

ARCHIVAL INFORMATICS NEWSLETTER

ISSN 0892-2179

WINTER 1988/89

Volume 2 #4

Intellectual Control Methods

The other day I was asked to define Archives and Manuscript Control, the method of intellectual control that archivists say distinguishes them from librarians (whose principal method is called bibliographic control). In the course of making the explanation, and then writing it up, I made a number of assertions about other methods of intellectual control in cultural repositories that I would like users to affirm or critique.

Archivists, I asserted, describe their holdings with a focus of provenance and in order to effect life-cycle management. A body of records might physically change while having the same description. Its identity derives from provenance, so the record is constant even if life-cycle management includes weeding, sampling and destruction.

Library monographic catalogers describe their holdings with a focus on production of the physical item in order to effect content retrieval. The identity of a item is derived from uniqueness of its title page.

Library serial catalogers describe their holdings with a focus on issuance history and intent in order to manage accessions. The record is a logical entity referring to a sequence of publications. Physical issues inherit the attributes of the logical series.

Historical museums practice associational control, focussing on the life history of use with the effect of illuminating context and documenting use relationships. Associations may be made by producers/manufacture, owner or context and function of use; by individual or by cultural groups. Identical

objects used by different individuals or cultures will be uniquely described.

Science museums practice typological control, focussing on physical features in order to classify items. Distinguishable individuals may share a record. Specimens serving the same ecological functions with different structures are uniquely described.

All five methods of control are conceptual frameworks, and can be applied to any holdings. In fact, the same kinds of holdings will be controlled by a variety of these methods in different types of repositories and the same objects can be described using several approaches within one institution. There is nothing inherently "right" or "wrong" about any of these perspectives but they to answer different users needs.

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Introducing the Conservation Information Network

Unfortunately, the existence of the Conservation Information Network (CIN) is one of the worlds' best kept secrets. The staff of the Commission on Preservation and Access recently published an article in the Newsletter of the American Council of Learned Societies, in which it reported without comment that the American Philosophical Society "proposes the establishment of a North American preservation database with access available to the library, archival and preservation communities by means of on-line national bibliographic systems such as OCLC, RLIN, and UTLAS"! For conservation professionals this ignorance is truly inexcusable, but the rest of us in archives and museums may be legitimately surprised to find that CIN, which can best be described by exactly the words used for the proposed system, has relevance for us as well.

The Conservation Information Network is a program of the J. Paul Getty Trust, Getty Conservation Institute. Since September 1987, it has made three online databases and an electronic mail system available to archives, libraries and museums worldwide. The databases, consisting of information about bibliographic entities, conservation materials and suppliers of conservation products, are being continually added to by their corporate creators: the Canadian Conservation Institute (CCI), the Conservation Analytic Laboratory of the Smithsonian Institution (CAL), the Getty Conservation Institute (GCI), the International Center for the Study of the Preservation and Restoration of Cultural Property (ICCROM), the International Council on Monuments and Sites (ICOMOS), and the International Council of Museums (ICOM).

Since 1986, Art and Archaeology Technical Abstracts, the primary abstracting and indexing journal in the field, has been produced from the bibliographic database of CIN, so subscribers to CIN benefit from access

to references as yet unpublished in AATA, as well as to research information about new materials suitable for use in conservation, and online access to colleagues worldwide.

Network subscriptions are available to individuals or institutions for the absurdly low and highly subsidized price of \$50! For \$50, the subscriber receives communication software for either IBM or Macintosh computers (worth more than \$50), six nicely produced looseleaf folders of documentation, including three volumes of data dictionaries (the folders alone are worth about \$50), an access code for local phone access to TELENET, and account on ENVOY (the Canadian Telecommunications Service electronic mail system), generous free start-up accounts on CIN, quarterly newsletters and hot-line support. In short, this is the best deal you've ever been offered, but do you need it? After using the system for the past month I'm convinced the answer is yes.

ELECTRONIC MAIL

When I first logged on (using the simple, well documented, procedures in the manual), I found a "broadcast" message in my mailbox from Paul Cooper, Paintings Fellow in the Conservation Department of the Philadelphia Museum of Art. Cooper reported that he was examining a Gauguin still life (c.1885-86) and was interested in treatment reports from colleagues having experience with other Gauguin paintings. Although I'm not a conservator, this initial experience came close to convincing me of the value of the Network. Cooper was after a kind of information that would be nearly impossible to obtain in any other way, and was instantly connected to over 250 of his colleagues for about \$.35 each (at the prevailing rate of \$.75 per 1000 characters for e-mail). A quick examination of the mail directory for the network (provided with my documentation, but also available on-line), showed that almost all these messages went to people who (unlike myself) could be of assistance. Inspired by Cooper, I dashed off notes to three European colleagues who, though also not conservators, had institutional

access to the network. These messages saved me two phone calls and one letter. They would have cost me about \$1.50 on CIN, were it not for an initial credit in my account (provided as part of my subscription again!). The alternative means of communicating with Cambridge, Paris and Rome would have been about \$15.00.

The E-mail system itself is somewhat primitive. It reads a line at a time and has poor editing features, but it enables one to build distribution lists, upload word processing and other files and download messages to disk or printer, and receive confirmations so it serves its basic purpose. But obviously electronic mail is not the main drawing card of the Network, despite its demonstrable utility in furthering the aims of the network. Cooper was asking for treatment reports because item treatment reports are not included in the bibliographic databases of CIN. What is?

THE BIBLIOGRAPHIC DATABASE

The bibliographic file, which at year end held over 130,000 document citations includes an immense amount of ephemeral literature, including unpublished reports and analytics of conference proceedings, journals and book chapters that are not included in other bibliographic databases. Like many non-specialists, my knowledge of conservation is superficial and my interests are in the spectacular, so I began my search by asking for documents about the Shroud of Turin.

On logging into the system, I was given the choice between command driven and menu driven access. Though I have since used commands (and found the documentation acceptable, even though the commands themselves are obscure and very literal), I choose to see the menu's the first time through. The Main menu provided 10 choices, including "Access a Network Database". I had to go to the second menu to choose which database (bibliographic), a third to "Enter" the database, a fourth to select the kind of search (subject) I wanted, a fifth to provide the terms (Turin). When the search was

completed (7 seconds), I was presented with a sixth menu to select what I wanted to do with the result (Display Records), a seventh to select where I wanted them displayed (to screen), and an eighth to select the number or range of the records I wanted displayed (1-?). Needless to say, I am not enamoured of the user interface!

