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SMR News

The Newsletter of the SMR Users Group

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View from the Chairs:

Goodbye to all that.

Rob Bourn, Babtie Group

Many of you are probably aware that I will be moving on from my close involvement with SMRs at the end of June. The call of the bright lights of the 'Big Smoke' beckon me off. As a consequence, I will be standing down as the Chair of the SMR Users Group to be replaced by Emma Jones (Warwickshire County Council). I have greatly enjoyed my time with SMRs which has coincided with a huge amount of changes, with which I have feel very privileged to have taken part in - new software, new data standards, HLF projects, David Baker's assessment, the ALGAO SMR Strategy, to name just a few.

In my own backyard I have overseen huge changes: the abolition of Berkshire County Council and the arrival of six successor unitary authorities: the trialing of the Exegesis SMR Alpha & Beta versions: the first authority area to introduce the new software: the disaggregation of the County SMR into six separate SMRs; and the fragmentation of the County SMR as West Berkshire Council take the service in-house. It has been an interesting, challenging and at times frustrating process, and there are a great many lessons to be learned from the whole that are very relevant to all archaeological services no matter how secure they may be at the moment.

Anyway, I don't mean to be to negative. SMRs are the UK's greatest and most under-rated archaeological asset. We have collectively come of age over the last few years, a lot has been achieved and there is a lot more to be achieved. It is time to shout about our achievements, to tell the rest of the world about them and our vision for the future. I wish you all luck in these exciting times. I have enjoyed working with all of you (well, most of the time anyway) and will be watching SMRs go to even greater heights, albeit from a different viewpoint.

Emma Jones, Warwickshire SMR Officer

As sorry as I am to being saying good-bye to Rob, I am pleased to take on the role of Chair at this time. Rob mentioned that SMRs have come of age over the last few years so I am looking forward to being involved with a grown-up (*or established*) responsible branch of archaeological resource management.

SMRs have a wide role to play but SMR Officers have to be the ones to promote the resource in terms of data content, quality and use. The acceptance of agreed common goals in relation to data standards; service provision and performance indicators will encourage a unified vision that will increase our ability to lobby effectively on a range of issues.

The recent, and well-documented, initiatives create a firm basis to work from, and the SMR User Group provides a forum to discuss and develop these over the next few years. However, I am aware that many SMR Officers would settle for just getting information filtered down though their ALGAO representative for a start!

SMR Users Group: Survey 2000

Kate Fernie, English Heritage

Following the last meeting of the SMR User Group it was clear that the time had come to revisit the 1997 survey of GIS in SMRs (***SMR News*** issue 4***)*** and extend this to SMR databases. Thanks to the 66 respondents, including 2 from Scotland and 2 from Wales, for providing the information on which this review is based.

Your views on a new name for SMRs:

The questionnaire asked if we need to agree a new name for SMRs. A majority of 35 respondents were against changing the name SMRs suggesting that *'users know what an SMR is*'. 13 respondents were undecided and 18 were in favour of change. The most popular of the names suggested were Historic Environment Record (6) and Local Archaeological Record (5).

SMR databases

Microsoft Access proved to be by far the most popular software platform for SMR databases with 48 users, 72% of all respondents. Trailing far behind were Dbase (3), Oracle (3), Foxpro (2) with Superfile, GGP, AXIS 2000, Ardent Universe and Revelations each having 1 user. 3 respondents declared that their SMRs were still paper based (of these 2 were based in District Councils with a County SMR and 1 was based in a Unitary Authority).

35 respondents are using SMR databases either developed in-house or, in a few cases, by external IT consultants. 31 respondents (47%) are using or are in the process of migrating to the exeGesIS software (exeGesIS SDM report that 46 SMRs had installed or ordered the SMR software). The survey revealed that three other systems are also in use by SMRs: Superfile (1), Black Diamond (1) and Collections (a museum package used by 1 Scottish SMR).

Event-Monument-Archive

Over half of the respondents (32) reported that they had implemented the Event – Monument – Archive data model. However, most reported that this is partial, one respondent commenting that the model was '*being implemented on all new sites and retrospectively – however, it is unlikely to be a speedy process'*. 26 of the survey's respondents had not implemented E-M-A but a further 7 indicated that they were planning to implement the data model.

GIS

The SMR 2000 survey revealed that 75% of SMRs now use GIS, confirming that since 1997 there has been a rapid adoption of GIS by SMRs. The survey also confirmed that this is a continuing trend, as well as the 50 respondents who are currently using GIS and a further 8 reported that they are planning to acquire GIS in the near future (including West Yorkshire). The speed with which SMRs have adopted GIS is also reflected in the length of time in which it has been in use. 22 of the respondents had installed a GIS in the last 2 years and, of those, 9 respondents had been using GIS for less than a year and 1 for only 2 months. 17 of the respondents had been using GIS for between 2 and 4 years with only 7 respondents reporting that they had been using GIS for more than 5 years. One respondent reported having used GIS for more than 10 years.

GIS software in use

Since 1997 the number of SMRs using GIS has doubled with 50 SMRs reporting that they are using GIS and a further 8 SMRs indicating that they are planning to implement it. It was no surprize to discover that the most frequently used GIS by SMRs are MapInfo and ArcView:

	1997	2000	Planned
MapInfo	6	24	
ArcView	6	12	1
GGP	2	3	
Wings	5	3	
Fastmap	2	2	
Axis	1	2	
Datamap	1	1	
Cartology		1	
AutoCAD Map		1	

Although use of GIS is now common amongst SMRs for many it is still a recent acquisition, with 22 SMRs reporting that they have had GIS for less than 2 years (with 9 SMRs have GIS for less than a year and 1 for only 2 months). 17 SMRs have used GIS for between 2 and 4 years and only 7 have had it for more than 5 years.

Corporate GIS

Over 70% of SMRs who completed the questionnaire reported that their GIS was part of a corporate system with 50% being implemented under a corporate GIS strategy. A further 20% of SMRs reported that their organizations are in the process of developing a GIS strategy.

One of the benefits of an SMR's GIS being implemented as part of a corporate system is the access that it brings to different data-sets and GIS layers. 37 SMRs reported that they had access to GIS layers through the GIS, several commenting that there were 'too many to list'. Some of the layers reported as being in use by SMRs were:

- Ordnance Survey maps – historic and modern editions in all scales.
- Contour data.
- Boundaries - rivers, roads, rights of way, common land, woodland.
- Geology, bore hole data.
- Environmental surveys, phase 1 habitat survey, ecology, biodiversity, habitats, species data.
- AONB, SSSI, ESA, tree preservation orders.
- Listed Buildings.
- Planning applications.
- Strategic plan data, minerals, waste, housing, local plan, highways. Census data.

Spatial layers in SMR's GIS

Given the recent acquisition of GIS by many, it is perhaps not surprizing that most SMRs have concentrated initially on registering monuments on GIS as points. 66% of SMRs have registered their monuments as points and most have also started the process of digitizing polygons, linears and boundaries. However only 10% of SMRs have created polygons for all monuments in their area and 50% of SMRs reported that they have digitized boundaries for less than 10% of their area. Only 1 SMR reported that Events were registered in their GIS.

