename scholars have identified the vast majority of Domesday places, and their locations can be modelled, albeit in a somewhat generalised fashion. In the GIS, Domesday places are depicted in two different ways: as points and as polygonal areas.

The coordinates for the points have been taken from the indices and maps that accompany the facsimile of Domesday Book produced by Alecto Historical Editions. The polygons are based on early-nineteenth-century parish boundaries. It has long been recognised that modern parishes often have

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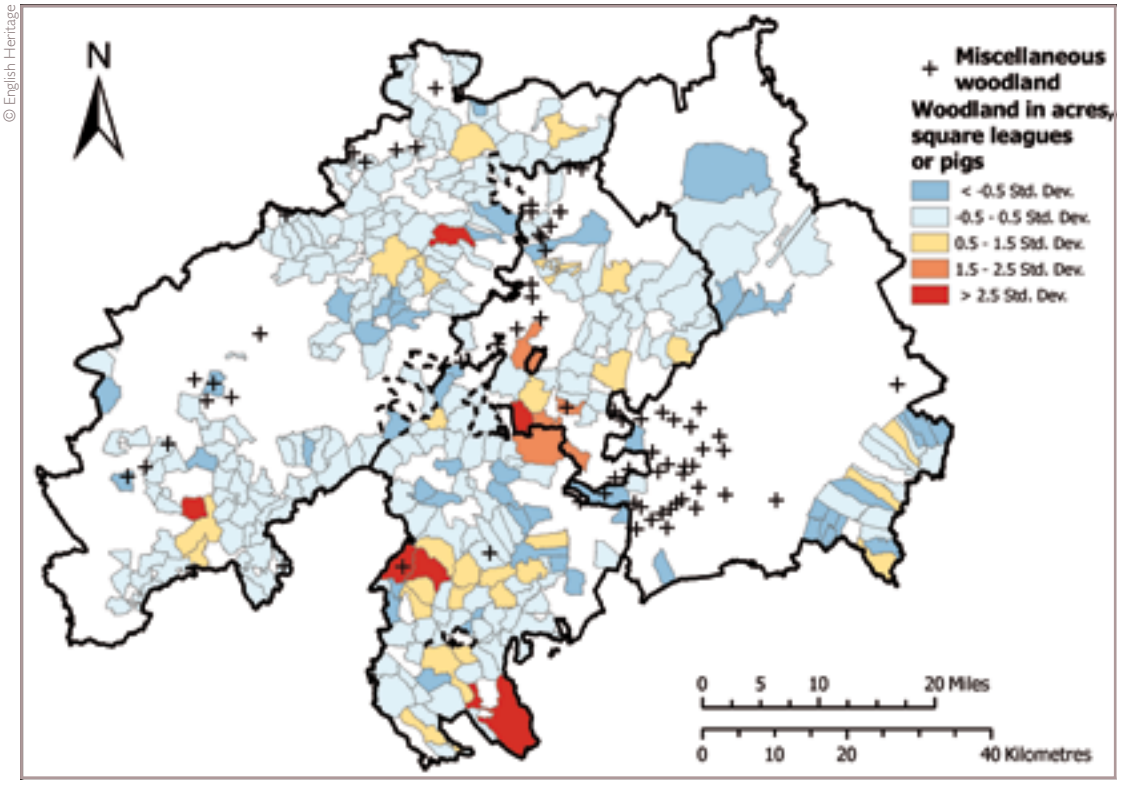


Variation from average amount of woodland across the four counties in 1086

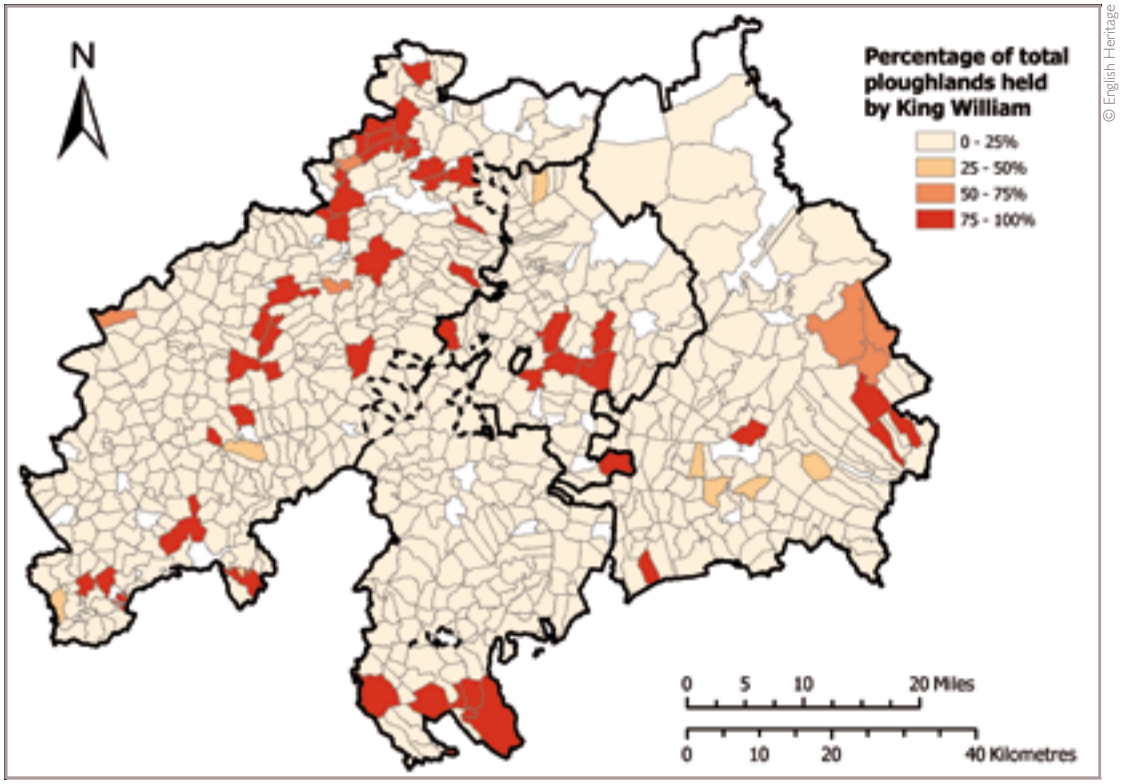
their roots in much earlier land divisions and that the extents of medieval estates frequently determined the outlines of what we now know as parishes. Parish boundaries are not exact replicas of Domesday-era manorial boundaries, but they can be useful proxies. The parish boundaries used here were originally mapped by Roger Kain and Richard Oliver at the University of Exeter, and a GIS dataset of these boundaries was developed by Nick Burton and others at the University of Portsmouth. Domesday places and parish boundaries do not match one-to-one, so the parish boundaries have been modified, where appropriate, to model as closely as possible the administrative land units of late-eleventh-century England.

With the Access database linked to the points and polygons in the GIS, all the data can be queried, combined, analysed and mapped in relatively short order. The tedious calculation and mapping that took Darby and his team years can be done in hours or days.

For example, after adding up the total non-servile population (ie, all those not recorded as slaves) for each point, the GIS can calculate or interpolate the population density per square kilometre over the whole four-county area. The general picture of population density in the region is well known, with very low densities in the Fenland of northern Cambridgeshire and north-eastern Huntingdonshire, higher densities across the central part of the four-county area, and varying densities to the south and west. The results shown here, however, provide a far more fine-grained estimation of Domesday population density than any of Darby's maps.

Domesday Book's description of woodland provides perhaps the clearest example of the multifarious ways in which information was recorded. Amounts of woodland were usually listed in one of three ways: in acres, in leagues, furlongs and perches, or in terms of the number of pigs that could be fed in the woodland. It is impossible to convert all these measures to a single common denominator – how many pigs'-worth of woodland in a square league? – so depicting all the woodland statistics on a single map is challenging. The GIS, however, can easily calculate the standard deviations for woodland values in each category. These values, indicating how much each instance varies from the average, can be mapped to show polygons with unusually high or low amounts of recorded woodland. Of course, some Domesday formulae, such as the phrase 'there is wood for fences and houses,' cannot be depicted in this fashion, and are most effectively mapped as points.

The database enables analyses not only of what assets were held, but also who held them. For instance, ploughlands were a measure of arable land, nominally the amount of land a ploughteam of eight oxen could work in the course of a year. By calculating the number of ploughlands in each parish polygon



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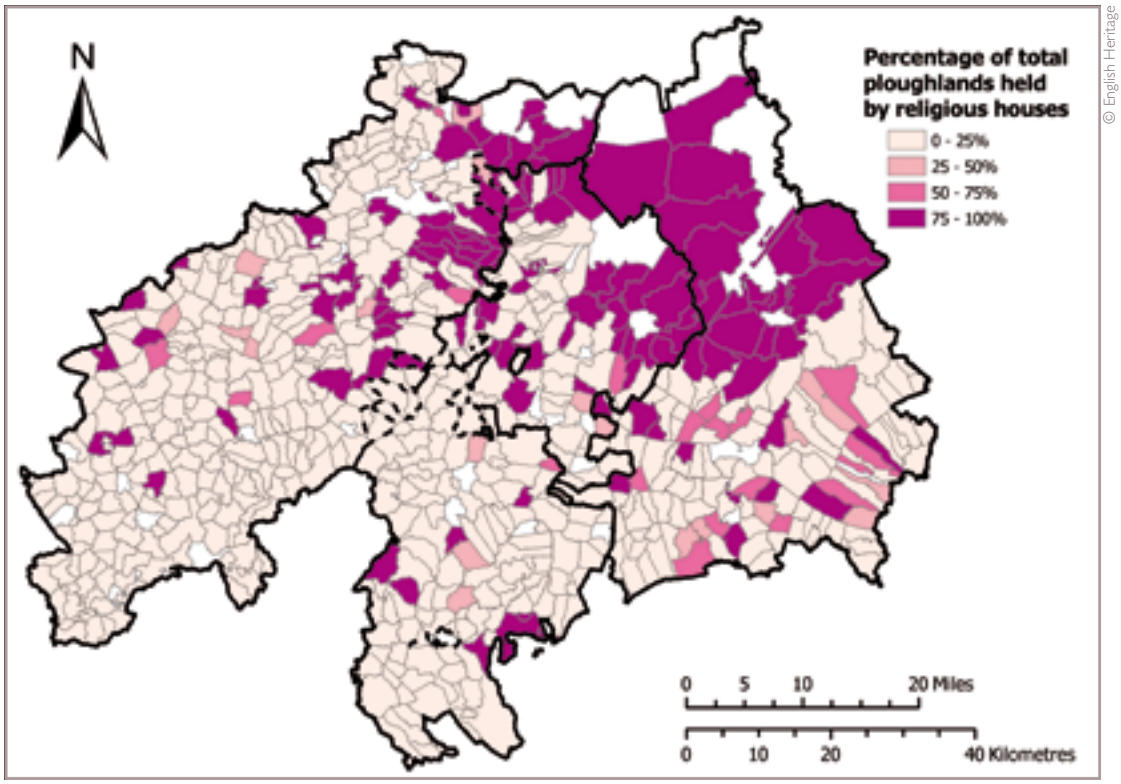
Proportion of ploughlands held by the King in 1086



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Proportion of ploughlands held by religious houses in 1086

belonging to different types of landholder and comparing those sums to the total number of ploughlands in each area, it is possible to develop a picture of the distribution of resources available to different lords. In 1086, King William's manors were scattered across the four counties, while those of religious houses – especially the great abbeys of Ely, Peterborough and Ramsey – lay predominantly to the north and east of the area, leaving the rest of the land in the hands of other lords.

