Come and look at the houses and buildings we have made. They are all buildings from our local community.
**FOREWORD**
By Simon Thurley, Chief Executive, English Heritage

**INTRODUCTION TO THE HISTORIC ENVIRONMENT RECORD (HER)**

**ACCESS AND OUTREACH**
Using the HER for cross-curricular local learning
Revealing Cheshire's Past
Making Norfolk’s HER accessible
North Somerset HER and Community Archaeology Groups

**CONTENT AND COVERAGE**
The Cotswold Edge LiDAR Project
Feature of the Season
Milton Keynes City Development Atlas
Mapping the whole historic landscape of Coventry

**PARTNERSHIP WORKING**
Northwick Manor Community Heritage Project
North-East England Maritime Archaeology Research Archive
Historic Environment Character Zoning in West Berkshire
Local Authority Service Level Agreements in Essex

**INTEROPERABILITY**
Cheshire HER
Bringing the HER to the hub of the Local Authority data network

**INFORMATION MANAGEMENT**
Stockport Historic Environment Database
Management of Historic Assets in Cheshire
The HER as a search engine
Accessing Cambridgeshire's Grey Literature

**GLOSSARY AND USEFUL TERMINOLOGY**

**ACKNOWLEDGEMENTS**
Back cover
HOW WE GOT HERE

In Spring 2009, English Heritage sent out an invitation to Local Authorities through the Historic Environment Record Forum and the websites of the Institute of Historic Buildings Conservation (IHBC) and Association of Local Government Officers (ALGAO) to submit proposals for case studies under five key themes. The successful proposals were those we thought demonstrated a particularly inspiring use of their HER and these were commissioned to write a fuller report about their initiative. These are showcased under their specific theme yet you will notice the range of applications of the HER and the diversity of case studies even within that theme. The following offers a brief explanation of the criteria we used to define each theme and you will find a glossary of commonly used acronyms and useful terminology in the back pages.

ACCESS AND OUTREACH

Under this theme we wanted to cover areas such as reaching new audiences, public outreach, educational outreach, public access, web presence and volunteer involvement. The case studies demonstrate how the information flow between the HER and the community is a two way process in that while we can participate in exciting initiatives that allow us to learn about our local heritage, we can also use these opportunities to gather information and give something back to the local stock of knowledge.

CONTENT AND COVERAGE

Here we concentrated on the information contained within the HER – breadth and quality, temporal and geographic limits in coverage or specific data sets like historic mapping, contemporary or historic photographs, buildings, characterisation, Urban Archaeological Databases, Conservation Areas and maritime. The projects illustrate how community groups can be involved in data gathering as a training opportunity as well as how that information can be used to map and characterise the local historic environment for a wider range of planning uses.

PARTNERSHIP WORKING

Under this theme, we set out to gather examples of collaborative projects. These could be internal to the Local Authority, such as working with other Local Authority departments or external inter – authority agreements such as service level agreements. Alternatively they could be partnerships with other heritage bodies such as English Heritage, local societies, amenity societies, the Heritage Lottery Fund and utilities, or successful relationships with Heritage Champions or elected members. These projects show the imaginative and beneficial range of initiatives that have benefited from HER information.

INTEROPERABILITY

Here we wanted to look at compliance with national data standards, exchange of historic environment data between information systems, links between ‘back office’ systems, for example planning systems and corporate Geographic Information Systems, or links with the Heritage Gateway. These projects are examples of different approaches to sharing and using HER information across the Local Authority, ultimately raising the profile of the HER and promoting the value of the historic environment.

INFORMATION MANAGEMENT

For this theme we invited examples of technical innovation, maintaining currency of policy and documentation, or keeping systems and system documentation up-to-date. We also considered the management of information or grey literature resulting from research through initiatives such as OASIS (Online Access to the Index of Archaeological InvestigationS). The projects examine how information is managed, accessed and ultimately used in the historic environment. They also look at the impact on the user of remote access to and web based dissemination of HER information.
English Heritage is delighted to bring you this collection of case studies which show some of the many benefits and uses of Local Authority Historic Environment Records (HERs).

We are very keen to support HERs at the heart of Local Authority historic environment services and promote their benefits to the wider community.

By giving Local Authorities an opportunity to show off areas of exemplary work with their HERs, this booklet celebrates the incredible and diverse range of uses to which historic environment data can be put.

Critically, we want to bring this knowledge to people at Local Authority executive level or those who are acting as heritage champions; you will be the ultimate guardians and promoters of this exceptional tool.

We hope the report will also be useful to historic environment professionals who can use it as an opportunity to share knowledge and experience; to evaluate lessons learned and generate new ideas for projects and practices.

Equally important is the role this publication can play in demonstrating the potential of the HER for use between Local Authorities and by other Local Authority departments such as Conservation, Planning or Highways.

Finally, and of the utmost importance, is the impact the HER is having on the people at a local level by way of schools and learning opportunities, local community projects and special interest groups, all of whom not only benefit from the information that is available, but who are contributing in turn by gathering more data that will increase and enhance the existing record for the ultimate enjoyment of all of us.

There is something in here for everyone! We hope you enjoy it.

Simon Thurley, Chief Executive, English Heritage
INTRODUCTION TO THE HISTORIC ENVIRONMENT RECORD

The historic environment is a rich and diverse part of our cultural heritage. By providing a tangible link with our past it contributes to local character and sense of place, influences how we identify ourselves as individuals and communities, shapes our relationship with the natural world, and enhances our quality of life. It is also a fragile, vulnerable, non-renewable and finite resource and it is our responsibility to understand and value it. This in turn enables us to enjoy and want to care for it.

One of the ways we do this is through the Historic Environment Record. HERs are information services that provide access to comprehensive and dynamic resources relating to the historic environment of their locality for planning and development control as well as public benefit and educational use.

In the draft Heritage Protection Reform White Paper (Heritage Protection for the 21st Century, 2007), Government signalled its intention to help secure effective stewardship of the historic environment by placing local authorities under a statutory duty to maintain or have access to a HER. While a Bill has yet to appear before Parliament, English Heritage remains committed to delivering much of the programme of reform. This includes supporting both the position of HERs within Local Authorities and their development to enable delivery of a new heritage protection system. This has been strengthened by an emphasis on the importance of the HER in the planning process within the draft Planning Policy Statement (PPS15, Planning for the Historic Environment).

Within the heritage protection system, the main purpose of HERs is to inform strategic policies and decision-making relating to spatial planning, development control and land management and improve protection of the historic environment. Alongside this, HERs can advance our knowledge and understanding of the historic environment, provide a resource for conservation, regeneration, local history, education and tourism, and promote public participation in the exploration, appreciation and enjoyment of our local heritage.

Commonly known as Sites and Monuments Records or SMRs, the records are changing their name to reflect the wider scope of the information they now contain or are aspiring to maintain. Today HERs are unique repositories of – and signposts to – information relating to landscapes, buildings, sites and finds spanning more than 700,000 years of human activity. Their content complements and enriches the collections of museums, archives, local studies libraries and local history centres, and underpins the work of Local Authority historic environment services. The HER is kept up-to-date with accurate information including new discoveries and interpretations, new and amended designations, latest research and publications, new investigations, and significant changes to the heritage assets recorded within it. Such information comes from a variety of sources, ranging from chance finds and unexpected discoveries, systematic investigations undertaken as part of national surveys, university-led or private research, developer-funded fieldwork or community projects.

There are currently more than 80 HERs in England. Most are maintained by an HER Officer on a discretionary basis by single tier and county councils and by National Park Authorities (NPAs), but there are several examples of sub-regional services, and some of HERs maintained by district councils. Together, these records provide a complete geographic coverage of England, details of which can be found on the Heritage Gateway.

Users of HERs typically include developers, planning and environmental consultants, statutory undertakers, property owners, land managers, farmers, academic researchers, local societies, amateur historians, volunteer and community groups, archaeologists, teachers, students and interested members of the public – as well as historic environment professionals working in the public, private and voluntary sectors. At the same time, HERs are developing outreach programmes to raise awareness of their resources and promote wider use.

The purpose of this publication is to celebrate the exciting and innovative developments that have been taking place within HERs, to share experiences across the HER community and broader historic environment sector and to demonstrate the integral part HERs have to play in the local, regional and national information network for our historic environment.

Sarah Reilly, Editor, English Heritage
ACCESS AND OUTREACH

USING THE HISTORIC ENVIRONMENT RECORD FOR CROSS-CURRICULAR LOCAL LEARNING

HERs are currently under used in schools (Users and their Uses of HERs, Cultural Heritage Consortium, Council for British Archaeology, 2002, p20).

Our aim has been to address this issue by using the HER to create learning resources that will enable individual schools to make use of their local historic environment. Although the learning objectives will be based on an understanding of the historic development of an area we see the historic environment as a multi-purpose resource that can help to develop many skills such as literacy and numeracy. This directly relates to the national Qualifications and Curriculum Authority (QCA) who encourage schools to:

• Make effective use of their local environment as a learning resource
• Develop cross-curricular learning opportunities
• Promote learning activities beyond the classroom.

Because the information in HERs can provide data down to street or property level it should be possible to develop a rich, engaging learning resource that enables an understanding of the local history of any area as well as contribute to the development of broader key skills. At the same time, teaching staff may not be aware of the HER and its potential, or have an understanding of the local history and so be unable to tailor the detailed information in the database to specific learning objectives.

To resolve this, in partnership with Myers-Insole Local Learning Community Interest Company (MILLCIC), we have developed school-specific web resources for half a dozen primary schools in Bristol. We have also provided training for all members of staff to enable them to feel confident about using the local historic environment to deliver their learning objectives. The funding for this has come from school In Service training budgets or was raised through small grant bids to local trusts.

In the first instance we encouraged the schools to undertake a Local Learning week that involves the whole school. During this week each year group covers a particular element of an area’s history based on their existing curriculum. For instance, Year 2 might look at old photographs of their area as part of their study of transport while Year 6 interview grandparents about wartime memories as part of their study of World War II. At the end of the week the whole school will have created a range of material, all of which will have developed literacy, numeracy and other key skills as well as engaged pupils, staff, parents and carers with their local history.

One of the most rewarding examples of this approach has been at Avonmouth where a Local Learning project purely facilitated through one day of staff training and associated web pages produced a school-wide history display for the school summer fair. As the week developed the wider community became involved as conversations about the history of the area spread from parents to other residents. The children collected oral histories, undertook further research about the history of specific buildings and even children in Reception produced maps based on the local historic railway line. By the end of the project the local community centre and library asked if they could display the children’s work due to the degree of interest generated throughout the community beyond those with direct links to the school.