However the results were quite intriguing, in part because my search turned up a case study of the approach taken by a city government (Turin) to urban rehabilitation which alerted me to the fact that the database includes information about preservation of interest to others than conservators - archaeologists, urban planners, and museum directors for example. The second reference in my set was to the shroud, and included an abstract that discussed the applications of holography in the analysis. Being a fickle sort, I set off without further interest in the Shroud, to explore what the database could tell me about the applications of holography in conservation and about governmental policies towards conservation.

By now I needed no convincing, but what I discovered excited me so much that I forgave the ugly user interface and the somewhat temperamental network connection that left me hanging a job on the computer in Ottawa Canada on which CIN runs (as a guest of the Canadian Heritage Information Network, CHIN). I even forgave the primitive facilities of the database itself; you can search it, download it and log off, but you can't do much else with your searches and the documentation warns you not to try truncations and full text searches at the penalty of 30-45 minutes of CPU time!

Holography, I discovered from over 90 abstracts I read in the bibliographic database, is used in the diagnosis of conservation problems in paintings (3266), and even musical instruments (56072/86), as a method of treatment for motion pictures (10003) and still images (79802), as a means of analyzing the effects of environmental stresses and conservation treatments (80132), and as a method of

presenting objects that could not be viewed otherwise because of their fragility (76484) and even as a means of transmitting 3-dimensional objects to remote researchers (125316)! The latter use engendered a modest size literature on the improbable sounding topic of the archival permanence of holograms (799). The range of sources for these few articles I've mentioned include: Acustica, The Journal of Photographic Science, Museum, Physica Scripta, Science, The Society of Motion Picture and Television Engineers Journal, Studies in Conservation, and papers from unpublished Soviet and Italian conferences. Needless to say, a number of the articles were on technical aspects of using holography in conservation that I stood no chance of understanding.

My second search, for "policy", yielded over 1100 documents, but narrowing the set with the term "government" produced a manageable 81 documents. They ranged from comparisons of centralized and decentralized strategies towards conservation of cultural properties in Mexico, USSR, Japan and Canada, and guidelines for public information materials for use in disaster preparedness to analysis of the legislation protecting the Venice lagoon and national policies on cultural institutions and museums in numerous countries, including much of the third world.

The quantity and quality of materials referenced by the database quieted my distress with the quality of the bibliographic citations as citations. Clean it is not. Within references we encounter unexplained changes from all caps to all small letters, numerous misspellings, name variations caused by lack of editorial control (as in leaving a period off a middle initial) and by lack of authority control or even common cataloging standards. Subject term assignment is ideosyncratic, though occasionally amusing as with the term "Bronze Ancient -'Information Management'" in a record also assigned the unusual term "Bronze Archaeological Indexing"! The form of entry in journal title citation is random and the abstracts are at different depths. I know that conservators are not librarians or

bibliographers, but a little more quality control would help even conservators to find the full texts of these citations.

THE MATERIALS DATABASE

The menu for the materials database mimics that for bibliographic. The search options presented are information on a brand name product, information on a product with specific uses or to be used with a specific substrate, and information on products with specific properties. Selecting materials uses and substrates, the menu presents two options: "Enter a material use" (examples of which include adhesives, pesticide, impregnation and other terms with no linguistic relationship whatsoever) and "Enter a Substrate or Species to Control" (examples of which include wood, fabric, beetle, and termite)! In response to the latter, "film" resulted in one hit (of 1170 citation). Displaying the record revealed a distinction in the next menu between "Technical" records and "Observed" records. My hit was a "Technical record" which I chose to display.

Searching the database again by properties, I was asked whether I wanted observed properties, adhesive/consolidant technical properties, coating technical properties or pesticide technical properties. Selecting observed properties, I was told that 99 records had observed properties and sought those with "removability". A formidable list of products with strange names was presented. Re-initiating my search for the product with the brand name Rhoplex AC-33 I found 13 records (1 technical and 12 observed). A technical record of well over 100 lines provided data from testing program results for this adhesive. Observational records were submitted by four conservators who reported numerous different methods of application which resulted in different "removability", the use of AC-33 on bones, problems of draining in porous material, and the best way to use Rhoplex AC-33 with wet ivory and wet ceramics.

THE SUPPLIERS DATABASE

Finally, I searched the suppliers database,

consisting of about 900 records (and no menu driven interface) for Rohm. Because I was unsure of the full name of the firm, I searched Rohm in the FNames field (free-text indexed) and found 8 records. Looking for those in the U.K. I found Rohm & Haas (UK) Ltd. at Lennig House, 2 Mason's Ave. Croydon CR9 3NB. Other than addresses, there's not much information in this database, but if it is kept up to date, it should prove valuable. The absence of a menu driven interface to this database will keep many users out because the command driven mode is not friendly, intuitive, or forgiving.

In sum, we have been missing out on a valuable resource. The Conservation Information Network is not yet all that it could be, but it is so much more than has ever been available before that carping seems silly. Instead we can all sign up right away and begin to administer, teach and actually conserve the cultural resources for which we are responsible with greater confidence, more information and a wide flung support network behind us.

SOFTWARE REVIEW: ARGUS

by David Bearman

Questor Systems Inc. [1005 E. Colorado Blvd., Pasadena, CA 81106; (818) 356-0808] sells ARGUS software for object collections management, photos, documents, slides and site files, and MUSE for Membership and Development. All the modules of both systems are sold separately. Since it was developed at the Southwest Museum in April 1985, and first installed at the UCLA Museum of Cultural History in April 1986, ARGUS has been purchased by a dozen art and cultural history museums. The design objectives are discussed in an article by Stephen LeBlanc, now a full-time staff member of Questor, and Peter Welch of the Heard Museum, in "Up and Running", an article published in Museum Studies Journal in the fall of 1986, p.33-45.

ARGUS runs under the PICK operating system on any hardware with PICK compilers, but Questor uses IBM PC-RT's and DEC VAX's. Questor does not list prices, except in bids for specific systems, but installed hardware configurations run from \$10-60,000 and software costs existing users from about \$11-20,000 plus. Prices do not include freight and handling, or travel expenses for Questor installation staff. Some training is included in the price of the system, but Questor recommends budgetting \$2000 more per module. Online software support is provided as part of an extended warranty program purchasable for \$750 for the first, and \$500 for each subsequent module, after the first 90 days. Customers must maintain a dedicated phone line and modem for the use of Questor Systems staff

PHILOSOPHY AND PLANS

Following the Museum Computer Network meeting in October, I had the opportunity to spend a full day at Questor Systems discussing ARGUS with Eric Wood and Steven LeBlanc exploring its features on my own. The philosophy of the organization, as expressed by Steven LeBlanc, is to provide users a lot of computing power for very little money. Configurations they bid include such cost saving techniques as a streaming magnetic tape back-up (115 MB) and they are looking into Rotary Digital Tape.

