

The Newsletter of the SMR Software Users Group

Message from the Chairs

**Glenn Foard, Northamptonshire
Heritage.**

A number of important issues for SMRs are now coming to the fore. After several years of hard work by a wide range of people, the framework document which will enable SMRs to submit lottery bids is nearing completion and hopefully will soon get HLF endorsement. David Baker's excellent report on the current state of SMRs is about to be published and HEIRNET, the working party which is intended to move us closer towards an 'Integrated Information System', has been established.

This certainly feels like the wrong time to be moving out of the SMR field, but unfortunately other pressures of work eventually catch up with one and so, amongst other things, I have had to step down from chairing the SMR User Group. However I am pleased to say that Steve Catney, the other half of the team who presented that infamous 'Vision' for SMRs at the IFA conference in Manchester several years ago, has agreed to chair future meetings of the User Group. Good luck Steve.

**Steve Catney, Lincolnshire County
Council**

When standing in for Glenn Foard at the last SMR Software Users Group meeting, little did I realize that I was being primed for a regular spot. As the new chairman I would like to thank Glenn on behalf of the SMR community for all of his hard work over the last couple of years, he will be missed. I have been asked to introduce myself to the group. I find the idea amusing as I have never been accused of keeping a low profile.

However for those of you who I have not yet met here is a brief history.

I have always had an interest in archaeology due to being dragged around museums and archaeological sites as a child. After A levels I took a year out and spent much of the time digging, finally ending up at Newcastle University. I had lots of fun there including a spell of survey and excavation in Yugoslavia. After University I ended up working for the Landes denkmalmamt Baden-Wurtemberg in Germany. When I returned I took a short computer course.

My SMR career started with Staffordshire and I have spent the last 10 ½ years building up the archaeological service in Lincolnshire. During the last decade I have spent much of my time championing the cause of the humble SMR including several years as the chair of the ACAO SMR working party.

During my time working with SMRs I have seen databases change from card index systems and simple word processed documents through flat-file systems and Superfile to relational databases and the first more complex systems produced in Oracle. Finally, there has been the development of relational systems in software like Foxpro and Access including the exeGesIS package.

Digital mapping has also improved beyond all recognition. Starting with distribution plots of dots on maps, through basic digital mapping, then the first unwieldy GIS systems like Gfis (and dare I say Arcinfo), culminating in inexpensive and relatively easy to use PC systems like Mapinfo.

Presently the developments ahead are still under discussion. Although it has been generally accepted that a

new structure for our records is overdue, and the Event and Monument approach is emerging as the way ahead, there are still thistles to grasp. The SMR review being undertaken by David Baker will highlight the strengths and weaknesses of the present situation. Once his document has been produced, devoured and digested debate will be required to set the future agenda for SMRs. It has been suggested that a half-day meeting in London is set up to engage in this debate with both the ALGAO representatives and their SMR officers invited. Look out for your invite!

To note but a few of the challenges ahead: further work is required on developing a working understanding of Event (see article in this issue of SMR News) and Monument (brainstorming meeting held 13 January 1999); GIS standards must be implemented (see ADS GIS guide to good practice); exeGesIS software users will want to get involved in their group to put forward their ideas for new developments.

Of course we still have a long way to go, and if we are doing SMRs justice they will never be complete. It is however so easy to be critical of ourselves and our systems, to identify all the things we have not achieved, and to focus on the backlogs created by the ever widening remit of the SMR Officer. I do think we should reflect now and again and pat ourselves on the back. There are not many professions where such rapid innovation could have been achieved over such a wide area of responsibility with so little resource and virtually no training. So be proud to be part of the SMR community, I am, and take the opportunity afforded by this discussion group to develop SMRs into the future, but above all get involved and **ENJOY IT!**

SMRs: a progress report.

Dave Barrett - Convenor ALGAO SMR sub-committee

In the last issue of SMR News I was able to take the opportunity to briefly review some important initiatives for SMRs then underway. I am pleased to say that two of these, the Framework Document for SMR bids to the Heritage Lottery fund and the SMR Assessment Project are now largely complete and if they have not already landed on your desk then their arrival is imminent.

The assessment project was carried out by David Baker according to a brief approved by the membership of ALGAO and has proved a major task. The assessment looked at six inter-related aspects of functionality, Management context, System organization, Information content, System linkages, Users and Data/quality assurance. I am aware that there has been concern that the SMR assessment will cast some SMRs in a very poor light and that this could have negative repercussions on the SMRs concerned. Inevitably, in any assessment some SMRs will come out as better developed and more advanced than others. In this case 67 out of the 75 SMRs that responded to the questionnaire scored between 35% and 64% of a notional comprehensive standard, indicating that most SMRs are significantly underdeveloped. A small number of SMRs, which have been consistently well funded over a period of time, illustrate the potential to deliver a wide range of services, catering to the interested public and education and research, as well as informing the planning process.

