Computerising archaeological records - a progress report on the work of the MDA.

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Abstract

MDA's recent work in computerising museum records to generate catalogues and indexes is briefly described, in addition to some completely new ventures. These ventures include the design of new record media in numismatics, conservation and an archaeological archive card; bibliographical and classification work using GOS; and micro-computer news. A new facility, the Sample Computerisation Project using the GOS program package to test manual records and their potential for computerisation is also outlined. This Sample Computerisation Project is now available for units and museums. Plans for a newsletter for archaeologists using microcomputers are also described.

Background

The MDA (Museum Documentation Association) was formed to assist museums to register and catalogue their collections. The history organisation and work of the MDA have already been described elsewhere (1). The MDA helps museums and other institutions to catalogue their holdings by providing a range of standardised record cards and a service to computerise these cards to produce catalogues and indexes using the GOS program package (2).

The MDA is in fact one of the few organisations in the world concerned with the documentation of collections on a multi-disciplinary basis.

The cards and the computerisation facilities already mentioned are part of the MDS (Museum Documentation System). The MDS, which forms the basis of current and future work of the MDA, is an interrelated framework which can be used by any institution

with collections. The framework is composed of a set of 'building blocks' to cover the theory and practicalities of documenting collections. An institution can use one or more parts of the MDS according to their needs and requirements. The various components of the MDS are fully described in separate manuals, while an overview to the system has also been provided (3). Work has now begun to investigate the archaeological subset of the MDS (4).

New Record Media

The existing MDS card range has been enlarged to cover numismatics, conservation (A4) and archaeological archives. The Archaeological Archive card (A4) could be used for Sites and Monuments records or by museums to cover backlog excavation collections. The above three cards are in draft form and available for comment (5). Design of small finds, context and pottery record media has also been initiated.

New Applications of GOS

GOS is a program package for creating, updating and manipulating catalogues of text files (6). It helps the user prepare catalogues and cross-referencing indexes to a collection of objects, archival material or other related information such as localities.

Extensions to the GOS processing facilities outlined above include the generation of minimum statistics and bibliographical and classificatory work. Minimum statistics from excavation records have been provided for the Department of Urban Archaeology, Museum of London. These basic statistics are displayed in indexes to show occurrences of different pottery fabrics, stratigraphically and by period. Indexes of basic statistic could prove a valuable tool in the writing up of archaeological sites.

The GOS package has also been used for bibliographic applications. The MDA's own library holdings, over 3,000 articles, books and journals are being catalogued and computerised to generated subject and author indexes. The subject indexes are based on keywords to cover the content of these library items. A thesaurus of these keywords has also been produced for museum documentation, and those aspects of information science, information technology, computer science and museology relevant to the documenting of collections. Future work in this field may investigate on-line bibliographic database procedures so that the references may be more widely interrogated.

Another recent application for GOS is in the production of cross-referencing indexes for the SHIC (Social History and Industrial Classification) system. SHIC is a hierarchical, numerical classification developed by the Group for Regional Studies in Museums to describe human history and 'all aspects of man's activities as a social animal' (7). The aim of the classification is to relate objects to their function, in context with other objects in the same trade or industry. The system has been worked out by human historians, industrial curators and local history curators, based not on theoretical concepts but on actual museum collections. It will be an obvious advantage as a retrieval tool for archaeologists working in medieval, post-medieval and other periods where the function, particularly in any industrial or artistic sense, of an item is known. GOS has been utilised to produce extensive cross-referencing indexes to the numerical framework of the classification.

Sample Computerisation Projects

A new facility to computerise a small batch of records is now available using the MDA Computing Service. MDS or non-MDS record media can be computerised, for example accession registers, small finds registers, contexts sheets or excavation catalogue cards. Such a sample project has two main uses. It provides accurate costs for larger projects and, at the same time, tests the consistency and retrieval accurary of the manual records. The size of the sample project depends on the number of records which can be data-prepared in an afternoon (8). One catalogue and a number of standard indexes will then be generated from this batch of records. There is a set fee for the projects according to the user's MDA member or non-member status. Depending on record legibility and the typist's familiarity with the record structure, typing speeds range from 5,000 to 12,000 characters per hour. There is no commitment for users of this facility to then computerise further records using the MDA Computing Service, but the computing facilities are available if they wished to do so.

Newsletter for Microcomputer Users in Archaeology

In order to provide a forum for the exchange of information and to pool experience of microcomputer usage in archaeology, it has been decided to set up a newsletter. This newsletter will be distributed, at a small charge, to archaeologists using microcomputers. It is intended that the newsletter contain user's

experiences with defferent machines; book or article reviews; evaluation of new equipment; reports on home-grown or commercial software; interface and data transfer topics; together withan updated directory listing users, equipment and software. Book reviews and a 'books received' section will form the basis of a microcomputers-in-archaeology bibliographic database. These references will be updated and distributed to interested members. It is hoped the newsletter will form the basis of an informal User Group for archaeologists using microcomputers (9).