Questor does not bid on data conversion, because they feel that museum people should do data conversion themselves. According to LeBlanc, in the case of very large data entry requirements, Questor will refer museums to data entry personnel local to that institution with museum data entry experience!

Although online thesauri (called lexicons by Questor) are among the major selling points of their system, Questor does not see the provision of authority files, whether the AAT, Nomenclature, or specialized "lexicons" as its domain, but rather considers the sharing of such data content as an issue for the users group. If users want to share data, Questor is happy to provide tools for them to do so. Thus, ARGUS is not sold with any

premade vocabularies in its lexicon, although LeBlanc notes that customers who want a lexicon could go to another museum and ask for it.

Questor's future plans are to remain in PICK, possibly running in C under UNIX. They might develop a single user application using Advanced Revelation (AREV), but will not develop an AREV networked version.

This review is based on what I found in an afternoon, and cannot be considered a full test of ARGUS. I was provided with access to a test database, a test version of release 6, and minimal documentation, so my exploration was somewhat superficial.

DOCUMENTATION

According to its literature, Questor supplies each system with two copies of its introductory manual and two copies of its reference manual. They were unable to provide me with a copy of the reference manual in late October, late November when they forwarded other information, or in the month and a half since then because they "are in the process of revising" it. The introductory manual "Getting Started with ARGUS" focusses almost entirely on searching and reporting, according to Questor because "researchers and occasional users primarily want to use the powerful searching and reporting features of ARGUS". The revised manual for release 6 is an expansion of the earlier manual, and an improvement. The manual explains how to conduct a search using the lexicons, how to view records using different report definitions, how to write search definitions and how to generate reports. The instructions are clearly written and logically presented with good examples throughout, but the actual range of options presented in the introductory manual is limited. Since I didn't have access to the advanced manual, it was difficult to assess the documentation as a whole.

DATA ARCHITECTURE

Basically ARGUS has an object file with a series of parallel files for conservation data, attribution, and provenance that can be linked

to the object file at an item level. In addition there are accession and loan files that may hold data about aggregates of items and the lexicon which consists of records for terms linked together by relationships (parents, siblings, children). Within any given file fields, and groups of fields, can be repeated. Thus, on the "provenance" screen, the fields: Collector, Begin and End, repeat in sync. Three blank occurrences are shown on screen at data entry, but more occurrences could be user invoked.

Questor considers the limited number of fields in ARGUS a virtue, because, as Le Blanc put it, they want to provide powerful utilities behind fields. Existing functionality is cited as the reason Questor does not permit user modification of data entry screens or user addition of new data elements. In my view the result is overly rigid for an information retrieval system, denying users the capability of altering data and screens without providing adequate trade-off benefits in functionality. For example, PICK stores date fields as a number of days before or after a date in the 1960's! To accommodate approximate dates, therefore, Questor has stored them in text fields, oddly choosing to record only the earliest possible date in an index! Date fields, in spite of the strange contemporary formulation, do not have tickle facilities attached to them. Measurements are recorded as a data group consisting of the elements dimension-unit-value. This approach, which permits conversion, whenever possible, from one type of measure to another, unfortunately is only used to support metric to english (and reverse) conversion. No measurements of component parts or pieces is provided and no real calculation takes place on this field. Indeed, the treatment (or rather non-treatment, of parts and pieces, is a major problem (which Questor promises will be rectified in future releases). Now all that can be recorded about parts is the number of parts - no description, measurement., etc. The weakness extends also to the loan function where the system cannot treat each item in a loan as a part of that loan, thereby permitting the return of items from a

loan but not of all items contained in the loan.

COLLECTIONS MANAGEMENT

I found that the reason the manual focusses on information retrieval is that ARGUS is basically an information retrieval system, in spite of the term "Collections Management" that appears with regularity on its screens. While it provides the facility to enter data about accessioning, inventory, conservation and loans, it does not take a consistent or generalizable view of such collection management actions, and provides no support for the scheduling or on-going management of them. Accessions are a record type with a one-to-many relationship to object records, rather than an action that can be anticipated, scheduled, assigned, and reversed but historically reported. Loans are a record type with a many-to-one relationship to objects, so that partial returns, separate schedules for different items in one loan, and responsibility for specific items cannot be disaggregated. Inventorying and conservation reporting are accommodated by data segments attached to object records without links to staff or time so no project management of collection activities is really supported.

Of course, we can always do collections management with an information retrieval system if its reports are flexible and it is otherwise sufficiently intuitive that users will be able to query for views of the data required for on-going management. In this respect I found some user interface decisions wanting. Fields are numbered on each screen, and travel to a field involves citing that number which, of course, changes with screens. In cases where entities in the system, such as constituents or artists have separate records (as they should), data entry to a linked record requires the user to know the id number of the entity in order to automatically fill in fields such as name, rather than assuming that users will now names and having those checked to assure that they are authorized, and linked by record number!

Performance was acceptable on a machine that had virtually no data and no other users,

but a few pauses did raise questions about what would happen if the system were loaded. For example, getting the initial screen template took five seconds. Entering a new term in the lexicon took 15 seconds from ENTER to get the cursor back. What kind of performance could be expected in a collections management, transaction processing, environment with lots of users?

LEXICONS

Questor's Lexicon permits multiple parents, which Steven LeBlanc touted as one of its strong points, but this capability certainly opens the way for abuses that the user is unlikely to be aware of. Le Blanc's own example, when prompted by me for how one might use multiple parents, was that horse has as its parent both animals and transportation. The potential for problems is illustrated by the fact that all children of the concept horse might not be transportation, for example, work horses.

Searching by means of the lexicon enables users to search for synonyms and retrieve relevant records. Lexicon searches highlight the term occurrence in the retrieved records, but because lexicon based searches are hashed, they cannot be truncated and no "wildcard" capability is provided. Regular searches retrieve the records only (no highlighting) but, since they are character string searches, can use wildcards.

Powerful printing and display facilities are provided by the lexicon. Full syndetic displays with indentation and even recursion in the case of multiple parent terms are supported. Online views of authorized terms show parent and children terms, as well as grandparents and siblings.

VIDEODISC

One of the selling points of the ARGUS system has been Questor's demonstration of the link between images on videodisc and records in a database. At every sales exhibition I have been to at which Questor was present, this feature has attracted large numbers of potential customers to their booth. The underlying capability is simply

the recording of a frame number in each record of the database for which an image has been recorded on the disc, but it never ceases to impress the masses. Potential buyers should, however, be aware that this is a capability that can be quite easily delivered by any computer with extremely modest programming and a physical link to a videodisc player.