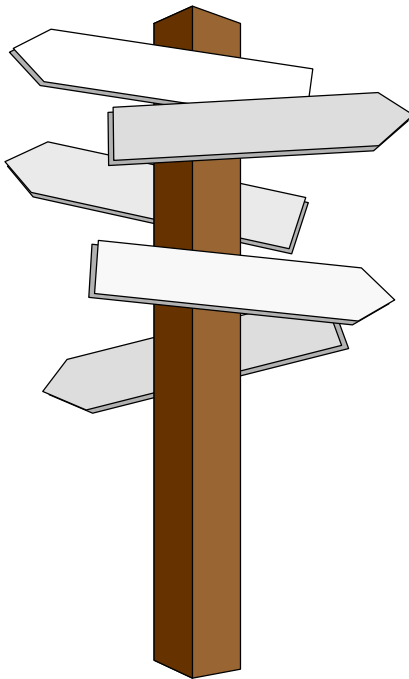
The next challenge will be to use the assessment in a positive way to argue the need for funding from various sources to expand the capabilities enjoyed by the few to the majority of SMRs. Without such a comprehensive review of the position and state of SMRs, I believe it would be impossible to make a reasoned case for increased resources, whether through the achievement of statutory status, through individual host authorities or through the, soon to merged, national bodies.

In certain areas of functionality, particularly research and servicing the

needs of education and public access, the Heritage Lottery Fund (HLF) has now indicated its willingness to fund SMR development. A final draft of the Framework Document for SMR bids to the HLF was largely approved by its Historic Buildings and Land Panel on 24 November 1998.

At the time of writing the HLF and the partners in the Framework, ALGAO, RCHME and EH had agreed to meet to finalise the wording of the document. As soon as this has been done, I hope it will be circulated to all ALGAO members, as I am aware that bids to the lottery are already being developed.

Seeing these various projects and reports through has been a prolonged but worthwhile task and I hope the pieces are now in place to achieve the increased recognition and funding that SMRs so badly need.



Recording practice.

Kate Fernie, RCHME

At the SMR Software Users Group meeting in York last September I talked about the need for recording practice guidelines for SMR officers. To those of you who have been working in SMRs for years it probably seems like I'm trying to teach you how to suck eggs. But over the last few years there have been many changes for SMRs.

Local government re-organization has increased the number of SMRs being maintained (the 57 SMRs identified by MARs in 1995 had increased to 78 by the time of David Baker's survey). Several interesting new projects are underway funded by the heritage lottery fund to create special interest databases, e.g. Public Monuments and Sculptures project, Defence of Britain project, Jewish Architectural Heritage project. All these developments have brought, or will bring, new people and new data sets into contact with SMRs.

A lot of work has gone into agreeing and promoting data standards. MIDAS, the Manual and Data Standard for Monument Inventories, has been published and work is ongoing (see p.6) to develop relevant reference data sets to be built into heritage databases.

For SMRs the advent of new software incorporating these standards, e.g. the package developed by exeGesIS SDM in partnership with the RCHME and ALGAO, has brought new potential. The world of relational databases allows monuments on the ground to be split into different records for the various phases and structures, re-grouped together and linked to relevant events and sources.

Some of the concepts are new and the decisions and potential differ from those in the days of Superfile. Talking to SMR officers has confirmed to me that many of you would like to develop desk manuals but lack time. I hope that the discussions underway will help ALGAO, with support from the RCHME/EH, to begin to develop useful guidance

So what is an event?

Steve Catney, Lincolnshire Over the last two years much discussion and debate has taken place regarding the need to restructure SMRs to meet the challenge of the 21st century. It has been suggested that developed SMRs creating a 3-dimensional (or is it 2.5D) dynamic model of the historic environment and networked together, could form a genuine National Archaeological Record. Once made accessible to all interested parties the system could enable the re-integration of the archaeological profession.

A grand vision and a significant challenge, however the advent of GIS and relational databases, the establishment of the event/monument structure and the identification of the data and interpretation components of the SMR have begun to make this possible by focusing minds on a structured way ahead. The past few issues of *SMR News* have seen various articles discussing the issue of SMR restructuring but it is the Event and Monument structure in particular which is the first challenge and therefore where most attention has been focused. So as not to repeat many of the points already made in *SMR News* I refer you to earlier articles and in particular "What is a Site Event" by Glenn Foard in Issue 3.

Although many individuals have been involved in discussion regarding the above, I still get the feeling many see the issues as not really pertinent to them. Various SMR staff have come up to me asking the same questions, one of which is "*its all very well talking theoretically about events, but what does that mean in terms of a practical structure ?*". I often pass the question back to the enquirer in the hope that they might get involved in the debate. Unfortunately for many reasons (the majority of them quite understandable) very few have engaged in the debate so far.

This brief article is an attempt to begin to provide something practical that can be used within any SMR and hopefully to stimulate wider debate.

As you are all aware there is a good deal of discussion going on regarding these issues and it is hoped that a paper based upon the two brainstorming sessions organized by Rob Bourn on behalf of ALGAO will be produced shortly. In the meantime some SMRs need to tackle the issue of restructuring data into event form now. In an attempt to aid those SMRs grasping the nettle, a list of event techniques, based on the work of the Lincolnshire SMR has been prepared.

Firstly a definition of an event:

An event is a single episode of primary data collection over a discrete area of land. This single recording event can only consist of one investigative technique and is therefore a unique entity in time and space.