Through this type of project:

• Pupils gain key skills in conjunction with an understanding of their local area
• They are engaged with the learning process because it concerns their familiar area and they can apply their learning to real situations
• The community learns about its local heritage through the children’s learning
• The whole school participates and enables individual children to feel that they can collectively and significantly contribute towards a bigger outcome
• Teachers create their own learning schemes using the historic material, taking ownership of the resources
• The work by the children and wider community can directly contribute to HER enhancement, particularly through the collection of oral histories.
The exercise can be repeated each year, although we encourage schools to integrate the learning resources into their ongoing schemes of work rather than seeing this as an extra-curricular project. This allows the resource to become more sustainable and create a long term learning legacy.

The basic principles of the Local Learning week are currently being employed as part of the three year community education project accompanying the Heritage Lottery funded Stokes Croft Townscape Heritage Initiative. The supporting web pages for these learning projects are relatively inexpensive to maintain and feature local themes developed from detailed HER data. The resources also provide notes for teachers as well as contact details for the HER if further information is required. The Stokes Croft project will also use Google Maps to enable the creation of user-generated data that will also contribute to the HER and further enable the community to take ownership of specific HER data.

OUTCOMES AND BENEFITS

These projects promote an awareness, understanding and appreciation of the historic environment and encourage a greater sense of civic pride. This in turn leads to better care for the heritage assets of an area, better care for the environment and ultimately wider use of the HER.

Peter Insole, Bristol City Council
Revealing Cheshire’s Past aims to enhance community awareness of Cheshire’s past by increasing physical and intellectual access to the information in the Cheshire Historic Environment Record (CHER).

The CHER holds over 9,000 records of the archaeological sites, finds, historic landscapes and historic buildings of Cheshire, Warrington and Halton. The record is primarily used as a source of information for the conservation and management of the historic environment but also contains information of interest to the local community.

The main aim of the project was to enhance community appreciation, care and involvement in the local historic environment. Although the service has run a popular annual Archaeology Day and published an annual newsletter since 1992, the HLF’s “Unlocking Britain’s Past” initiative provided the opportunity to develop these outreach activities further by funding an advanced access project.

**PROJECT OBJECTIVES**

- To promote the understanding, study and awareness of Cheshire’s heritage to a wide community audience, by providing information in readily accessible formats.
- To reach wider audiences by targeting community venues such as libraries.
- To improve the quality of the information provided to our existing users.
- To deliver educational benefits to the wider community of all ages, through increasing access to information about archaeology in Cheshire.

**PROJECT DETAILS**

Our current audience was identified as attendees at Archaeology Day and members of the newsletter mailing list. Consultation with these users identified areas where outreach needed to be expanded and the preferred formats for doing so.

The project was developed for a non-school audience. A specific educational programme has been envisaged as a second phase for the project, once the online resource is established.

Touring exhibitions have provided basic interpretations of Cheshire’s past, with fact sheets and a website providing more detailed information. Individual site data is available via the public access database for those who require an even greater level of detail.

**Exhibitions**

The community exhibition is a simple set of display panels which give a short introduction to the archaeology of Cheshire. It can be used at libraries, community venues, schools and conferences. Supporting information is provided by the factsheets.

Using libraries as the primary venue for the community exhibition proved very successful, reaching audiences in excess of 130,000.

The touring museum exhibition tells the story of life in Cheshire through the ages. The project worked in partnership with local museums to identify over 100 objects for display. The exhibition is divided into themes with different layers of detail on panels and labels. The travelling Museum Exhibition was visited by over 40,000 people at six venues between October 2004 and January 2006.

**Fact sheets**

Audience research identified written material as one of the preferred ways of learning. There are nine different factsheets which expand on the information provided in the exhibitions. They have lots of images and reconstruction drawings which were designed to appeal to the non specialist with their colourful cartoon style. They have proved so popular that the original 40,000 have all been distributed and have been reprinted.

**Public access database**

This user friendly version of the HER has been edited for a non specialist audience and is available online. Visitors can browse the database as guests or can register as users for more detailed data and search options. The number of registered users and their area of interest is recorded.
RESOURCES AND DELIVERY

Project Officer – Full time 2½ years
Exegesis SDM – Public access database
Conibear Design Associates – Exhibitions and fact sheets
Dai Owen – Reconstruction Drawings

SUSTAINABILITY

The project was initially funded from April 2002 to October 2004 with a grant of £104,000 from the HLF and a further £35,333 contribution from Cheshire County Council (in kind and financial).

The project officer is now part of the permanent Historic Environment team and continues to sustain the access and outreach established during the project through the maintenance of the database, website and community exhibition.

The website hosts the public access database and provides an overview of the project’s different strands. It allows users to view text and images created for the museum exhibition and download the fact sheets.

Creating a public access database has allowed us to provide remote access to this information, previously only available on request. It is routinely updated with the latest additions to the main HER.

LEARNING OUTCOMES AND MEASURES OF SUCCESS

Data was gathered for visitor numbers to the museum exhibitions and also the number of library users at the community exhibition, showing the size audiences reached. A further measure of success is the number of people on the newsletter mailing list, which currently has over 1,000 members.

The outreach has been very successful in promoting the HER as a resource available to all. The user statistics from the public access database show that general users are the largest group, suggesting that our aim of widening audiences has been successful. Teachers are by far the smallest group of users, indicating that future initiatives should focus on promoting the HER specifically to schools. Plans are also in hand to recreate the museum exhibition in a virtual format for inclusion on the website.

Moya Watson, Cheshire County Council
Making Norfolk’s Historic Environment Record Accessible

The Norfolk Heritage Explorer (NHE, www.heritage.norfolk.gov.uk) is an excellent example of how a Local Authority can simultaneously enhance an HER and make it more accessible, reaching new audiences, providing educational resources, engaging in outreach and involving volunteers.

The Norfolk Historic Environment Record (NHER) is one of the largest HERs in the country, originating in the 1930s as a card index at Norwich Castle Museum. It was primarily designed for and used by archaeologists, with only around 400 general users finding their way each year to the NHER office at Gressenhall, deep in the Norfolk countryside. The desire to change this was inspired by an English Heritage seminar on HLF grants for HERs and a specially commissioned Norfolk County Council poll which revealed that 64 per cent of people in the county wanted to have better access to information about their historic environment.

The project included work in deprived areas (Norfolk is the 6th most deprived area in England) and 12 outreach activities were held in schools, museums and libraries in areas of urban and rural deprivation. The NHE project also joined forces with the Great Yarmouth Archaeological Map which informs and supports regeneration projects within the medieval town (www.gyam.org.uk).

Aims and Objectives

One aim was to explore historic cultural diversity through Norfolk’s wealth of data on portable antiquities. This work is still in its infancy, but the NHER includes information about finds from most European countries as well as Africa, China, Egypt, India and Russia.

Additional objectives were added as the work progressed, including interactive mapping and making the NHE available seamlessly with other local digital resources such as Norfolk Online Access to Heritage (NOAH, www.noah.norfolk.gov.uk) and the Heritage Gateway.

In order to provide more accessible information, a team of four archaeologists was employed for two years to review, enhance and create user-friendly summaries for each of the NHER’s 50,000 monument records. These enhanced records can be viewed online and are refreshed four times a year; when NHER data is sent to exeGesIS SDM who host the website. This core data is complemented by a wealth of additional resources, designed to draw users into the dataset. Parish summaries were created for each of the county’s 529 civil parishes, providing a chronological overview and links to significant sites within that area. A glossary of archaeological terms was written and linked in to all records containing obscure terms. Other resources include articles on specific archaeological periods, biographies of notable archaeologists, heritage trails and teachers’ packs. It is this wealth of resources that makes the NHE very much more than just an online HER.

In order to promote community awareness and involvement, an Outreach and Education Officer was employed for one year. The project provided 37 volunteer and work placements, 53 lifelong learning events, 37 display events, 9 talks, 33 interactive events, 26 training events, and published a project leaflet, postcard and display. As a result of the NHE project, opportunities for work placements and volunteers in the HER have increased significantly, and people across Norfolk (and beyond) are now using HER data for local heritage projects, local history books, parish plans and to assess the impacts of development.

The project was undertaken by Norfolk Landscape Archaeology, part of the Norfolk Museums & Archaeology Service, a joint service of Norfolk County Council and seven District Councils. The NHE was supported by the National Lottery through the HLF, by the Norfolk Museums & Archaeology Service and by Norfolk County Council. The HLF provided a grant of £203k towards total costs of £226k. The Heritage Gateway (Outreach and Education) provided additional resources for an Art and Archaeology sub-project, and European Union Objective 2 sponsored website development and the Great Yarmouth Archaeological Map.
Since the NHE was launched in July 2007, HER usage has been transformed from around 400 users a year to an average of 36 website hits per day. A ‘Search by Postcode’ facility has recently been added to the website, and other possible developments are being explored. The ‘Contact Us/Feedback’ link on the website has proved to be especially useful, with users correcting any errors (in a database of 50,000 archaeological records, there are bound to be a few!) and providing much new information. The project won a British Archaeological Award in 2008.

OUTCOMES AND LESSONS

The most daunting aspect of the project was, quite simply, working on such a huge dataset, and this was only accomplished due to the hard work and dedication of the project team and HER staff. Perhaps the greatest achievement is simply that anyone can now access information about the archaeology of Norfolk online, for whatever reason, and thereby have a greater knowledge and appreciation of the historic environment.

David Gurney, Norfolk County Council
NORTH SOMERSET HER AND COMMUNITY ARCHAEOLOGY GROUPS

INTRODUCTION
Community Archaeology in North Somerset is dynamic, vibrant and tenacious, and has the potential to contribute a significant volume of new research to help us better understand the region. There are currently 10 groups, comprising over 250 members, with more groups being set up all the time. They actively undertake survey and recording of sites and are well trained in the use of geophysics equipment; however, they have had little assistance to publish, archive and use the data they have accumulated.

In 2006, a 3 year project funded by English Heritage Historic Environment Enabling Programme (HEEP) established for the first time a 3 year HER post for North Somerset and Bath & North East Somerset. Part of the remit of this post was to engage in suitable outreach work and in North Somerset it was considered a priority to engage with the established community archaeology groups.

AIMS AND OBJECTIVES
The main aims and objectives of the project are:
• To introduce the HER Officer and the HER to Community Archaeology groups and explain the concept and relevance of the HER to their work.
• For the HER to provide data at the outset of research projects to the groups.
• For the HER to assist groups in developing methods to archive plans, notes and other documentation.
• To encourage Community Archaeology groups to disseminate their results in the form of grey literature reports.

Partnerships
We are working in partnership with several Groups including Yatton, Cleeve, Congresbury and Claverham Archaeological Research Team, the Nailsea Environ Archaeological Team, and the Charterhouse Environ Research Team. Other teams are based at Portishead, Clevedon, Weston-super-Mare, Langford, Lympsham and other areas, with new teams developing elsewhere.