The potential for exchange of lexicons and sharing of videodisc "real estate", was the impetus behind the formation of a Questor Users Group according to Phil Stoiber, its founder. The group, which has held three meetings in 1988 at AAM, the Western Museum Conference and the Southwest museum, is still in its infancy, but it has served as a vehicle for members to learn about the system from their colleagues and its structured meetings have provided opportunities for members to report on use of the system. One project to share videodisc production is underway but the value of sharing lexicons is still considered unproven by members of the group and the copyright problems involved in sharing of published thesauri, such as Nomenclature, the AAT and the Human Relations Area Files are also a barrier yet to be overcome.

OVERALL

ARGUS is a quite good system for museum cataloging and information retrieval, but is weak on collections management support. The vendor makes somewhat exaggerated claims for its distinguishing features (lexicons, videodisc interface, PICK) which are nice but in my view fail to make up for lack of flexibility, process related functionality or relatively poor documentation.

Questor seems aware of the value of open systems. Some interconnectability and extensibility is provided by being in PICK, and Questor takes advantage of some of third party software, such as Accuplot for graphics, Jet for Word Processing, Compusheet for spreadsheets, and Infolink for communications, but no tight connections are made with external functionality, leaving museums to other systems for accounting or

project management, if ARGUS is their choice for cataloging and information retrieval. Questor claims that ARGUS exports (but does not import) MARC records; I have no verification of this but it would be an appealing feature to many potential customers.

Questor is a reasonable size firm with modest sales and will probably be around for a while. Unfortunately, like too many museum community vendors, it is highly secretive about sharing information about its product. On the other hand, it publishes a newsletter, Up & Running, and helps to support a users group, which, while not very active, is at least organized.

ELECTRONIC RECORDS POLICY A Bibliography

In November, Archives and Museum Informatics submitted its draft report on guidelines for formulation of policies for Electronic Records in UN agencies to the policy guidelines working group of the Technical Panel on Records Management of the UN Administrative Coordinating Committee on Information Systems (UN ACCIS TP/REM). The report takes a fresh look at all the issues surrounding electronic records management and proposes a framework which any given agency may use to derive policies satisfactory to itself and consistent with its mission. The draft report, which will be discussed at meetings on January 30, will be revised for submission to TP/REM in February 1989 and, following discussion by the whole technical panel, is scheduled for publication by ACCIS in July. A discussion of the report, and the way it differs from similar studies undertaken by the National Archives of Canada and the National Academy of Public Administration for the United States has been proposed for the SAA meeting in St. Louis in the fall. The following is a selection from the full bibliography of the report, extracted because it displays the quantity and quality of recent studies of these issues. Excluded are general publications on the electronic records

milieu or organizations, such as books by Stewart Brand, Alfred Chandler and Ithiel de Solla Poole, standard machine-readable records manuals by Fishbein, Hedstrom and Naugler, and a variety of materials related to International Organizations and developments outside North America that were included for the UN.

Bibliography

- Allen, Douglas P., "Optical Disk and the Law - Texas Style", **Inform**, April 1988, p.43-44
- Aronsson, Patricia and Thomas E. Brown, "Government Archivists and Government Automation" **Government Publications Review**, 13 (1986), pp.561-570
- Bearman, David, Collecting Software: A New Challenge for Archives & Museums, **Archival Informatics Technical Report**, vol. 1 #2, Summer 1987
- Bender, Avi, "Optical disc technology for records management: A User's perspective", **The Electronic Library**, vol.5#5, 1987, p.276-81
- Bender, David R., "Transborder Data Flow: An Historical; Review and Considerations for the Future", **Special Libraries**, vol.79 #3, Summer 1988 p.230-235
- Bikson, Tora K., Cathleen Stasz, & Donald A. Mankin, **Computer-Mediated Work: Individual and Organizational Impact in One Corporate Headquarters**, Rand Report R-3308-OTA, (Santa Monica CA, Rand Corporation, November 1985) 100pp.
- Brown, Thomas E., "Standards for Machine-Readable Records Reference Service", **Archival Informatics Newsletter**, vol. 2, #2, Summer 1988 p.34-35
- Brown, Thomas Elton & William A. Reader, "The Archival Management of Machine-Readable Records from Database Management Systems: A Technical Leaflet", **Archival Informatics Newsletter**, vol.1 #1, Spring 1987, p.9-12
- Canada, National Archives of Canada, Automated Information Systems Division, "Conserving Valuable Information Within the Health Protection Branch", A discussion document, March 25, 1988
- Canada, National Archives of Canada, **Data and Document Interchange Standards and the National Archives**, Project No.1-6465 (Ottawa, June 1987) 60pp. plus annexes
- Canada, National Archives of Canada, "Management of Information in Integrated Office Support Systems (IOSS): Preliminary Functional Requirements", Third Draft, May 24, 1988 19pp.
- Canada, Treasury Board, "Proposed Standards Activity: Office Systems Standards Working Group", Ottawa, n.d.[April 1988]
- Committee on the Records of Government (Sponsored by the American Council of Learned Societies, the Social Science Research Council and the Council on Library Resources), **Report**, Washington DC, 1985 185pp.
- Cook, Michael, ed., **Approaches to Problems in Records Management: Computer Generated Records: Proceedings of a Seminar held at the University of Liverpool**, 26 September 1986, (Winchester, Society of Archivists, 1987) 60pp.
- Delaware, Bureau of Archives & Records Management, "Delaware Machine-Readable Records Conference Report and Recommended Actions", unpublished papers, August 15, 1988
- Dollar, Charles, **Electronic Records Management and Archives in International Organizations : A RAMP Study with Guidelines** (PGI-86/WS/12) Paris, UNESCO, RAMP Report, 1986 160pp.
- Dollar, Charles & Thomas E. Weir Jr., "Archives Administration, Records Management & Computer Data Exchange Standards: an Intersection of Practice" (Washington DC, National Archives & Records Administration, 1988)
- Erlandsson, Alf M.E., "Technical Standards for Electronic Archives and Records Management", working paper presented at the International Council of Archives, Section of Archivists of International Organizations (SIO), 14th Session, 22-25 August, 1988, Paris 7p..