The Lincolnshire event list has been constructed in a bottom up approach to link event techniques that are used by the SMR rather than to provide an artificial theoretical construct. The list is hierarchical and is based on the fact that three main types of event occur at the top level.

Firstly SURVEY which can take place where information is recorded with minimal disturbance to the archaeological site, except for the removal of artefacts during fieldwalking.

Secondly, INTERVENTION where a record of the archaeology is made during a destructive process.

Finally, HISTORICAL where an event took place in the past and a SOURCE was produced (e.g. a map, an antiquarian journal etc).

The Lincolnshire Event list subdivides each of these three categories into more specific instances. For example, the SURVEY category is subdivided into AERIAL SURVEY, GEOPHYSICAL & GEOCHEMICAL SURVEY, FIELD OBSERVATION, FIELD WALKING and MEASURED SURVEY.

At the next level more specific event types are identified, e.g. Bosing and

Dowsing are sub types of Geophysical & Geochemical Survey.

Where one research design contains multiple event techniques this is known as a PROJECT and should still be broken down into its constituent events. 'Meta-data' can be used to refer to the project and links between the separate events can be created within the relational database.

In addition to the event technique each event record requires a minimum set of data (i.e. meta data) to be included for it to be fully understood. For example, SURVEY, Fieldwalking systematic. This data should include Day, date, NGR, land parcels covered, areas not walked and why, condition of surface, methodology, direction walked etc.

The Lincolnshire event list is by no means complete, there may well be other techniques which are used in your area. The next stage will be for the event list to be circulated with scope notes for discussion in the profession and a peer review process to be co-ordinated through FISHEN. This list is being sent to you with this newsletter ready for further discussions at the next SMR Software Users group meeting.

Rather than receive something that you are unhappy with as a national standard, get involved and comment back. Comments should go directly to Edmund Lee of FISHEN and can also go to myself, Rob Bourn, Kate Fernie or any member of the ALGAO SMR working party. It's your SMR and it's our national standard, let us know what you think.

Once agreement has been reached and the event structure is in place SMRs will be on track towards a vision which could deliver data in a more accessible and useful form to our customers, and allow a much clearer understanding of our data, and the interpretations we place upon it.

An example of Events in Practice.

Paul Charlton, Greater London SMR

Since its computerisation in 1983 (Clubb & James 1985) the Greater London Sites and Monuments Record (GLSMR) has been based upon the monuments-events paradigm. In light of current debate within the SMR community, it seems appropriate to briefly discuss our working practices and experiences within a well-established framework.

To a degree, the nature of Greater London's archaeology necessitates such an approach. There are historic urban centres (e.g.: the walled City, Lundenwic) and outlying rural hinterlands with the modern urban and suburban sprawl superimposed on top. It is rare that monuments can be defined as physical entities prior to archaeological fieldwork taking place.

In a sense, the synthesis of events is the only way in which monuments may be defined within much of the GLSMR catchment area. It is an approach that is broadly compatible with that adopted in Urban Archaeological Databases (UAD).

One of the most fundamental fields within our database is Nature of Evidence. This is a mandatory field and records how we know about the item under consideration. It is wide ranging and takes into account such diverse sources as excavation, building recording, placename evidence, documentary sources and verbal references. There is also the capacity for recording suspected or hypothetical sites.

As a result, every record on the GLSMR may be defined as an "event". The specifics of an event (e.g. archaeological contractor, the dates of an archaeological intervention etc.) are recorded within the Additional Notes for the record, a free text field.

Groups of events that form coherent monuments are identified within the database in several ways. Where a record relates to a monument with a

"common name" (e.g.: the Stanwell Cursus, Tower of London or Stane Street) this is recorded within the Name field. The free text field is used to clarify relationships between events and monuments and to attribute interpretations to their source. Events are cross-referenced to other relevant events and the structure of the record also allows for the grouping of events.

The data structure allows the GLSMR to serve primarily as an index to more detailed information. The role of the GLSMR is to be as objective as possible in the recording of data and the definition of monuments is a subjective task. Researchers and field workers are relied upon for interpretation allowing the SMR team to concentrate on the compilation of raw data rather than synthesis within the record itself. Interpretations and reinterpretation are themselves recorded.

Another practical benefit of the system is that it allows for the GLSMR to be integrated more closely into the PPG16 casework undertaken by the Greater London Archaeology Advisory Service (GLAAS). The administration of PPG16 creates numerous types of event relating to the various stages of assessment and mitigation. The collation of data for the GLSMR is formalized within that process and geared towards recording archaeological interventions as events.

The GLAAS Archaeological Guidance Paper 3, Standards and Practices in Archaeological Fieldwork in London (GLAAS 1998), adhered to by all contractors undertaking archaeological fieldwork in London, makes it explicit that an Archaeological Report Form should be submitted on completion of fieldwork. Submission of the form can then be enforced through the planning process. The form asks field workers to summarize all relevant finds and features recorded during the fieldwork including negative results. This allows the GLSMR to help provide the administrative background to new sites that arise as part of the planning process.

SCAUM: recording information about archaeological fieldwork

Mark Barratt, RCHME

In 1997 SCAUM recommended that archaeologists should be responsible for completing a record form for each individual piece of fieldwork or desk-based work undertaken, and supplying copies to the relevant SMR and NMR.