PROJECT DETAILS
The project has developed in three stages. The first established and built up a profile of the HER for the groups. Visits and talks to the groups were arranged, encouraging them to use the HER as a source of information. The groups were then invited to participate in the ‘Archaeology in the Park 2008’ event held for National Archaeology Week. Eight groups took up the challenge, creating and manning displays of their work and assisting with organising and marshalling the event. The event, staged over two venues, was attended by around 2,000 local people. Additionally we have helped the groups to set up their own Community Archaeology in North Somerset network (CANS), an independent support structure enabling them to assist each other when either the Archaeological Officer or the HER Officer is unavailable. The first CANS newsletter will be produced shortly.

The second stage helped groups develop an archiving methodology for plans and notes and to encourage them to write reports and submit articles to local journals like the ‘Proceedings of the Somerset Archaeology and Natural History Society’. They were encouraged to promote their activities and set up their own websites. The Charterhouse Environ Research Team (http://www.britarch.ac.uk/calfwikka.php?wakka=CHarterhouseEnvironResearchTeam) has done just this using the Community Archaeology Forum website set up by the Council for British Archaeology.

The third stage will assist the groups in establishing their own databases, similar to the HER, to enable them to take control of archiving their own work. The next step will be to design a database, using a popular open-source database software product, that all the groups can use to record the minimum data needed by the HER plus other information they feel is important. Groups will then be trained to input data directly into the North Somerset HER database, based on the data they have already collected in their own databases.
OUTCOMES AND BENEFITS

To date stages one and two have been successfully implemented. Local groups are now able to take their own projects from initial ideas to publication and ensure that their hard work is passed on to future generations. There is an established working relationship between the groups and the HER, enabling them to use the HER and actively contribute to it. In the first four months of 2009 HER enquiries doubled, and so far 23 finished grey literature reports have been submitted by the groups with 20 more in preparation. The CANS network allows groups to actively support each other and exchange expertise such as using the geophysics equipment at their disposal. The work is also beginning to inspire more desk based projects, allowing those less able to participate in fieldwork the opportunity to take part in community archaeology.

RESOURCES AND DELIVERY

The project is resourced by the volunteer time of the Community Groups and the officer time of the Archaeological Officer and HER Officer.

FUNDING

Archaeology in the Park, a major event in 2008, was one of a series of events promoting Community Archaeology. It was funded by a £2,000 grant from Weston-super-Mare Town Council. Community Archaeology Groups are now beginning to seek funding for specific projects, and CANS have very recently been awarded a Heritage Lottery Fund grant of £34,000 for the purchase of ICT equipment, geophysical surveying equipment, high-resolution GPS and software, for the use of the community archaeology groups.

SUSTAINABILITY

The project is valued by the volunteers and the local authorities and provides excellent information to support the HER. Although the HER post at North Somerset was not continued beyond the original HEEP funded project, it is hoped that the foundations that have been laid during this project will remain and be picked up again should the post be re-established.

Sarah MacLean, North Somerset Council
THE COTSWOLD EDGE LIDAR PROJECT

AIMS AND OBJECTIVES
Gloucestershire SMR is running a project which aims to analyse the results of a LiDAR (Light Detection and Ranging) survey of the western edge of the Cotswolds. The project’s objectives were to identify new archaeological sites and record them on the SMR, offer a programme of fieldwork and training for local archaeological groups and societies and increase awareness of archaeology.

PROJECT DETAILS
LiDAR is a remote sensing system used to collect topographic detail that is particularly useful where ‘normal’ aerial mapping cannot be used, for example in forested areas. In its original format the data is supplied as a table of X, Y (co-ordinates) and Z (height) values which need to be converted to a raster image which can then be manipulated and shaded to produce a set of hill-shaded images. The final working data is a falsely coloured image lit from a variety of heights and azimuths that indicates archaeological features in a very similar way to oblique aerial photographs. This can then be used to identify features which can be checked against the SMR, historic maps, aerial photographs and occasionally historical documents to see if a new archaeological feature has been located. Similar work by Gloucestershire County Council Archaeology Service (GCCAS) in the Forest of Dean located around 1,000 new archaeological sites.

FUNDING, RESOURCES AND DELIVERY
The data was originally collected by the Cranham Local History Society (CLHS) following a successful bid to the Cotswold Hills Area of Outstanding Natural Beauty (AONB) Sustainable Development Fund. CLHS purchased data for a survey area of approximately 100km² running from Cheltenham in the north to near Stroud in the south and produced a CD containing a free viewer that was distributed to interested parties. Their research is concentrated on the area around High Brotheridge to the east of Gloucester. To examine the remaining areas covered by the survey, GCCAS contracted Forest Research (Peter Crow) to produce multi-shaded images and employed a member of staff to assess the data against known SMR sites. Finally, the Gloucester and District Archaeological Research Group (GADARG) have applied for HLF funding to buy equipment for the group and use the survey data as a catalyst to encourage members to participate in fieldwork, survey, historical research and training.

OUTCOMES AND BENEFITS
A clear benefit from this work is that new archaeological sites shown by the LiDAR survey are recorded on the SMR and the data is made available for planning and research enquiries. To date, 231 new sites have been located and we are actively investigating 12 sites on the ground. As well as enhancing the SMR, the project has enabled GCCAS to develop its extensive knowledge of LiDAR surveying and examine the potential for using 3D modelling to support fieldwork and research.

The second major benefit of the project stems from the co-operation with GADARG and, in the future, other groups such as National Trust volunteers. Many members of GADARG want to undertake practical fieldwork but very few have used up-to-date survey techniques and all need access to better equipment, improved IT skills, training and guidance. Unfortunately the demand for such activities exists at a time when there are a diminishing number of opportunities for fieldwork for volunteers and amateurs in archaeology. To compound this, the traditional GADARG excavation at Frocester Court is winding down after over 40 years. GCCAS has therefore committed itself to developing people’s skills and increasing opportunities by providing training in LiDAR interpretation, survey techniques, research skills and other relevant topics. This will lead to a better understanding and awareness of local heritage and history and provide opportunities for practical work in the field on the sites identified by the LiDAR survey. Fieldwork and the project in general will not only add valuable new information to the SMR it will also promote better awareness and management of sites by widely disseminating the results.
PARTNERSHIPS
As well as the partnership with GADARG, GCCAS is working with the National Trust (NT) whose estates at Ebworth, Crickley Hill, Little Fleece, Boundary Court and Haresfield Beacon lie within the survey area. The NT have offered GCCAS and GADARG members access to their land for ground-truthing the LiDAR features and recording archaeological sites, and a number of their volunteers are interested in taking part. In the future, as the project progresses, we hope to include other landowners and groups within the project. Finally, ties between GCCAS and Forest Research developed whilst working on the Forest of Dean LiDAR project have been strengthened and developed.

SUSTAINABILITY
GCCAS is committed to analysing the whole of the 100km² and enhancing the SMR with new information from it. We have committed support, time and materials to the GADARG project and participants will, over time, be in a position to cascade their experience and training to other groups. In this manner, with continuing support from GCCAS, the project will become self supporting.

References
Surveys of woodland using LiDAR (Crow, P)

Tim Grubb, Gloucestershire County Council
FEATURE OF THE SEASON

Man-made features are a major contributor to the local distinctiveness of any area, rural or urban, but although sometimes recorded by enthusiasts, they are often poorly represented on HERs. The existence and condition of small scale structures can rarely be picked up remotely from maps or aerial photographs and often details can only be recorded through field work. Without recognition they are all too easily neglected or lost through development, and opportunities to protect them through, for example, agri-environment schemes are missed. Feature of the Season (FOS) was designed to enhance the understanding and appreciation of unrecorded small scale historic features in the Yorkshire Dales National Park (YDNP), to create accessible records of them, and to minimise the time spent by staff on HER data collection and entry by maximising volunteer input into the recording process.

FOS, http://www.yorkshiredales.org.uk/fos, follows the National Park Authority’s successful use of Dales Volunteers for Buildings at Risk, Monuments at Risk and Barn Condition surveys. While these initiatives had all relied on paper proformas that had to be distributed, collated, interpreted and input by hand into the HER, the web-based approach of FOS minimises staff input outside the development stage, and contributors are able to immediately see the results of their and others’ efforts.

FOS was launched as an experiment in February 2007 and is now hosted on the YDNPA website and extranet. There are two versions; the main website provides descriptions and images of features but omits locational information for potentially portable features. The version housed on the Dales Volunteers extranet contains national grid references (NGRs) for all features and more detailed information about how to contribute to the project. The data is housed in a series of HTML spreadsheets which are publicly viewable, but require a password for editing purposes. Alongside the data are online image galleries for each feature type. Each feature is assigned a unique identifier (UID): the information recorded includes parish, NGR, whether the NGR is GPS derived, dimensions, materials, condition, name of recorder and date of survey. Volunteers are encouraged to provide as much information as possible where features can be easily and safely measured from publicly accessible locations. A voluntary coordinator who supports the project is available to receive information from those less computer-literate.

Stock underpasses, colloquially called underbridges, were the first features to be recorded by the project. These narrow tunnels beneath walled roads or trackways allowed unrestricted movement of stock, mainly sheep but sometimes cattle, between fields to allow access to water. There is a considerable variety in size and build quality but most appear to be related to the formal enclosure of former common grazing lands. Some are still in use, but many are now only recognisable by changes in wall construction and access hollows in the fields on either side of a track.

Subsequent features have been churn stands, once ubiquitous features of dairy farms, which were rendered obsolete when bulk tankers began to be used to collect milk from farms; turbary stones, boundary markers for peat cutting grounds, once an important domestic fuel in the Yorkshire Dales; hennery piggeries, unusual combination farm buildings which housed pigs on the ground floor and poultry above, the idea being that the pigs would protect the hens from foxes; millstones, including stones reused as village boundary markers as well as broken or unfinished stones and rock outcrops where the scars of millstone quarries can be seen; and stone water troughs. The information publicly available on the website for troughs and millstones is deliberately restricted because of their vulnerability to removal for use as garden ornaments.

The use of volunteers is enabling the collection of a considerable amount of information on a growing variety of features. Thirty-one volunteers have contributed information on over 400 features and nearly 500 images in the first two years. Although the project is called Feature of the Season, all recorded features remain live and new images can be added and new finds recorded at any time. In terms of methodology, the survey coverage has not been systematic; some volunteers range over large areas of the National Park, others tend to be more restricted so there will be areas that will have had better coverage. Inevitably there have also been some misattributions but these have been picked up when data is periodically transferred to the HER.
While the data transfer remains largely a manual process, this enables quality control, particularly with regard to locational information, for example some features are always found in association with specific locations (churn stands adjacent to roads or in farmyards; stock underpasses tunnelling below roads or tracks) so any features not conforming to these rules may have been located incorrectly.

