Managing and providing access to information resources about the archaeological archive of London

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Introduction

This paper provides a brief introduction to London's Archaeological Archive, the form of its information resources and the ways in which we are developing access to these information resources.

The London Archaeological Archive

The London Archaeological Archive was established in 1993, as part of the Museum of London, physically based at the Museum's Reserve Collection.

The London Archive is one of the largest examples of an archaeological archive, the scope of which includes:

- Information about archaeological 'interventions': what was done, when, where and by whom.
- The physical evidence from the interventions: finds, samples, etc.
- Records of the excavation itself and the analysis of the finds.
- Expertise to manage the evidence, develop the information resources and support access.

The Archive is managed by a small core staff, supported by curatorial and archaeological expertise from other parts of the Museum and the Museum's archaeology service (Museum of London Archaeology Service, MoLAS). In 1999, the Museum was awarded a grant by the Heritage Lottery Fund, to support the development of the London Archaeological Archive and Research Centre (LAARC), with the Archive at its heart. In 2000, work will begin on a three year programme to develop the Centre and its information and access systems.

The resources managed by the Archive include:

- Records of all archaeological interventions carried out in London (4,000 sites had been identified by late 1999).
- A physical collection of finds, environmental samples, etc., for c.2000 of these sites.
- Extensive records of excavation processes and finds.

Two major sources contributed to the Archive in the period up to the late 1980s (2400 sites):

- Sites processed by W.F. Grimes between 1946 and 1972 (Shepherd, 1998).
- Sites processed by the former museum departments of urban archaeology (DUA) and Greater London archaeology (DGLA) (Schofield and Maloney, 1998; Thompson, Westman and Dyson, 1998).

In the competitive market of the 1990s, excavation work continued by MoLAS (a merger of DUA and DGLA) and a number of other archaeological units (a total of 2,400 sites). Collections and information resources about these sites will be deposited in the Archive from late 1999.

Strategy for the Archive's information resources

Manual systems were used to manage the information about the majority of the sites processed up to the early 1980s, but from that time a variety of computer applications have been introduced by the main archaeological units. The museum itself has used a series of computer applications for the management of information about its core collection, with Multi MIMSY (an Oracle-based application) being the primary environment since 1996. The current strategy is to adopt applications which fulfil three aims:

- The management of the Archive's resources and access to these resources by the public, researchers and staff.
- The integration of the Archive's primary resources, irrespective of the source that was responsible for the processing of the site and the applications used by this source, so that we have the potential for Archive-wide searching.
- The integration of information about the Archive and the Museum's core collections, so that information about an object is processed in a similar way, irrespective of whether it is an excavated find or a conventional museum item, so that we have the greater potential for institution-wide searching.

The developed application will need to support the key elements of archive information, including:

- Site authority records and reports.
- Archive management records.
- Details about archaeological contexts, etc.
- Finds and environmental records.
- Bibliographic resources.

- Images, etc.
- Survey resources.

The environment will also need to include data migration facilities to enable details of new sites to be incorporated in the information applications. The most complex facilities are likely to be needed for information from MoLAS, which has its own extensive Oracle application. In contrast, some other archaeological units are at an early stage in adopting computer applications. In all cases, the museum expects the applications and information to conform to an agreed set of Guidelines, which define the way in which sites can be deposited in the Archive (Museum of London, 1998) (http://www.museumoflondon.org.uk/archguide.htm).

In addition to the Museum's Guidelines, we are concerned to work with established standards, including:

- SPECTRUM and its archaeology extensions (http://www.mdocassn.demon.co.uk/spectrum.htm).
- The **mda** Archaeological Objects Thesaurus. (http://www.open.gov.uk/mdocassn/archobj/archcon.htm);
- The INSCRIPTION terminology resources (http://www.mda.org.uk/fishen/inscript.htm), developed by the Forum on Information Standards in Heritage (England) (FISHEN) (http://www.mda.org.uk/fishen/index.htm);
- The CIDOC International Standard for Archaeological Sites (http://www.natmus.min.dk/cidoc/archsite/coredata/arch1.htm);
- ADS Guidelines to Good Practice (http://ads.ahds.ac.uk/project/goodguides/g2gp.html).