This was in response to studies into the implementation of PPG 16 (Pagoda, 1995 and English Heritage, 1995) which found that the availability of client reports was very restricted and that the rate of notification of fieldwork to the SMR and NMR was very poor.

The non-publication of the results of destructive archaeological fieldwork is not a new problem, nor is it limited to planning-driven work. The results of projects of all types and sizes, however funded have been lost.

The mechanism recommended by SCAUM was made with the aim of helping SMRs and the NMR to maintain a comprehensive and current record of fieldwork and the location of the associated archive and finds. A simple record form, based on forms used by both the RCHME and the GLSMR, was included in the booklet and this was intended to be issued with briefs for PPG 16 and other projects.

Completed forms returned by units to the NMR have been incorporated into the Excavations Index (now available on the Internet, see p5). As curator of the Index I would like to encourage SMR officers to contact me to discuss the SCAUM form and Event records.

References:

- Clubb, N. & James, P. 1985. "A Computer Record for Greater London's Heritage". The London Archaeologist Vol. 5 No. 2, pp. 38-9.
- GLAAS 1998. Archaeological Guidance Papers. Revised June 1998. English Heritage.
- SCAUM: Recording information about archaeological fieldwork, 1997, SCAUM

Time and place: recording archaeological interventions in England 1990-1996

Tim Darvill and Alex Hunt

Knowledge about the nature and incidence of archaeological investigations cannot be taken for granted, especially in the post-PPG16 era with the proliferation of different kinds of intervention. This short note reviews the approach used in the Archaeological Investigations Project, and in particular the way in which interventions are classified.

It is important to know what is happening in terms of the number, nature, distribution and output of archaeological interventions in England for three main reasons.

First, in intellectual terms, interventions produce the raw material from which understandings and interpretations of the past are based. During the early 1990s it was widely recognized that information from the numerous small-scale archaeological operations is not widely available. An analysis of archaeological publication prepared in 1992 noted that: "The number of archaeological interventions undertaken each year runs into many hundreds and no complete and consolidated record is kept of them. This is a situation which archaeology as a mature discipline should no longer be prepared to accept" (Carver *et al.* 1992, 23.4).

Second, in practical terms, archaeological contractors and curators have few quick and easy ways of finding out what has been done recently in a particular area, nor of setting work that is known about within a wider context represented by recent discoveries. This is especially true where areas of interest cut across the geographical coverage of individual county SMRs.

Third, in management terms, projecting the future needs for archaeological resourcing, skills, and work patterns is important for the

profession as a whole and for almost all sectors of it, especially curators, contractors, and consultants.

One of the problems facing any attempt to overcome these three demands is the lack of a systematic, comprehensive and up-to-date national index of investigations and archaeological interventions. True, some of the period societies publish annual digests of work relevant to their own field of interest, some county societies include lists of local projects in their publications, and the RCHME has created an "Excavation Index".

In 1991 English Heritage established a research programme called *The Assessment of Assessments*. The focus of this was planning-prompted interventions, especially assessments and evaluations. One output was a set of studies that looked at the assessment process in detail (Darvill *et al.* 1995; Champion *et al.* 1995). Another output was a gazetteer of desk-based assessments, field evaluations, and environmental assessments carried out between 1983 and 1991 published as a supplement to the *British Archaeological Bibliography* (Darvill *et al.* 1994).

The project was expanded to cover all archaeological investigations in England: funded by English Heritage it is known as the Archaeological Investigations Project (AIP). It has now been running for four years and has published Gazetteers covering archaeological work from the period 1991-4. Again they are available as supplements to the *British and Irish Archaeological Bibliography*, in all detailing nearly 10,000 events. These gazetteers, and the research behind them, provide a unique insight into the changing pattern of archaeological work in England. Further volumes dealing with 1995 and 1996 go to the printers at the end of 1998.

From the beginning of the AIP attention focused on what can be called archaeological "events". There were two main reasons for this.

First, philosophically, the need to distinguish between observation and interpretation is a fundamental tenet

of scientific inquiry inherent to the positivist views of data that lie beneath the very idea of an inventory or its manifestation as an SMR. An "event" in this sense is a cover-term for a set of observations.

Second, legally, an event such as an excavation or a geophysical survey is a matter of fact that can be fixed in time and space. What that event revealed, the findings, represents a matter of interpretation and judgement, and as such may be susceptible to challenge and debate.

Events can be classified into analytical groupings, for AIP there is no suggested structural relationship between the categories themselves (although it is accepted that their execution may be parallel or serial, multiple or single). The initial definition of event types follows early researches (Darvill and Gerrard 1994), and their refinement, took account of developing vocabulary within the discipline, and recognizable procedures in documents such as PPG16 and the IFA's standards. Key event types defined in AIP are:

Appraisal: The quick "scanning process" of planning applications or development proposals to identify those with a potential archaeological dimension.

Detailed Appraisal: A thorough search of the SMR and other sources to determine whether there may or may not be an archaeological dimension to a proposal. Sometimes involves a visual inspection of the site.