Finally, lords kept some manors for themselves, holding them 'in demesne' directly from the king. The rest of the land they distributed to their own followers, who held as their tenants. Mapping the percentage of the total 1086 value of estates held in demesne gives an indication of how different approaches to landholding varied across the four counties. Lands in northern Cambridgeshire and north-east Huntingdonshire were largely held in

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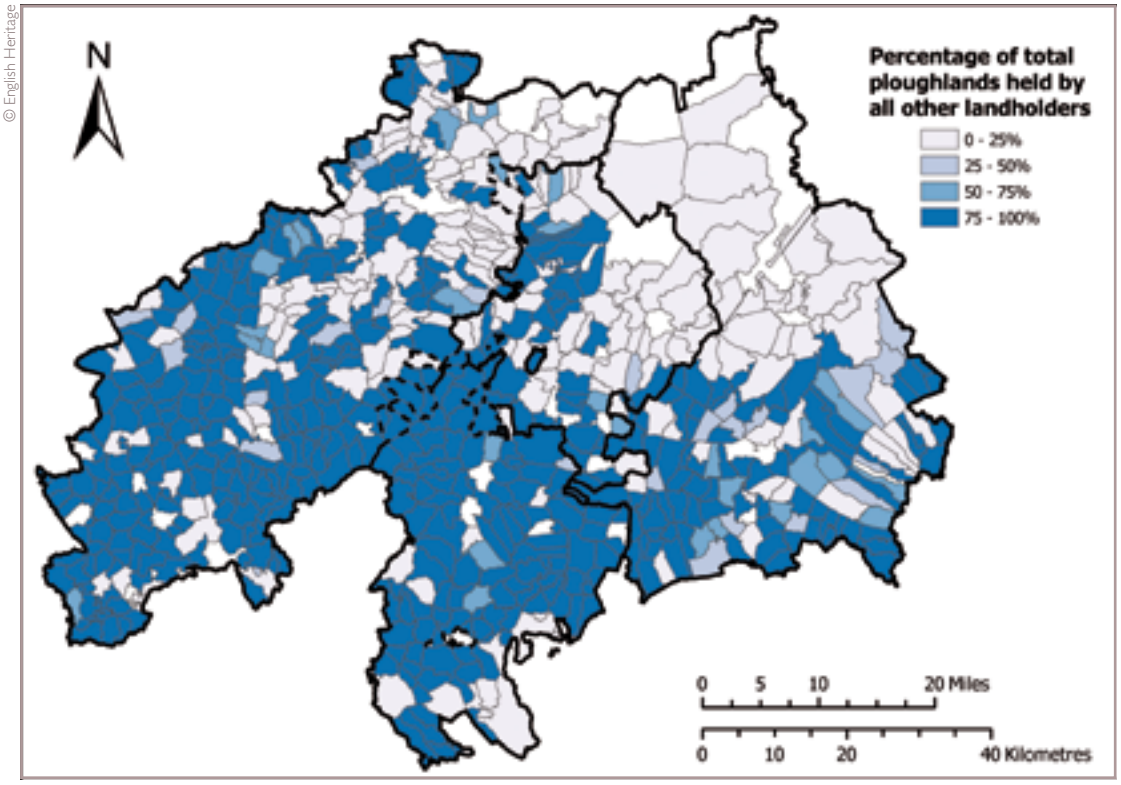

Proportion of ploughlands held by all other landholders in 1086

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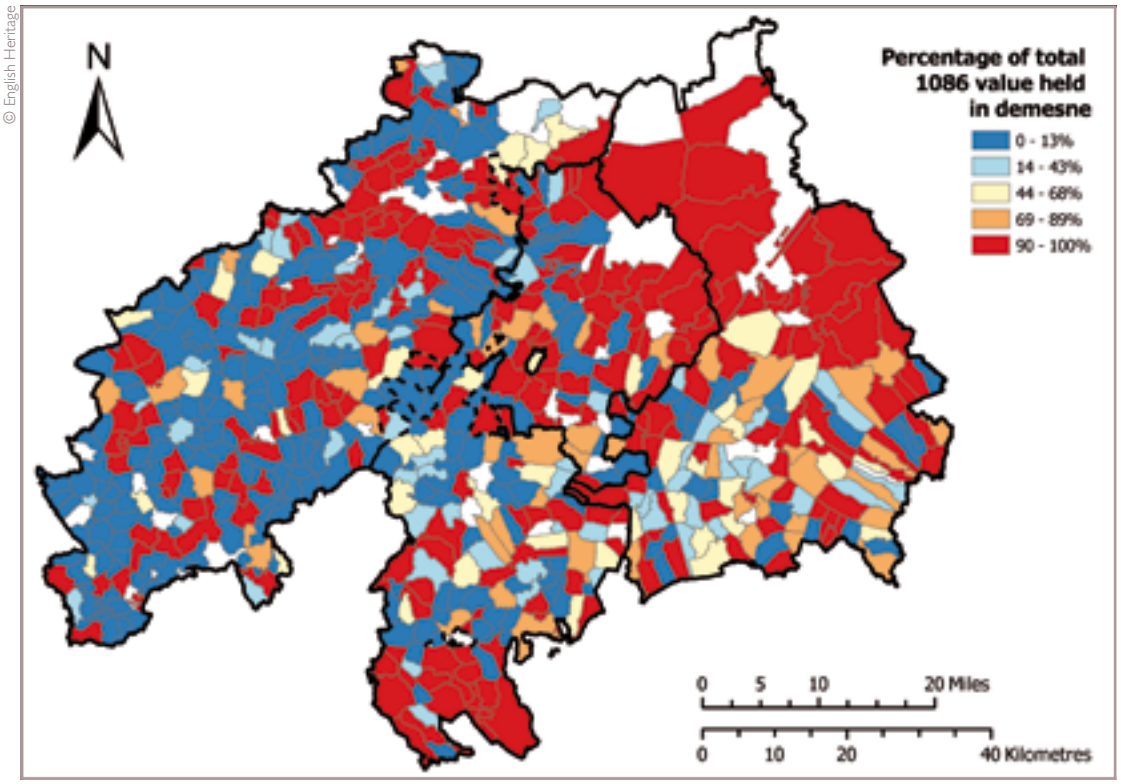


Proportion of lands held in demesne in 1086

demesne, as were those in southern Bedfordshire. Much of Northamptonshire was in the hands of tenants, and the rest of the area was mixed.

Because the data are referenced to the Ordnance Survey National Grid, they can easily be combined with any other relevant, GIS-ready data, e.g., from other documents, about soils, or about the historic environment.

Looking ahead, it is clear that the potential of a full Domesday GIS dataset would be enormous. Planning is already underway regarding migrating and updating the rest of Fleming's data. It is intended to make the full dataset freely available, via the Archaeology Data Service, the National Monuments Record or another suitable data dissemination service.

Andrew Lowerre

RESEARCH THEMES AND PROGRAMMES

G 3

Developing Project Management for the Historic Environment research

English Heritage has developed new guidelines for the management of its research projects, and for the projects it commissions from others. Training will help to promote the new approach.

Research News articles report on the wide range of historic environment research undertaken by English Heritage. But how is the research organised? How are projects chosen, developed and run to ensure that we deliver practical high-quality research results?

This article introduces another aspect of our research: the work at English Heritage to develop and introduce new guidelines on the 'Management of Research Projects in the Historic Environment' (MoRPHE).

As a sector we have much experience in project management. The classic patterns of research; the definition of aims, the development of a research design, the acquisition of data, the analysis of results, and the communication of those results to the wider world - are all well developed and lend themselves to management as a project. However written guidelines to share that approach, and to support training for new researchers have until now been aimed at specific areas of research. In particular archaeological field and post-excavation research in 'Management of Archaeological Projects' 2nd edition (English Heritage 1991) known as MAP2.

Building upon this experience, the 2005-10 research agenda and strategy for English Heritage identified the need for guidelines for management of project in all our historic environment research themes and programmes, not just those covered by MAP2.

The research strategy also identified a need to adopt central government endorsed best practice in project governance. The key source for this is 'Projects in Controlled Environments' 2nd edition (PRINCE2). These guidelines were already in use in English Heritage, for IT development projects.