Future Work - Data Transfer

At present, the MDA Computing Service can accept record media, paper, flexible discs ("floppy discs") generated by COMMSTOR machines and certain magnetic tapes as suitable media for input. Future work will investigate the possibility of processing "floppy discs" from a number of microcomputers, such as those used by archaeologists for field or post-excavation work. A range of catalogues, indexes and minimum statistics could then be generated from these "floppy discs" or combined to form union catalogues with information from other sites. This data transfer work will be initiated later this year (1982) when the Computing Service will purchase one of the new 16-bit series of microcomputers for research and development work.

In tandem with this work, MDA is also investigating existing, differing computing facilities used by museums in Britain. A questionnaire covering software, hardware and data transfer topics has been circulated to museums. This investigation is part of a project for CIDOC (International Council of Museums, Documentation Committee) to review current facilities andpossible future data transfer of museum records. Such a questionnaire could be circulated to archaeological users of microcomputers to provide a 'directory' of users and equipment.

Work to implement and then distribute GOS on a microcomputer will also be investigated later this year (10).

This progress report on the recent work of the MDA in computerising archaeological records ahs briefly outlined projects carried out in 1981-1982. This work is part of a long-term committment to investigate documentation systems to cover site-to-museum compatability, and transfer of archaeological records.

NOTES

(1)

MDA 1980a	INTRODUCTION TO THE MUSEUM DOCUMENTATION SYSTEM. Museum Documentation Association, Duxford
MDA 1981a	GUIDE TO THE MUSEUM DOCUMENTATION SYSTEM (2nd. edition) Museum Documentation Association, Duxford
Roberts, A & Light, R. & Stewart, J. 1980	'The Museum Documentation Association', MUSEUMS JOURNAL,80 (2), 1980: 81-85
Roberts, A. 1981	THE MUSEUM DOCUMENTATION ASSOCIATION. Conference 1980 Proceedings. The care and maintenance of collections: challenges and constraints. Museums Association, London

(2) Examples of MDA generated catalogues and indexes are illustrated in:

MDA 1981a	GUIDE TO THE MUSEUM DOCUMENTATION SYSTEM (2nd. edition) Museum Documentation Association, Duxford
MDA 1981b	PRACTICAL MUSEUM DOCUMENTATION (2nd. edition) Museum Documentation Association, Duxford

(3) An overview is provided in MDA, 1981a (see note 2).

Component parts to the Museum Documentation System:

. MDA Codes

MDA 1979	MDA MUSEUM CODES. MDA Occasional Paper 2. Museum Documentation Association, Duxford

. Data Standard

MDA 1980b	DATA DEFINITION LANGUAGE AND DATA STANDARD Museum Documentation Association, Duxford

. Practical Museum Documentation - a reference book with guidelines on documentin collections. Full reference provided in note 2 (MDA 1981b).

. Documentation facilities - over 20 standardised cards accompanying instructions.

. Inventory facilities - presently (1982), this includes accession registers and object control forms available to museums and other institutions. This range and the accompanying publication will be increased in 1983 when the results of a research project by Andrew Roberts (MDA) are utilised.

Note (3) continued.

. Computerisation facilities - see note (2) and (6) for publications concerning the GOS program package and results generated by the MDA Computing Service.

For further details and updated information about the component parts of the MDS, please apply to the MDA.

(4) Stewart, J. 1980a — Integrated excavation and museum recording systems: methods, theories and problems. MUSEUM ARCHAEOLOGIST,5, 1980: 11-27

Stewart, J. 1980b — MICROCOMPUTERS IN ARCHAEOLOGY.Proceedings of a seminar held in the Institute of Archaeology, 18 June 1980, with related articles. MDA Occasional Paper 4. Museum Documentation Association, Duxford.

Stewart, J. 1982 — MDA, MDS and computerised archaeology. (Forthcoming article in COMPUTER APPLICATIONS IN ARCHAEOLOGY,1981).

Stewart, J. n.d. — Museums - cabinets of curiosities or new centres of information. Talk given at the University of Leicester, Information Systems in Archaeology Seminar, 26-28 March, 1982. (Proceedings to be published by the Conference organisers.)

Roberts, A. 1980 — Data Standards in Archaeology. MICROCOMPUTERS IN ARCHAEOLOGY. ed. Stewart, J. Museum Documentation Association. pp87-97

(5) Draft examples are available (free of charge!) from the author(address as article heading). I have not illustrated these cards in this article as the reproduction method would possibly render the card headings illegible.

(6) MDA 1980c — GUIDE TO GOS Museum Documentation Association, Duxford

MDA 1980d — DESCRIPTION OF THE INTERNAL STRUCTURE OF GOS Museum Documentation, Duxford

Porter, M. 1980 — HOW TO USE GOS Museum Documentation Association, Duxford

Note (6) continued.

Porter, M. 1981 GOS REFERENCE MANUAL
Museum Documentation Association, Duxford

(7) Further details from Stuart Holm, Black Country Museum, Dudley, West Midlands.

(8) Further details of costs and project procedures from the Services Manager (Mrs. Hopkins), MDA.

(9) Further details from the author or J. Moffat (Institute of Archaeology) or K. Flude (Museum of London).

(10) Further details from Richard Light, MDA.

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Text submitted 6 April 1982.