Desk-based Assessment: A commissioned, essentially desk-based exercise which aims to consolidate, examine and validate the recorded archaeological resource relating to a given area (i.e. background research). Usually involves a visual inspection of the site but stops short of collecting new data through fieldwork.

Field Evaluation: A structured programme of site investigation which may or may not involve direct intervention of the archaeological resource but always involves a systematic and problem-orientated examination of the primary resource.

It is assumed that an appraisal and/or desk-based assessment has taken place prior to the field evaluation.

Environmental Assessment: A tiered multi-disciplinary programme of investigation which assembles data relating to a defined resource and then examines the likely positive and negative effects of a proposed development programme. The product is known as an **Environmental Statement** and its content and scope are defined by legislation (European Directive 85/337/EEC; implemented in the UK as *Town and Country Planning (Assessment of Environmental Effects) Regulations 1988* (SI 1199)).

Estate Management Survey: This is similar to a desk-based assessment for development purposes, but relates instead to the production of a management plan. Likely to include documentary research, trawling existing records, walk-over inspection surveys, and perhaps some limited fieldwalking or geophysical surveys.

Open-area excavation / Full Excavation / Part Excavation: This involves the systematic investigation, recording, and removal of archaeological deposits according to the principles of stratigraphic excavation. Size may vary from the examination of holes to take piles or foundations, through slit trenches to clarify particular problems, to extensive trenches in excess of 100sq. m. Open area excavations do not always involve the complete removal of deposits, size and depth is determined by the extent of expected destruction or the archaeological questions being investigated. Full excavations involve the complete removal of archaeological deposits. Part excavations involve the partial examination of an area.

Watching brief: A qualified archaeologist monitoring the excavation of a hole by a building contractor or some other person. The watching brief is maintained throughout the groundwork, and there may be provision to suspend digging temporarily while records are made or finds recovered.

Recorded observation / Salvage Record / Salvage Excavation: Periodic visits to a development site by a qualified archaeologist for the purpose of recording archaeological deposits and recovering finds which have come to light. This differs from a watching brief in that an archaeological presence is not maintained during groundwork and there are no powers to suspend work. Observations are just that, salvage records are drawings, photographs or other kinds of record made under constraining circumstances. Salvage excavation is when some deposit removal and examination is possible.

Systematic field walking The systematic study of ground surfaces and collection or in-situ recording of visible archaeological material. This includes line-walking, grid-collection, transect or quadrat sampling.

Test-pit survey: Studies which sample the content of the topsoil and the nature of sub-surface deposits through systematically positioned holes. Usually, the test-pits provide quantified volumetric samples of artefact density or environmental data.

Full survey / Part survey: The recording of archaeological remains, mainly earthworks and structures, through measured drawings and plans made using conventional or electronic surveying instruments.

Systematic metal-detector survey: The systematic study of ground surfaces by scanning them with a metal-detector and recovering any metal objects identified through this means. In some cases the collection may be grid-based or line-based. sampling patterns may also be used.

Building Survey: The analytical recording of buildings and structures through plans, elevations, photographs and other means, usually when they are undergoing structural modification or in advance of demolition.

These event types are by no means exhaustive of the work done in archaeology today. Rather they relate to the defined work of the AIP. Geophysical surveys are not covered

here as a separate database has been established (Linford and Cottrell 1994). Moreover, event types must not be confused with particular working methods or specific sampling schemes. Within any one event type there may well be several pieces of field practice applied (for example a desk-based assessment may include plotting aerial photographs, map regression, documentary searches etc.) Some fieldwork projects may combine several event types which often have different spatial parameters and may be undertaken at different times.

As the constitution of record items become better developed amongst the SMRs and NMRs of Europe, the list of event types will no doubt expand and the definitions improve. What is offered here is a starting point for consideration.

References

- Darvill, T, and Gerrard, C, 1994, *Cirencester: Town and landscape*. Cirencester. Cotswold Archaeological Trust
- Carver, M, *et al*, 1992, *Archaeological publication, archives and collections. Towards a National Policy*. London. Society of Antiquaries and the Museums Association
- Champion, T, Shennan, S, and Cuming, P, 1995, *Planning for the past. Volume 3. Decision-making and field methods in archaeological evaluation*. London and Southampton. English Heritage and Southampton University
- Darvill, T, Burrow, S, and Wildgust, D A, 1994, *The Archaeological Assessment Gazetteer 1982-1991* (= British Archaeological Abstracts Supplement 1). York. Council for British Archaeology
- Darvill, T, Burrow, S, and Wildgust, D A, 1995, *Planning for the past. Volume 2. An assessment of archaeological assessments 1982-1991*. London and Bournemouth. English Heritage and Bournemouth University
- Linford, N, and Cottrell, P, 1994, The English Heritage geophysical survey database. *Archaeological Prospection*, 1.1, 71-2

British Archaeology gets online catalogue

Alicia Wise, ADS Data Co-ordinator

A major new resource for archaeology in the UK was launched on the 15th September when the Archaeology Data Service unveiled its online catalogue. The site's address is <http://ads.ahds.ac.uk/catalogue>.