Other layers of data that are being captured include:

- SAM boundaries - 80% of SMRs
- Parks & Gardens - 73% of SMRs
- Registered Battlefields - 31% of SMRs
- Events
- Conservation areas, listed buildings, locally listed buildings, industrial buildings, landscape heritage areas, county sites of archaeological importance, areas of archaeological potential
- Common land, greenbelt, Post medieval burial grounds
- Museum databases, portable antiquities data
- Aerial photographs, cropmarks, ridge and furrow,
- Tithe maps, Board of Health maps
- Ancient woodlands, medieval settlements, historic towns, linear monuments, Roman roads, historic rivers & streams, deer parks
- RCHME survey data, earthwork surveys, farm surveys, hedgerow surveys,
- Evaluation trenches
- Environmental data, wildlife sites, water meadows

Data Capture

Scale at which GIS polygons have been digitized:

- Various scales – 28%
- Dependant on the type or scale of original map – 5%
- Digitized on screen – 5%
- 1:10000 – 16%
- c 1:1250 - 8%
- 1:2500 – 12%
- Don't know – 5%
- One SMR reported that the scale was 'effectively 1:1 – vector based'

Various base maps are being used for digitisation including OS landline maps at the following scales: 1:1250, 1:2500, 1:10000, 1:10560. The range of source materials that is being consulted to verify boundaries includes:

- CADW maps and survey reports
- EH scheduled areas maps, parks & gardens maps, battlefields maps
- OS landline, historic maps, OS 1st edition, terrier surveys
- Archive site plans, site reports, aerial photographs
- Paper SMR maps, HBR maps, HER maps, constraint maps
- Museums documentation files

Links between SMR text databases and GIS

27 of the SMRs who completed the questionnaire survey reported that they had a direct link between their SMR database and GIS while 20 SMRs reported that they download data from their SMR database and display it in the GIS.

52 % of the SMRs answering the questionnaire reported that they are able to correct the locations of monument records in their GIS and transfer the data back into the SMR database.

64% of SMRs reported that they are able to query the SMR database and view the results in the GIS while 65% reported that they could query the GIS and view the results in the SMR database.

It is interesting to note that some of the SMRs with an indirect link between SMR database and GIS reported that they were able to transfer query results back from the GIS to be viewed in the SMR database. On the other hand, some SMRs with a direct link between database and GIS were able to transfer corrections to location information but not query results back from the GIS to the SMR database.

Training and documentation

The provision for training and documentation that was reported by SMRs was patchy. While 70% of the SMRs who completed the survey have Recording Guidelines, only 34% have access to a GIS users manual. Despite having limited access to GIS manuals, only 62% of SMR officers reported that they had been offered training in their GIS systems.

Those SMR officers who completed the questionnaire identified a number of possible future training courses. Seminars and training courses on the use of GIS in SMRs were particularly requested and the focus of the next SMR User Group meeting on GIS is one response to this demand.

Internet and email

Since the 1997, survey access to email and the Internet have become more widespread amongst SMRs. An encouraging 93% of SMRs completing the questionnaire reported that they have access to email while 81% reported that they have access to the Internet. For many access to the Internet is still relatively recent with only 17 SMRs (27%) reporting the existence of an SMR web site. (See listing in the News section of this issue)

Mapping research in Newcastle.

David Heslop Tyne and Wear County Archaeologist

Over the past five years, English Heritage has been assisting the City of Newcastle to achieve a fundamental re-appraisal of the archaeological heritage of the historic city centre. One facet of this major undertaking is the identification and characterization of deposits across the urban core, and translate the results of this analysis in a new set of management policies in the City of Newcastle Unitary Development Plan.

For over two thousand years, this stretch of the north bank of the River Tyne has seen human activity taking place upon and in turn shaping the topography of the riverside and plateau. This succession might be summarized as follows: -

1. Prehistoric river crossing
2. Roman Imperial frontier
3. Saxon religious site
4. Norman frontier stronghold
5. Regional capital
6. Major European port
7. Early Industrial giant

The UDP currently designates the whole of the city centre as ***An Area of Potential or Known Archaeological Interest,*** which flags up the possibility that any application for development in that zone might encounter important archaeological deposits which the Planning Authority must regard as a "material factor" in reaching the Planning Decision. With the benefit of the Newcastle Urban Record, it is possible to improve the definition of *Potential and Known Interest* across the historic town centre, using testable criteria and definitions.

This is achieved by documenting all important sources of archaeological information and mapping them as ArcView coverages on to the modern townscape. The first stage is the delineation of those areas where we think archaeological remains exist, once existed and may exist, awaiting discovery by future research. This process is informed by the conclusions of the "Archaeological Assessment" and represent those areas within the city centre where the research questions comprising the RESEARCH FRAMEWORK - a separate document which will evolve as the results of further work are digested and assist to generate new questions in a constantly reiterative cycle. Each mapped zone (Roman *vicus*, waterfront etc.) is the area where specific research questions highlighted in the Assessment might be encountered, and all archaeological work done in that area must directly address the relevant research issues.

For example, the areas of Roman archaeology in the city centre can be mapped as follows:

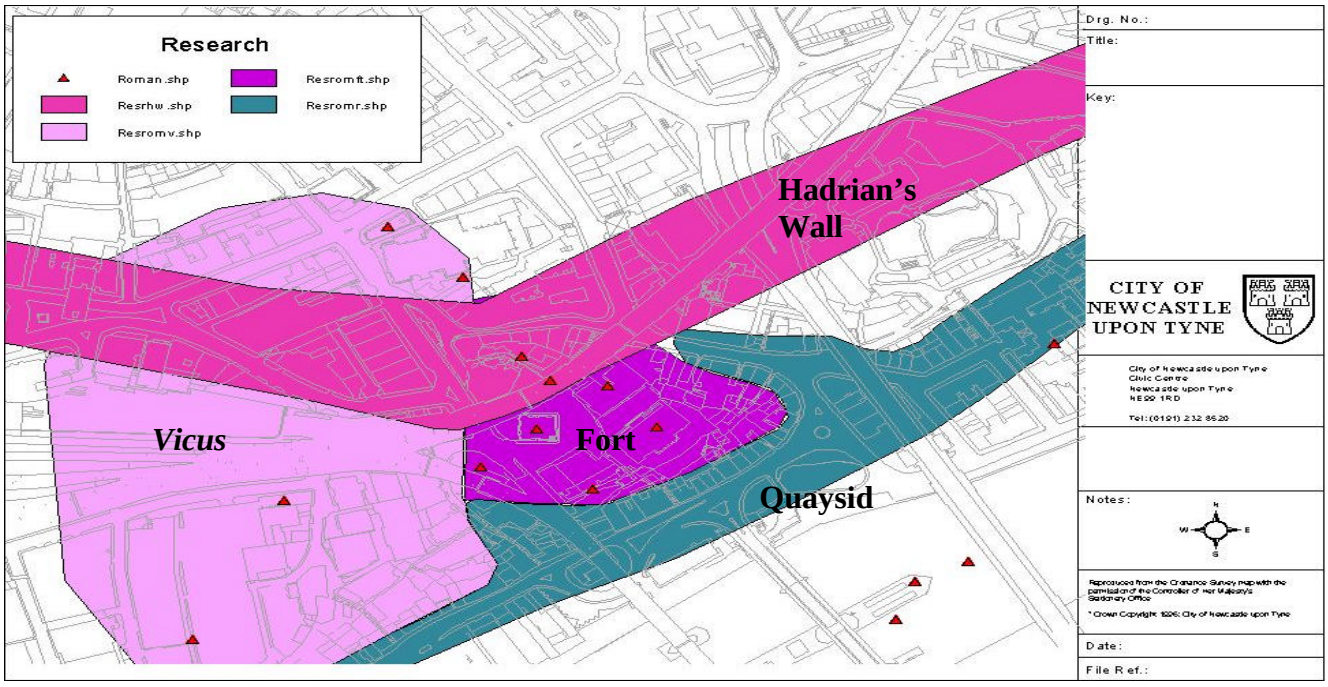
Secondly, there has been an attempt to deduce, on a plot-by-plot basis, where deposits of that type and date might be anticipated. i.e. where there is ARCHAEOLOGICAL POTENTIAL. This is defined in four broad categories:

HIGH POTENTIAL, where there is reason to suppose that important deposits once existed and there is no reason to suppose that they have been seriously disturbed by later land-use.

MEDIUM POTENTIAL, where there are deposits of importance which have been subject to disturbance, or where less important deposits might survive intact.

LOW POTENTIAL, where deposits have been disturbed but might survive in some recognizable form.

NO POTENTIAL, where deposits are known to have been destroyed or damaged beyond recognition.