From 1999-2002, we will be implementing these guidelines and standards through the extension of Multi MIMSY and other systems, as the basis for public access services, as discussed below.

Developing Access to the Information Resources

User groups

The purpose of the LAARC is not only to preserve archaeological data but also to make it accessible. Through consultation with potential users; past experience of the way in which archives are used; and analysis of more general enquiries to the museum, we have identified a number of user groups:

- Academic researchers, including students, professional and non-professional archaeologists and museum curators. Users in this category generally require access to the full contents of the archive, often at a very low level. A typical query might be: 'What is the geographical and chronological distribution of penannular brooches?'
- 'Development industry' professionals, including archaeological contractors, planning authorities and engineers. People in this group are often concerned mainly with high-level management-type data - 'How many times has this site been excavated previously?' But they may also require access to a restricted range of highly complex data sets, especially relating to surveys and the depth of deposits.
- Internal users - either for management purposes (registrars, conservators) or for academic reasons (curators preparing exhibitions to which archaeological material may make a contribution).
- General public. Archaeological archives are often too technical or fragmented to be easily understood by the public. Nevertheless, analysis of general enquiries reveals that many such queries in fact resolve themselves into queries of archaeological data - even though the enquirer may not realise this. In much the same way, many high-level statements made in the museum's galleries in fact are based on information in the Archive. Enabling users to 'drill down' from top to bottom - as far as they wish

and in the way they wish - is one of the most important challenges that we must address.

Approaches and Facilities

The access facilities will therefore be designed with a close eye on the perceived requirements of the likely users. This entails a three-tier structure:

- A website, containing relatively high-level information that may be adequate for remote general users - or, in some cases, may help researchers prepare for a visit to the Archive in person. The website will also contain specialised facilities to help academic researchers collaborate on a world wide basis.
- A 'middle-range' information system accessed via web browsers over a local intranet. Terminals will stand in public areas at the Research Centre and, possibly, in a Research Room adjacent to the galleries at London Wall. The intention is to support users working with paper records, artefacts or environmental samples, as well as with purely digital resources; and to enable users to work down from the more generalised statements made on the website, in the galleries or in publications - often with the assistance of archivists in the research centre.
- A low-level system containing the remainder of the data. This will be held in standard applications - Multi MIMSY, Microsoft Office suite, ArcView, AutoCAD - and manipulated mainly through those applications' default interface. This sub-system will be available only to internal users, contractors who have deposited archives and, possibly, specialised researchers working under supervision.

A final - and crucial - element in our plans is to maintain and develop close links with holders of related information: principally, the Greater London Sites and Monuments Record and the Archaeology Data Service.

Implementation and Targets

We shall have made considerable progress with the website elements of the project by summer 2000. Structured information about all 4,000 sites in the Archive - site names, addresses, type of intervention, archaeological periods represented - will be available, together with a short description of what was found on each site. This will be accessible, initially, via searches by address, period or major buildings; and, later, through a map interface. Some of the information is already available in the ADS Catalogue (http://ads.ahds.ac.uk/catalogue/). This will continue, but the links will be enhanced so that users can move easily between the two websites - either broadening their enquiry onto a national level via ADS or concentrating more narrowly on detailed London data via the Museum.

Our website already contains a substantial - and extremely popular - module on archaeology. This deals mainly with current excavations in London, but there is also a Register of Archaeological Research - one of the specialised facilities to encourage worldwide collaboration that has been mentioned earlier. Researchers may scan through lists of work in progress and upload details of their own research projects.

In the case of the 'middle-range' information systems, we are preparing an Operational Requirement for applications that will go live in two to three years time. The data sets to be made accessible include:

- Detailed information on the stratigraphy of sites - the sequence of deposits - enabling users to drill down from the high-level summaries, through broad site 'phases', to individual structures or features (the 'contexts').
- Detailed catalogues of artefacts and of the artefact reference collections that we expect will be used intensively by both professional and non-professional archaeologists

using the Archive as a base for their own research.
- Text reports and photographs of sites, artefacts and environmental samples.

References

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