Using the latest computer technology, the ADS catalogue makes information about archaeology rapidly available to anyone with Internet access. For the first time ever, this online catalogue makes it possible to locate similar archaeological sites across the English, Irish, Scottish, and Welsh borders. So if you've ever wanted to know where all the Roman sites in Britain are...

The catalogue contains images of excavations and artefacts, maps of key sites and prehistoric landscapes, and virtual reality reconstructions of the past. It also contains key databases of artefacts and scientific data and details of archaeological collections which are held by different bodies, including local authorities and museums.

The online catalogue uses sophisticated technology based on a network of databases - all using different software and different computers - around the country and abroad. It is one of the first cultural heritage applications of the technology developed for exchanging information quickly and efficiently.

C14 Database for British and Irish Archaeology

An online database filled with Carbon 14 dates from archaeology sites. This database was gathered and collated from all available sources (the journal Radiocarbon plus the entire range of UK and Irish archaeological publications) to produce the most accurate and complete description possible for more than 4000 published dates. This database is an extremely useful tool for archaeologists around the world.

Excavation Index for England

The Excavation Index (EI) is one important national resource that can be searched online via the Archaeology Data Service catalogue.

It is a guide to the archaeological excavations and interventions carried out in England since the earliest days of scientific archaeology, and an index to the location of the excavation archives and finds. Compiled and updated since 1978 by the National Monuments Record the EI currently comprises in excess of 48,000 records of events including excavations, evaluations, watching briefs (since 1960); geophysical surveys; fieldwork funded by English Heritage and its predecessors; and field observations. Events comprising purely desk-based assessments, fieldwalking, and building survey are not at present included.

The EI is updated with information from a wide range of published and non-published sources. Trawling of relevant journals, reports and monographs is augmented by direct data exchange with a number of contractors and curators across the country. The EI fields supplied for each event to the ADS form a subset of the full record held at the NMR.

Microfilm Index

Every entry from the Microfilm Index in the ADS catalogue is a gateway to pages and pages of rich information held in Swindon on microfilm. The Microfilm Index (MI) describes all those archaeological archives for which the NMR holds microfilm copies. The RCHME's microfilm programme has been running for the last 20 years, and the collection comprises archive obtained from a variety of sources including archaeological units, museums and English Heritage.

The remit of the Microfilm Collection has always been much wider than that of the Excavation Index, so in addition to excavations, evaluations, watching briefs and geophysical surveys there is also archive for building surveys, desk-based assessments and fieldwalking projects.

National Monuments Record - Scotland

NMRS records for Fife, Shetland, and the West of Scotland are currently accessible via the ADS Catalogue. Since 1996, RCAHMS has developed two applications for making public access simpler. One of these (CANMORE-Web) (Computer Application for National Monument Record Enquiries) is designed to allow access to the NMRS over the Internet and is accessible via the ADS catalogue.

The CANMORE-Web interface allows people to enter a query which can be based on location, type of site or key words. The query is then sent over the Internet to the NMRS database located in Edinburgh. Available data comprises: locational information; statutory data (linked directly to Historic Scotland's database); site descriptions; an indication of presence or absence of items held in the NMRS collections; and bibliographical references.

So... what difference does it really make to have Internet access to the National Monuments Record of Scotland? According to Raymond Lamb, lecturer at Thurso College (part of the new University of the Highlands and Islands) it is "the most wonderful initiative".

Dr Lamb describes the NMRS online as "an essential reference tool" for his students because access to archaeological information is otherwise extremely challenging. He praises the regional archaeologist, John Wood, for being friendly and approachable but notes that the SMR itself is over 100 miles away from the College. This distance is too great a barrier for many students, many of whom are doing research that involves archaeological evidence from outside the Highland Region in any case. The NMRS in Edinburgh is a better first stop for many of them. "Quality of the RCAHMS facilities is fabulous, but it's just too expensive to go there. It's an 8-and-a-half hour trip, so one has to stay overnight. For students this just isn't possible," Lamb says.

News from RCHME Data Standards

Gillian Grayson, RCHME

You should all already be aware that last spring the RCHME brought Data Standards and SMR liaison together in one team, as part of its Information Systems Branch. The work of individual team members hasn't changed. Kate Fernie is still responsible for SMR Liaison, Edmund Lee is your contact for MIDAS and FISHEN, Dave Forster and Phil Carlisle jointly manage thesaurus developments and Gillian Grayson chairs FISHEN and manages the team.

Thesaurus of Monument Types

The 2nd edition of the Thesaurus of Monument Types has been published and is available from RCHME Sales. Purchasers of the 1st edition can buy the revised thesaurus 'loose-leaf' at a reduced cost.

This edition has less "classes" than its predecessor with the omission of OBJECTS, MARITIME CRAFT and INSTITUTIONAL. A new class MONUMENT <BY FORM> is incorporated. In this edition, you will find that terms are more closely defined and scope notes are now available for all preferred terms.

Over the last few months we have been meeting with colleagues from the RCAHMS to discuss the development of a Scottish thesaurus for recording the built heritage. The Thesaurus of Monument Types is inadequate without adaptation to reflect Scottish material. Gill Grayson has been involved in the discussions with RCAHMS. FISHEN has supported the RCAHMS bid to SCRAN (the Scottish Cultural Resources Access Network) to part fund a project to develop a thesaurus for Scotland.