OUTCOMES AND BENEFITS
FOS has succeeded in increasing awareness of the minor features which add to the character of the Yorkshire Dales landscape, and assisted by talks to local societies and articles in the local press, has also encouraged other members of the public to share the results of their researches. Staff input is now limited to HER data entry and the preparation of new introductory essays. Plans to train volunteers in these tasks will have the dual benefits of reducing staff input and enhancing volunteer ownership of the project. For further details contact herinfo@yorkshiredales.org.uk

Robert White, Yorkshire Dales National Park
Milton Keynes is the largest 20th century new settlement in the UK. Designated in 1967, the plan was finally completed 41 years later. Today the city is subject to additional planned expansion and also sustainable development policies which could see new development within and regeneration of existing estates. The Milton Keynes City Development Atlas (CDA) is an online public access GIS based resource. It was compiled in response to growing internal and external requests for information regarding the development of Milton Keynes New Town, coupled with a desire to enhance the coverage of the Milton Keynes HER to include the New Town as an historical entity. Focussing on the New Town, the CDA provides summary details of: Name of developer, architect, decade of construction, planning and building regulation references, number of buildings, area, housing densities and sources for over 1,500 residential, industrial, commercial and other developments constructed between 1950 and 2005.

The CDA was created largely through the digitisation of existing sources held by the council. For post-1995 development, it incorporated an existing GIS layer of housing developments which contained a large amount of relevant data. An especially rich source was a collection of planning documents of major schemes that Milton Keynes Development Corporation (MKDC), a planning authority in its own right, had passed to the Council over a 30 year period. Other sources included: digitised planning application plotting sheets, microfiche of planning applications, postal street numbering plans and the annual Milton Keynes City Atlases. For pre-1950 development, a collection of around 200 urban and rural district bye-law applications and an existing GIS layer of council deeds provided the dates of purchase of land for early council housing. Additionally, Pevsner’s Buckinghamshire proved very useful, providing architects’ names and scheme completion dates.

It was soon apparent that accurate construction dates of pre-1995 estates were difficult to obtain and that all plans had to be checked against current OS mapping to eliminate uncompleted schemes. Some schemes were difficult to place as the sources lacked either road names or good location plans. In this instance, the postal numbering plans proved invaluable. These are produced by the local authority to provide utility services with the road names and house numbers of new developments. They usually define the development boundary and as they were produced shortly after building work commenced, indicate the date of construction. Occasionally they had helpful information appended, such as the name of the developer, the building regulation reference and the planning reference. Although the digitised planning application plotting sheets appeared to offer a good resource for dating schemes, in practice the large number of unrealised schemes made this impractical.

The CDA was made available to Council staff and the general public in May 2008. In-house promotion has encouraged users in the planning policy, development control, building control, estates, and conservation sections and the resource is receiving up to 100 views per month. External public and professional feedback has been positive, with the information proving useful for the compilation of Home Information Packs (HIPS) as well as to those researching local and architectural history.

OUTCOMES AND BENEFITS

Use of the CDA within the HER is at an early stage, however mapping of development layers by decade makes it possible to visually chart the growth of the city. This can be further broken down to illustrate the growth of industrial, commercial and residential developments. In conjunction with existing ‘archaeological events’ data it is possible to assess which developments were archaeologically investigated prior to construction and which were not. This could prove pivotal in assessing future archaeological potential within the existing new town. The CDA will also supply valuable baseline information for future characterisation studies of Central Milton Keynes and the grid squares as well as providing a portal to scans of over 3,000 items including original plans and sales particulars from the 1920s to 1990s. The CDA is essentially a snapshot of land use in 2005, however a method for automatically transferring data from the authority’s quarterly housing/commercial development start date surveys into the database is under investigation.
In Autumn 2009 the CDA will be re-launched as part of a suite of resources within a Historic Environment Theme on the Milton Keynes intelligence Observatory website [http://www.mkiobservatory.org.uk]. The theme will include Historic Landscape Characterisation and the Extensive Urban Surveys in addition to more traditional HER data such as Monument and Event information. The availability of these resources within the Observatory allows HER data such as the CDA to be viewed alongside other non-heritage planning constraints; for example, mineral search areas, areas of attractive landscape and national nature reserves, making the Observatory website a true ‘one stop shop’ for a wide range of information on the city and borough.

Brian L Giggins MA MIFA and Nick Crank BSc MIFA, Milton Keynes Council

© Crown copyright. All rights reserved.
Milton Keynes Council - 100019593 - 2009
Coventry HER’s approach to enhancing the record is to look at the landscape as a whole. The ‘blank’ areas between the known monuments have been investigated and the results have been used to create a selection of GIS maps showing Coventry’s landscape at various points in the past. This cannot be achieved using archaeological fieldwork alone so Conservation and Archaeology staff have utilised Coventry’s rich collection of documentary records. Research undertaken over the last six years has generated 14,000 new HER records, processed by a full-time HER Officer. The frequent visits to the archives have given HER staff a greater understanding and awareness of the types of documents that can assist with historical research. They have acquired new skills, for example, the ability to read 16th century text and to use particular pieces of information, such as a landowner’s name or a rent charge, to trace earlier related documents.

The documentary sources include tithe maps, inclosure maps and awards, and estate maps, which are helping to create a picture of previously rural areas within the city’s suburbs (Figures 1 and 3). Written documents such as deeds, rentals and leases, which often include topographic information, are being used to plot individual tenements, particularly in the city centre. This is enabling the production of maps of historic streets and the buildings that stood on them, some of which can be traced back to the medieval period, as well as providing information about the potential for discovering new archaeological features.

An example is the ‘King’s Park Ditch’, a feature which formed the boundary to Cheylesmore Manor from at least the 14th century. The existence of the ditch was discovered when research was carried out into a plot on Little Park Street. The starting point was the 1776 book of Holy Trinity Church estate maps, which included a detailed plan of a building and garden behind which a bowling green was depicted (Figure 2). Using Samuel Bradford’s 1748 Map of Coventry the tenement’s position on Little Park Street was located. The next document to be examined was the 1581 survey of property belonging to the Coventry Corporation, a key document in the reconstruction of the city’s streets.

The tenement is mentioned here as an abuttal to a Corporation property that formerly belonged to the Trinity Guild:

“There is a tenement...in length by the streete 16 yarde and containinge 28 bayes of building and a garden in length from the house 68 yarde and in breadth 12 yarde. And boundeth upon...the land belonging to Trinitie Church on the north and upon the Manor of Cheylesmore on the west...” (Coventry Corporation Survey, 1581, p. 27).

Not only does the 1581 survey suggest that the Holy Trinity property, albeit without the bowling green, existed at this time, it also enabled the Coventry Corporation property to be located in Little Park Street. And the story of the Corporation plot was expanded upon when a 14th century document was discovered. Knowing it had formerly been the property of the Trinity Guild, a document of 1393 was found which described the plot as “stretching as far as the park ditch called Kings Park Ditch”. This hitherto unknown ditch probably formed the north-eastern boundary of the precinct of Cheylesmore Manor and was designed to separate it from the rest of the town. The line of the ditch has tentatively been plotted on the GIS running along the back of the former Little Park Street plots (Figure 4). Should any redevelopment take place in this area archaeological field work will test this interpretation of the documentary evidence.

The combination of documentary and archaeological evidence is creating a more in-depth picture of Coventry’s past as well as assisting in the interpretation of archaeological features. Documentary evidence alone has made a huge contribution to our knowledge of the city’s modern suburbs, which historically have received little archaeological attention in comparison to the city centre.

LESSONS LEARNED

The use of documentary sources can also have its drawbacks. The significance of the subtleties to be found in written documents can be difficult to interpret for those who are unfamiliar with using them. Undertaking research and transferring the results to the HER is time
consuming and has created a huge volume of new records in the HER, increasing the time it takes to respond to enquiries. There are concerns that large quantities of data make it difficult for the enquirer to form an overview of the historical and archaeological development of an area. Future work may concentrate on producing a series of synopses to address this issue.

OUTCOMES AND BENEFITS

The use of documentary records is not widespread amongst HERs but in Coventry has proved crucial to the development of a record that now enables the Conservation and Archaeology team to look at lost and surviving historic landscapes rather than individual monuments in isolation when providing planning advice and which also provides a more detailed view of Coventry’s past to those carrying out research. Such an approach, combining documentary research with the recreation of whole landscapes, is particularly effective in built-up areas such as towns and cities.

Anna Wilson, Coventry City Council
NORTHWICK MANOR COMMUNITY HERITAGE PROJECT

The Northwick Manor Community Heritage Project was launched in 2008 with the aim of engaging and inspiring local people of all ages through the historic and natural environment of north Worcester. The project encompasses the largely 20th century suburb of Northwick, a riverside nature reserve, and the rural settlement of Bevere. The fact that the project area straddles the boundary between two local authorities has been key to establishing the many partnerships.

HER Officers identified the potential for a community project after members of the Worcestershire Young Archaeologists’ Club produced designs for a ‘monument trail’. This highlighted a relict medieval landscape including the moated manorial complex of the early Bishops of Worcester; an early river crossing, riverside brickworks and an island refuge. What was clear from initial consultation was that these sites were largely ‘invisible’ in terms of the public’s awareness of them. The vast manorial complex is located under 20th-century housing, while it would be hard to imagine a fordable crossing point on a river that has since been heavily scoured. There was a clear opportunity here to engage the public with surviving remnants of this landscape, increasing visibility and understanding of it.

PARTNERS

Funding of £49,950 was awarded by the HLF to the Worcestershire Young Archaeologists’ Club, for delivery of a two-year programme of educational events, archaeological fieldwork, oral history recordings, digitisation of an 18th century map, and production of a fully-illustrated and interpreted heritage trail, with associated website and publication. The award was match-funded by the project partners and largely comprised in-kind contributions of staff time, in particular, management of the project by HER Officers from Worcester City Museum Archaeology Section and Worcestershire Historic Environment and Archaeology Service. This key partnership has enabled the project to access a variety of services within the two host authorities including Worcester City Parks Department who manage the riverside nature reserve, Worcestershire Rights of Way team, Worcestershire Record Office and Worcester City Museums. The project has also benefited from access to a finance officer and press officers in both authorities. External partnerships include Portable Antiquities Scheme, University of Worcester, Worcestershire Biological Records Centre and Stempoint, a science and technology educational programme.

The project will culminate in the opening of a 5km circular trail, on an already popular walking route with existing rights of way. Funding will provide a series of 10 interpretation panels, displayed within frames constructed from green oak, farmed from the Parks department’s own sustainably-managed woodland. The department will produce and install two of the finished frames within the riverside park, with the remaining eight being produced and installed at cost.

As part of the University of Worcester’s Graphic Design and Multimedia course, students produced a design concept for the panels and the resulting high-quality designs were judged by local residents. The winning student is now working with an archaeological reconstruction illustrator and wildlife artist to produce the finished article. Local people are, through a series of workshops (delivered in partnership with Worcestershire Record Office), honing their research skills to interpret their surroundings and contribute to the panel content, website and final booklet. Fieldwork has largely been delivered via educational workshops; for example, a building recording session was run with a group of residents to produce a record of an 18th century house. Similarly, earthwork surveys will be conducted with students, and a summer event will see householders opening their gardens for a programme of test-pitting. Results will be fed back into the content of the panels with further detail published on-line. Oral history testimonies will enrich this content with stories from living memory having already answered questions relating to existing landscape features.