The issue then for MoRPHE development has been how to combine the principles

The generic flow-chart for projects managed using the MoRPHE guidelines

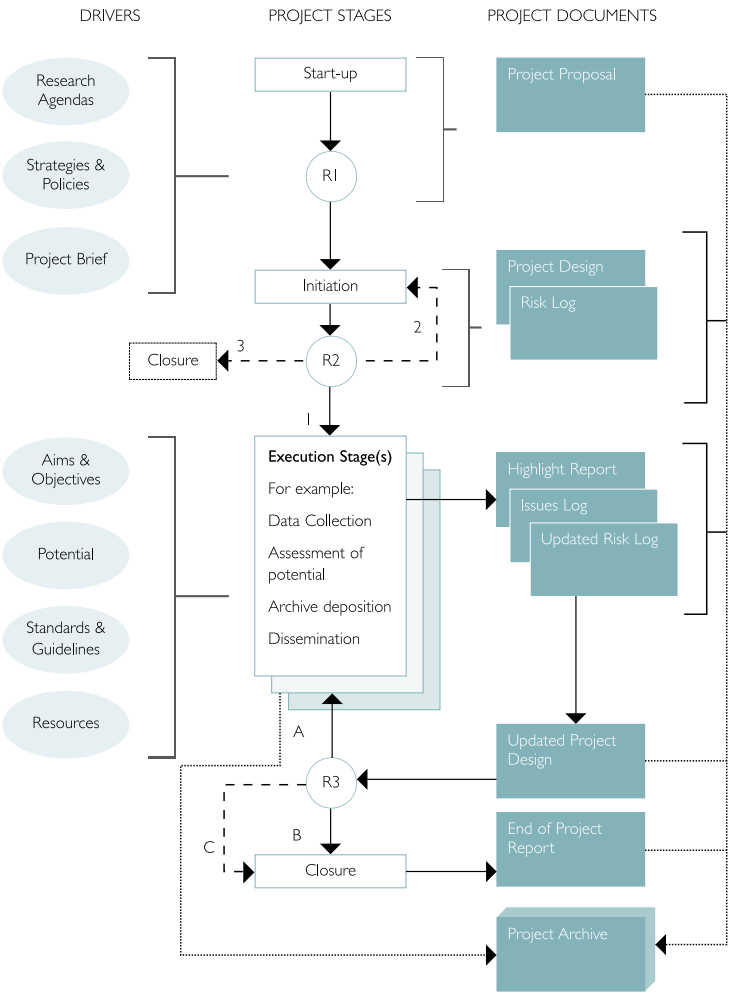


Figure 2. The Generic MoRPHE project model

External drivers
Stages
Project documents
R1 Review points
1 Authorised to start
2 Redesign required
3 Exceptional closure
A Continue to next Stage
B Planned closure
C Exceptional closure
Main project sequence
Exceptional circumstances
Information flow

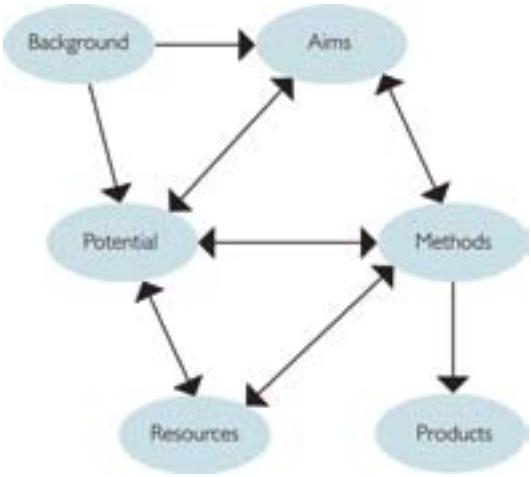
of 'controlled environment' project management with the need for flexibility and responsiveness to changing circumstances required in research in the 'historic environment'. It's a feature of research that you literally don't know what you don't know at the outset. So how can projects be planned and realistic budgets set?

The MoRPHE Project Managers Guide, the core document in a new series of guidelines therefore promotes a staged approach to projects. This builds on MAP2 experience, but incorporates some of the generic PRINCE2 approach, giving extra flexibility. You can't anticipate what will be found in every detail, or what you will need to do further along in the project, but you can plan for the flexibility to respond to a range of possible outcomes.

Also available in the series are MoRPHE 'Project Planning Notes' (PPNs) to communicate expertise in how projects in particular specialist areas are run. These are structured to reflect the stages of a MoRPHE project. They cover topics such as what needs to be given careful attention during planning? What particular specialist research might be needed during execution of the project? What specific results need to be attained? A further suite of Technical guides provides more detail on more general aspects e.g. digital archiving and dissemination. Future topics may include estimation, risk management and involving stakeholders.

Training is often the most effective way of making a real change to working practices. Project management is no different, and so the MoRPHE Trainers group has been set up with support from the managers of the Research and Standards department. A dozen EH colleagues have been trained in training course development and delivery. The group meet twice yearly to review course feedback and discuss new training requirements. Two courses have been designed to familiarise staff with the new guidelines and to provide more detailed training to research project managers.

The courses are free and available to both English Heritage staff and staff from organisations that undertake English Heritage funded research. So far 185 staff have received familiarisation training, and 100 have attended the project managers course.



Factors to be balanced in planning research in the historic environment

Complementing the development of MoRPHE guidelines and training, other initiatives have updated the guidelines for applicants to the Historic Environment Enabling Programme (the principal EH research commissioning budget), and put in place guidelines covering the application of MoRPHE to projects run by our own Research Department.

Future developments include co-ordination with the recently-launched National Vocational Qualification (NVQ) in Archaeological Practice at Level 4, which offers project management as a specific pathway to achieving this mid-management qualification (See www.torc.org.uk/nos/index.asp).

Enquiries about future MoRPHE course availability and dates should be emailed to morphe@english-heritage.org.uk. All the MoRPHE guidelines are available to download from the English Heritage website 'Free publications list' available at www.english-heritage.org.uk/publications

Edmund Lee

The MoRPHE guidelines cover image identifies people working in the historic environment as the key to successful research projects

NEW DISCOVERIES AND INTERPRETATIONS

The culvert and medieval pond at Hailes Abbey, Gloucestershire

Excavations to inform mitigation of the threat from flooding reveal aspects of a medieval water management system.

Hailes Abbey is located in the north-western foothills of the Gloucestershire Cotswolds. Founded in 1245, Hailes was one of the last Cistercian houses to be established in England. Following its dissolution in 1539, the abbey church and substantial parts of the cloister were demolished. In the later 16th and 17th centuries, much of the west range and the abbot's lodging became the home of the Tracy family, and the appearance of much of the former monastic precinct was considerably altered. The Tracys moved on in 1729 and the buildings were converted into two farms. The monument was donated to the National Trust in 1939, and since 1950 has been a guardianship site in the care of English Heritage and its predecessor bodies.

The abbey followed a typical Cistercian layout, with the church to the north of the cloister and the other main buildings ranged around the remaining three sides. To the east and west of the ruins, earthwork and geophysical surveys have indicated the presence of a variety of features of the monastic precinct and to probable post-Dissolution landscaping. To the south-east of the site is a large, rectangular boggy area – thought to be a former pond – through which flows a small stream. This stream runs into a substantial, stone-built culvert that flushed the monks' latrine at the south-east corner of the cloister. The culvert extends underneath the abbey, terminating to the north-west of the site.

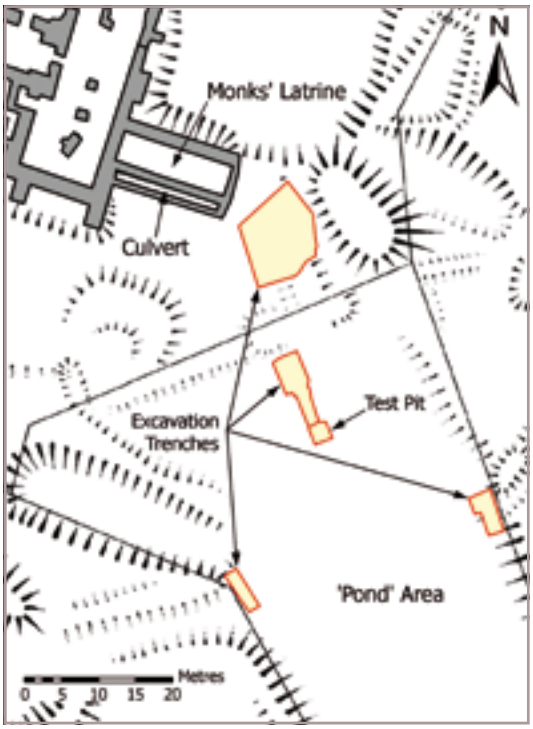
Brian Kerr. © English Heritage

Photo looking over 'pond' toward abbey

Located at the base of a valley, Hailes Abbey has been affected by increasingly frequent episodes of flooding, which have damaged the stonework of the ruins. English Heritage is investigating ways to prevent future flooding of the abbey. Possible approaches include improving the flow of water in the stream into the culvert and the partial excavation of the 'pond' to provide a holding area for water to prevent it pouring into the ruins. Before undertaking any engineering works, more information about the buried archaeology was needed. It was not clear whether the culvert survived further to south-east of abbey latrine, or if there were remains of any other structures in the area. The exact nature of the 'pond' area and its date were also uncertain – a recent coring survey suggested it had never been an artificial water body, while an earthwork survey by Graham Brown of English Heritage's Archaeological Survey & Investigation team argued it was a post-medieval pond. In August and September 2006, the Archaeological Projects Team excavated four trenches to investigate the culvert and the 'pond.'

The main trench was located to the south-east of the abbey ruins, between the 'pond' and the monks' latrine and the open section of the culvert. Excavation here demonstrated that more of the culvert does survive, extending further to the south-east toward the 'pond.' It was not possible to excavate through all the material filling the culvert, but it appears that at some point, facing stones from the south wall of the culvert were robbed away and part of the wall core collapsed into the drain. The rubble deposits in the culvert and indeed much of the northern and eastern side of the trench were overlain by a thick, clayey silt layer. This may represent a deliberate infill of the culvert and levelling of the surrounding area.

Andrew Lowerre, © English Heritage



General site plan showing location of trenches

Duncan Stirk, © English Heritage

General view of Trench A

© English Heritage

General view of Trench B

Part of the southern side of the culvert was rebuilt or re-pointed using cement, probably after the clearance of the site around the turn of the 20th century. It is not clear whether the re-pointed section reflects the original height and outline of the southern side of the culvert wall or not.