These categorizations represent an attempt to qualify the characteristics of things, which have not, in most instances, yet been quantified. Further research on any individual plot showing some form of potential often results in a change in the level of potential shown, but in the three years or so that the system has been in day-to-day use in the Planning Process, THE VALUE HAS ALWAYS GONE DOWN. As new work shows evidence of previously unsuspected deposit disturbance (cellaring, terracing etc), because it is the POTENTIAL that is shown, and this is the best possible view, given what is presently known. For the value to go up one of two scenarios would need to be encountered. Deposits would need to be deeper than anticipated (and survive below cellaring, deep foundations or terracing). Or the RESEARCH ZONE of one or more themes would need to be extended because important deposits relating to that theme had shown the RESEARCH ZONE to extend further than previously recognized.

The final stage of the present analysis is the correlation of the RESEARCH ZONE and the ZONE OF POTENTIAL. This shows which parts of the original extent of the research theme might be expected to survive and be encountered during development. Overlying the research theme map with the potential coverage does this. The overlay blanks out all parts of the map, **apart from the areas of high potential.** That is it includes only those areas where coherent blocks of well-preserved deposits are thought to exist, as these are the only areas where the complex issues highlighted in the Research Agenda might be expected to be resolved. The co-incidence of the Research zone and the area of High potential is measured by using the Arc View extension *Spatial Analyst* to convert the relevant coverages to grids.

The surviving fraction (by area) can then be calculated from the hypothetical original extent. For the example given above, the figures are as follows:

ROMAN MILITARY*

Original	**Extant**	**%**
132,237 **.	23,455	**17**

ROMAN VICUS

Original	**Extant**	**%**
48,540	8,880	**18**

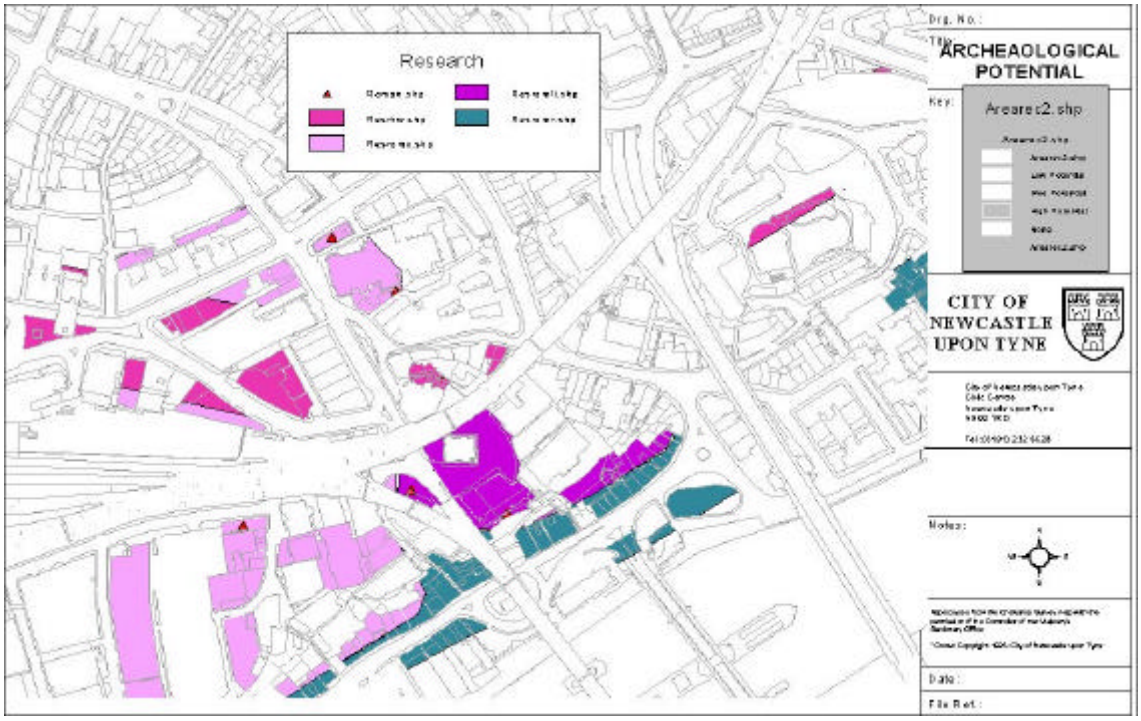
ROMAN RIVERSIDE

Original	**Extant**	**%**
43,435	8,530	**19**

* Military is the Hadrian's Wall corridor and the area of the fort. ** figures in sq. metres. % Percentage Surviving

For Newcastle, these figures represent a good level of survival for the remains of this period. Other research themes, like the suburban areas or the medieval public spaces are showing scores less than 2%, signifying the fact that these themes cannot now be addressed through archaeological excavation. The areas of medieval street frontages in the central town are down to critical levels but retain great potential. The new strategy must reflect these realities, and the new figures can assist in making a very powerful case in general planning dialogues.

To my knowledge, this is a new way of viewing the possible survival of archaeological remains across a complex urban environment. It allows visual and measured correlations to be made between areas of surviving archaeology and a number of factors of importance (e.g. constraint areas, monument distributions, locations of archaeological activity) in the management of the total archaeological resource.



Historic Landscapes project: East of England region

Lynn Dyson-Bruce, Project Officer

The East of England Region is to be assessed as a 'project area' in its own right, the counties to be assessed are:-

Suffolk (completed), Hertfordshire and Essex (in progress), Cambridgeshire, Norfolk, and Bedfordshire (to be done). These projects are to be mapped directly into a Geographic Information System (GIS) by, what is termed 'heads up' digitising. This means assessing the documentary data (primarily maps), paper and digital i.e. those held within the GIS platform and digitising the resultant analysis directly on screen. The subsequent maps produced have been shown to have a variety of end-uses e.g. planning and control, research, conservation (MPP), directing use of scarce resources etc.

Currently the Hertfordshire work has directly fed into the Landscape Character Analysis (LCA) prior to the proposed Minerals Plan. This is the first time a Historic Landscape Assessment (HLA) has been directly informed and been incorporated within the LCA methodology. In addition the HLA is forming an important role within development and control (See Stewart Bryant in this issue).

Methodology.

The methodology is now GIS based. There are three interactive aspects to be considered, these are:-

1) HLA - creates types by assessing the attributes that make up the landscape types, which may be aggregated to form the 'historic character areas' - the academic aspect.

2) **GIS** - which handles the data capture process and input - the practical aspect.

3) Metadata – this is the data about both of the above. It informs the process of how the data has been collated and used to create the map. This is the fulchrum between academic research, and the mechanical process of map creation.

HLA methodology has developed from the work carried out in Cornwall, which was based on established landscape character assessment techniques and methodology. This was a paper-based approach, which lead, by its inherent limitations, to the creation of a single map or series of simplistic maps, achieved by the aggregation of data to create thematic types. This is difficult to be reliably and consistently replicated due to the non-transparent nature of the approach. In addition this form of approach renders any analysis or any changes in the representation or update of the data difficult to achieve.

The methodology has now been further developed by a variety of different approaches, (paper and digital). GIS has been used but often an enhanced revision of the original paper-based approach creating digital maps. This may solve some of the problems of analysis and representation of data, but are lacking in inherent intelligence, and metadata. However these increasingly important issues are now currently being addressed within various counties methodologies.

There is no doubt that the future lies within the GIS platform, as GIS is able to handle vast amounts of complex data, being a powerful tool to input and assess information. However it is important to remember that it is not a tool or end-use in itself, but facilitates representation, access, analysis and output of data. The revised GIS based methodology enables a transparency of approach, with detailed metadata, creating a series of attributes, which may then be aggregated as required for different objectives, remits and end-users. (Dyson-Bruce, L. et al, 1999: Fairclough, G. 1999).

GIS in addition has many useful utilities and functions, which facilitate the display and analysis of complex data. In practical terms this enables a flexibility of approach. Complex data may be easily analysed, statistically and spatially, within its own dataset and with others within the GIS platform. Varied outputs are easily possible e.g. maps, graphs, tables, histograms, presentations. In addition maps may be 'static' or 'organic' allowing constant revision.

