

F.8 HERs and the World Wide Web

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F.8 HERs and the World Wide Web#

The Internet offers all manner of exciting possibilities for making information about HERs and their resources accessible to a wider audience. Section [B.9](#) of this manual provides the technical background and guidance on interoperability standards that ensure this information is released in technically flexible and robust ways. This section will look will look at some ways of using the Internet to enable public access to HER information.

F.8.1 Communicating the HER#

Many organisations have now established a presence on the Internet with corporate websites and large numbers of public users expect to be able to use the Internet to find out information about HERs and other services provided by local authorities. For HERs, these corporate websites can offer an opportunity to inform the public about their services and how to get in contact. Simple websites communicating information about the HER and incorporating a facility for users to email enquiries to the HER are relatively easy to set up.

F.8.2 Making HER resources available online#

In the last few years, many HERs have adopted the more ambitious strategy of making both information about services and some of their resources accessible online. This is an aspiration shared by many HERs, but it would be wrong to suggest that there is yet a single, accepted method for presenting this information. HERs are diverse so it is inevitable that their online presences should also be diverse.

For example, the HERs for Northumberland and Durham have pooled their resources to create a shared public version of their HERs called Keys to the Past. Recognising that the specialist language of their HERs was not conducive to a public readership, The Keys to the Past project team effectively rewrote the entire shared data set record by record. This meticulous task was further supported by the development of a series of themed essays on localities and periods. In addition a glossary was written to explain technical terms in simple language.

The Warwickshire HER provides a different model. In this case the development team spent less time re-writing individual records, but created a series of supporting tutorials called the Discovery Zone where users could learn about aspects of the local historic environment and the record.

Each of these models has advantages and disadvantages; the local need and available resource helping to shape the most appropriate response. Keys to the Past creates a legacy overhead for new or changed records. In Warwickshire, while the records are less readable it is easier to synchronise public and professional records, ensuring the currency of public-facing information. There is also a pedagogical difference between them. One teaches the technical vocabulary of the historic environment to provide access; the other provides access by hiding the technical vocabulary. These important considerations are only properly resolved by understanding the needs of the intended primary audience and the uses to which they will put the information they find in the HER. (For a discussion on the use of online HERs in teaching and learning see [Kilbride et al 2002](#), [Kilbride and Reynier 2002](#))

In Scotland, the Pastmap portal, providing access to database information from RCAHMS, scheduled ancient monuments and listed buildings from Historic Scotland and historic gardens and designed landscapes from Scottish Natural Heritage was launched in 2004. Information from several SMRs was added in 2005 with more due to follow (see case study Section [F.8.4.1](#)).

In 2002-3, RCAHMS and the SMRs for Aberdeenshire Council and the Scottish Borders Council undertook a one year proof of concept project, funded by the Heritage Lottery Fund, entitled Accessing Scotland's Past. This project looked at ways to promote and encourage public accessibility to the information held in the NMRS and the SMRs. The project explored the creation and delivery of short summary site descriptions for sites in the project areas. The project was promoted through outreach events and local workshops, and a dedicated website, <http://www.accessingscotlandspast.org.uk>.

Making databases and GIS available over the internet is technically complex and can be costly. It requires a good level of technical support, a dedicated web server, a robust underlying database that has been maximised for multiple concurrent users, and interoperability of local systems. To secure the HER from the outside world means implementing a firewall and creating a copy of the HER database. HERs considering this strategy will need to seek technical advice, either from within their authorities, or from consultants, or through organisations such as the ADS.

F.8.3 Information gateways and portals#

Several national organisations have established web sites that act as gateways to information about archaeology and the wider heritage, for example the CBA, the ADS, English Heritage and RCAHMS. These sites have the potential both for making resources publicly accessible and for creating links between websites thus adding value to the service provided.

Archaeology Data Service#

The Archaeology Data Service (ADS) supports research learning and teaching by providing access to high quality and dependable digital resources. As part of the Arts and Humanities Data Service it operates on behalf of the higher and further education sectors to support the research community, as well as tutors, lecturers and students in 'post-16' education.

At the core of these activities is ArchSearch (<http://archaeologydataservice.ac.uk/archsearch/>), an online catalogue of archaeological resources. At the time of writing this provides information on some 1,000,000 sites, monuments or interventions in the UK and wherever UK-based archaeologists work. In many cases, short metadata records provide access to rich and detailed archives that contain any form of digital object associated with archaeological research. They include prodigious numbers of database files, images, CAD plans, geophysical and topographic survey, virtual realities, animations and statistical data.