A buttress appears to have been bonded in with the rubble core of the south wall of the culvert. This feature may be similar to the one buttress present on the north side of the north wall of the latrine undercroft. Another substantial stone foundation lay further to the south of the culvert. These features suggest there were substantial structures to the south-east of the latrine, though it is not clear whether they are medieval or relate to the post-Dissolution remodelling of the abbey. Three other walls or wall stubs lay to the east of the excavated section of the culvert. All were relatively narrow, suggesting that they were either non-load-bearing, dividing walls inside a building or possibly walls for garden features.

A variety of layers of mixed soil and rubble lay over the whole of the trench, all less than 0.5 m below the modern ground surface. Decorated medieval floor tiles and carved stone architectural fragments were recovered from these layers, as well as small amounts of pottery, a variety of iron objects, a clay pipe bowl dated ca. 1610-1640, and fragments of lead and copper. It is possible that one or more of the uppermost layers may be spoil from the excavation and clearance of the site at the turn of the 20th century or later.

Two trenches were sited along the edges of the 'pond' area to investigate where linear earthwork features abut the 'pond' on the east and west. Excavation in the western trench proved difficult, as the water table here was very close to the ground surface. No datable material was recovered from this trench, but all the deposits appear to be colluvial in origin and probably quite recent.

In the eastern trench, a series of large, unbonded sandstone blocks running roughly north-south were found. This context may be the robbed-out remains of a wall foundation, possibly for the inner monastic precinct, as Graham Brown has suggested. A silty clay bank lay to the east of the possible robbed-out wall, which may represent an earlier version of the precinct boundary. After the robbing of the wall, copious amounts of soil and rubble were dumped in its place. A dry-stone wall, running parallel to the modern field boundary, appears to have been constructed at some stage, perhaps to act as a revetment for the rubble deposits. Another dry-stone wall may have been built running north-east, along the line of the low bank visible today in the field to the east of the abbey ruins. A medieval decorated floor tile, fragments of ceramic building material and worked stone architectural fragments – including a column base – were recovered from the various layers in this trench. None of these finds were *in situ*, and their presence indicates that the rubble contexts are all post-Dissolution.

The fourth trench was dug within the 'pond.' Quite unexpectedly, this trench revealed the remains of what appears to be an earthen dam with a well-constructed stone revetment.

A large, machine-dug test-pit allowed the examination and sampling of the complete sediment sequence of the 'pond.' Above

© English Heritage

View showing masonry dam

natural clay lay a series of alternating waterlain clay and organic deposits, which seem to represent the bottom of a pond. Radiocarbon dates from these layers indicate that they were most likely forming in the 14th and 15th centuries. These results combined with the discovery of the dam show that the boggy area was, indeed, a medieval pond.

Samples from more recent layers in the sedimentary sequence suggest that the pond dried out or silted up. A layer of rubble and fragments of plaster, some possibly painted, is likely dumped demolition debris, though whether from the post-Dissolution dismantling of the abbey or from the destruction of the Tracy manor house in the 18th century is impossible to say. Above the rubble were several layers of silty clay, but it is not clear whether these are the products of deliberate infilling or more gradual colluvial accumulation.

The speed at which the pond dried out or silted up cannot be determined, but it is clear from a map of Hailes made in 1587 (see *Research News* 5) that there was no water body in the location of the present boggy area by the later 16th century.

Assessment of the results of the excavations at Hailes is ongoing. This work will assist in the design of archaeologically sensitive flood control measures, and further excavation in advance of whatever scheme is chosen may help answer some of the questions raised by the evaluation.

Andrew Lowerre

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Monolith samples in test-pit

NEW DISCOVERIES AND INTERPRETATIONS

Dispersed farmsteads on the southern Mendip Hills escarpment – the earthwork evidence

Earthwork survey in the Mendip Hills AONB reveals agricultural expansion and contraction on marginal land during the middle ages.

Several dispersed farmsteads, together with their associated trackways and field systems have been surveyed by the Archaeological Survey and Investigation team as part of English Heritage's Mendip Hills AONB project (*Research News* **5**, p 44). The farmsteads all lie on the southern escarpment of the Hills between the villages of Rodney Stoke and Easton. Analysis of the earthworks and the wider landscape would suggest that the farmsteads were part of a planned agricultural expansion on what has been termed 'marginal' land, beyond the valley settlement's cultivated fields and woodland. Seven farmsteads were surveyed and all, apart from one, probably date at least to the 12th or 13th century, although some may have earlier origins, perhaps as seasonal settlements.

The three farmsteads at a place called Hope are an example of this colonisation. The place-name gives a clue to the landscape before they were established since it is indicative of 'an enclosure in marsh or wasteland', an apt description of this discrete, compact estate at the furthest extremity of the parish, but which nevertheless had its own arable, pasture and woodland in the Middle Ages. Morphologically, the farmsteads are remarkably similar: each contains two buildings separated by a small

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One of the farmsteads at Hope. The earthworks are covered by the coarse grass. Elsewhere there is evidence of a 'Celtic' field system, medieval lynchets, trackways and stock enclosures

© English Heritage

The rectangular outline of one of the farmsteads above the village of Rodney Stoke. Beyond the farmstead are large tracts of ridge-and-furrow cultivation contained within banked enclosures, suggesting that this was formerly assarted land. There are also signs of quarrying in the vicinity, either for limestone or ochre

yard and set within a square banked enclosure. The buildings are all small, no more than eight metres long. This is in contrast to the other farmsteads which were at least twelve metres long. The farmsteads are also set equidistantly apart and it is noticeable that the trackways from the farmsteads all lead through the fields onto the higher ground and not to the valley settlements suggesting, perhaps, that the higher plateau was the area that was also being exploited. Close to the end of the trackways on the plateau there are a couple of large circular enclosures which were probably stock enclosures.

Hope lies in the tithing of Easton, which had been granted to the Bishop of Wells by the King in the mid-11th century. However, by the late-12th century there were three manors here: one was held by the Vicars Choral of Wells Cathedral, another by the Cistercian monastery at Stanley, while the third was held by a secular lord. It is therefore unclear on whose initiative Hope was colonised. Further documentary analysis has enabled the three farmsteads at Hope to be identified as those that were granted to the Carthusian monks at Hinton Charterhouse in 1402. Two of the farmsteads included 30a of land and 4a of woodland; they were held by John Goundenham and his wife, Agnes, and William Nyle and his wife, Joan. The third provided an annual rent of six shillings and had 12a of land and 2½a of meadow; it was held by a certain Robert, his wife Matilda, and Isabelle ate Heye.

The date of the abandonment of the Hope farmsteads is not entirely clear. Elsewhere, the abandonment of marginal lands has traditionally been dated to the 14th or 15th centuries, following a peak of expansion in the 13th century. At neighbouring Ramspits, for example, it has been suggested that the two medieval farmsteads were probably abandoned in the mid-15th century; while this may be true, the evidence is by no means conclusive and some farmsteads on the Hills may have survived longer. Hinton Charterhouse, for example, was still receiving rents from Hope in 1535 suggesting that the land, at least, was still being farmed in the 16th century.

Graham Brown

© English Heritage

Close to Hope are the earthwork remains of a couple of medieval farmsteads at Ramspits, which lies above the village of Westbury Sub-Mendip

RESEARCH THEMES AND PROGRAMMES

A 1 B 2

East Tilbury: a utopia in the Thames Gateway?

The 'Thames Gateway' development will affect existing settlements, including the historic village and the 20th century planned industrial settlement of East Tilbury, both in their own ways illustrations of the potential of the historic environment of the area.

An aerial view of East Tilbury village in 2005 showing the historic settlement and the surrounding military heritage, including an oblong-shaped sunken gun battery of 1889-90, Coalhouse Fort of 1861-62 and, on the edge of the foreshore, a radar tower of 1940

© English Heritage, NMR_24072_008

As the Thames Gateway redevelopment and regeneration initiative rolls on, it continues to attract criticism for its daunting complexity and lack of overarching vision. One approach, long advocated by English Heritage, is to root the regeneration effort in the area's unique and fascinating historic environment and to build on its distinctive character (cf *Research News* **3**, 24-8). This has led to the commissioning of a high-level characterisation of the Thames Gateway area and targeted research into some of its historic localities. One such is the small estuarine community of East Tilbury, Thurrock, Essex, which has been earmarked as a location for significant development.

East Tilbury is at present composed of two parts; a historic riverside village and a remarkable 20th century industrial settlement. The two areas of development are geographically separate and have different characters, but are linked and unified by the surrounding landscape of open fields and salt marshes, still bearing the evidence of centuries of human intervention and industrial activity.

The existence of a village at East Tilbury is a consequence of its strategic location, as it is here that the River Thames significantly narrows from its wide estuary for the first time, as it bends around Coalhouse Point. It is thought that an ancient ridgeway from Chelmsford, Essex to Higham, Kent crossed the river here. Later a ferry operated from East Tilbury, helping to sustain a modest medieval settlement. But the location also has an obvious defensive importance, with its commanding views across the low-lying river plain and a wide section of the estuary and its river traffic. Henry VII ordered a blockhouse to be built at East Tilbury in 1539-40 and in 1799 a gun battery was established at Coalhouse Point. But it was in the latter part of the 19th century that the military importance of East Tilbury reached its peak. In the 1860s it became part of the first line of defence for London, with the

construction of a triangle of forts at East Tilbury, Cliffe and Shornmead, the latter sites in Kent. At East Tilbury the fort was supplemented by two gun batteries, built at the end of the 19th century. By 1914 the main defensive line had moved further east, but the two world wars necessitated additional defensive facilities in the area. A considerable amount of this military heritage survives, located around the periphery of the village and along the foreshore, evidence of the locality's key role in the Thames defences.