SUSTAINABILITY

Further sustainability for the project has been provided by partnership with the Worcestershire Rights of Way team. Early talks established that the team would be keen to incorporate the trail into their existing range of managed walking routes, promoted and maintained by
their service. This has led to the route being established as a priority for upgrade, for replacement where possible of stiles with more accessible access points and for monitoring in the future for vandalism or decay.

OUTCOMES AND BENEFITS

The project is successful because of its ability to adapt to change. This might be as simple as running a palaeography workshop to transcribe a newly-discovered medieval document, through to establishing new partnerships where opportunity may arise. Shortly after funding was announced, Worcestershire Record Office was also awarded lottery funding for the Worcester Archive Source Project and both projects have since benefited from collaborative working, ensuring additional value for money. There is a fine balance to be struck between a strong foundation of firmly agreed partnership contributions and the flexibility to adapt to new opportunities, suggestions and need. A continual cycle of consultation and community involvement brings with it the need to respond to a developing understanding and to direct the inevitable thirst for more. While the project will conclude with the opening of its trail in April 2010, the work, it is hoped, will have provided a catalyst for the establishment of a new heritage group, to continue the momentum that has begun.

Sheena Payne-Lunn, Worcester City Council
INTRODUCTION
The coastal waters off the North-East coast of England can boast a truly fascinating history and heritage.

People have lived, worked and died here for over 10,000 years, with many of the archaeological ‘clues’ to their passing now lying deep underwater. For maritime archaeologists, historians, and interested members of the public alike, finding information on these maritime sites can be very difficult, with much of it scattered across the country in a wide range of locations.

So, in November 2006 the Nautical Archaeology Society North-East (NAS NE) hosted by Tees Archaeology, launched a project to establish the ‘North-East England Maritime Archaeology Research Archive’ (NEEMARA).

AIMS AND OBJECTIVES
The project aim was simple – to create a new and unique ‘library’ of maritime reference material at one easily-accessible location and to make it available to anyone with an interest in maritime archaeology and history.

PROJECT DETAILS
Working with a broad range of organisations and individuals, including Hartlepool’s Library and Museums Services, Portcities Hartlepool and six north-east coastal local authority archaeologists, the collection was established within the offices of Tees Archaeology in Hartlepool in November 2006.

Reference material was initially drawn from the partner organisations, supplemented with new and second-hand material purchased from various sources, together with organisational and individual donations; for example, over 70 volumes of 19th and 20th century Lloyd’s Registers were generously donated by Glasgow University Library.

FUNDING
The NEEMARA project was principally funded through a one-year English Heritage Regional Capacity Building grant of just under £25,000. Additional contributions were received from the Northumberland, Tyne & Wear; County Durham, Tees Archaeology, North Yorkshire and North Yorks Moors National Park Local Authority archaeologists; ‘Renaissance North-East’, North of England Civic Trust, Joan du Plat Taylor Fund and Hartlepool Borough Council’s Marketing section. This gave a ‘Total Project Value’ of some £50,000.

OUTCOMES AND DISCUSSION
The NEEMARA Project has successfully drawn together an extensive range of maritime archaeological and historical material, to create a valuable regional resource for the North-East of England.

With the continued support of Tees Archaeology, the project’s small team of volunteer researchers has been able to generate significant new HER data for each of the partner archaeology sections from the Tweed to the Humber, in particular relating to the large number of shipwrecks lying off the North-East coast.

This information has been instrumental in allowing scuba-divers to identify a number of local wrecks sites, in turn providing archaeologists with valuable information on the current condition of these wrecks and monitoring long-term changes to these ‘invisible’ sites.

NEEMARA volunteers have also been able to explore and develop new maritime-related audiences from around the world, for example, providing information for a Chilean Naval officer who had discovered the remains of a ship lost off southern Chile. This turned out to be the ‘Frederico Schwarger’, built at Hartlepool in 1948!

One of the Project’s most significant outcomes has been the establishment of an informal, yet very effective ‘maritime information sharing network’, comprising NAS NE, NEEMARA, Tees Archaeology, Hartlepool Borough Council’s Library and Museums & Heritage Services, Hartlepool PortCities, Teesside Archives, the Teesside Branch of the World Ship Society, and Stockton Reference Library.
Through this arrangement, achieved outside the project’s original aims and objectives, all maritime enquiries are ‘pooled’ giving the enquirer, from the professional archaeologist to the interested member of the public, immediate access to a very broad range of resources and eliminating duplication of effort.

Since its establishment in 2006, the number of maritime enquiries received by NEEMARA, both directly and through the information sharing network, has doubled year-on-year, with over 70 enquiries received in 2008. This number continues to grow.

**SUSTAINABILITY**

Although the English Heritage project funding was only for one year, Tees Archaeology and the other project partners continue to actively support the NAS NE team of volunteer researchers to:

- maintain, enhance and expand the NEEMARA collection
- carry out research for HER/SMR enhancement
- compile information to answer maritime enquiries through the ‘information sharing network’.

NEEMARA has proved to be a very successful cross service/multi stakeholder project proving capable of; delivering high-quality maritime HER data to the archaeological profession; providing access to the team’s extensive maritime knowledge and expertise; offering a very broad public audience the opportunity to carry out their own research utilising the NEEMARA collection; and providing enquirers world-wide with well-researched and well-interpreted maritime information.

Robin Daniels, Tees Archaeology
PARTNERSHIP WORKING

HISTORIC ENVIRONMENT CHARACTER ZONING IN WEST BERKSHIRE

BACKGROUND

West Berkshire is a largely rural District; approximately 75% is included within the North Wessex Downs AONB, but due to its location on the M4 corridor west of London it is experiencing real pressure for growth. It has a rich and varied historic environment with a full array of historic designations. In addition, there are over 5,000 other sites, monuments and buildings recorded on the HER.

It was a long held ambition of the West Berkshire Council archaeology service to explore the integration of the recently completed historic landscape characterisation (HLC) with the information on the HER. It was apparent that only through a close examination of the two datasets could a more rounded picture of the historic environment resource be achieved.

At the same time the Planning Policy team was looking to develop a more robust evidence base as the part of the development of the West Berkshire Local Development Framework (LDF) and saw this project as an excellent way of being able to consider the historic environment resource in an integrated and holistic way.

RESOURCES AND DELIVERY

The project was funded by a planning delivery grant channelled through the Council's Planning Policy team. The work was undertaken by the Historic Landscape Characterisation Project Officer within the archaeology team.

The project relied on access to geographic information system (GIS) software with a range of spatial datasets; HLC and HER data had to be in digital format. Other geographical information was available via the corporate GIS, including topography, drainage, soils, geology, landscape character assessment and Ordnance Survey mapping.

The project delivered a high-level characterisation of the district resulting in the creation of two related spatial datasets:

- **Historic Environment Character Areas (HECAs)** with similar historic characteristics based on the HLC data. A total of 20 HECAs were identified
- **Historic Environment Character Zones (HECZs)**, nested sub-divisions of the HECAs that share traits in current land-use and settlement patterns, historic character and archaeological data. A total of 92 individual HECZs were identified; the distribution of these is shown in Figure 3.

Each Heca and HECZ has an accompanying document describing its main characteristics which is hyperlinked to the interactive map. Each HECZ description contains a Historic Environment Action Plan (HEAP), which outlines management and research issues pertinent to the historic environment.

OUTCOMES

The results are being actively used to inform and support the preparation of policies as part of the LDF Core Planning Strategy. This includes a district-wide approach towards landscape character and also the strategic allocation of potential housing sites. It is anticipated that the data will also be invaluable when considering the allocation of smaller sites for development.

Data from both the HLC and the HECZ project is made available through the council’s corporate GIS and through the council’s website, where members of the public can also view the information.

The project has seen the successful collaboration between the archaeology and planning policy teams which has resulted in the welcome development of an innovative and holistic approach towards the integration of the historic environment into spatial planning.

The archaeology team uses the data to inform much of its work, especially in providing advice to development control planners, providing data and advice on Agri-environment schemes, supporting the development of research strategies and agendas and identifying issues within the current HER dataset.

A significant benefit of the project has been the extent to which local communities involved in parish planning have welcomed it.
“The HECZ Statements have provided a valuable insight into the area and the issues we might address” (Peter Allen, Chair, Thatcham Vision Group).

Groups have been supplied with HECZ descriptions and are using this information to inform the development of their parish plans, giving the historic environment a higher profile for local communities, elected members and senior council officers.

FUTURE WORK

It is recognised that more needs to be done to ensure that planners and developers become aware of the data provided by the project and to utilise it to make judgements about development activity. Promoting the HECZ through the parish planning groups is potentially a powerful mechanism for raising the profile of the data and its use in guiding development and design issues.

It is also recognised that the project was the product of the Council’s officers and that more now needs to be done to engage with the sector and other interested groups to ensure a broader buy-in. The archaeology team are planning to establish an historic environment action planning steering group to review the products of the HECZ and to prepare a district-wide HEAP that will provide strategic direction for the sector.

Duncan Coe, West Berkshire Council
A Service Level Agreement (SLA) is a negotiated agreement between two parties where one is the customer and the other is the service provider. It records a common understanding about services, priorities, responsibilities, guarantees and warranties.

INTRODUCTION
How the SLAs were set up
Essex County Council (ECC) provided specialist historic environment services to the 12 District Councils at no cost, after the two-tier local government system came into being in 1974. By 2003 however, financial pressures meant that this could no longer continue, and the Association of Essex Chief Executives were forewarned that District Councils might be asked for 100% of the cost of delivering the service.

From April 2004 onwards, there was a series of meetings with senior planners and some Chief Executives from all 12 Districts, presenting the details of the service as currently provided. By this time however, joint funding was the model, i.e. only 50% of the cost of the service was being requested. In most cases, this approach was well received, and phrases like ‘pushing at an open door’ were used by District planners. One District decided to provide its advice in-house, but by February 2005 ten 3-year SLAs were agreed for archaeology. Another council decided at the last minute to commission archaeological advice on a case-by-case basis, to be charged at full cost. After about 3 months, they realised that they would be paying out far more in a year with this procedure so they bought into the eleventh SLA.

Thurrock Unitary Authority
The County Council provided specialist historic environment services to the unitary authority under an SLA, following local government reorganisation in 1998. This is similar to the others, but work is charged on a 100% cost basis. Moreover, the Thurrock HER now belongs to the unitary authority which means that, for example, their permission was needed before making this available via the Heritage Gateway. Most recently, the creation of an Urban Development Corporation (UDC) has meant that two SLAs had to be negotiated, one with the UDC and one with the Unitary Authority.