Archaeological Objects Thesaurus

The OBJECT class of the Monument Type thesaurus has been superseded by the Archaeological Objects

Thesaurus, produced by a working party on behalf of the mda.

Dave Forster will be representing the RCHME on the working party that now aims to expand the objects thesaurus. Any candidate terms (including the ever popular 'POT SHERD') will be submitted to the working party for a decision.

MIDAS Online

MIDAS, the national data standard for monument inventories, has been in steady demand from the U.K. and abroad. The standard is being widely used by curators of existing records and as a starting point for new records. For example, the Tiles and Architectural Ceramics Society has recently used MIDAS to design its new database.

A project is underway to develop an on-line version of MIDAS. MIDAS will become accessible from the RCHME web site.

FISHEN

FISHEN, the Forum on Information Standards in Heritage (England), is chaired at present by the RCHME, with forum members from English Heritage, the mda, the National Trust, ALGAO, the Archaeology Data Service and the Museum of London. The ALGAO representative is Paul Gilman. SMR Officers are welcome to become 'corresponding members', Edmund Lee has details.

FISHEN's work this year is focussing on developing terminology to describe all aspects of the nation's built and buried heritage. This project will bring existing resources such as the Thesaurus of Monument Types, the Thesaurus of Building Materials and the lists from the 1993 standard 'Recording England's Past' together to tie in with MIDAS.

MIDAS will define the overall content of monument inventories and the National Heritage Reference Data Set will provide detailed standard terminology. Together they will promote easy interchange of data between related heritage databases. The terminology will be incorporated into the SMR software developed by exeGesIS SDM, and made available

in digital format for use in other databases.

Maritime Archaeology

Phil Carlisle is working on a thesaurus to support the recording of maritime place-names (ports, oceans, seas, rivers etc) for use by the maritime inventories. A combined MARITIME PLACE NAMES thesaurus will replace the existing thesauri of DEPARTURE, DESTINATION and PORT OF REGISTRATION.

Monument Class Descriptions

The Monument Class Descriptions, produced by English Heritage for the Monuments Protection Programme, have been mapped to the Thesaurus of Monument Types. This was done as part of the process of adding the MCDs to the EH web site. For further details of the terms contact either Dave Forster or Phil Carlisle (01793 414824) or visit the EH web site at www.eng-h.gov.uk/mpp/mcd.

England's Most Popular Parish?

And finally a bit of standards trivia:

Work by Edmund Lee to update the reference list of English parishes has revealed that Middleton and Sutton are the two most popular parish names, both occurring thirteen times across England. Middletons are spread across the whole country, while Suttons are mostly in the South (except for the one in Yorkshire).

The Heritage Spatial Information Service

Neil Lang, RCHME

The Heritage Spatial Information Service (HSIS) is a partnership between RCHME and English Heritage to develop a managed Geographic Information System (GIS) for heritage data sets. The systems supporting this service are due to go live in early Summer. This is an exciting new development which will add value to existing text databases, and will improve on existing CAD-based mapping systems in use in both organisations. The project is being run under the Private Finance Initiative (PFI) and overseen by the Department for Culture, Media and Sport (DCMS). Over 40 companies expressed an interest in providing the Service, after a shortlisting process, a contract was negotiated with IBM last year. The detailed design of the service was commenced last summer. The initial contract will last for five years from the system 'going live'.

The HSIS System will incorporate a series of 'heritage layers', including Scheduled Ancient Monuments, Historic Battlefields, Parks and Gardens, World Heritage Sites, MONARCH monument records, including the maritime records and the catalogue of 'events' (archaeological interventions). Provision will be made for the inclusion of new listed buildings, and it is hoped the existing computerised database of listed buildings will be added in the not too distant future. However, as the lists do not contain either grid references, or full postal addresses, the capture of spatial information for the 370,000 list entries will be a substantial task.

Why was it developed?

RCHME and EH use maps in their day to day work, identifying Listed Buildings, Scheduled Ancient Monuments and other sites of heritage interest. We use maps to record and disseminate information

relating to the historic environment, both internally and externally. In the last twenty years, both organisations have developed large, computer-based records of information on the heritage. However, the lack of any interface between these records has limited their use. They have been developed on different platforms to different standards, and there is limited concordance between the data sets (the recognition that a monument in database A is the same as the whole or part of a monument in database B).

What are the benefits?

HSIS will benefit both organisations. For the first time, it will be possible to integrate data in one common, spatial view. For example, it will be possible to overlay boundaries of scheduled ancient monuments with monument information from the MONARCH record and see these in their archaeological context.

It will enable new ways to depict monuments. For example, linear records (such as canals, railways, roads and 'military' boundaries such as Offa's Dyke and Hadrian's Wall) have always been problematic in text databases. Typically, linears have large numbers of 'addresses' (i.e. they run through a number of parishes combinations) and it is difficult to provide a meaningful set of grid references for them (a string of 20 NGRs is not as useful information as a map of the linear). Ensuring retrieval from a text computer database search intersecting anywhere along the linear is often difficult to guarantee.