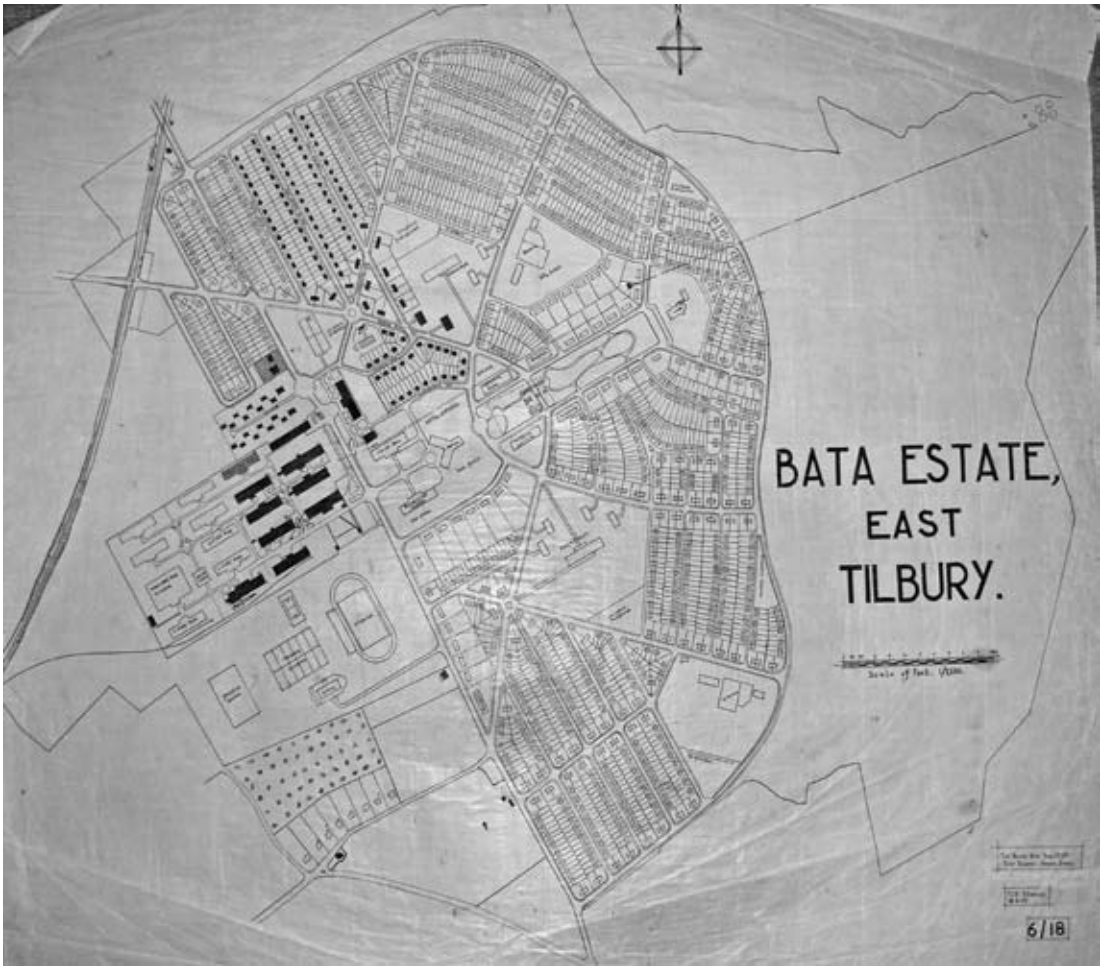
The village itself is a modestly size community, having never outgrown its initial form of a linear development extending northwards from the parish church with a scatter of outlying properties, mostly farmsteads. It retains some historic buildings, most notably the medieval parish church of St Catherine and some late 18th and early 19th century houses. But piecemeal rebuilding and small-scale residential developments from the 1950s onwards has wrought considerable change in the nature of its building stock.

© English Heritage

Joseph Hermon Cawthra's 1955 statue of the 'shoe king' Thomas Bata, who approved the purchase of the site at East Tilbury after a personal visit in 1931, stands in a garden setting outside the factory

In contrast to the informal and dispersed character of the village, the purpose-built industrial settlement is formally planned, self-contained and relatively compact. It was developed between the 1930s and the 1960s for the British Bata Shoe Company Ltd, with a combination of Garden City planning and Modern architecture. As such it is rare

© Bata Limited



Several master plans were drawn up for East Tilbury in the 1930s and 1940s; this version of 1947 gives some idea of the intended scale of the settlement, with the completed buildings shown in solid black

© English Heritage

(a) The first workers' housing in the settlement, on Bata Avenue, was built in 1933-34. (b) Houses for the managers were also provided, this pair on Queen Mary Avenue date from 1936-38. (c) Both community and factory buildings were constructed from the same multi-storey concrete-framed design, the former Community House is shown in 1938, two years after it opened. (d) The alternative model for factory construction was the welded-steel frame. This example of 1933 was the first building to be completed at East Tilbury. Although modified to suit local conditions, all of these buildings were derived from Czechoslovak designs

example of an inter-war planned industrial village and an uncommon ensemble of International Style buildings. But most extraordinary of all is the fact that until 1939 the design of its layout, factory buildings, housing and community facilities was overseen by a parent organisation, the Bata Shoe Company, then based in Zlin, Czechoslovakia. One of the worlds largest shoe manufacturers and retailers, its founder Thomas Bata (1876-1932) achieved phenomenal success through the utilisation of mass production methods and 'scientific' management theories. At the centre of the global enterprise was Zlin, enlarged and redeveloped as, in effect, a company town from the mid 1920s onwards. It also formed the prototype for a number of satellites or colonies that Bata constructed around the world during the 1930s, including East Tilbury.

The settlement at East Tilbury was designed in 1932 and under construction, to an evolving masterplan, from 1933 until 1967. A vast industrial centre was intended but wartime disruption and post-war realities meant that the community never grew beyond a village in size. Nonetheless, it was planned along characteristic 'Bata' lines, with residential, industrial and civic 'zones'. Bisecting the settlement is Princess Margaret Road, with the factory to one side and the bulk of the housing, village centre and community buildings to the other. Three kinds of structure predominate: single-storey steel-framed factories; multi-storey concrete-framed blocks, used both for industrial and community buildings; and more traditional brick-built houses. The houses are typically semi-detached, designed in a limited number of types with a mixture of flat and pitched roofs. The public amenities provided by the company included a cinema, now the village hall, a community building, later hotel and now housing, and a recreational centre. Landscaping, including the planting of trees and the laying out of a small park, is another notable aspect of the planning. And despite the construction of a private housing development in the 1970s and piecemeal alterations to many individual buildings, the Bata settlement still retains much of its coherence and consistency; a tribute, perhaps, to its underpinning Modernist ideals.

But over the last half century East Tilbury has experienced a steady attrition of its historic fabric. The gradual decline of the British subsidiary of the Bata Company from the 1970s, culminating in 2007 with the

collapse of the business, has led to neglect, piecemeal alteration and demolition within the settlement. Like the wider area, East Tilbury has suffered from lack of employment opportunities and under investment. Its surrounding countryside has been affected by gravel extraction and landfill activities. But since the 1950s the locality has also been increasingly subject to preservationist controls. These range from its inclusion in the Metropolitan Green Belt to the scheduling and listing of sites and buildings in and around the village and, in 1993, the designation of the Bata settlement as a conservation area and the listing of a number of its buildings. These controls have limited residential expansion, helped ensure the survival of its important military heritage and permitted a more considered response to development proposals affecting the designated sites.

In the early 21st century the government-sponsored initiatives for sustainable communities and regeneration and growth within the Thames Gateway identified Thurrock as a priority area. In June 2005 a draft master plan for East Tilbury was put forward by a private company, Thamesgate Regeneration Limited. Their proposals included 14,000 new homes, commercial and community facilities and a new town centre. Because this development would radically change the Bata settlement and have an impact on the semi-rural setting of East Tilbury, there was a clear need for some characterisation research to be undertaken. So in 2006 the East of England planning team commissioned an assessment of the built environment of East Tilbury from the Architectural Investigation team in London. This followed the established methodology for area assessment; a rapid survey and documentary research leading to a report, completed in 2007. The project was able to draw on existing work, most notably the recording undertaken on a number of the military sites by the Archaeological Survey teams of the Royal Commission on the Historical Monuments of England and English Heritage and the archives and the personal recollections of the Bata Reminiscence and Resource Centre, East Tilbury Library.

As well as identifying the main phases of development, architectural attribution and outlying the international context of the Bata settlement, the assessment also attempts to capture something of the spirit of the place. Consideration is given to conservation issues, particularly the sensitivities of new development in relation to the existing built heritage. The potential for increased designation has also been addressed. This is of particular relevance to the former Bata factory, in 2007 the subject of preliminary discussions concerning a scheme for residential conversion and partial redevelopment. The assessment has proved very useful in informing both the planners and the designers for Thamesgate of the significance of the buildings on the factory site and re-emphasising their relationship with the other areas of the model village. It has suggested opportunities for a more imaginative re-use of existing structures and the potential to create spaces and sensitive new buildings that could reconnect the settlement and reinstate the strong identity that was originally intended by the Bata architects. The developers are currently reconsidering their initial concept scheme in the light of the assessment.

© English Heritage

The multi-storey blocks of the former Bata factory viewed across a field of rape in 2007

With sensitivity and imagination, a regenerated and enlarged East Tilbury could still possess something of William Morris's utopian vision of a 'wide green sea of the Essex marshland, with the great domed line of the sky, and the sun shining down in one great flood of peaceful light over the long distance ....and the river and the craft passing up and down'. [William Morris 1893 *News from Nowhere,* 101 quoted in Jonathan Scheer 2006 *The Thames England's River* London: Abacus, 163]

Joanna Smith

THE APETHORPE HALL RESEARCH PROGRAMME

Apethorpe Hall: from royalty to rogues

For thirty years juvenile delinquents lived and studied in the fine rooms that had once accommodated kings.

Apethorpe Hall in Northamptonshire is a Grade I listed country house, dating from the second half of the 15th century, with many later additions and renovations. The opportunity that English Heritage has had to explore and research the building has led to numerous exciting discoveries (*Research News 5*).

Unexpectedly, one of the most fascinating periods in Apethorpe's history is the least appealing from an architectural view point. This concerns the period 1949 to 1982, following the sale of the property by Baron Brassey of Apethorpe to the Northamptonshire Diocesan Catholic Child Protection and Welfare Society. Apethorpe Hall became an approved school, and then a community college, closing in 1982. The story of its subsequent neglect and rescue is well known.