WHAT THE SLAs COVER
The SLAs cover historic environment services including specialist advice and the maintenance of the HER. For the latter, the SLA wording requires that the HER be maintained to cover the historic environment to a specified data standard. The record is updated each month, with information from fieldwork and research, as well as other relevant sources of information such as contact with the public, metal detector groups, the portable antiquities officer, and local societies. Furthermore, during normal office hours, the HER will be available for officers, members of the client authority and the general public to visit.

HOW THE SLAs OPERATE
The SLAs include the provision for regular review meetings, and annual reports for each District. These include statistics of new HER information and summaries of enhancement projects. The review meetings have also helped us to discuss many other issues outside the scope of the SLA, including the commissioning of one-off projects, for example Historic Environment Characterisation studies, to feed into the Local Development Framework process. They also allow for discussion of information exchange with the HER; several Councils have asked for layers to be provided for their Geographic Information Systems.

SUSTAINING THE SLAs
The eleven SLAs for the three years 2005–2008 worked very effectively, which made renewal of all eleven for another 3 years (2008–2011) relatively straightforward – though one wonders what might have happened if renewal was being re-negotiated in early 2009, with the credit crunch on everyone’s mind. While the historic environment continues to be a material consideration within the planning process, Local Planning Authorities will continue to need high quality information and specialist advice. As long as we continue to provide it through the SLAs, we are optimistic about renewal.
LESSONS FROM OUR EXPERIENCE

1. The principle of joint funding was an excellent selling point, as was the fact that the charge for the SLA was bespoke for each District linked to the amount of work that would be done for that District. The latter point was extremely persuasive in the case of the smaller Districts, and was based on careful presentation of statistics from our planning database, showing the workload averaged over the previous 3 years.

2. We also invited planners to visit County Hall to get a feel for the scope of the EHER data, and see how development control was done.

3. Don’t underestimate the time involved in this kind of process; we reckon ECC staff time equates to £12k. This includes over 20 meetings with District Council staff, and time spent in drafting the SLAs.

4. Explain clearly the basis for the service provision and the value to the client authorities. In our case this was vital for the EHER as some Councils tried to claim this was the County Council’s responsibility alone.

5. Take time and obtain advice in drawing up legally sound SLAs and include clear and measurable performance targets; we have an annual questionnaire asking for views on our performance.

6. Prepare the way at the senior level, involving senior officers, and Chief Executives and politicians if possible.

Owen Bedwin and Paul Gilman, Essex County Council
Local government reorganisation in Cheshire has created two new unitary authorities. The new shared Cheshire Archaeology Planning Advisory Service, which includes the Cheshire Historic Environment Record, has been established to serve both authorities and the unitary authorities of Halton and Warrington. In line with the proposals in the Heritage Protection Bill the Cheshire HER will be the definitive source of all data pertaining to designated and undesignated historic assets for all four authorities. As such, a mechanism for improving the delivery of information on designated sites, from the HER to allied professionals such as Planning Officers and Conservation Officers has had to be developed.

Informal consultation with allied professionals established three guiding principles:

- **Platform independent** – users should be able to access the data without using specialist software
- **GIS mapping** – accurate spatial data should be available for use in constraints mapping
- **Integrated** – spatial data should link to the full record associated with the designation.

The Cheshire HER, in common with many HERs, maintains the designation record separate from the general record for the site. The latter record is commonly referred to as a monument record and is the classic HER/SMR record compiled from a wide range of, sometimes contradictory, sources. The designation record only holds information specifically associated with that site’s entry on a schedule, register or list; that is, information associated with that site as a legal entity.

The Cheshire HER already maintains an online version of its database, known as Revealing Cheshire’s Past, aimed at the general public. The database was established as part of a Heritage Lottery Funded Project and allows users to search the majority of the monument records held on the HER. Elements of the records, such as descriptions, have been recast for non professional use.

Revealing Cheshire’s Past provides different levels of access to records it holds. Anyone can search for the records as a guest user but for enhanced search facilities, photographs and more detailed records users need to register. There is also a higher level of access for administrators where the records are shown in their ‘raw’ state.

Revealing Cheshire’s Past seemed to offer a simple mechanism for the dissemination of the designation records held in the Cheshire HER as the vast majority of allied professionals could access it from the internet. The HER and Revealing Cheshire’s Past utilise software supplied by exeGesIS SDM, who developed the capacity for Revealing Cheshire’s Past, to publish the designation records held by the HER.

The software loads the designation data from the HER to Revealing Cheshire’s Past. This includes the records for Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens and Registered Battlefields, as well as any associated photographs or documents such as scanned schedule notifications. The advanced search pages of Revealing Cheshire’s Past have been modified to allow users to search these designation records by single or combinations of categories such as reference number, location, type etc. Access to the designation records and the new search functions is controlled by a new type of user account created specifically for allied professionals.

Spatial data is supplied from the datasets held by the HER, however the data has been standardised to supply the end user with a consistent set of attributes; fields which record information such as reference numbers, legal names and dates of designation. This has been supplied in a format that can be easily incorporated into any of the GIS systems, constraints systems and internet/intranet mapping used by the four unitary authorities covered by the HER. To enable users to get instant access to any designation record from the spatial data, each record contains a hyperlink to the designation record of that site held on Revealing Cheshire’s Past. In effect the user clicks on a mapped feature and is seamlessly taken to the relevant record on Revealing Cheshire’s Past.
Feedback from allied professionals has been positive. Marie Farrow, Conservation Officer for Cheshire West and Chester Council writes:

“From my experience in local government it is not uncommon for the information on designated sites, structures and buildings to be held in paper format or on a range of bespoke databases for which there is limited access or interoperability. This has numerous faults and failings, not least the difficulty of quickly and easily identifying and collating information on a designated site. Since having access to the Cheshire HER, the quality and simplicity of access to designation information has been invaluable and greatly influenced my working methods. It has also enabled me to access a wider range of information, allowing a greater understanding of the relationship of historic buildings and an area’s development.”

Robert Edwards, Cheshire County Council
BRINGING THE HISTORIC ENVIRONMENT RECORD TO THE HUB OF THE LOCAL AUTHORITY DATA NETWORK

The Bristol Historic Environment Record forms part of a multi-disciplinary Urban Design and Conservation team at Bristol City Council and as such has always made a positive contribution in supplying historic environment and design advice within the development control process. Often, however, historic environment datasets including Conservation Area boundaries and Listed Buildings have been created or edited with minimal consultation with the HER or Conservation Officers. This has led to the data frequently being inaccurate and unreliable with little relevant metadata. For instance, a recent audit of the datasets held by Bristol City Council revealed nine different Listed Building GIS layers in use across the council, all of which varied from the definitive list.

Through close working with our Corporate GIS Team, the HER has taken on sole responsibility for providing all the historic environment datasets to the Local Authority. These include Conservation Areas and locally registered Historic Parks and Gardens as well as ensuring that we provide up-to-date English Heritage derived datasets such as Scheduled Monuments.

By taking on direct custodianship of these datasets and their associated metadata files we have ensured that there is tighter control of data quality while providing wider access to the information. For example our work with Conservation Officer colleagues in mapping the boundaries of Conservation Areas has provided clearly defined regions snapped to OS data. Historic environment professionals, as opposed to GIS specialists who might not have an understanding of the significance or location of specific historic assets, have now created this spatial data. This is important because the boundary drawn along the wrong side of a road can mean the difference between a historic wall being retained through planning control or lost through permitted development.

The associated metadata files for these datasets will create a clear audit trail, although only the HER Officer will have editing rights to the data. The HER data will now appear in the Corporate GIS Spatial Catalogue making it accessible to all GIS users in the council including users of the planning database in read-only format. This access extends to the web based mapping applications that will allow some limited public access to the datasets.

This approach has resulted in a unified HER that is corporately available and in daily use by planners, policy teams and other GIS users across the authority. Most importantly it has raised the profile of the HER and demonstrated its value to a wider audience.

The working relationship with the Corporate GIS Team is essential in maintaining the widest possible access to the data. The HER will be a feature at every annual Bristol City Council GIS Fair that enables applications and data to be promoted across the authority and to council members.

Consequently we receive far more internal consultation requests, most significantly from our policy teams who are working on the Bristol Local Development Framework and associated Core Strategy and site allocations documents. During this process the HER has directly contributed to the site-specific sustainability appraisals and ensured that the Core Strategy refers to the historic character of local areas. Characterisation studies and the HER will be referred to in policy implementation statements.

The raised profile of the HER has resulted in its direct involvement with a wide variety of projects from Legible City interpretation panels, public art schemes, regeneration projects for parks and public realm improvements. We are also working more closely with our colleagues in the museums, archives and libraries division contributing content material for the new Museum of Bristol as well as public archaeology events.

We are generally developing better connections to the archive collections in the museum where we are hoping to link our HER database to the museum finds database using HER event number and museum accession number fields. The linking of the datasets will eventually enable detailed responses to a wide range of research queries.
OUTCOMES AND BENEFITS

Many of these links create a two-way information flow where projects will contribute to the HER in much the same way as the Development Control process does through desk-based assessments, fieldwork and surveys. One of the main mutually beneficial internal links has been the use of the HER by the pollution control team who have been carrying out a survey of potentially contaminating land use. This survey is based on historic industrial sites to create a geospatial database that will eventually link into the HER and the Bristol Historic Landscape Characterisation project.

The wider awareness of the HER across the council has increased the number of requests for HER data, however yet in the long term, improved access to high quality data will reduce this work load and result in more focused enquiries and enhancement of the dataset, through regular work programmes.

It is the linking of information through geospatial databases that demonstrates the value of the HER as a powerful data management and research tool. These data links also enable wider access to the data beyond the archaeological profession and help to promote the value of the historic environment to a wider audience.

Peter Insole, Bristol City Council
STOCKPORT HISTORIC ENVIRONMENT DATABASE (SHED)

INTRODUCTION

Prior to 2004, Stockport’s historic environment records were held in disparate datasets and in a combination of electronic and manual systems. Large parts of the datasets were out of date and storage methods were inefficient which resulted in unnecessary duplication and inconsistencies. Furthermore the means of storage effectively restricted wider shared access to the records, both internally within the Council and to the public.

The need to review and standardise the whole record was identified within the Council’s Conservation Strategy and the opportunities for digitisation and creating dynamic links with the emerging corporate GIS were recognised. In parallel Stockport’s Conservation and Heritage Team, as custodians of the data, embarked on a comprehensive exercise to review and enhance records relating to historic buildings (both statutory and locally listed buildings), archaeological sites, and conservation areas. This work ensured that records were accurate, of consistent quality, and addressed areas of incomplete or uneven coverage.

Following the establishment of the Stockport Historic Environment Database (SHED) as an in-house cross-service information management system, the scope of the project has been expanded to enable direct public access via an external web-based system (www.stockport.gov.uk/shed).