ArchSearch is an integrating catalogue insofar as the data held there is drawn from very many HERs from around the UK, so the search tools available can be used to cross search and compare results

from each of the HERs represented there. In many cases the metadata refers to offline resources and users are presented with details of how to obtain those offline resources. However, where those resources are available online, ArchSearch will link directly to them. Consequently a metadata record in ArchSearch may reveal any of the following:

- A rich digital archive derived from an archaeological intervention, such as the archive from the Eynsham Abbey excavations
- A grey literature report or interim report, such as the first phase reports from the Channel Tunnel Rail Link project
- A link to a record in an online HER, such as links to the detailed records within the Keys to the Past website from Durham and Northumberland Councils
- A unique reference number and contact details for papers and records held in a local authority, such as records from the National Trust HER.

ArchSearch is a managed service. Access to information is extended by a context-sensitive help system and a managed help desk. It is actively promoted through a programme of workshops, seminars, newsletters and email and is supported by a series of online tutorials. HER managers thinking of making data available online or promoting offline systems to higher and further education are encouraged to consider providing metadata to ArchSearch as a means of promoting their services.

English Heritage' s National Monuments Record#

The Historic England website (<http://www.historicengland.org.uk/>) and Archive Services team provide an information service for those with an interest in the archaeology and architecture of England. The website includes information about English Heritage resources, services and current projects. For example, the education pages of the website include resources such as worksheets and notes for teachers. In addition, the website is increasingly being used to disseminate professional materials, for example the online version of the Thesaurus of Monument Types.

English Heritage also works in partnership with ALGAO and IHBC to provide the 'Heritage Gateway'. This website acts as a portal, remotely cross-searching English local historic environment records as well as nationally-held data. More information can be found on the website itself at www.heritagegateway.org.uk

RCAHMS' National Monuments Record of Scotland#

The Royal Commission website (<http://www.rcahms.gov.uk>) hosts a number of on-line databases, and provides full access to NMRS information, including digital images, through the Canmore database and web mapping applications. RCAHMS also hosts the Pastmap heritage portal, providing access to Canmore alongside information on Scheduled Ancient Monuments and Listed Buildings from Historic Scotland and Historic Gardens and Designed Landscapes from Scottish Natural Heritage. Since November 2005 it has also incorporated information from some of Scotland' s SMRs. Historic Land-use Assessment information for Scotland is also available through an on-line HLAMAP for those areas of Scotland that have been covered. Finally, AirPhotoFinder is an application providing on-line access to some of the vertical aerial photography held by RCAHMS and also some vertical aerial photography held by RCAHMW.

RCAHMW's National Monuments Record of Wales#

The RCAHMW provides access to information on the National Monuments Record of Wales through [Coflein](#), which contains details of many thousands of archaeological sites, monuments, buildings and maritime sites in Wales, together with an index to the drawings, manuscripts and photographs held in the NMRW archive collections. Sites can be displayed on Ordnance Survey maps and ordered geographically, as well as by text queries.

Access to records is also available through the [Historic Wales website](#). This provides a public entry-point to the Extended National Database for Wales, a national information resource for archaeology and architecture compiled by archaeological organisations across Wales. The website gives access to records from the NMRW, the HERs of the four Welsh Archaeological Trusts and Cadw's scheduled monument and listed building databases and records of the National Archaeology Collection of the National Museum of Wales.

Archwilio: Wales' Historic Environment Records#

The four Welsh Historic Environment Records are also available through the [Archwilio](#) web site, which gives access to live HER data for the whole of Wales.

References#

[Kilbride, W.G., Fernie, K.M., McKinney, P. and Richards, J.D. 2002 'Contexts of Learning: The PATOIS project and Internet-based teaching and learning in Higher Education' in Internet Archaeology](#)

[Kilbride, W.G. and Reynier, M.J. 2002 'Editorial - Keeping the Learning in Computer-Based Learning' in Internet Archaeology 12](#)

F.8.4 Records on-line: case studies#

Canmore, CANMAP and Pastmap: presenting Scottish datasets online.#

Peter McKeague, RCAHMS Canmore

The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) records and interprets the sites, monuments and buildings of Scotland's past and promotes a greater appreciation of their value through the National Monuments Record of Scotland (NMRS). Canmore, the database of the NMRS, has been online since 1998 (available through the RCAHMS website: <http://www.rcahms.gov.uk> See figure 66). Canmore enables users to search on key fields (including place-names, type of monument, Council or parish area or by featured collection).

Figure 66: Sample NMRS record viewed through Canmore. (©RCAHMS 2007 and ©Crown Copyright. All rights reserved. 100020508. 2007).

From the results page a user can fully access any information held on the NMRS database, including descriptions, selected bibliographic references and indexes to material held in the Collections of the NMRS.