- Eveland, J.D. and T.K. Bikson, "Evolving Electronic Communication Networks: An Empirical Assessment", **Office: Technology and People**, vol.3, 1987 p.103-128
- Eveland, J.D. and T.K. Bikson, "Work Group Structures and Computer Support: A Field Experiment", Working Document (WD 3974-1-MF), Rand Corporation, October 1988
- Florida, State Legislature, Joint Committee on Information Technology Resources, "Remote Computer Access to Public Records in Florida", Tallahassee, January 1985, 86pp. + Append.
- Fruscione, James J., "A Managerial Framework for Machine-Readable Data Management", **Records Management Quarterly**, v.20(5), July, 1986, pp.3-
- Gavrel, Sue, "Issues Associated with Accessioning Machine-Readable Data", in Peter Baskerville & Chad Gaffield, eds., **Archives, Automation and Access: Proceedings of a Conference at the University of Victoria, British Columbia, March 1-2, 1985** (University of Victoria, n.d.[1986]) pp.107-114
- General Services Administration (U.S.), "Electronic Record Keeping", **FIRMR Bulletin 23**, June 18, 1985
- Hedstrom, Margaret, "Optical Disks: Are Archivists Repeating Mistakes of the Past?", **Archival Informatics Newsletter**, vol.2#3, p.52-3
- Ketelaar, Eric, "Exploitation of New Archival Materials", unpublished, 11th International Congress on Archives, Paris, 1988 27pp.
- Kowlowitz, Alan, Appraising Online Information Systems: A Case Study, **Archival Informatics Technical Report**, Fall 1988, v.2 #3
- Levy, David M., Daniel C. Brotsky and Kenneth R. Olson, "Formalizing the Figural: Aspects of a Foundation for Document Manipulation", unpublished paper, Systems Sciences Laboratory, Xerox Palo Alto Research Center, 8/31/88, 7pp.
- Lynch, Clifford A., "Optical Storage Media, Standards & Technology Life-Cycle Management", **Records Management Quarterly**, v.20 (1), January 1986, pp.44-52
- Mankin, Don, Tora Bikson, Barbara Gutek, and Cathleen Stasz, "Managing Technological Change: The Process is Key", **Datamation**, September 15, 1988 p.69-80
- McDonald, John, "An Approach to the Identification and Scheduling of EDP Data", **ADPA**, v.5 (1), 1985, pp.51-68
- McDonald, John, **Second Interim Report of the PAC/DOC Information Management Working Group**, (Ottawa, PAC, Sept. 1985) 86pp. + appendixes
- McDonald, John, "Data and Document Interchange Standards: A View from the National Archives of Canada", paper presented at the SAA Annual Conference, 1987, 9pp.
- Mallinson, John C., "Preserving Machine-Readable Records for the Millenia", with a rejoinder by Sue Gavrel, **Archivaria**, 22 (Summer, 1986) pp.147-155
- Massachusetts, Secretary of State, **Report of the First National Conference on Issues Concerning Computerized Public Records**, (Boston, Public Records Division, 1987) 2 vols.
- National Academy of Public Administration, Panel on Electronic Record Keeping, Draft Report, December 20, 1988.
- New York State Archives, **Computer and Audiovisual Records in the State Government: Preliminary Report of the Special Media Records Project**, (Albany, Governor's Office of Management & Productivity, April 1986) 69pp.
- New York State University, New York State Education Department & New York State Archives and Records Administration; **A Strategic Plan for Managing and Preserving Electronic Records in New York State Government** (Albany, NYSU, August 1988) 36pp.
- Nolte, William, "High Speed Text Search Systems and their Archival Implications", **American Archivist**, vol.50 #4, Fall 1987 p.580-84
- Ohio, Department of Administrative Services, Information Management Division;

-
- National Information Management Survey of Automation and Machine Readable Records** (Columbus Ohio, DAS, 1987) 46pp.
- Oklahoma State Archives, **Report to the Archives & Records Commission on Machine-Readable Computer Records in Electronic Format**, (Norman OK, Oklahoma Dept. of Libraries, 1986)
- Planning Research Corporation Inc., **Army Implementation of DOD & Federal Standards: Annex C - Records Management**, May 6, 1988, 33pp.
- Protocols, Standards and Communications, Inc., (a series of reports prepared under contract to the National Archives of Canada)
- Application of ODA/ODIF Standards**, March 1988, 36p.
- ODA Product Survey**, March 1988, 11p.
- Status of ODA Conformance Testing**, March 1988, 12pp.
- Pilot Project Implementation of Document Interchange Standards**, April 13, 1988 31pp.
- Rene-Bazin, Paule, "New Archival Materials Principles: Creation and Acquisition, unpublished paper, 11th International Congress on Archives, Paris 1988 34pp.+
- Shapiro, Norman Z. and Robert H. Anderson, **Toward an Ethics and Etiquette for Electronic Mail**, Rand Report R-3283-NSF/RC (Santa Monica, Rand Corporation, July 1985) 35pp.
- Smith, Milburn D. III, **Information and Records Management: A Decision-Maker's Guide to Systems Planning and Implementation**, (Westport CT, Quorum Books, 1986) 233pp. + append. & index
- Special Libraries Association, **Government Information: An Endangered Resource in an Electronic Age**, (Washington, DC, SLA, 1986) 227pp.
- Spring, Michael B. & James G. Williams, **Text File Conversion: The Problem of Copymarks**, University of Pittsburgh SLIS Research Report IS-88/005, 1988, 17pp.
- Sturges, Paul, "Policy Criteria for the Archiving of Electronic Publishing", **Journal of Librarianship**, v.19(3), July 1987 pp.152-172
- U.K., Public Records Office, **Optical Disk Project: Interim Evaluation Report**, May 1988 7pp. plus appendixes
- U.S. Congress, Office of Technology Assessment; **Informing the Nation: Federal Information Dissemination in an Electronic Age**, OTA-CIT-396 (Washington DC, Government Printing Office, October 1988) 333pp.
- U.S. Interagency Committee on Information Resources Management "Electronic Record Keeping Study", unpublished, Feb. 19, 1987
- U.S. National Archives and Records Administration, **General Records Schedule 20**, (Washington DC, GPO, June 1988)
- U.S. National Archives and Records Administration, **General Records Schedule 23**, (Washington DC, GPO, June 1988)
- U.S. National Archives and Records Administration, **Managing Electronic Records: An Information Package**, (Washington DC, GPO, 1986) 13pp.
- U.S. National Bureau of Standards, **Care and Handling of Magnetic Storage Media**, NBS Report 500-101 (Washington DC, NBS, 1985)
- U.S. National Commission on Libraries and Information Science, Panel on the Information Policy Implications of Archiving Satellite Data, **To Preserve a Sense of Earth From Space** (Washington DC, GPO, 1984) 47pp.
- U.S. National Science Foundation, Electronic Records Committee, **Electronic Records: Legal & Policy Considerations, Report of the Electronic Records Committee** (Washington DC, NSF, April 1987)
- Williamson, Robin, "Archiving Electronic Text", **Outlook on Research Libraries**, v.10 (3), pp. 8-11
- Williamson, Robin, **Electronic Text Archiving** (NY, Elsevier, Spring 1988)
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CONFERENCES

Museum Computer Network

The Annual Conference of the Museum Computer Network, held in Santa Monica October 26-28, featured the largest exhibit of computer systems for museums ever under one roof. Twenty vendors of collections management, membership and development, and exhibit presentation systems demonstrated their systems for two days during an otherwise full conference program consisting of 19 concurrent sessions of contributed papers, two workshops, and a variety of field trips.