So, after centuries of gracious living, Apethorpe Hall became home to around 80 to 100 delinquent boys, serving sentences of two to three years for minor crimes such as repeated truancy or petty theft. The children, aged 11 to 15, came from cities such as Coventry, Leeds, Liverpool, and London, and usually had difficult backgrounds.

The Roman Catholic St John's School opened in 1950, with the ethos that goodness was its own reward. On arrival, boys were met at the north gate by the headmaster and told what was expected of them. New arrivals would then be taken on a tour of the building by a resident pupil and given the 'unofficial' rules of how to survive life at an approved school. Good behaviour resulted in home leave three times a year and one Saturday a month

© English Heritage

These classrooms in the stable yard were built – and decorated – by boys of St John's School. Their recent demolition has left no trace whatsoever of their existence

© Private Collection

The whole school, photographed in the 1950s

to spend in Peterborough. Bad behaviour resulted in a loss of these privileges. If further punishment was required, the case was discussed by the board of governors.

The daily routine of the boys involved being woken at 7am and marched in file from their dormitory in the Long Gallery to the wash rooms on the ground floor of the south range. They would then march back to the dormitories to finish dressing. On Sundays they would file into chapel in the medieval hall, or if it was a weekday, to the purpose-built dining room in the west court. After breakfast, cleaning duties were undertaken by all the boys. Equipment was collected and floors would be scrubbed and mopped, tables and chairs polished. Assembly and roll call was then taken in the east entrance hall, where the boys stood in line, facing the headmaster who stood at the top of the steps, looking down on his charges.

After assembly, boys would be divided into their work groups or classes. They could choose between painting and decorating, woodwork, engineering or gardening. In effect, they became apprentices learning their trade, practicing their work in the stable workshops and proceeding to carry out work in the school. Often, they would take on jobs in nearby towns and villages.

Free time was spent training with the Air Training Corps, if they were part of the squadron, or practicing their chosen sport if they were not. On rainy days time was spent in the games rooms. The Great Chamber, the Withdrawing Chamber and the King's Chamber now housed table tennis tables, snooker tables or board games. In the gardens, boys would tend vegetables or go swimming in the ornamental lily pond. During the 1960s, a swimming pool and gymnasium was built and boys were able to train here most evenings under supervision from one of the house masters.

Initially, the Long Gallery dormitory was divided by flimsy partitions, creating cubicles with five or six beds. This arrangement endured until there was a scandal surrounding homosexual bullying by

The Air Training Corps displaying their skills and agility. The team won many prizes. Circa 1950s

© Private Collection

© English Heritage

A collection of cigarette packets and cigarette papers found beneath the floorboards of the dormitories

some older boys. A Home Office review recommended imminent closure, and staff and boys alike began to leave, until only about 30 boys and a skeleton staff remained. One outcome of this episode was a change in the spatial arrangements of the Long Gallery: the partitions were removed to create an open dormitory, with a windowed 'sleeping-in room' for a staff supervisor. The school stayed open, now accepting older boys, aged from 15 to 18 years.

Most of the house was adapted for use by the school. For example, the 18th-century Orangery had a floor inserted, with sick rooms on the first floor and wash rooms below. Administration offices were spread out throughout the north and east ground-floor rooms. The west range contained the laundry and doctor's surgery on the ground floor, with apartments above for the Matron and her assistant. The headmaster and deputy headmaster each had a flat within the hall range, while other staff lived in purpose-built semi-detached cottages on the north lawn.

Around 1978, a more radical change in the administrative and spatial arrangement of the school took place. St John's ceased to be an 'approved school' and became instead a 'community home'. To all intents and purposes its aims and objectives were the same, but its organization and layout changed. From being a single unit with centralised observation and control, it was divided into four separate house units. This was to have a greater effect on the historic fabric than the initial establishment in 1950. All classrooms were now based in the stable yard and the whole first floor of the house was given over to dormitories. The former Library was subdivided into six rooms comprising bedrooms, a sitting room and a bathroom. The state rooms were partitioned to hold around nine beds, and the Long Gallery became a games room.

Investigation beneath the floorboards of these dormitories has revealed a cache of finds that goes someway toward identifying the interests and personalities of the boys who lived at Apethorpe. Among screwed up, unfinished letters home, buttons, pieces of puzzles and the occasional coin, finds include comic books, the top thirty chart from the *New Musical Express*, the cover of a 1966 World Cup Special football magazine, a rather 'blue' publication, cigarette packets, rizla papers, sweet wrappers, a bottle of whisky, and even a tube of toothpaste. There are so many cigarette packets it is even possible to construct a typological sequence!

Opposite page, top: Wall mural of Sid Vicious. It was never finished

Bottom: Wall mural of a Cylon from ***Battlestar Galactica***, inspired by the 1970s film and spin-off comics

Although the Orangery remained as the sick bay and the hall as the chapel, small room divisions were created elsewhere to form bathrooms and kitchenettes. Boys still congregated for assemblies and marched to class and to Mass in lines, but they no longer had their meals together, and the dining room was converted into offices and a doctor's surgery. With this loss of unity, came loss of control. Two ex-members of staff have testified that when the school was run as a whole, a natural hierarchy exerted itself amongst the boys and the control of only a few boys allowed discipline to filter its way through the school. But with the physical fragmentation of the building and the formation of individual 'houses', came a splintering of control and loss of discipline.

In its time as a school, large numbers of boys and staff passed through the gates of Apethorpe Hall. Many of the boys left their mark, by scratching names and dates in the upper chamber of the gate tower and signing walls throughout the school, along with the name of their home town and the dates of their sentence at Apethorpe, 'Ivan Franks from Coventry' being particularly prevalent. Most wonderful of all is when this graffiti spills over into art. A small room in the south range is dominated by a huge mural of a Cylon from *Battlestar Galactica*, standing at least two metres high; it is signed by four boys and dated 1979. On an adjacent wall is Sid Vicious. These paintings speak volumes about the creativity and talent of the boys, as well as revealing their fascination with science fiction and popular culture.

In 1982, the school closed for much the same reasons that had led to the sale of Apethorpe by the Brassey family more than three decades before – the cost of the upkeep of such a building was just too great.

Much of the legacy of St John's School been erased from Apethorpe Hall in the last few years: the staff houses have been demolished, as have the art classrooms and the dining hall. The swimming pool, still full of stagnant water, will also eventually be demolished. The marks left by the school era may be regarded as the least sensitive interventions ever made to Apethorpe Hall, but they are also amongst most vibrantly artistic and socially revealing aspects of the building.

Claire Martin

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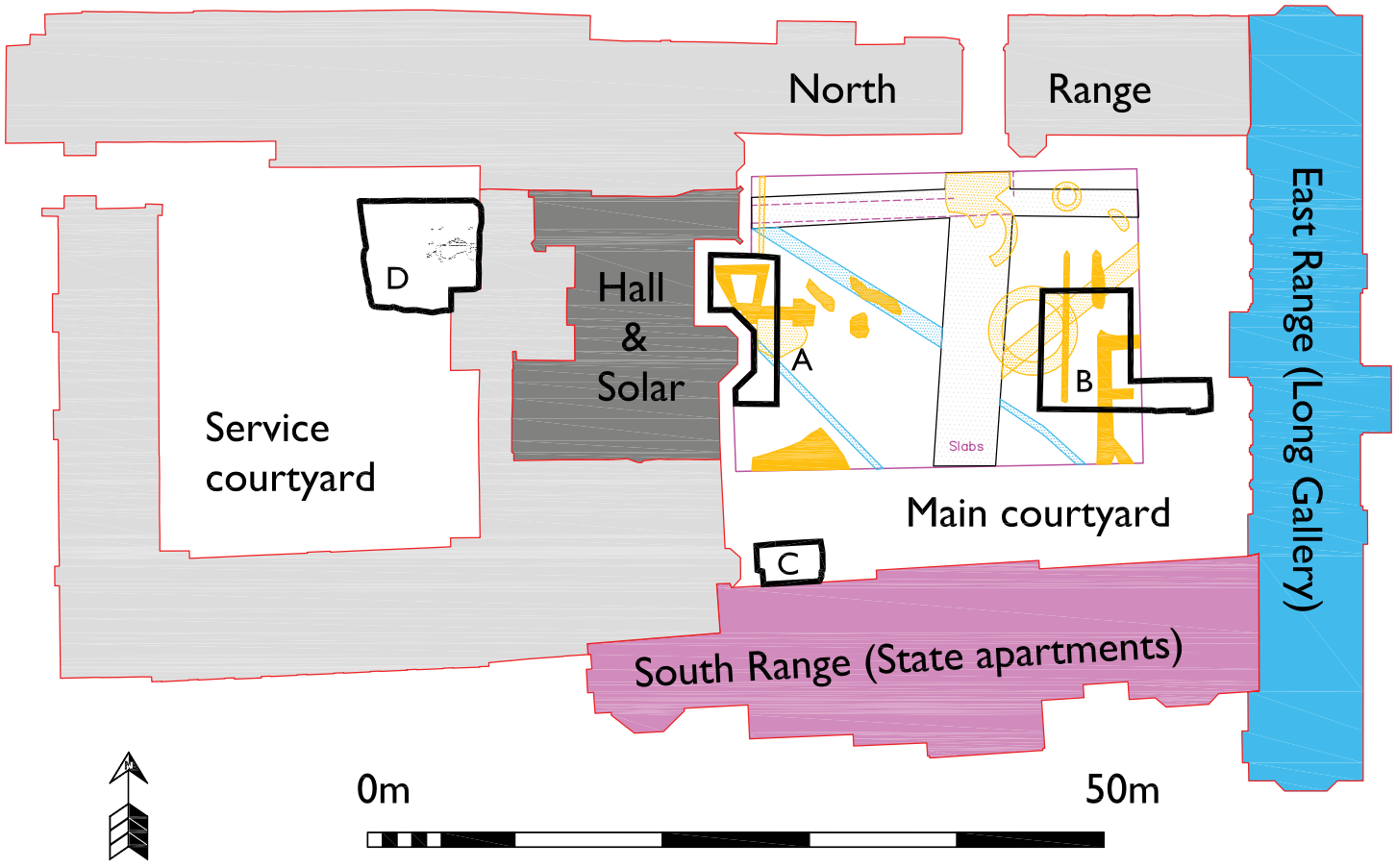
THE APETHORPE HALL RESEARCH PROGRAMME

Apethorpe excavations

Excavation work clarifies the history of Apethorpe Hall, while opening up new questions for future research.