PROJECT DETAILS

At the heart of the project was the creation of a comprehensive Microsoft Access database holding textual and photographic data relating to almost 4,000 historic environment record entries. These entries were then linked to maps through ‘MapErama’ GIS, Stockport’s customised ‘light’ version of Map-Info software.

Careful consideration was given to the design and presentation of the databases and operating systems to ensure the final electronic system would be user-friendly and easily searchable for use by a broad range of audiences.

OUTCOMES AND BENEFITS

The collation of disparate historic environment data into a widely available single electronic system has produced immediate benefits in service delivery, improving its ability to maintain datasets and provide a better service to the public. Concerns over the quality, duplication and potential ambiguity of the data have been eliminated. On-line access through the Council’s intranet and internet has resulted in immediate and more efficient access to information from other Council services and the public. Response times to both written and verbal enquiries have been substantially reduced.

Furthermore historic environment data can be accessed and represented graphically alongside other associated GIS datasets. For example, economic indicators can be mapped against conservation area boundaries which can assist in the preparation of management plans and the development of regeneration initiatives. Planning applications can be mapped against archaeological records to quickly enable archaeological interests to be flagged up at an early stage in the planning process.

RESOURCES, DELIVERY AND FUNDING

The project was designed and developed by the Council’s in-house GIS Officers in collaboration with the Conservation and Heritage Team. Close working enabled the technical specification and functional requirements to be agreed from the outset. The project team was expanded to include members of the Council’s Web, Marketing and Communications Teams to deliver the web-based system.

The development of the system was funded via Planning Delivery Grant (PDG) at a cost of £3,000. Digitisation of existing data was undertaken by a dedicated technical officer based within the Conservation and Heritage Team. The internal system went live in 2004 followed by the publishing of the web based system in 2008.

Additional PDG was used to commission Greater Manchester Archaeology Unit to enhance Stockport’s element of the Greater Manchester SMR. Similarly, external consultants (the Architectural History Practice) were commissioned to undertake a review of statutory and locally listed buildings within an identified area of the
Borough which was known to suffer from particularly uneven coverage and quality of data. Conservation Areas reviews and appraisals were carried out in-house.

**SUSTAINABILITY**

The database is maintained by the Conservation and Heritage Team which is responsible for data inputting, maintenance, updating and continuing development of the system. The dynamic nature of the system ensures that new data becomes publicly available as soon as it is incorporated.

The web-based system enables the Council to quickly and efficiently share historic environment information between Council staff, external partner organisations and the public, and supports the e-government agenda of promoting wider electronic access to information held by public bodies. For example SHED interacts, through GIS, with the National Land and Property System (NLIS) which requires data be held electronically to enable automated access via local land searches.

SHED has become a powerful planning resource allowing confident and informed decisions to be made where development schemes are proposed. Furthermore it has great potential for educational, web-based applications and to meet this, the web version will be extended to enable public access to over 3000 local archaeological record.

**LESSONS LEARNED**

Lessons learned from SHED which are likely to be relevant in the development of similar systems are that:

- raw data needs to be accurate and of consistent quality
- digitisation is labour intensive
- polygonisation of data into GIS requires a high degree of accuracy given the ability of the end user to examine information at different levels of resolution
- a dedicated project officer is essential to drive a project of this nature through to completion
- the use of internal staff for the design and specification helped to ensure the system is appropriate to local needs and audiences.

*Paul Hartley, Stockport Council*
Local authorities care for a wide range of sites, buildings and structures of value to the historic environment, as part of their own civic property and land assets. Many heritage assets are statutorily protected, for example, as Scheduled Monuments and Listed Buildings and failure to comply with legislative requirements can lead to prosecution and financial penalties. The credibility of councils acting as community leaders in protecting and conserving the historic environment depends upon setting a good example as stewards of their own heritage assets because they make a crucial contribution to local identity and distinctiveness, and help to improve the quality of people’s lives through their use for cultural, educational, leisure and operational purposes and service provision.

In 2005, with the support of Councillor Peter Byrne, then the County Council’s Historic Environment Champion, an investigation by the Historic Environment Team revealed that the County Council owned and/or managed nearly 400 (of the 630) significant heritage assets, 300 of which were legally protected, for which operational responsibility was spread across a number of County Council Services. The initial investigation revealed a number of shortcomings with the way in which the County Council managed its heritage assets. These included:

1. A lack of full and up-to-date information on their extent, nature and physical condition
2. Poor and un-coordinated management of documentation for designated sites
3. Poor awareness and appreciation of heritage assets, including the legal responsibilities and obligations
4. Under-utilisation of heritage assets for wider social and economic benefits.

In partnership with the County Council’s Highways Service an initial sample of 104 designated heritage assets was assessed in 2006-7. The Monuments at Risk Survey (MARS) assessments undertaken by Castlering Archaeology, on behalf of the County Council, used a methodology developed by English Heritage in the East Midlands to assess the risks to and improve the management of Scheduled Monuments.

In order to accommodate the information generated by the MARS assessments and allow us to follow the EH methodology, interrogate the data effectively and record multiple surveys against a single heritage asset, we commissioned exeGesIS SDM to develop a custom module for the HER. Each heritage asset was visited, photographed and assessed by the MARS surveyor. The assessment was recorded in a standalone copy of the new database module and, once complete, migrated into the HER database. To ensure that the survey data could be quickly and easily shared with the Highways and Property services, an export routine was included which would export the data to a simple Microsoft Access database. All photographs taken as part of the MARS assessments were linked to their HER database record using exeGesIS SDM’s Library Link software.

In the future we hope to establish the management of heritage assets as one of the key components of any asset management plans established by the new Cheshire local authorities.

---

OUTCOMES AND BENEFITS

The MARS assessments enabled the Historic Environment Team to raise the awareness of heritage assets with the County Council’s services and elected members. For example the Highways Service, with support from the Government’s Local Authority Business Growth Incentive Scheme and in partnership with the Milestone Society and local communities, instigated a £35,000 programme of repair and refurbishment to heritage assets such as fingerpost signs, milestones and Cheshire railings. Marton Grange, the site of a former grange associated with Vale Royal Abbey and a scheduled monument, was identified by the MARS assessment as being at high risk. In response the Historic Environment Team in partnership with County Farms commissioned a detailed condition survey and tree risk survey of the site. From this a detailed management plan is being developed for the stabilisation and long term conservation of the site.

Rob Edwards, Cheshire County Council

1 An eighteenth century milestone on the Macclesfield to Whaley Bridge turnpike.
2 Marton Grange, the site of a former grange associated with Vale Royal Abbey and a scheduled monument.
3 A pair of Saxon crosses in the Market Square at Sandbach.
INFORMATION MANAGEMENT

THE HER AS SEARCH ENGINE: GREATER THAN THE SUM OF ITS PARTS

Our aim at Worcestershire Historic Environment and Archaeology Service has been to create an HER that is a management, research and educational tool. To do this we have worked to increase the scope, quality and consistency of our data and to provide easy access to specialist information for those who need it. We are developing a range of complementary resources which, when used together, allow staff to deliver detailed archaeological information remotely.

PROJECT DETAILS

At the core of this project is the HER GIS. The software was developed in house to allow us to create new record types, for example historic ecology records for veteran trees and ancient hedgerows, or to enhance existing records, for example adding indices of artefacts and ecofacts to the Event Record. Of particular importance was the development of a search engine which allowed us to undertake complex searches and export them in a variety of formats.

In addition to the creation of the new HER we have developed projects to enhance the data available to our users. These have been developed as, and when, the funding or staff resources and skills became available. Our four major projects are:

The Worcestershire Online Archaeology Library. This provides remote access to PDFs of all the desk top published reports produced for sites in Worcestershire since 1987. Currently there are around 1500 reports online. We now request that all reports are supplied to us in digital format.

www.worcestershire.gov.uk/archaeology/library

Digitisation of all sources within the HER. We are digitising every unpublished source relating to the HER. This includes photographs, architects drawings, newspaper clippings, manuscripts, letters and scribbled notes. These, along with the desktop published reports, are linked to their unique source record within the HER software making them instantly accessible to HER staff.

There are copyright issues to be addressed for each source type but, where appropriate, sources can be e-mailed to remote users. In addition the project creates a security copy of our data. Over 7000 sources have been scanned to date.

Creating finds and environmental indices within Activity Records. Worcestershire, like many HERs, had no consistent record of artefacts or ecofacts and creating a detailed dataset was beyond our resources. Instead, in partnership with our specialist colleagues, we created indices which document methods of retrieval and types and date of evidence present. The indices are flexible enough to allow the entry of poor quality information, for example, from antiquarian reports, as well as information from modern specialist reports. The HER now includes indices of all finds and environmental material produced by archaeological activities within the county, irrespective of date or type (2,161 artefact assemblages, 478 ecofact assemblages).

Worcestershire On-line Ceramic Database. This database was designed to make the complete pottery fabric and form type series for Worcestershire accessible on-line. At the moment it contains information on all the pottery fabrics used and made in Worcestershire from the Neolithic to the early post-medieval period but information is regularly added or amended. For each type of pottery the database contains information on fabrics, sources, manufacture, date and distribution. In addition there are photographs of pottery sections and bibliographic references for each fabric type including cross references to other fabric series. The aim of the site is to provide easy access to a specialist resource and facilitate research and synthesis.

www.worcestershireceramics.org

OUTCOMES AND BENEFITS

Whilst each individual project has improved the service we deliver the benefit can be seen most clearly when they are used together to provide detailed archaeological information.

For example, if a user is interested in Bronze Age pottery we can search across the whole county, a particular area, or particular site types. We then e-mail a PDF of the reports of those sites which fit the search criteria and a distribution map. The user can select sites which are significant to them and use the online library...
to access the desk topped published sources. Additional sources which are considered significant, for example a sketch or note on unpublished material or individual pages of local publications can be e-mailed if appropriate. Since the early 1980s all those working on ceramics in Worcestershire have been required to report on their findings using the County Fabric Series. This means that detailed information on fabrics discussed, but not always fully described, in traditionally published and desk top published literature can be accessed using the Worcestershire On-line Ceramic Database (Figure 1) thus providing rapid, reliable access to the most up to date specialist information and associated literature.

The HER is a sophisticated search engine and using it in this way means that we only need to add simple search fields to our standalone sites, thus saving time and money. We feel that, by thinking strategically, a series of small, relatively inexpensive, projects produced over a number of years can be used to create a flexible and responsive information provider which is greater than the sum of its parts. The response to our individual products by professional and public users over the years has been very positive, occasionally glowing. Our new approach was designed largely for the archaeological profession yet we are surprised at the number of students and members of the public who are interested in what we can produce.

The County is committed to maintaining the HER and moving data onto new platforms as appropriate. The location of specialist data within HERs is probably one of the best ways of making it future proof.