The first day of the conference was billed as a "Vendor/User Forum". Six sessions were scheduled throughout the day to provide vendors with an opportunity to present their corporate analysis of the issues of: Longterm Strategic Considerations, Membership and Development Requirements, Customization and Flexibility, Data Architecture, and Interactive and Graphic Systems Requirements. Following short presentations by 3 or 4 vendors, the audience participated in extremely lively discussions. The Forum was, on the whole, a success, though attendees expressed a wish that the exhibits could have been open the first day so that demonstrations could have followed talks. In my view, the two sessions on requirements - membership and development and graphic and interactive systems - provided the most useful, concrete, and comparative information. Unfortunately, the more theoretical topics seem to have served as vehicles for vendors and audience to generalize.

Other sessions the first day included a workshop on entity-relationship modelling for collections management presented by Elliot Avedon of Waterloo University, and a demonstration of the systems at the Los Angeles County Museum of Natural History which then sponsored a magnificent reception for all conference attendees.

The second day of the meeting opened with reports on a variety of national and international projects, including the AASLH

Common Agenda project, the activities of the Museum Documentation Association of the UK, and the Documentation Committee of the International Council of Museums. More specialized reports were delivered on the AAT, the Archival VM Conference and the Photography Thesaurus being developed by Diane Vogt O'Connor and Richard Pearce-Moses. Concurrent sessions followed on the Conservation Information Network and collections management databases in natural history museums. Following informal lunches of special interest groups and the opening of the exhibits, concurrent sessions explored computing research tools, especially for image management, membership and development systems, and strategic planning and data architecture. An introductory workshop on the fundamentals of museum computing was presented by Ron Kley of Museum Research Associates. An evening reception sponsored by the J. Paul Getty Trust, and a continental breakfast the next morning sponsored by the Conservation Information Network gave everyone a further opportunity to visit the exhibits.

On Friday concurrently sessions addressed database projects in arts and history museums and the institutional impacts of automation in areas such as registration, visitor services, facilities and exhibit management, and administration. Afternoon sessions provided and opportunity to present optical technologies and discuss issues in vocabulary control. Although the conference ended Friday afternoon, many attendees took advantage of planned tours to visit a variety of museums and the Art History Information Program of the Getty Trust on Saturday morning before going home.

The MCN Board met on Saturday, with the addition of three newly elected members: Jim Blackaby, Jane Sledge and John Perkins. It elected David Bearman of Archives & Museum Informatics as President, Suzannah Fabing of the National Gallery of Art as Vice President, Paul Perrot of the Virginia Museum of Fine Arts as Treasurer, and Jim Blackaby, formerly of the Mercer Museum as Secretary. Plans for the organization were discussed with newly appointed Executive Director, Deirdre Stam,

and decisions were taken to adopt a business plan that calls for MCN to pursue means of providing educational workshops and seminars, expand and improve SPECTRA, and increase the membership of the organization. The Board will meet again in April. For information, write Deirdre Stam, MCN, Information Studies, Syracuse University, Syracuse, NY 13244

ARCHIVAL DESCRIPTIVE STANDARDS

A meeting of the NHPRC grant funded project on Descriptive Standards for the Archival Profession was held in College Park MD on December 3-4. The meeting, convened by co-chairs Larry Dowler (Harvard) and Richard Szary (Yale) was attended by David Bearman (Archives & Museum Informatics), Lynn Bellardo (Georgia Historical Society), Jean Dryden (United Church Archives, Canada), Steven Hensen (Duke), Tom Hickerson (Cornell), Marion Matters (SAA), Fred Miller (NEH), Harriet Ostroff (LC), Kathleen Roe (NY State Archives), Leon Stout (Penn State), and Sharon Thibideau (NARA), as well as by Nancy Sahli and Lisa Weber of the NHPRC. Project coordinator Vicki Walsh had previously provided participants with a variety of background materials including papers written expressly for this meeting by Lisa Weber, Richard Szary and David Bearman, and lists of current activities bearing on standards for the profession, bibliographies on standards and other readings.

After a fruitful first morning discussing the scope of description, and agreeing that description included not only description of records, but of functions, offices of origin, appraisal decisions, and actions, the group proceeded to an analysis of the present status of standards. A matrix was developed which distinguished between standards internal to the archival profession and those relevant beyond archives on one axis, and between information systems standards, data structure standards, data content standards and data value standards on the other. Existing standards, proposed or implemented, were placed in the matrix revealing areas in which standards were missing and areas in which conflicting standards confused practice. By the second day, the working group had developed criteria for

evaluating the benefits of influencing, adopting or creating standards and was able to apply these to its matrix to identify priorities for action. It commissioned its own members to develop ten white papers on aspects of the problem for discussion at its next meeting and decided that one of the major contributions it could make to the development of descriptive standards for the profession was to make its own deliberations and internally developed working papers available to the profession to further a broad discussion of the issues. Over the next six months, Vicki Walsh will be working on this and on getting materials ready for a June meeting.

CALENDAR: First Half 1989

February 15-18, 1989 San Francisco, CA
Visual Resources Association (Lise Hawkos,
School of Art, Arizona State University, Tempe,
AZ 85287)

March 14-16, 1989 Oakland, California
Computer in Libraries Conference & Exhibition
(SCIL'89, Meckler, 11 Ferry Lane West,
Westport, CT 06880)

March 22-30, 1989 Phoenix, Arizona
ARLIS/NA Annual Conference (ARLIS/NA, 3900
E. Timrod St., Tucson, AZ 85711)

April 14-15, 1989 Sturbridge, Mass.
Museum Archives Institute (Theresa Rini
Percy, Research Library Director, Old
Sturbridge Village, 1 Old Sturbridge Village
RD., Sturbridge, MA 01567)

May 15-17, 1989 Ottawa, Canada
Converging Disciplines in the Management of
Recorded Information (Winston Gomes,
Symposium on Current Records, International
Council on Archives, P.O.Box 3162, Station D,
Ottawa, K1P 6H7 CANADA)

June 17, 1989 New Orleans, Louisiana
Workshop on Planning for Museum Automation,
sponsored by the Museum Computer Network
(Deirdre Stam, MCN, Information Studies,
Syracuse University, Syracuse, NY 13244-
2340)

June 18-22, 1989 New Orleans, Louisiana
American Association of Museums (Maureen
McCarthy, AAM, 1225 Eye St., NW, Suite 200,
Washington, DC 20005)

IN-BOX

REPORTS

National Archives & Records Administration, Life-Cycle Systems Data Elements Manual, August 4, 1988

According to its statement of purpose, NARA's manual "establishes the standards and authority terms for automated systems involved in the life-cycle of Federal records." Unfortunately, it is only applicable to the management of records during that portion of their life-cycle under NARA control.