In academic terms the HLA methodology is a broad-brush, desk-based approach, assessing primarily historical information i.e. maps. The criteria used must be robust, definitive, replicable and meaningful to the end-user. However they must be sufficiently sensitive to reflect landscape composition, diversity, variability, continuity and discontinuity. This enables the complex concept of 'time-depth' within the landscape to be assessed. Databases must also take into account the important issue of metadata.

Metadata is an increasingly important issue and basically informs the user on the process of data capture, scale of accuracy, creation, the sources, creator, owner etc. It is this data which renders the methodology transparent.

Interim Results

Suffolk – is a large rural county, with relatively little twentieth century development. The county benefits from being well documented regarding landscape development. The methodology used has been based on field morphology, with a single tier of information. The types have been aggregated to form basic landscape character types, which illustrate in broad patterns the historical development of the county, e.g. pre-18th century field types, 18th century and later field types, forestry etc. (Ford, M. 1999)

Hertfordshire – in comparison is a small semi-urban county, with intensive twentieth century development (See Stewart Bryant). There has been little documentary research to facilitate the assessment. The landscape is varied with a complex sequence of landscape development and character type hybrids. The broad historic landscapes seen in Suffolk do not appear to be replicated within Hertfordshire. This necessitated a more analytical approach, with detailed research within selected parishes to inform this complex process of landscape development. In addition it was necessary to place a greater emphasis on metadata. This methodology has now created an intelligent GIS map with multiple tiers of information.

It will be interesting once further counties are completed, with the aid of spatial analysis to analyse and identify the subtleties of landscape change between counties, and how they relate to other issues of geomorphology, geology, soils, aspect, elevation, socio-political and historical factors. This will take HLA into the 4th dimension (See Paul Gilman this issue), by modelling not only landscape form but time.

Conclusions

In the interim analysis has demonstrated the dynamic diversity and complexity within the landscape, not only within but between different counties within the eastern region. There appears to be no constancy of landscape development, it would thus be naï ve to assume otherwise. Areas exhibit their own landscape diversity and dynamism in terms of landscape development, from that of the complexity of the process and date of field enclosure, to re-use of historic parkland's, and current development pressures. These may be contained within or cut across political or geographical boundaries. These and other issues must be seen within the broader context of landscape assessment; analysis – factual; interpretation – informed; and value – judgement/opinion. HLA does not attempt to place any value on the landscape, as values change in response to varied socio-political objectives. HLA seeks purely to assess landscape within its historical context. However it is hoped that HLA will contribute to different forms of landscape assessment in the future.

Therefore the HLA methodology necessitates a fluid and dynamic approach to respond and record the subtleties within the landscape in a suitably sensitive manner. An analytical approach is required to take into account issues relating to academia, data analysis/entry and metadata.

Experience is proving that appropriate GIS software and a robust methodology are essential for the success of any GIS project. Realistic objectives and timescales also need to be established to enable the completion of any project.

In addition a national GIS framework needs to be established to allow compatibility of methodology, data capture, accuracy, and metadata. This will facilitate the creation of a national historic landscape character map – which is surely one of the end-objectives, it would be short sighted to assume otherwise. However with appropriate foresight this may be more easily achieved, despite different GIS platforms and methodologies. To facilitate this a national series of historic landscape character types need to be established into which each county may feed their synthesis. This will still enable the flexibility of approach required for each county to have a detailed analysis appropriate to the objectives and remits individually, whilst feeding into a broader national objective. This would, among other things enable the forthcoming publication of the S. Wrathmell and Prof. B.K. Roberts settlement analysis of England, and the Historic Fields Project (East Anglia), to nest within its broader historic landscape character setting.

We would therefore have a national historic landscape character map comparable to the National Character map produced by the Countryside Commission for England. This would be an invaluable resource not only within individual counties and across the country, but also for a range of different remits and for use by agencies and individuals for pragmatic, practical, research and management objectives.

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The Hertfordshire HLA: A County Curator's View

Stewart Bryant, Hertfordshire County Council

Although the Hertfordshjre Historic Landscape Assessment project is only about 70% complete, the information is already proving to be of great benefit not only for the SMR and the planning function of the County archaeology service, but also with respect to some of the key research priorities for Hertfordshire.

Planning: A contribution to planning policy occurred even before the project began, as the HLA information was earmarked to form part of a landscape assessment for the forthcoming county Minerals Local Plan. It will also be used to assist in the planning of a major new settlement in Hertfordshire as well as (with the Essex HLA) settlements associated with the expansion of Stansted Airport. It is also hoped that the East of England regional HLA project will influence the emerging regional planning policy.

SMR: As Nick Johnson remarked with repect to his experience in Cornwall, the HLA can transform the view of the traditional 'site based' SMR. This is also proving to be the case with Herts where the HLA provides a landscape context for SMR sites, especially for the medieval and post-medieval periods. 'Landscape archaeology' has been a key research theme within the profession for several decades, and HLA can provide a landscape context for the SMR using a sound GIS-based methodology. HLA can also provide a tool to begin addressing the current issues of 'sustainibiity' and 'characterisation'.

Research Objectives: With a few exceptions, such as Jon Hunn's work in the St Albans area, Hertfordshire has been a 'black hole' for academic research on the wider historic landscape, especially in areas such as place-name studies, field-walking surveys, documentary research and research on field systems. It was hoped that the HLA would provide a basic understanding of the historic landscape, particularly the origins and development of field systems. A key objective of the project was also to identify

areas to target conservation, such as those with good survival of rare or early field types.

The 20th century factor: An important aspect of the historic landscape of Hertfordshire (especially the southern half of the county), which became apparent at an early stage of the project was the extent to which it had been transformed by development of various types in the 20th century. Far more so than has been expected. This included, in addition to the more obvious development such as suburban sprawl and motorways: extensive post 1950 re-modelling of field systems, horse stud farms and other aspects of 'horsy-culture', numerous golf courses, ex-gravel workings and a number of disused mental hospitals – amongst many others. This meant that the methodology of the HLA project needed to be restructured from that used for the largely rural county of Suffolk, if it were not simply to map the 20th century landscape (see Lynn Dyson-Bruce's article).

Applications

Although the project is incomplete, it has been possible by using the spatial analysis capabilities of GIS, to ask some important questions concerning the development of the historic landscape in Hertfordshire. The following are a brief selection:

Mapping the surviving pre-20th century landscape

An important objective of the HLA has been to map those parts of the historic landscape of southern Herts that have not been significantly affected by development in the 20th century. This has now been achieved and will form an important tool for influencing both general planning policy and also operational work such as development control, Countryside Stewardship and tree planting with the county's 'Community Forest'.

Mapping the impact of golf courses on historic parkland.

Southern Hertfordshire has probably the highest density of historic parkland of any county and it also has probably one of the highest densities of golf course of any county. By recording and mapping land use at the three dates (later 19th century, c1950 and 2000) the impact of golf courses on historic parks can be mapped.

Mapping the impact of post-1950 field boundary loss

By recording and mapping the field boundary pattern at the three key dates, the extent of boundary loss of the various types of parent field systems (co-axial, post-med enclosures etc.) since 1950 can be mapped. Although no detailed analysis has yet been undertaken, preliminary observations indicate that boundary loss has been extensive but piecemeal, which contrasts with Suffolk where it appears to be more localised and concentrated in specific landholdings.

Mapping the impact of post-medieval enclosure

Most field enclosure was localised and occurred late (later 18th to early 20th century) in Hertfordshire. By looking at some earlier 19th century map sources in addition to the later 19th century 1st edition OS 6", it has been possible to record and map the pre-enclosure field systems as well as enclosures, for parts of the county. This has meant that the impact of enclosure on the various earlier types of field systems can be mapped and assessed.

GIS - into the 3rd Dimension

Paul Gilman, Essex County Council

GIS has been used in Essex's Heritage Conservation Branch for several years, beginning with an extensive urban survey followed by linking ArcView to the SMR. Progress continues and ArcView Spatial Analyst and ArcView 3D Analyst, are now taking the GIS into a new dimension.