Victoria Bryant, Worcestershire Historic Environment and Archaeology Service (WHEAS)
ACCESSING CAMBRIDGESHIRE’S GREY LITERATURE

It has widely been acknowledged that unpublished fieldwork reports (also known as grey literature) are an under-utilised and largely inaccessible resource for archaeological research. This project aimed at developing a cost effective and sustainable means of disseminating grey literature from Cambridgeshire, thus improving access for professional, research and public audiences alike. In doing so, we did not want to add to the proliferation of historic environment internet sites, instead choosing to enhance our presence on the Heritage Gateway (http://www.heritagegateway.org.uk) and build links between the online Historic Environment Record HER and the existing network of online resources, in particular the Archaeology Data Service’s Grey Literature Library (http://ads.ahds.ac.uk/catalogue/library/greylit/) and English Heritage Research Department Reports database (http://research.english-heritage.org.uk/).

PROJECT DETAILS

At the time of writing (April 2009) the Grey Literature Library holds over 210 digital reports for Cambridgeshire. This is the result of over two years of sustained effort to promote the publication of grey literature reports by archaeological contractors via OASIS (Online Access to the Index of Archaeological Investigations). OASIS was adopted as a requirement of all fieldwork in the county in 2005, and since 2007 the uploading of digital reports has also been mandatory. All OASIS records submitted without a report are returned to the contractor, and once the report is signed off and the OASIS record fully completed, validation of the metadata and quality control of the digital report are undertaken by HER staff.

A project to publish grey literature from Cambridgeshire was delivered as a Heritage Gateway pilot in December 2008, with funding from English Heritage and technical consultancy provided by exeGesIS. This work included building hyperlinks between online HER monument records and digital reports in the Grey Literature Library, as well as publishing additional reports held in-house via the county council web server. The links between HER records and reports are managed within the HBSMR (Historic Buildings, Sites and Monuments Record) database and related document management software, and the reports are published to the web server as part of the Heritage Gateway upload routine. Once published, the reports appear as hyperlinks within the monument record, or as thumbnails which link to the full digital document.

Since mid December 2008 we have built links between online HER records and over 200 reports in the Grey Literature Library, and published a further 200 documents via the local web server. These include a number of geophysical survey reports produced by local societies, and we shall be further promoting this route as good practice amongst other volunteer groups. We have also been promoting access to the online HER and digital report library through a series of monthly internet news features on aspects of local archaeology, with embedded hyperlinks to the online resources.

Feedback from this initiative, although still in its infancy, has been encouraging from both professionals and members of the public, both in terms of saved journeys to consult hard copy documents and improved efficiency for users and HER staff undertaking enquiries. In future months we shall be approaching archaeological contractors with a view to incorporating their historic digital report archives, as well as digitising the older and more vulnerable hard copy reports.

OUTCOMES AND BENEFITS

The project was achieved with modest resources. A grant of almost £1,600 was secured from English Heritage to fund the technical developments, with a further four person-days required by HER staff to catalogue and cross-reference the backlog of digital reports. Looking ahead, the initiative is entirely sustainable, with maintenance carried out as part of OASIS validation and built into day-to-day HER data management and workflow. The project also allows for future developments in online dissemination, such as the anticipated development of a centralised repository for older, pre-OASIS grey literature.
Above all, this project has been developed as a partnership between Cambridgeshire County Council, English Heritage and the Archaeology Data Service, to demonstrate the concept of publishing grey literature via the Heritage Gateway and explore the potential for interlinking dispersed internet resources on the Heritage Gateway. The ADS has developed tools for us to identify reports that have recently been published in the Grey Literature Library, and in time web statistics will enable us to assess whether this initiative has led to a greater use of this resource. Notwithstanding the wider issues of standards in grey literature, the project demonstrates a cost-effective means of disseminating unpublished reports as an integral part of an online HER.

Sarah Poppy, Cambridgeshire County Council
GLOSSARY AND USEFUL TERMINOLOGY

**ADS:** The Archaeology Data Service supports research, learning and teaching with high quality and dependable digital resources. It does this by preserving digital data in the long term, and by promoting and disseminating a broad range of data in archaeology. The ADS promotes good practice in the use of digital data in archaeology, it provides technical advice to the research community, and supports the deployment of digital technologies.

**ALGAO (Association of Local Government Archaeological Officers):** the Association that provides a forum representing archaeologists working for local authorities and national parks throughout the UK. www.algao.org.uk

**Council for British Archaeology (CBA):** an educational charity working throughout the UK to involve people in archaeology and to promote the appreciation and care of the historic environment for the benefit of present and future generations.

**Designated asset:** a World Heritage Site, Scheduled Monument, Listed Building, protected Wreck Site, registered Park or Garden, registered Battlefield or Conservation Area designated as such under the relevant legislation.

**Elected members:** commonly known as local authority councillors, these are elected as members of either political parties or as independents to represent their constituency at a local level.

**Event Record:** how information is stored within an HER. Events are simply factual records of who did some work, when, where and how, and can be added to at a later date with information about the location of finds, archives or digital data produced during the event.

**exeGesIS Spatial Development Management (SDM):** an environmental and IT consultancy that develops and manages software applications including GIS systems, database and web applications, field surveys, data processing and management across conservation and countryside disciplines.

**Geographic Information System (GIS):** a computer system capable of capturing, storing, analysing and displaying geographically referenced information.

**HBSMR (Historic Buildings, Sites and Monuments Record):** is a comprehensive database linked to GIS for the management of Historic Environment Records. It has been developed by exeGesIS SDM in partnership with English Heritage’s National Monuments Record (NMR) and ALGAO. HBSMR is now used by the majority of SMRs/HERs in England to manage their historic environment information and underpin its investigation and protection.

**HEEP (Historic Environment Enabling Programme):** a central strategic budget through which English Heritage commissions the research necessary for evidence-based policy and supports nationally-important initiatives that deliver against its strategic priorities and underpin its lead role for the Historic Environment.

**HELM (Historic Environment Local Management):** HELM was set up by EH in 2004 and provides accessible information, training and guidance to decision makers in local authorities, regional agencies and national organisations whose actions affect the historic environment. http://www.helm.org.uk

**Heritage asset:** a building, monument, site or landscape of historic, archaeological, architectural or artistic interest whether designated or not. Heritage assets are components of the historic environment.

**Heritage Champion:** a senior member of a local authority who can provide leadership, help join up policy and strategy across departments and, by encouraging a greater focus on the historic environment, bring significant benefits for the local authority and its community.

**Heritage Gateway:** an Internet portal maintained by English Heritage which provides cross-searchable access to a wide range of local and national historic environment datasets. www.heritagegateway.org.uk

**Historic characterisation:** the process and product of defining the overall historic character of a place or landscape in terms of its present-day archaeological and architectural identity so that the principles of sustainable development can be applied.
Historic environment: all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged and deliberately planted or managed flora. Those elements of the historic environment that have significance are called heritage assets.

Historic Environment Record (HER): HERs are information services that seek to provide access to comprehensive and dynamic sources relating to the historic environment of a defined geographic area for public benefit and use. Typically they comprise databases linked to a geographic information system (GIS) and associated reference material, together with a dedicated staffing resource.

HLF (Heritage Lottery Fund): the body that distributes a share of the income from the National Lottery to projects aimed at preserving and making accessible the nation’s heritage. www.hlf.org.uk

HPR (Heritage Protection Reform): a programme of reform to achieve a modernised approach to all of the historic environment, a better designation process with wider participation, better management and decision-making and local participation and management. The Draft Bill published in April 2008, failed to reach the Queens speech and is awaiting a future parliamentary session.

IHBC (Institute of Historic Building Conservation): the key professional body for built and historic environment conservation specialists across the UK, representing, regulating and supporting practitioners that contribute to the conservation of valued buildings and places. www.ihbc.org.uk

MARS: Monuments At Risk Survey

MIDAS Heritage: a United Kingdom data standard for information about the historic environment and developed and agreed by representatives involved in the recording of the historic environment in the UK, working together as the Forum on Information Standards in Heritage (FiSH). http://www.fish-forum.info/midaspr.htm

OASIS: Online AcessS to the Index of archaeological investigations: The OASIS project provides an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. Partners are Archaeology Data Service, the Archaeological Investigations Project (AIP) of Bournemouth University, the Archaeology Commissions Section of English Heritage, and the National Monuments Record of English Heritage.

SLA (Service Level Agreement): an SLA is a negotiated agreement between two parties where one is the customer and the other is the service provider. It records a common understanding about services, priorities, responsibilities, guarantees and warranties.

SMR (Sites and Monuments Record): each county or Unitary Authority in the UK maintains an SMR, consisting of a list of known archaeological sites. Each record lists the location, type and period of site along with a brief description and a link to more detailed site reports. This information is most commonly used to help inform decisions on the likelihood of new development affecting archaeological deposits however many SMRs are now developing into much broader HERs including information on historic buildings and designed landscapes.
ACKNOWLEDGEMENTS

This project is funded through English Heritage’s Planning and Development Department as part of the HPR implementation programme.

Project Manager: Sarah Reilly (sarah.reilly@english-heritage.org.uk)

Project Team: Dave Batchelor, Stuart Cakebread, Gill Grayson, Bruce Howard, Rachel McMillan, Rosy Phillipson, Emma Turner.

CONTRIBUTORS

Victoria Bryant, HER Manager: Historic Environment & Archaeology Service, Worcestershire County Council

Duncan Coe, Archaeological Officer: Archaeology Service, West Berkshire Council

Nick Crank, Archaeological Officer and Brian Giggins, Senior Archaeological Officer: Conservation & Archaeology, Milton Keynes Council

Robin Daniels, Archaeology Officer: Tees Archaeology, Hartlepool Borough Council

Rob Edwards, HER Officer: Transport & Regeneration, Cheshire County Council

Paul Gilman, HER Manager: Environment & Commerce, Essex County Council

Tim Grubb, SMR Officer: GCC Archaeology Service, Gloucestershire County Council

David Gurney, Acting County Archaeologist: Museums & Archaeology Service, Norfolk County Council

Paul Hartley, Conservation & Heritage Manager: Stockport Council

Peter Insole, Archaeological Officer: Urban Design & Conservation, Bristol City Council

Sarah MacLean, HER Officer: Economy & Regeneration, North Somerset Council

Sheena Payne-Lunn HER Officer: Worcester City Museum Archaeology Section, Worcester City Council

Sarah Poppy, Senior Archaeologist: Cambridgeshire Archaeology, Cambridgeshire County Council

Moya Watson, HE Officer: Transport & Regeneration, Cheshire County Council

Robert White, Senior Conservation Archaeologist: Yorkshire Dales National Park Authority

Anna Wilson, HER Officer: City Development Directorate, Coventry City Council

If you would like this document in a different format, please contact our customer services department on telephone: 0870 333 1181 fax: 01793 414926 textphone: 01793 414878 email: customers@english-heritage.org.uk