CANMAP

In July 2002, a web-mapping enabled query system, CANMAP (see figure 67), was launched to compliment Canmore and is available on logging into CANMORE (via <http://www.rcahms.gov.uk>). Using ESRI's ArcIms software, CANMAP enables users to zoom into any part of Scotland through a click and drag tool and view the NMRS records against an appropriate scale of Ordnance Survey raster map determined by pre-set scale thresholds. The NMRS records are displayed as a series of blue dots, with the level of accuracy for the NGR of an individual record expressed through the intensity of the shading. Lightly coloured dots reflect poorly located sites where the quoted NGR may only be accurate to the nearest 10Km or 1Km. Progressively darker shades reflect the increasing confidence in the accuracy of the site location may be expressed to the nearest 100m, 10m or 1m.

Figure 67: Site selection using a web-GIS browser: the RCAHMS CANMAP. (©RCAHMS 2007 and ©Crown Copyright. All rights reserved. 100020508. 2007).

Users may either query NMRS records by selecting an individual blue dot or, through an area search select and generate a report on one or more NMRS sites. Once selected, the user can view the associated site records which are drawn from CANMORE.

Pastmap

Historic Scotland is an executive agency of the acts on behalf of the Scottish Ministers, responsible for safeguarding is an executive agency within the Scottish Executive, responsible for to safeguard 'safeguarding the nation's built heritage and promoting its understanding and enjoyment'. In June 2004 Historic Scotland and RCAHMS launched Pastmap (www.pastmap.org.uk) to bring together in a single environment the statutory information about Scheduled Ancient Monuments and Listed Buildings with the NMRS data already available through Canmore and CANMAP (see figure 68).

Figure 68: Completed search on Pastmap with map report on selected records. (©RCAHMS 2007 and ©Crown Copyright. All rights reserved. 100020508. 2007).

On completing a successful search a report appears in a separate window. From here a user can view summary information on the selected records and follow links through to view the listed building description, download a .pdf of the Scheduled Ancient Monument documentation or view details in the NMRS database.

In association with Scottish Natural Heritage, The Inventory of Gardens and Designed Landscapes was added to the website in November 2004. Pastmap has since been extended to include information, both point and area data, from those Council SMRs wishing to participate in the project. Where SMRs already deliver information about individual records via the Internet, users will be able to follow links in the report to the relevant record on the remote site. Alternatively, for those SMRs with no web database presence, contact details will be provided.

Information presented through Canmore is updated daily, CANMAP weekly and Pastmap fortnightly.

Online Access to HER: Somerset#

On 30th September 2003 Somerset Historic Environment Record (HER) became available as an online resource, <http://www.somerset.gov.uk/heritage>. This case study gives details of what was achieved. For details of the accompanying outreach programme see section [F.7.3](#).

Prior to this date the Somerset HER existed in the form of several large filing cupboards of numerically ordered files, a computer database and a Geographical Information System computerised map. Members of the public accessed the resource either at the office through individual appointments or in correspondence by letter, phone or email. This arrangement created an access problem for people unable to get to Taunton easily. It also meant that postal/ telephone queries could take a long period of time to resolve

The website was created by the Council ICT department and a consultancy with a commercial company 'Dotted Eyes' (<http://www.dottedeyes.com>), in conjunction with the HER. A user group was also established and consulted as to their needs. This group also extensively tested a site prototype before the full launch. Three basic elements of the site were decided upon:

- a digital map, composed of OS information overlain by layers of historic environment information and searchable by road name, NGR, post code or place name;
- a simple query page that enabled all the record titles to be searched by keywords, and

- an advanced query page enabling a number of criteria to be used in searches, for example geographic area, monument or event type and period.

Figure 69: Example Record Page from Somerset HER (©Somerset County Council 2003).

The website features a searchable map and database and was created using Microsoft Active Server Pages (ASP) to query the MS SQL Server database. The maps are generated by MapInfo MapXtreme and displayed using Dotted Eye's Response MX application. Much of the design of the website (including the advanced query page and the results layout) was taken from the HER Viewer, an in-house application that queried the HER database stored in MS Access and which had been refined over the previous decade. The database was transferred to MS SQL Server and the web facing data is created from the internal GIS and database every evening. Using duplicate internal and external systems overcomes many security issues as no access to internal networks is needed to use the website and any damage to the web database will be overwritten within 24 hours.

The Somerset HER comprises over 21,000 records, all of which were made accessible online; no records were excluded. Further website pages were created with information on specific county heritage projects and topics, background archaeological information, archaeological events, thesauri of monument and artefact types and opportunities for the public to become involved in local archaeology.