With ArcView Spatial Analyst, data on moated sites distribution can be used to create density maps that reveal concentrations that can indicate the progress of medieval clearance of forests for settlement.

Elevation surfaces for the County have been created with a digital terrain model from the Ordnance Survey and a relief map has been generated using the hillshade tool. This helps researchers understand the location of archaeological and historic sites. For example, in the early nineteenth century, defences were built south of Chelmsford to prevent invasion from the coast to London. Only a small portion of these earthworks has survived, but their location and outline are known and when displayed against the elevation surface, their position on a low ridge can be appreciated.

ArcView 3D Analyst is being used to create landscape models that allow researchers to look at sites in a landscape setting, something that is difficult in the field as modern development obscures views. Hadleigh Castle, in south-east Essex, for example, is now a ruin and only two towers survive. By extruding a 3-D shape based on the Ordnance Survey 2-D outline, the dominant siting of the castle is apparent.

The ArcView GIS extensions offer other potential avenues for research, a recent exercise involved the analysis of visibility from an important prehistoric site at Springfield Lyons, north-east of Chelmsford, the site of a ceremonial enclosure in the Neolithic and a fortified enclosure in the Late Bronze Age. The GIS was used to show land potentially visible within five kilometers. This suggested that it would have been possible to see the contemporary Cursus in the Neolithic. In the Bronze Age other contemporary sites could also have been visible at Boreham and Great Baddow. This type of study provides insights into past landscapes showing how sites functioned and how past peoples viewed their world.

Stour Valley Project

The 3D and Spatial Analysts are being used in a project funded by English Heritage to analyse an important series of mostly prehistoric monument complexes along the Stour valley, which forms the boundary between Essex and Suffolk. These sites only survive as archaeological features below ground, but they are visible from the air as marks in growing crops. Aerial photographs for the sites have all been rectified and entered onto GIS and the project is

collating and analysing other data, such as from the EHCR and Suffolk Sites and Monuments Record. The GIS is enabling all this data to be brought together and examined together whilst a further refinement is the use of 3D modelling software to examine sites in their landscape settings.

World Heritage Sites and GIS:

Applications in English Heritage

Nick Burton and Dave Batchelor, English Heritage

In October 1995 English Heritage's then Central Archaeological Service (CAS) now the Centre for Archaeology (CfA) began a project to investigate the use of the concepts and technology of Geographical Information Systems and their application to managing the archaeological resource within World Heritage Sites. Our previous involvement with the Stonehenge Conservation and Management Project (SCMP) highlighted the need for an effective method of data handling and manipulation for both management and research.

Both the SCMP and the major debates surrounding the future of the landscape have meant that up until now, Stonehenge has been the focus of this project. However, a similar database now exists for Avebury World Heritage Site, and the possibilities for Hadrian's Wall are currently being considered.

The Geographical Information System

The system software:

ESRI ARC/INFO (core software),
ARCGRID, ARCTIN, ARCPRESS,
ESRI ArcView

The system hardware:

SUN SPARCstation 5,
laptop computers

The geography:

Stonehenge –

size = 135km² (15 x 9km),
extent = 405000, 138000 to 420000, 147000

Avebury –

size = 156km² (13 x 12km),
extent = 402000, 163000 to 415000, 175000

The data

1. Basemap: Ordnance Survey 1:10000 raster.
2. Archaeology: cleaned and enhanced Wiltshire County Council Sites and Monuments Record.
3. Height Data: Ordnance Survey Land-Form PROFILE and EH Survey Services data.
4. Aerial Photographs: 1:10000 vertical colour imagery.
5. Satellite Data: KVR 1000 Russian satellite imagery (ground resolution around 1.5 - 3m)
6. Land Use: only select areas so far.
7. Land Ownership: areas owned by the National Trust.
8. Survey Coverage: linked to an associated text database. Shows areas of geophysical survey, fieldwalking, augering and test-pitting. (The Ancient Monument Laboratory's geophysical survey database from where some of the GIS data has originated is available at: http://www.eng-h.gov.uk/SDB/)
9. Flint Density Distribution: results collated from various fieldwalking surveys.
10. Roads and Boundaries: including the extents of scheduled monument areas.

Examples, events and issues

The Stonehenge GIS continues to provide information for input into the debate over the future of the immediate landscape and visitor facilities. It is also used to provide a rapid and informed response to any other proposed developments within the study area, such as new farm buildings or communication towers. It has also contributed in the development of the WHS management plan and will be used by those involved in the implementation of this plan.

The Avebury GIS was used to help the formulation of a management plan for the World Heritage Site, this was published in 1998. Since 1999 it has been available, at the desktop, to the Avebury WHS Plan Implementation Officer who is based in the planning department at Kennet District council.

Wider access to the data is currently under investigation. Solutions may include internal access through existing Local and perhaps Wide Area Networks, publication on CD-ROM, or an internet presence.

For information on any of the above please contact:-

nick.burton@english-heritage.org.uk (Please put "Nick Burton" as your subject to ensure the message arrives safely)

or write to:

Nick Burton,
Archaeologist/GIS Developer,
English Heritage
Central Archaeology Service,
Fort Cumberland,
Fort Cumberland Road,
Portsmouth, Hampshire,
PO4 9LD

Phone: 02392 856751
Fax: 02392 856701

Raising the standard – GIS and Metadata.

Neil Lang, English Heritage, NMR Data Services Unit

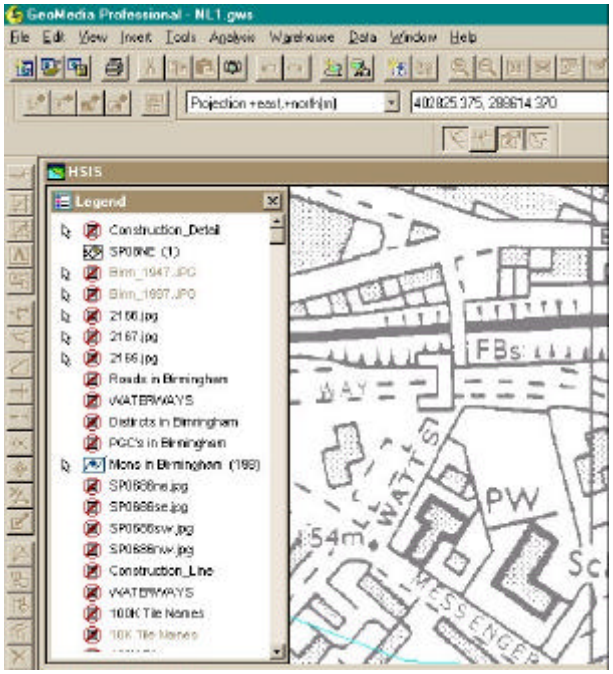
The need for standards within archaeological GIS applications is widely recognised, though approaches to standards work vary widely between archaeological organisations. Previous discussion of standards has indicated the broad groups into which these might fall – data capture, depiction, data transfer, data quality, and metadata. This short article concentrates on recent progress with the latter.