Apethorpe Hall has been the subject of intensive research by a coalition of teams within the Research Department since the decision to purchase the site several years ago (see *Research News* 5). The most recent component of this work was the excavation of four trenches within the Main Courtyard and Service Courtyard to address questions raised during architectural investigation and geophysical survey. While the post-excavation work is still underway, these are some of the preliminary results.

The house was substantially modified in the early 17th century for James I, and was again substantially altered in the 1740s as the start of an aborted Palladian make-over (*Research News* 5, 6). In both cases the impact was mainly around the high-status buildings of the Main Courtyard – in particular the State Apartment in the south range and the Long Gallery in the east range. The east range, which has a date stone of 1623, crosses over the end of the south range, burying the old south range east gable and chimney stack at the junction of the two. The north wall of the south range is a 1740s re-build of a 17th-century remodelling of a probable 16th-century structure. So, if the south range originally ended in a gable, was there ever a pre-1622 east range to close off the courtyard? If so it must have run across the existing courtyard rather than under the 1622-4 build, and should have left some evidence. The first step was to carry out a geophysical survey (*Research News* 5, 32) that indeed showed a linear feature much like the footprint of a building. However, drains cross the area, and survey of the all-important edges was rendered impossible



Outline plan of Apethorpe Hall showing geophysical anomalies in the courtyard, and trench locations

Tom Cromwell, © English Heritage

by the presence of scaffolding. As a result, there were still serious doubts over the interpretation, and excavation trench B was sited to expose this linear feature in order to clear up the uncertainty.

In addition, we opened a trench (Trench C) to look at the footings of the South Range in case there was surviving evidence of the earlier structures. Trench A was placed in front of the late-15th century hall to unpick the geophysical anomalies there and to see if the medieval cross-wing at the south end of the hall originally extended further into the courtyard as had been suggested. Finally, Trench D was positioned in the service courtyard to investigate the remains of a vaulted cellar uncovered when a modern dining hall was demolished.

Trench B started unpromisingly with a stone-capped drain on the line of the supposed wall. To make matters worse the drain capping contained 1620s dressed stones most likely discarded in the 1740s work. However, we soon found a heavily robbed-out wall footing that ran parallel with the drain, and it even had a cross-wall that was directly cut by the drain. This suggested that we might have our pre-1622 east range after all. Unfortunately, the bulk of the pottery in the layers sealing the wall appears to be too early for a demolition date in the 17th century. While we await the final definitive dating, it looks as though we may instead have some hitherto unknown medieval building that predates the rest of the house. This interpretation, of course, is still subject to change.

The wall footings in Trench C were almost non-existent. The 1740s façade stopped at ground level, and sat on a very thin pad of clay. This was cut into the top of an older construction trench filled with clay and rough stones that may represent the base of the 1620s wall or an earlier structure, but if it contained a solid wall we didn't find it. There is a possibility that the Palladian façade was attached to the core of the older wall making it effectively wider, in which case we would have needed to undermine the wall substantially to reach it. (Elsewhere on site the 17th-century walls have revealed substantial footings where exposed, so it is hard to believe the 18th-century replacement could stand on virtually nothing.) We also found another stone drain, recapped with

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Left: "Buried" gable of south range, marked by chimney stack

Middle: Curious soak-away in Trench A, just below buttress of the east porch of the hall. The curved wall may be earlier structure

Bottom: Trench B. The wall on the left is possibly medieval, as is the cross-wall cut by the 18th-century drains. The large sump is under the slabs at the top end of the drain

© English Heritage

Vicky Crosby examining the drain in Trench C. The earlier foundation trench is visible in background, but the Palladian facade stops at the ground

recycled dressed stones at a later date, but none of them match any of the standing fabric of the house.

Trench A contained an assortment of stone drains, ceramic drain pipes, and a lead water pipe – at least the geophysics made sense! The odd thing was that we found a stone-lined soak-away surprisingly close to the buttress of the late-15th century porch. It is strangely shaped, and may incorporate an earlier feature as one of its sides. Unfortunately we would need to excavate a much larger area around the porch to get a clearer picture, so this remains a mystery for the future.

The vault in Trench D turned out to be a garderobe pit fed from a stone-built chute in the base of the adjacent stair tower. This tower was known to contain a flush toilet until recently, so this was not a complete surprise. However, the odd thing is that it appears to be earlier than the 16th-century wall next to it. It would have made more sense if the vault was later, since the stair tower is thought to have been added to the wall in the 17th or 18th century. Once again the buried evidence is causing a rethink of the standing fabric.

While we managed to address the initial questions raised by the research, our answers themselves raised new questions that would require substantially larger excavations to fully answer. Further work is not required for the conservation project, but at least we now know there is much more for future researchers to discover.

Once the post-excavation work is finished and definitive interpretations are agreed, the results will be incorporated into the rest of the wider research in a book about the development of the house.

Tom Cromwell

© English Heritage

Trench D showing the edges of the broken vault. The garden wall is on the left, garderobe/ stair tower in the background

NOTES & NEWS

A round-up of activities and developments showing some of the scope and variety of projects that are ongoing in the Research Department.

PROTECTED WRECK SITES AT RISK

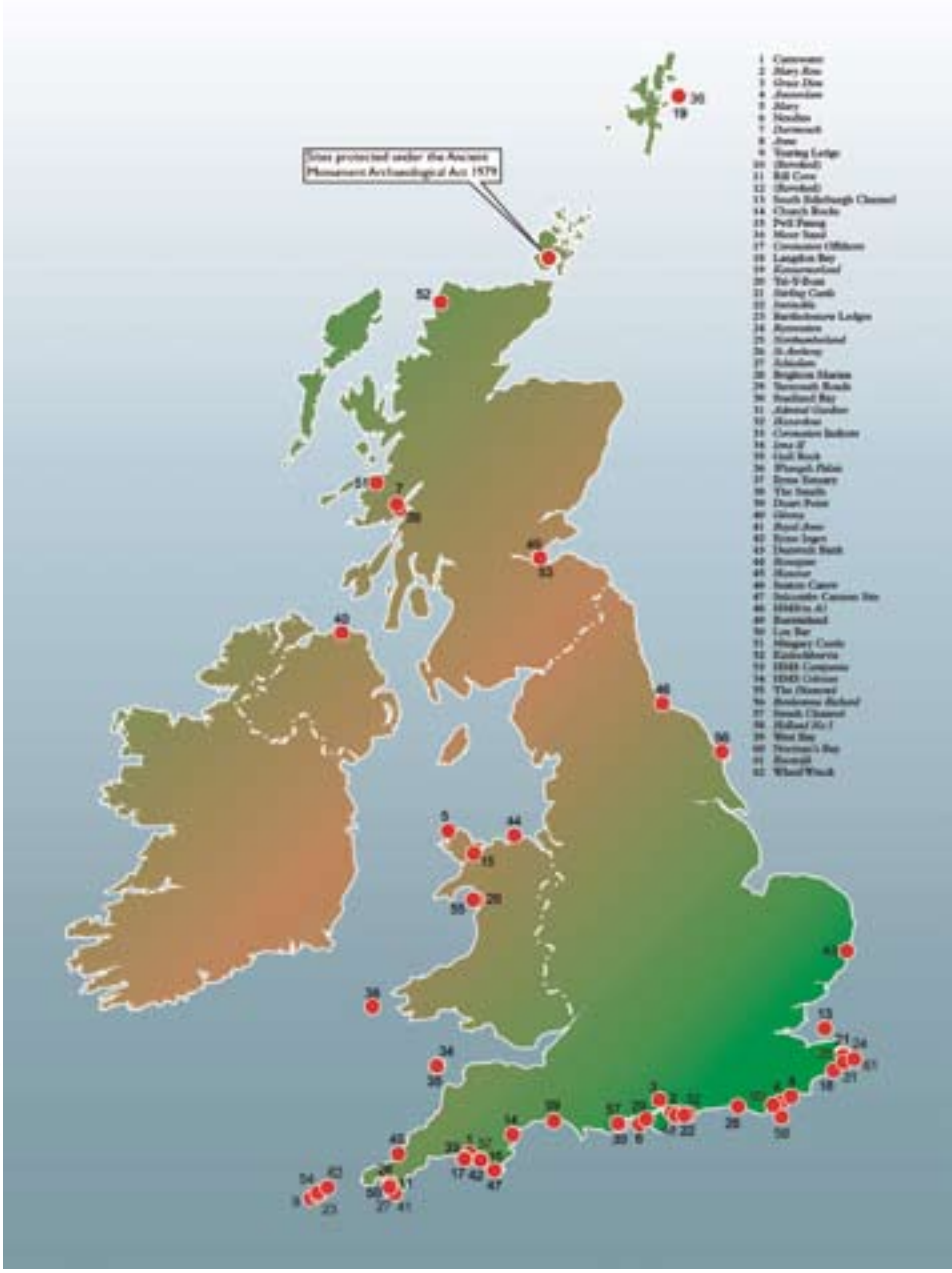
The seas around Britain contain an immense wealth of archaeological sites and remains, potentially without equal elsewhere in the world in terms of their number and diversity. These remains include extensive submerged landscapes as well as remains deriving from the subsequent history of the British Isles and its inhabitants' exploitation of the sea. As an island that has experienced successive waves of settlement over many centuries and as a major naval, mercantile, industrial and imperial power, the history of Britain – and the everyday experience of many of its inhabitants – has been inextricably linked to its surrounding seas.

The combined effects of historically high volumes of shipping traffic, a long history of sea-faring and a high energy coast, causes the density of shipwreck remains in English Territorial Waters to be amongst the highest in the world. Wreck sites provide tangible evidence of our ancestor's use of the sea and may contain the remains of vessels, their fittings, armaments, cargo and other associated objects or deposits. Historic wreck sites may merit legal protection, under the UK-wide Protection of Wrecks Act 1973, if they contribute significantly to our understanding of our maritime past.