The manual consists of a somewhat ideosyncratic data elements dictionary with appropriate MARC subfield cross references and a number of associated authority lists. Some of the authority lists are likely to be of considerable interest to other archivists. "Organizational Unit Program Area", for example, is a thesaurus of broad functional terminology, while "Organizational Unit Process" is a vocabulary of functions, in the gerund form, corresponding to the list developed at the Smithsonian and used by RLG. The authority for personal names is "based on" AACR2, but according to the authors these rules "must be modified because AACR2 was written to guide book catalogers rather than archivists". However, the authors do not explain why that matters or what kinds of differences will result. The same note on corporate name authorities raises similar unanswered questions. A peculiar "Type of Material" list mixes physical format and genre and is generally inconsistent. It includes "Training Film" but not Film or other kinds of Films, allows "County Map" but for "Aeronautical Chart" it instructs to use "Chart". One of the odder choices to my mind is "Manuscript, Use holograph".

The manual reproduces lists of General Materials Designators, Specific Material Designators, Country abbreviations, State and Territories, Languages, etc. from existing standard sources, but without indicating that the sources for these lists are Library of Congress authorities or Federal Information Processing Standards or ANSI standards, leaving

some question about whether they could, in time, depart from the standards.

Some short lists of codes used in NARA, such as "freeze" codes, comprise the remainder of the loose-leaf volume.

Research Libraries Group Inc., Information Needs in the Humanities: An Assessment, Constance C. Gould, principal author (Stanford CA, RLG, 1988) 62pp.

The Research Libraries Group Program for Research Information Management (PRIMA) has made a major contribution to scholarly information management with this slim volume. Each of eight sections, based on interviews with scholars in classical studies, history, history of art, linguistics, literature, music, philosophy, and religion, examines the state of scholarship in a humanistic discipline and the potential role that information technology could play on the frontiers of knowledge in that realm. The questions, and answers are equally fascinating, and the range of potential contributions of true scholarly information networks and workstations are ably delineated. The work, which should provide a challenge to RLG and to data processing everywhere for a long time to come, is the first of several. Social sciences will be published in 1989.

Society of American Archivists, Committee on Goals and Priorities, An Action Agenda for the Archival Profession: Institutionalizing the Planning Process - A Report to SAA Council, August 31, 1988, 74pp.

This uneven report collates detailed action agenda's of CGAP planning groups on appraisal and documentation strategies, automated records and techniques, institutional evaluation and standards, management training, and the educational potential of archives. In spite of the unevenness, it is worth noting that a very large number of the action items in each category involve information exchange and the standardization of documentation activity.

Southeastern Registrars Association, Basic Condition Reporting: A Handbook (second edition, revised & expanded, edited by Priscilla

O'Reilly and Allyn Lord), 1988 54p. spiral bound.

The five sections of this manual address works on paper, painting and sculpture, historical objects, ceramics and glass, and textiles. Each section identifies methods of recording condition data and controlled vocabularies for condition assessment. The differences between the methods and vocabularies, given that each is addressing the problem of specifying a location on a collected object and a state of its constituent material, is striking.

BOOKS AND ARTICLES

Bell, Steven J., "Corporate Change: Impact on the Corporate Documents Collection", Special Libraries, Fall 1988, vol.79 #4, p.265-270

Anyone concerned with establishing corporate authorities, or with researching the history of private organizations in America, will find this a valuable article.

Case, Mary ed., Registrars on Record: Essays on Museum Collections Management (Washington DC, AAM, 1988) 257pp.

Described as not so much a "how-to" book as a "get acquainted" book, Registrars on Record describes the real experience of museum registration, beginning with Mary Case's delightful account of her average twenty hour day in "What a Museum Registrar Does all Day" and ending with James Clifford's equally enchanting "Computer Fantasies for Museums". Clifford's companion article "Computer Realities for Museums", is a useful summary of where we are, marred only by a dearth of citations to literature or case studies that would give it more meat. On the whole, this is a seductive little book, containing no dearth of useful observations. Two appendixes contain a Code of Ethics for Registrars and a Code of Practice for Couriering Museum Objects as adopted by the Registrar's Committee of the American Association of Museums.

Chenhall, Robert G. and David Vance, Museum Collections and Today's Computers (Westport CT, Greenwood Press, 1988) 119p. plus bibliography

Chenhall and Vance offer a completely rewritten version of Chenhall's thirteen year old text Museum Cataloging in the Computer Age. In the first half of the book, the authors examine the nature of museums, focussing on their diversity instead of their commonality. The similarities they perceive are too general to support requirements analysis and their introduction to computers and databases is too superficial to be of much use to anyone charged with acquiring or implementing a system. But chapters 1-7 are at least a reasonable introduction for novices.

In the second half of the book the authors are over their heads. They are often misleading or just plain wrong in Chapter 8-11 on digital images and their networking discussion in Chapter 12 is unclear. The effect is to create the impression that digitization is already a practical approach for museums to use to store images, a view with which I strongly disagree. The final chapter presents an example of a small museum system developed by Bob Chenhall which could serve as a case study of how not to automate: begin by choosing inadequate hardware and a DBMS that permits only 64 fields with fixed length limits of no more than 62 characters per field and then define fields to conform to bad local practices such as accession numbers that mix four logical fields and location codes with only a one character value.

Evans, Linda & Maureen O'Brien Will, MARC for Archival Visual Materials: A Compendium of Practice (Chicago, Chicago Historical Society, 1988) 424p. looseleaf, \$5

The final report of the NHPRC funded "Conference on the Use of MARC Records for Archival Visual Materials" held at Gallaudet University March 30-April 1, 1988 consists largely of a field by field "compendium of practice" modelled after the similar publication on MARC AMC by Max Evans and Lisa Weber. Like the AMC conference, however, its real legacy is likely to be the contribution it made to focussing a number of unresolved issues regarding description conventions and cataloging guidelines. Many of these issues are discussed in Appendix C, "Report of the Conference..." (p.404-22), which I recommend

to image catalogers and non-specialist archivists and museum curators alike.