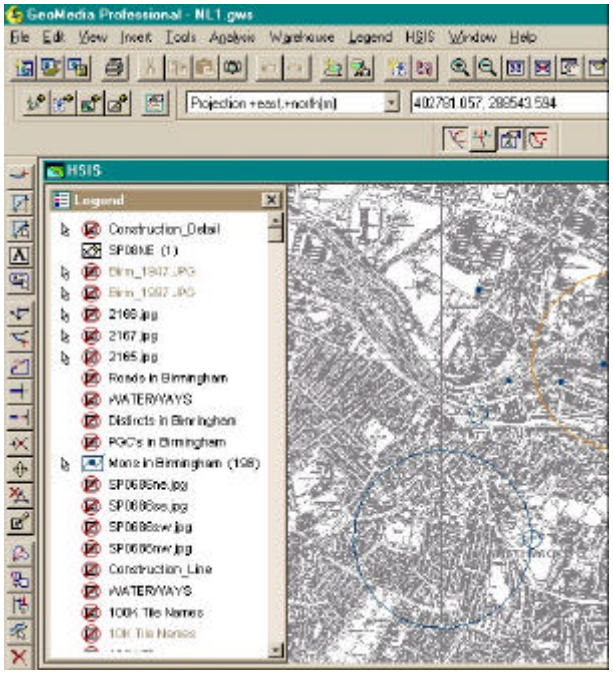
Metadata is commonly described as 'data about data', but this does not really convey a very clear picture of what it is or does. Metadata can be thought of as an index of ***important*** information. What is important information? Well, a library catalogue is a good example, this will include items such as author, title, publisher, ISBN number, subject matter and possibly an abstract. This information enables retrieval of relevant books and literature without prior knowledge of the organization of the library. Metadata can provide consistency across data (by cataloguing the same information, using standard controlled terminology etc.) even when the data itself is not entirely consistent. It facilitates internal and external data exchange and reduces duplication of effort by promoting awareness of what already exists (avoiding either duplicate purchases of what already exists, or creation of duplicate data sets) and reflects consensus amongst users, since standards which fail to achieve this do not get widely used.

In a GI context, metadata is essential to the understanding of datasets, and in guiding the uses to which they can legitimately be put. Metadata can be 'hierarchical'; that is to say it can describe data at a number of different 'levels' to fulfil different purposes. Resource discovery metadata is designed to describe a logical dataset, to enable users to become aware that the resource exists. This can be achieved in two ways – by publishing the metadata entries in a data catalogue, which describes the data resources of an organization, or by including the entry in an on-line metadata service, such as the National Geospatial Data Framework's metadata service (see www.askgiraffe.org.uk). When users 'discover' the data set, they can either contact the organization via the contact details within the metadata, or in more sophisticated systems, they can retrieve data on-line from the metadata entry.

An example of source scale metadata in use.

GIS data is normally presented in a raster or vector format. With raster data, the source scale at which the data was captured can be implied, because when the image is viewed within a GIS, there will be an optimal scale range at which the image can be viewed and understood. For example, suppose a 1:10000 raster map is loaded. When viewed at 1:25000, the image will give only a broad impression of the 'real world' features depicted (figure 1). Labels will not be readable, individual buildings will not be easily discernable etc. When displayed at 1:2500, the image will start to 'pixelate' or degrade into visible squares, so lines have a sawtooth edge (figure 2).





By contrast, vector data captured at 1:625000 has fewer visual clues as to its capture scale when viewed at a larger scale (such as 1:10000). Why does this matter? Suppose you have 2 features – a road and a river. In the real world, these features are parallel to one another. If the features are both captured at the same scale, they should remain parallel. But if one feature is captured at 1:625000, and the second at 1:10000, and the two are displayed together, they may well appear to cross over in several places, suggesting that there is a river crossing when in the 'real world' there is none. This effect happens because as data is presented at successively smaller scales, it becomes more and more general, lowering its spatial precision.

Now, suppose an SMR receives two separate sources of data – an air photographic transcription of archaeological sites captured at 1:2500 scale, and the route of a pipeline captured at 1:1,000,000 scale. Trying to combine the two could give a very misleading picture of the impact of the pipeline on the archaeology.

In each of these cases, metadata can provide clear guidance on the precision and accuracy of the data in question, whether it is a background map (e.g. scale, edition) or a data set overlain against the map (e.g. original capture scale, date, captured by etc.). Recording metadata need not be a labour intensive task (particularly at the resource discovery level) and there are tools available to help with this (for example the NGDF Discovery Metadata database can be downloaded free from the NGDF website – www.ngdf.org.uk).

If you want to achieve good practice in data management, if you want to let other people know what data you hold, and if you want to ensure the data is not used for purposes it cannot really support – then collecting metadata is a must for you!

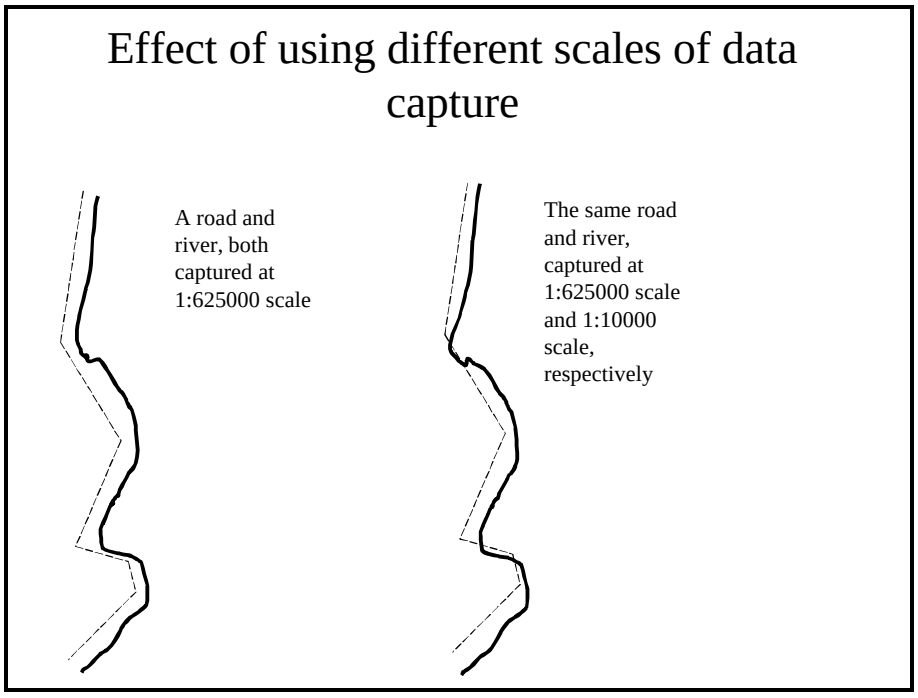


Figure 1 Vector data captured at 1:625,000 and 1:10,000 scales

SMRs in teaching and research.

William Kilbride, Archaeology Data Service

Established wisdom has it that school days are the happiest of our lives. For graduates, and most archaeologists, those school days are extended to three or more years of student life, and thus the proverb stretches to encompass lecture halls, dreamy spires and the occasional night at the union.

Of course, returning to school is always a shocking business, discovering new practices, new faces and whole new subjects in the curriculum. For any SMR officers who have been out of contact with the higher education sector over the last few years, the surprize of returning to their old university would be all the greater. Higher education has seen massive upheaval in the last few years, changes that SMR officers might well be able to use to their advantage. There seems little doubt that carefully considered collaboration between SMRs and the higher education sector could bring considerable benefits for both.

For one thing, the Higher Education sector has grown considerably over the last ten years. In some respect, the growing number of institutions has represented a movement of those institutions into the HE sector from continuing or further education. There are now over 50 universities offering combined or single honours degrees in archaeology. The absolute numbers of students have also grown considerably. In the early eighties, perhaps one in eight of school leavers would move on to university. That figure now stands at something closer to one in three, and the government has made no secret of its desire to increase the figures even more.

As I write this, I am aware of the student admissions service trumpeting another bumper year, in spite of tuition fees. Archaeology departments have been at the sharp end of these increases, with some institutions listing an undergraduate intake of upwards of 250 students. Increased student numbers have been comprehensive, but nowhere more so than in the post graduate sector, where a vast array of taught master's programmes has emerged, and evidently grabbed the imagination. One university archaeology department recently reached a milestone, when the intake of masters students overtook the intake of undergraduates.

For another thing, the daily work of academics is much more closely monitored than hitherto. Research assessment, the process by which universities are rated for the quality and volume of research has focussed attention on the output of all those great but supposedly languid minds. Moreover, the requirements of teaching assessment are transforming the lecture hall into an interactive, student focussed, reflective learning environment. Again, archaeology is at forefront of these developments, with an easy emphasis upon transferable skills and a unique combination of practical aptitude and abstract thought.

These and other factors have brought about a number of changes. Computing is seen as a solution to the numbers crisis. The expanded numbers are matched by the expanded role of information technology. Most institutions now insist that their students submit written work by word processor, and many take it for granted that their students contact their staff by email. Course handouts are seldom handed out, but are now maintained on web sites. Students in turn have unrivalled access to the Internet, and most are expected to be IT literate within a term of starting their studies.