The results of queries produce a page of information on the site, building or event (see example in figure 69). The record's primary record number, name, civil parish, whether the site is part of another site, and the National Grid Reference all form the header part of each record page. Beneath is a link to the GIS mapping of the site and, where currently available, an image of the site. This is then followed by details of any known public access to the site. Beneath is the main site summary, composed of paragraphs of summarised source information. Each source is fully referenced and the record creator and date of creation is given at the bottom of each page.

In addition to the HER components the site also aims to set these records within the context of relevant historic environment information. For this, a number of sections were written and linked to the database. These include: glossaries of technical terms and monuments types; an explanation of the different chronological terms used to date monuments and artefacts; brief summaries of the state of knowledge of each time period the county and a comprehensive general bibliography and further references section. There is also a section dealing with the history of archaeological work within the County from the antiquarian barrow diggers through to the large development driven excavations of more recent times.

The site was designed with access issues in mind and aimed to comply with all current accessibility standards. A comprehensive downloadable user guide is also available to ensure that the site is as understandable as possible.

A voluntary system of registration forms part of the site but is not necessary to gain access. The site is free to use whether registered or not. However the advantage of registration for the user is that more detailed mapping is available to them. By October 2004 over 750 people had registered on the site, providing their email address, name and location as well as a reason for using the site, selected from a drop down list. Registration enables the HER staff to monitor use of the site and evaluate performance and demand. In June 2004, for example, 1,159 people in total visited the site and of these 810 visited once and 349 more than once. (see [panel 13](#)). No HER information, with the exception of personal information covered by the Data Protection Act regulations, is withheld.

Panel 13: Example of a breakdown of reason for interest in HER Information.#

Reasons for Interest in HER Information (August 2004)	Number of Users
Archaeological Contractor	27
College Student (A Level)	32
Flint Collector	2
General Interest	228
Local History/Archaeology	260
Local/National Government Partner	56
Metal Detectorist	9
Professional Researcher	45
School Student	6
Tourist	8
University Student	70

There is an opportunity to contact the HER on the 'Contact' page to send enquiries to the service or provide feedback on the site Here users can select a reason for contact from the following options:

- Historic Environment Record-Report new or updated information.
- Historic Environment Record-Report problem.
- Historic Environment Record-General Enquiry.
- Listed Building enquiry.
- Archaeology and planning enquiry.
- Archaeology and farming enquiry.
- Opportunities to join in.
- General enquiry.

There has been a very positive response to the website both from members of the public, heritage professionals and HER staff. The profile of the HER and the group as a whole has become much more prominent with many mentions on local websites, in local publications and in all forms of the media. Undergraduate students at Southampton University have described the site as 'user friendly', 'very concise, easily manoeuvrable', with 'the greatest degree of accuracy and thoroughness' ([Schofield 2004, p.11](#))

The main advantage for the users of the HER is that their queries can be answered much more speedily through the direct access to the information. The advantage for the HER staff has been the time gained that would normally have been involved with postal/telephone/email to-and-froing trying to understand exactly what an enquirer wants and seeking out and sending off that information. The enquirer now has direct control over the information seeking process. Another positive outcome of the site is the number of new sites and additional information being sent to the HER via the website.

Although registration is not obligatory in order to use the site it offers additional facilities/access and there are now 750 registered users of the website, many of whom are regular visitors. In June 2004 there were 1159 visits to the website, 349 of which visited more than once in that month alone.

Version two of the website, launched in October 2004, provides additional facilities including 1946 and 2001 aerial photographic coverage of the county and conservation areas information available as map layers. In the future it is planned that the use of the HER online facility will continue to be monitored and adapted, where necessary, to fulfil identified user needs.

Some examples of feedback regarding the site.

"I'm a part time PhD student working with Simon Haslett at Bath and I think your site is great!! I'm currently finishing my thesis and have found it a big help." 01/02/04

"Obviously a lot of work has gone into this excellent site. As a fellow local government officer I wish you all success with it." 12/01/04

"I have already used the site several times and I must say that it is a very comprehensive and user friendly system although I'm sure that it belies all the hard developmental work that must have gone in to it. For us, it's already a valuable resource and a very efficient means of gathering archaeological data for Somerset." 04/11/03

"Just like to say what a lovely site this is. Easy to navigate and plenty of detail. Very helpful." 13/10/03

"Bloody fabulous. Well done." 10/10/03

"A good way of finding information about Somerset. Excellent". 05/10/03

Useful References#

The plain English guide to designing clear websites <http://www.plainenglish.co.uk/designguide.pdf> 'A website is a means of communication, not a way of showing off your technical knowledge'

Archaeological Data Service - produces a 'Guide to Good Practice' for IT. <http://guides.archaeologydataservice.ac.uk/>.

Guidelines for UK Government Websites - see <https://www.gov.uk/service-manual>

Web Accessibility Initiative <http://www.w3.org/WAI/> ensures you meet current data standards