For users, both internal and external, one of the services we anticipate is the production of distribution maps. Although there is little new in the concept, the range of available data in HSIS will enable new and informative views on heritage information. Moreover, the distributions can be the end product of analysis undertaken by the GIS. For example, it would be possible, with suitable base mapping, to query all Roman villas within a given distance of a watercourse, or all monuments situated on a particular class of agricultural land. Of course, the possibilities of GIS have been

extensively explored. What makes HSIS different is the size of the data sets available for analysis, and the combinations which will be possible through the system.

Another benefit will be the ability to automatically update text records with new administrative locations as boundaries change. In text-based systems, if an administrative boundary changes (such as a county, district or parish), this has to be edited manually in each record affected. However, using a GIS, with Ordnance Survey's Boundary Line product (a digital map of administrative boundaries), it is possible to automatically identify records affected by a change and update the text records with the correct information.

It is also possible to check data and 'trap' data entry errors relating to location (e.g., transposition of eastings and northings, incorrect Sheet Letters etc.) and apply consistent rules, for example to records where the precise location is uncertain - "found near Porlock Hill" etc.

How will it be developed?

HSIS will build up spatial information and connect existing text databases. This will improve our ability to retrieve information, because, providing it has been geographically registered, all information for an area can be shown on screen and queried. It will help the process of data integration (relating data sets to one another) and improve understanding by providing new and powerful tools for analysis.

Subsequent phases of HSIS will see the incorporation of information from the National Mapping Programme (1:10000 scale transcriptions of archaeology visible from aerial photography), archaeological field surveys, Conservation Areas, and the record of listed buildings.

Where can I find out more?

For more information on the Heritage Spatial Information Service, contact Neil Lang (RCHME) on 01793 414727 or Bronwen Knox (English Heritage) on 0171 973 3104.

RCHME and English Heritage to join forces.

The RCHME and English Heritage will be merged operationally in April 1999 to form a new lead body for the protection and recording of England's historic environment. Legal merger will require legislation, which is expected in 2-3 years time.

The organization will combine English Heritage's functions of providing conservation advice and

grants, and managing properties in care with the RCHME's functions as a survey and research body for England's historic buildings, sites and landscapes and the information and archives of the National Monuments Record. The NMR will retain a distinct identity within the merged organization.

The move is seen as an opportunity to bring together the strengths of the two organisations into a partnership equipped to meet the challenges of the 21st century.

Sites and Monuments Record Database: recent developments

exeGesIS SDM

Since the Sites and Monuments Record Database was launched last March it has been installed by 24 organizations. We now have SMR clients across the England and beyond; our first Scottish client for the product, the Western Isles Council, was installed just before Christmas.

Data migration is proceeding well, we have now handled data from a range of different SMR databases including Superfile, Monarch, NAR On-line and the North Yorkshire System. On average data migration takes around 4 days. As each data set is unique, data migration is normally in two stages to allow clients to see their data in the new structure before the system is installed.

This autumn and winter we have been working on minor modifications suggested by clients and developing a new Consultations module and the link to ArcView GIS. As with the main SMR module, the Consultations module follows extensive discussions between the RCHME, ALGAO users and exeGesIS SDM. The National Trust were also invited to contribute their experience of systems for

recording management agreements, site monitoring and management work. The developments to the system will support planning and other consultations to the SMR, the preparation of site management plans, site monitoring and maintenance or display work.

Development of the ArcView GIS link was delayed due to the limitations of the DDE linkage supported by ArcView. After discussions with Esre (who supply ArcView) development work is nearly complete and the link will be available this spring. The DDE link means that the ArcView module does not have the same functionality as the MapInfo mapping module.

Details of the system are available from exeGesIS SDM on 01874 711145 and on the Internet at: <http://www.esdm.co.uk>.

PEOPLE

Two birth announcements this issue! Sons to both **Emma Jones** (Warwickshire) and **Alison Tinniswoode** (Hertfordshire)

The new County Archaeologist for Herefordshire is **Keith Ray, Rebecca Roseff** is the new SMR Officer.

Mike Daniells has moved south from Cumbria to become the City Archaeologist for Plymouth.

John Darlington has moved from Stafford to become County Archaeologist for Lancashire.

Veronica Fiorato has moved south from North Yorkshire to become Archaeologist for Torbay Council.

Jonathon Parkhouse has moved from Buckinghamshire to become the new County Archaeologist for Warwickshire following Helen Maclagan's promotion.

Hilary White has left West Midlands SMR and is currently taking a break from Cultural Resource Management.

Alicia Wise has moved from the Archaeology Data Service to join the Joint Information Services Council. **Damien Robinson** is now the ADS Data Co-ordinator.

OTHER NEWS

The South Yorkshire Archaeology Service has moved to: Planning, Transport & Highways, Sheffield City Council, 2nd floor, Town Hall, Sheffield, S1 2HH
Tel: 0114 273 6428/ 6354
Fax: 0114 273 5002

The Ministry of Defence is establishing an SMR for all archaeology present on MOD land. Joanna Yates, (Archaeology) is the contact at: DEO Conservation, Blandford House, Farnborough Road, Aldershot, GU11 2HA.

SMR Software Users Group

The next meeting of the group will be held on **Monday, April 12th** at Vaughan College in Leicester.