All very interesting, but why should SMR officers have an interest in these developments?

For a start, many of the new degree programmes, and many of the old ones, require students to undertake some vocational training. In previous years, this might have been mopped up on academic projects, but the rise in numbers has meant that universities are looking for inventive ways of placing their students. Moreover, the rise in post-graduate numbers means that many of the students being placed are often competent archaeologists, with considerable experience in computing and IT. Here at York, for example, the students studying towards the MSc in Archaeological Information Systems undertake one day a week as a vocational placement. The theme of the course obviously suits them to undertake limited research and development work for SMR officers. Postgraduate degree programmes at Glasgow, Newcastle and Southampton universities all combine archaeology and computing, and all are required to undertake an extended project demonstrating their competence in both fields. Again, partnership with these and other institutions could produce some fruitful results, where suitable short enhancement projects can be identified.

Of course, there is also the perennially vexed question of undergraduate dissertations. Any university lecturer will confirm that the most difficult task of student supervision is the creation of a good dissertation topic. This point is of immediate importance to the student, as a good topic is crucial to a good degree. Of course, tutors face the problem not once, but many times in a year, and year after year. Unless blessed with omniscience — a claim which some would make — the well of ideas runs out quickly.

Faced with this constant drain, most staff share ideas, and many departments pull together lists of possible subjects, based on available resources and expertise. But given the massive increases described, it is clear that these are not sufficient. But, academics are not the only people with a significant knowledge base on the current research in a given area. In many respects, SMR officers and local government officers are better placed to advise on the frontiers of research in a given area. If they were to circulate possible research topics to the university, then not only might students approach them with more focused requests for data, but the SMR could receive by way of return a copy of the student's research. In some cases, this may be of limited use or interest to the SMR: the universities cannot guarantee that all will produce good work, and can't pick and chose who talks to the SMR. But in every year, there is at least one student who strikes gold. Often this is a student with strong local ties and unexpected

tenacity: the person who is likely to turn up again a few years later as president of the local society, if not as a professional in their own right.

But the story is not just about individual students and their needs. The HE sector continues to invest heavily in network technology. Recently, funding council policy has stressed the need to promote and extend the "***Distributed National Education Resource***". This policy seeks to create a set of quality assured information resources for teaching and research in higher education.

Archaeologists, and specifically SMR officers, are well placed to take advantage of this policy. It dovetails neatly with existing pressures on local government to develop access to their collections. Indeed, at a high level, the DNER is the result of the same pressures being brought to bear on the HE sector, with political rhetoric emphasising the advantages of the "knowledge economy" and the "learning society". Moreover, properly implemented interoperability, can assist SMR officers by presenting SMRs within a data rich landscape, enhancing the data SMR, and allowing the SMR to enhance other data sets, without surrendering control over the data.

In short, then, there are a number of developments in Higher Education, which may assist SMR officers, and enhance the SMR without creating large amounts of work. How might SMR officers take advantage of these developments?

In the case of the DNER, the solution is relatively straightforward. There are two places where the DNER meets archaeology: in the offices of the Archaeology Data Service; and in the humanities section of the "Resource Discovery Network", for which the ADS has been contracted to map reliable archaeological information resources on the Internet.

Convincing universities to send high calibre students can be a trickier operation. For students undertaking dissertation topics, the safest bet is to make sure that the universities are informed well in advance of strengths and weaknesses of the SMR, as well as opening hours and assorted policies. This could then be appended to the list of possible subjects ensuring that the students are better equipped before they appear. The rest is down to the student. As for work placements, these can be monitored more precisely, with clearly defined levels of ability on starting the work, and outcomes at the end of it.

So, if you can identify a reasonably discrete enhancement project for your SMR, if it maps neatly onto the university term dates, and if you can be reasonably certain of the quality of the people that will be sent to you, then there's scope for productive collaboration. The CBA maintains a useful list of institutions providing archaeology or related heritage degrees, which might well be worth a look to see who is active in your area (http://www.britarch.ac.uk/educate/ed4.html).

Perhaps, then, those proverbially happy days will encompass the SMR too.

Teaching news from the ADS

William Kilbride, Archaeology Data Service

The ADS has recently secured funding from the higher education funding councils to develop specific teaching materials based on its collections of national and local sites and monuments records.

The Publication and Archive Teaching with Online Information Systems project (PATOIS) will free staff time at the ADS to develop a set of online teaching packs. These tutorials, which may be used collectively or individually, will cover the full range of primary electronic data sets encountered by students following undergraduate courses, with emphases on excavation and survey archives, national and local monuments records, archaeological publications, and contextualising desk based, interdisciplinary materials. Once established, the tutorial packs will be maintained, edited and expanded as a routine activity of existing staff. Moreover, continuing contacts with different institutions should allow for the tutorials to be tailored and repackaged for the specific needs of their own curricula. The tutorials should also encourage students to engage in open ended learning, visiting and interrogating the data over and over again in different ways, exploring the numerous strengths, weaknesses and contradictions of archaeological data, interpretation and method.

The development of these materials comes at an opportune time for the ADS, as the Joint Information Systems Committee, who are one of the ADS co-sponsors, have recently taken over responsibility for networking and content in the Further Education sector. This means that in the very near future, the service will have to enhance the accessibility of its materials, in support the whole post-16 education sector.

Several academic departments have offered to test and review the packs, while various heritage management organisations agreeing to participate and provide practical advice with content and presentation. It is hoped that this sort of collaboration will enhance and extend student's knowledge of archaeological data, and why different organisations and individuals use it for different purposes. The tutorials created may go some way to help repair the widely perceived gap between the heritage management sector and the higher education sector.

The North Yorkshire SMR Customer Survey

Linda Smith, North Yorkshire County Council

After completing the North Yorkshire County Council SMR data audit and reading EH's Data Standards Unit's subsequent Reference Data Audit, we were left with many questions and decisions to make. We also felt that maybe we were bogged down in the problems and so we engaged consultants to look at a number of issues. The objectives of the project included a survey of user needs, a comparison of current data structure with user needs and MIDAS/SMR concordance.

Questionnaires were sent to 41 individuals and organisations, most of them contractors or consultants and replies were received from 22. Topics covered included the quality of the current service, clarity and usefulness of printouts, record content, computerisation of records and additional information about accessibility and opening hours.

The development control officer came out as being the most frequent user with a specific set of needs such as ease of access and rapid search capabilities simply designed so she does not need to understand the underlying computer technicalities. The need for a development control data base connected to the SMR emerged as a very important issue and it is vital to develop both concurrently.

General results of the survey can be summed up as people wanting it all - welcome to the 24 hour all-singing and all-dancing SMR! For example, open all possible office hours for contractors but local groups and individuals wanted a late evening or Saturday at least once a month. Digital and hard copy data was requested. Fuller bibliographic references were desired by some whereas others wanted more abbreviated references, with the ability to cut and paste information to other formats desired by one researcher. In general the pricing system was seen as reasonable but no-one wanted to pay more. Most wanted the SMR to be made available in other locations such as libraries, the record office and so on by read-only terminal access or on-line.

We have a lot of fields in the SMR and not all are used after 18 years; some have never been filled in. We were anxious to find out which were thought important and which of those were MIDAS compliant.

Possibly most important to the SMR community as a whole are the implications which arose for SMR and MIDAS fields. We asked which fields we currently have were most used and which might be desirable because we have a lot of fields in total, some have never been used to enter data and after 18 years, some are no longer used. How did this fit in with MIDAS and the implications nationally?

General conclusions

Consultants (and the SMR or DC officer) need both rapid summary data and detailed supporting information, which puts a big load on any system. May be the profession needs to think about the value to its paying customers of constructing complex data sets because there is evidently value in keeping it simple, at least for part of the data. This is enormously helpful when deciding how to deal with big backlogs and when combined with the event/monument structure opens up a new approach, permitting a very low level of data to be input initially and adding detail as resources allow. This is reflected in the data fields that our correspondents wanted. There is a big difference between the two fields universally required and the 25 required by about 50% of the respondents. Our sample was quite small and I would love to see what the results might be if others carry out their own surveys. With the advent of Best Value we may all have to do them eventually anyway.