Protected Wreck Sites are vulnerable to both environmental and human impacts and so the management of risks to them is characteristically difficult to anticipate. Survey has shown that 42% of England's 45 Protected Wreck Sites are at high or medium risk from damage, decay or loss, unless action is taken.

As part of a wider initiative to assess the state of all designated historic assets, English Heritage is seeking to understand current management patterns upon England's Protected Wreck Sites, their likely future trajectory and how that can be influenced to ensure their significance is maintained for both present and future generations. The identification of risks to such sites will be key to how they are managed.

UK designated wreck sites



Vincent Griffin, © English Heritage

We have therefore developed a *Risk Management Handbook* which seeks to assess risk by following a subjective process in a systematic and supportable manner by gauging information against a set of standard terms.

Three broad factors have been considered when assessing the risk to the nation's Protected Wreck Sites:

- *Condition: the current condition of the wreck, whether in optimal condition, generally satisfactory, generally unsatisfactory or having extensive problems;*
- *Vulnerability: an assessment of the natural and anthropogenic influences on the site, and;*
- *Trajectory: an assessment of the management regime and whether the monument's condition remains stable or is experiencing unmanaged or inappropriate decline.*

English Heritage is committed to measuring our success as an organisation by securing a year on year reduction in the number of Buildings, Monuments and Landscapes at risk. We have therefore developed the Protected Wreck Sites at Risk Programme as part of a wider Historic Environment at Risk initiative, and have set clear targets for reducing the types and degree of risk to England's Protected Wreck Sites.

Mark Dunkley

St Edmund's Church
Mansfield Woodhouse

Steve Cole, © English Heritage

ST EDMUND'S CHURCH, MANSFIELD WOODHOUSE

St Edmund's, Mansfield Woodhouse, Nottinghamshire, is a large parish church, much of which was reconstructed following a fire that engulfed the village in 1304. The nave and aisles were further rebuilt between 1804 and 1810. By 1847, the church was reported to be "so damp and uncomfortable that numbers are deterred from attending Divine Worship especially in an evening". While funds were collected for the restoration and enlargement of the church, the National School was granted a licence for services to be held in its premises. The provision of new seating was contemplated at the same time, when it was announced that 'a subscription, now amounting to £600, has been opened, for re-pewing Mansfield Woodhouse church'.

The extensive restoration carried out between 1848 and 1853 has traditionally been attributed to Sir George Gilbert Scott. Research undertaken recently by Architectural Investigation at the request of Planning and Development, East Midlands Region, following the parish's stated intention to remove some of the pews, indicates that the work was executed not by Scott but by his former partner William Bonython Moffatt (1812-1887).

The partnership of Scott and Moffatt was dissolved in 1845, three years before an application, dated 16 March 1848, was made for a grant to the Incorporated Church Building Society to cover reseating and other works at Mansfield Woodhouse. Moffatt's role as architect was mentioned in a letter of 4 April 1848 and he signed a financial statement as 'W. B. Moffatt, 9 Spring Gardens'. The work included a new north aisle, reseating, a new tower gallery and repairs to the roof, walls, etc. In the event, more work had to be undertaken than was originally expected with the chancel arch, south aisle and south porch also being rebuilt. The restoration was completed by 1853. The work, which had originally been estimated at £2,035, ended up costing £2,700, the certificate of 27 June 1853 to the ICBS being signed by Moffatt.

It is possible that Moffatt obtained the restoration work at Mansfield Woodhouse as a result of working nearby on the restoration

of St Mary's, High Pavement, Nottingham, a job he had taken from the office when the partnership was dissolved, although there is no evidence to prove this. Besides the Nottingham restoration, Moffatt is credited with only two solo church projects: St Peter's, Askern and St John's, Fenwick, both of 1852 and both in the West Riding, together with probable involvement in St Blaise's, St Blazey, Cornwall (1839), while in partnership with Scott.

Subsequent alterations to St Edmund's include the enlargement, re-roofing and restoration of the chancel, the conversion of the vestry into an organ chamber and the erection of a new vestry on the north side of the chancel. Lincoln diocese faculty papers reveal that this work, again traditionally attributed to Scott, was carried out by the prominent Nottingham architect T. C. Hine at an estimated cost of £1,100 in 1875.

Thus two major schemes of restoration, previously thought to be by one of the nineteenth century's most prolific architects, were actually carried out by others.

John Minnis

COOPERATION WITH THE MA ARCHAEOLOGICAL ILLUSTRATION PROGRAMME AT SWINDON COLLEGE, SCHOOL OF ART AND DESIGN

English Heritage's Archaeological Graphics Team has been active in providing practical and theoretical workshops for students on the Master's degree in Archaeological Illustration at Swindon College's School of Art & Design, validated by The University of Bath.

Initiated by the Association of Archaeological Illustrators and Surveyors in 1987, the College has run full-time Higher Education courses in Archaeological Illustration at HND, then BA (Hons), and latterly Master's levels. The College's close proximity to the Swindon HQ of EH, and The National Monuments Record, has enabled a close working relationship, informing the curriculum and providing practical experience, a research facility and access to the latest developments in the depiction of archaeological information and practice.

During November and December, Rob Read, the lead tutor, invited staff from the Archaeological Graphics Team to run three day-long workshops looking at the current and future use of visual material within the sector. Trevor Pearson, Deborah Cunliffe and Phil Sinton took a session on 'Representing the landscape and introduction to CAD'; Peter Dunn and Judith Dobie presented 'Reconstructing the past' and John Vallender and Vincent Griffin provided 'Graphic Design in Archaeology'. All the workshops included illuminating discussions on present practice, exemplar material, theoretical approaches and practical demonstrations and project work. The College is extremely grateful for the co-operation and support, and the students responded with much enthusiasm, laying the foundation for further collaborative projects in the future.

The MA programme is central to the debate about the limitations imposed by the discipline of Archaeological Illustration on the use of archaeological information. The methodologies of its collection, recording and limits of acceptable subjectivity are constantly under scrutiny. The introduction of digital technology, electronic publication and the theoretical discussions about the comprehension of 'meanings' within constructed images over the past decade or so have highlighted the difficulties and responsibilities of visualising

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Peter Dunn discusses his work with MA students Andrea Wood and Teresa Ferreira

the past. There is an ongoing challenge for the illustrator to produce didactic images within such a constantly shifting framework by questioning and testing the validities of visual interpretations of archaeological 'evidence' from an informed basis. The MA programme has been set up to provide visually literate practitioners who can join archaeological research teams in diverse sectors – e.g. excavation, post-excavation, museum, Unit investigation and publishing and broadcasting (academic, general and popular), and to satisfy the need for 'up-skilling' current professional illustrators. Such is the respect given to Archaeology research and education in Britain, The College has found much interest from abroad, and 30% of the MA students are non-British, from as far afield as Canada and America as well as Europe (the present cadre includes Norwegian and Portuguese students).

Any potential candidates for the Master's programme are encouraged to contact Graham Smith, the course leader on: grahamsmith@swindon-college.ac.uk

Graham Smith
School of Art and Design
Swindon College

INFORMED CONSERVATION: UNDERSTANDING MANNINGHAM'S HISTORIC ENVIRONMENT

The Manningham township project is an Informed Conservation project supporting Yorkshire and The Humber Region Planning and Development Team. The work of research, investigation, outreach and publication is being undertaken by York-based staff of the Architectural Investigation Division.

The historic township and suburb of Manningham lies within the modern city of Bradford, W. Yorks. At its heart lies the remnant of a hamlet, the nucleus of a rural township, which existed from the 11th century, but Manningham today is a mixed industrial and residential suburb with a varied building stock of predominantly 19th-century origin. It contains a large quantity of middle and lower middle-class terraced and semi-detached houses, some of it constructed around elegant squares, and some detached villas. It also retains a number of lower-status 'improved' back-to-back houses of *c* 1860-1873. The area is fringed by built remnants of the textile industry and housing is interspersed with local infrastructure buildings such as public baths, a library, schools, police station, small

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St Catherine's Home, 1898, St Mary's Rd, Manningham. A hospital for female patients with chronic illness. Unlisted

© English Heritage

Former police station of 1877, Bavaria Place, Manningham. Listed Grade II

shops, churches and chapels. There is also a large late-19th century public park containing Bradford's art gallery, the now-closed Bradford Children's Hospital (built 1879-80) and a former hospital for chronically ill females (St Catherine's Home) of 1898.

The major recent development in Manningham has been the high-profile purchase and conversion to residential use of the historically sensitive Manningham Mills by Urban Splash from 2001. This development is expected to re-focus attention on Manningham's potential as a desirable residential area and a concerted move towards the regeneration and redevelopment of historic areas is anticipated. Our research project is intended to inform the process of renewal through better understanding of the historic character of the township, and will feed into a review of Manningham's existing level of statutory protection. The project will also increase our understanding of historic suburban development and form by following the theme of change from rural township to polite suburb with industrial strips, to mass housing and the infrastructure of suburban life, subsumption within wider Bradford, and realignment and adjustment to 20th-century forces. We hope that by studying how such an environment is dismantled and reconfigured, with reference to the forces producing these changes, we can advance research in the field of historic suburbs and help to develop the way in which we examine historic areas.

The core of the project is an area assessment, leading to the production of an *Informed Conservation* book at the end of 2008, but an important aspect will be the outreach component, co-ordinated by Helen Keighley, Yorkshire Outreach Manager, intended to engage people living and working in Manningham, to give them a 'voice' and to allow them to put forward their own views and opinions on the district. A local community worker and a film company with expertise in running community-based projects will interview a number of different local residents and put forward a series of carefully structured questions designed to encourage thought and elicit detailed responses. The questions will be sufficiently broad that the same ones can be put to all the people interviewed and will be developed through consultation with local people to ensure relevance. The aim will be to elicit stories of Manningham in the past, how the area has changed, what it is like to live and work in Manningham, and people's hopes for its future. The outreach component will run hand-in-hand with, and insights gained will be incorporated in, the area assessment. Fieldwork and research will begin in the first half of 2008. The publication, authored by Simon Taylor, Naomi Archer and Kathryn Gibson, is expected at the end of the year.

Simon Taylor

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