Top and bottom five current SMR fields with percentage of consultees that use each field.

(m* = MIDAS mandatory field, m = MIDAS recommended field).

Grid reference (m)	100%
Description (m)	100%
Site name (m*)	95%
Site or find	91%
Period (m*)	91%
Minimum altitude	32%
Maximum altitude	32%
Photographic grid letter	29%
Water direction	27%
Water distance	23%

Of the 60 fields currently on the SMR, just 13% (8) were used by more than 80% of consultees, 17% (10) by 60% - 79%. The most, 42% (25) were used by 40% - 59%. 17 fields (28%) were used by 20% - 39%.

Top and bottom five MIDAS fields recommended for inclusion in the system, and percentage of consultees requesting each.

OS 1:10,000 1/4 sheet (m)	67%
Condition/survival (m*)	67%
Scientific date (m)	62%
Internal cross-ref (m)	57%
Monument area (m)	57%
Event date qualifier (m)	19%
Event dimensions (m)	19%
Currency (m)	19%
Ash people's roles (m*)	14%
Ash people's dates (m*)	5%

Of the additional MIDAS recommended categories:
0% of fields were requested by more than 80% consultees
60-79% requested 8% of fields, 40-59% requested 45% of fields, 20-49% requested 30% of fields.
18% of fields were requested by less than 19% consultees.

SMRs and the Heritage Lottery Fund

Kate Fernie, English Heritage

On the 12th May ALGAO, with support from funding by the NMR, organised a seminar for SMR officers on bids to the Heritage Lottery Fund. All agreed that this was a very useful day with presentations by Eilish McGuiness of the Heritage Lottery Fund, Vikki Fenner and Gillian Grayson of the NMR, Emma Jones of Warwickshire SMR and Paul Gilman of Essex Heritage Environment Record.

Eilish McGuiness gave a useful summary of the HLF's aims and the focus that it places on education, access and participation. Bids from SMRs are a component of the Revenue Grants programme and are considered to have the potential to develop new audiences for the heritage, educational benefits by increasing study, understanding and enjoyment of the heritage and also to encourage active participation by all. As such, SMR access projects are seen very positively and SMR officers were actively encouraged to get bids into the HLF

Eilish McGuiness went on to run through the process of preparing and submitting a bid. It was clear from this that the HLF anticipates that SMRs will follow the guidelines set out in 'Unlocking Britain's Past'. She emphasized the eligibility criteria for basic or advanced access projects set out in section 5 of that document.

The HLF has 9 English regional teams and other teams based in Scotland and Wales. A grant officer based in one of the regional teams will provide a point of contact for SMRs throughout the application process and, in the event of a successful bid, during the project. All bids will go through a process where they are assessed to see if the eligibility criteria have been met. Next the HLF will take advice from statutory agencies, IT specialists on costs and from its expert panels. A period of 6 months between application and decision is anticipated.

Vikki Fenner of the Images of England project then went on to describe the process that the NMR had gone through in preparing its successful bid to the Heritage Lottery Fund. Five points were emphasized:

- Thinking carefully about the application criteria and how the proposed project fits in.
- Thinking about who wants to use the information and how they would like to see it.
- Considering the available options and how the project's objectives can best be achieved.
- Thinking about how the work will be managed, the technical solution that will be put in place and how to build in flexibility to review this.
- Assessing the risks of undertaking the project and how these can be mitigated.

Gillian Grayson then went on to describe how the NMR can help SMRs as they prepare their bids. In particular she emphasized the experience and expertise that the NMR can offer in:

- Data Standards and MIDAS
- Information Technology and web developments.
- Public Access and evaluating user needs.
- Education and outreach projects
- Project management
- Copyright and security issues
- Identifying other useful sources of information and advice.

Gillian Grayson then went on to talk about three aspects of SMR bids which the NMR believes merit particular consideration. Firstly the importance of identifying which audience is being targeted to identify any specific needs that they may have and to find a way of enabling participation in the project. Next the importance of getting good technical advice to identify appropriate standards, solutions and costs for the project. Finally, the importance of a good project management structure with clear targets, financial procedures and plans for sustaining public access beyond the project's completion.

NEWS

Local Government Historic Environment Services Liaison

Dave Batchelor, English Heritage

My role will be to co-ordinate and develop a strategy within English Heritage to enhance and augment these services provided within Local Authorities. This strategy will look to underpin the core services, such as SMRs, by developing and widening the access to these and also by encouraging inter-linking and regional groupings.

Within the sphere of SMRs, I will be working closely with the staff of the NMR and acting as an advocate for these services. Together with Gill Grayson, Dave Barrett and Stuart Bryant we have re-established the SMR working party and will be revising its terms of reference. We will begin by developing a joint EH/ALGAO response to the Baker report in the form of an implementation plan.

SMR Liaison at the NMR

Kate Fernie, English Heritage

At the end of September, I will be starting a secondment with the Archaeology Data Service for a year primarily to work on the PATOIS project (see ADS this issue).

Many of you will already know Martin Newman, from his work with the Listed Buildings System, who is being seconded to the NMR's Heritage Information Partnerships team during my absence. Another new member of the HIPs team is Claire Attridge, who some of you will know from her work with the NMR Inventory and the National Mapping Programme.

Those of you who are working on SMR data audits will also encounter Hugh Borrill who has transferred to the NMR's Data Standards team having previously worked for the NMR on the Map of Roman Britain project.

Following the recent restructuring the new (and old) faces involved in SMR Liaison are:

Gillian Grayson	Head of Heritage Data Management
Neil Lang	Data Services Unit Manager
Claire Attridge	Heritage Information Partnerships Supervisor (SMRForum)
Martin Newman	Heritage Information Partnerships Supervisor (SMR software)
Hugh Borrill	Data Standards Supervisor (SMR Data Audits)
Phil Carlisle	Data Standards Supervisor (Standards manager)

PEOPLE

Rob Bourn left the Babtie Group at the end of June to join CgMs.

Joanne Byrne has left the Humber Archaeology Partnership to become an Agenda 21 officer within the local authority. The new SMR officer for Humber is Ruth Atkinson.

Victoria Buteux of Worcestershire SMR has changed her name and would like to be addressed as Victoria Bryant.

Veronica Fiorato is leaving Torbay SMR to join West Berkshire's newly formed Archaeology Service.

David Motkin retired from the Isle of Wight Archaeology Service in May.

Moves

The **Merseyside SMR** has moved into 'new' offices at the following address:

National Museums & Galleries on Merseyside,
Merseyside Field Archaeology Section,
GWR Building,
Mann Island, Liverpool, L3 1DG

The **West Midlands SMR** has now ceased to operate. Mike Shaw has been appointed to maintain the **Black Country SMR** for the boroughs of Wolverhampton, Walsall, Sandwell and Dudley.

Solihull has transferred its SMR to Warwickshire under a ServiceLevel Agreement.

Coventry is establishing an SMR as part of Coventry Museums.

Birmingham SMR has been in operation since 1993.

SMR Websites

Worcestershire: http://www. worcestershire. gov.uk/ archaeology

West Yorkshire: http://www.arch.wyjs.org.uk/

Suffolk: http://www.suffolkcc.gov.uk/ departments/e_and_t/archaeology

Hampshire http://www.hants.gov.uk/arch

Clwyd Powys: http://www.cpat.org.uk

Shropshire: http://www.shropshire-cc.gov.uk/arch.nsf

Humber: http://www.hullcc.gov.uk/ archaeology

Cheshire: http://www.cheshire.gov.uk/ archaeology/home.htm

York: http://www.york.gov.uk

Birmingham: http:// www.birmingham.gov.uk/ archaeology

Winchester: http://winchester.gov.uk/heritage/ home.html