Format integration, which makes all AMC fields available for VM and visa-versa, solves a few of the issues identified at the conference, but much remains. While the basis for agreement about access points seems likely to be found in AACR2 and its interpretations by Hensen, Henson-White, and Parker, particular difficulties continue to surround naming conventions and main entries. Issues of versions and linked records structures using MARC were raised but not resolved. According to the editors, the participants, many of whom initially feared that standards would be too constricting, found themselves wishing for clearer guidelines and more prescriptive standards.

Griffith, Cary, "Information America: Online Access to Basic Public Records", Information Today, October 1988 p.7-11

Information America is a private, online information service based in Atlanta that provides researchers with access to state and municipal public records information. It exists, and makes money, because researchers find it difficult or impossible to use records of the Delaware Secretary of State or the Los Angeles Municipal courthouse, to use two examples cited in this article. Public records custodian might want to find out why, and how.

International Council of Museums, Museum Studies International ed. by Marcia M. Anderson (Washington DC, Smithsonian Institution Office of Museum Studies, 1988) is a directory of training programs in archives and museums world-wide with an emphasis (317 of 480 entries) on the United States.

Library Trends, vol.36 (3), Winter 1988 "Automating Intellectual Access to Archives", edited by Anne Gilliland

This issue contains a number of important articles. Lisa Weber's "Educating Archivists for Automation" is a superb review of the issues and the efforts. Steven Hensen's "Squaring the Circle: The Reformation of Archival Description in AACR2" should be required reading in any course on archival description today. Patricia

Cloud's "The Costs of Converting to MARC-AMC: Some Early Observations" is the kind of case study of archival automation experiences that we need to see published more often.

Orbach, Barabara, "Integrating Concepts: Corporate Main Entry and Graphic Materials", Cataloging and Classification Quarterly, vol.8(2), 1988 p.71-88

This is the most sophisticated discussion of the problems catalogers of archival and graphic materials face in applying AACR2 that I have ever found and its detailed examination of specific AACR rules and the assumptions we bring to description of the creation of graphic materials should be read by all concerned with special materials.

Orna, Elizabeth, Information Policies for Museums, MDA Occasional Paper #10, (Leeds, W.S. Manley & Sons, 1987) 48pp.

I regret that this slim volume distributed by the Museum Documentation Association escaped my notice until recently, because it is the most concise statement of why museum directors need to attend to information management and how policy shapes museum practices, that I have ever read. This booklet, first published in October 1987, makes many of its points through excellent graphics, and includes citations to a variety of sources for those interested in pursuing the issues further.

NEWSLETTERS

Annual Review of OCLC Research July 1987-June 1988 (Dublin OH, OCLC Online Computer Library Center Inc.,1988) ISSN 0894-198x

Once again the annual review of research conducted by and funded through OCLC is an exciting and challenging document. I found a number of projects I had not previously known about (such as a study of the use of OCLC and the 3-D extensions to MARC VM for museums by Esther Bierbaum, SLIS, University of Iowa) as well as more detailed reports than I had read elsewhere from the Mercury Project (OCLC's collaboration with Carnegie Mellon University on an electronic library) and a variety of OCLC user interface studies.

Archaeological Computing Newsletter (The Institute of Archeology, 36 Beaumont St., Oxford OX1 2PG ENGLAND) ISSN 0952-3332

Issue #16 includes an evaluation of the Archaeological Information Exchange (AIE) operated by the University of Southampton since 1986. AIE serves as an automated mailing list, a distribution service for data and/or software and an online database, but it has only about 200 users and many of these are not archaeologists.

British Library Research & Development Department: Research Bulletin, (British Library, free) ISSN 0952-2832

While this newsletter is essentially a report on BL activity and grants, it is interesting because those activities and grants cover a very broad spectrum of activity. For example, fall 1988 reports on funding provided to the Oxford Text Archive to evaluate uses of their database, Manchester Polytechnic to explore the feasibility of a national collecting network for Art Exhibition Catalogues, and Leicester Polytechnic to conduct a national survey and build a database of slide collections.

International Bulletin for Photographic Documentation of the Visual Arts (Visual Resources Association, Art Department, James Madison University, Harrisburg VA 22807, \$25.00) ISSN 1097-8020

Increasingly the focus of this professional association newsletter is on automation activities in image collections. In the fall issue, nearly every column discusses an automated implementation and many of the advertisers are selling software.

The Records & Retrieval Report (Greenwood Press, 88 Post Road West, P.O.Box 5007, Westport, CT 06881, 10 issues/\$135 p.a.) ISSN 8756-0089

C. Peter Waegemann's journal continues to focus on one topic per 16 page issue. The December 1988 issue of Imaging displays the usual enthusiasm for technology without conveying much useful information with which managers can make technology change decision. I find that R&RR tends to provide advice but no basis for accepting it. In this case, the

discussion of OCR, of legal issues, and of storage media all lack specifics.

Video Computing (P.O.Box 11127, Birmingham AL 35282-9518, 6 issues p.a., \$130 in US, \$150 abroad)

The November/December 1988 issue of this glossy newspaper contained articles on the invention of a technique for molecular level storage of data on optical disk at Oak Ridge National Laboratory (which is being licensed by Martin Marietta) and on the interactive video disc "Tropical Rainforests: A Disappearing Treasure" which made its debut at the Smithsonian Institution and is scheduled to tour thirteen science and natural history museums around the country before 1993. The molecular level storage article includes a moderately technical interview with the licensing director of ORNL's Office of Technology Applications. Two separate articles on the Smithsonian disc describe the disc and exhibit, and the way that SITES used outside personnel in its development.

EPHEMERA

American Association of Museums, Technical Information Service, Resource Reports 1-4, 6-7, Susan K. Nichols Series Editor

The AAM Technical Information Service is almost two years old. Its publications include reports on Fund Raising (1), Careers (2), Museum Studies Program Evaluation Guidelines (3), Accreditation Self-Study Guidelines and Visiting Committee On-Site Evaluation Questionnaire(4), Evaluation in a Museum Setting (6), and Federal Grantsman-ship (7). They vary widely in format from stapled xeroxes (1-6) to perfect bound offset volumes (7), and in content from collected offprints (6), to edited papers (1) and integral publications (7).

Reports 1 and 7, on fund raising and acquiring Federal grants, will prove helpful to any archives or museums. Report 3 and 4 provide useful questions for anyone assessing museums or museum education programs, but will prove especially useful to management.

NEWS

User Friendly Name

North Carolina State Archives has renamed its FAIDS system, which is about to be implemented in the Search Room for public access, the Manuscripts and Archives Reference System (MARS). MARS is one of a dozen or so systems operated by the State Archives on the Prime 41250 it shares with other organizations that are part of the North Carolina Department of Cultural Resources (including the Art Museum, Arts Council, N.C.Symphony and State Library) as well as with its peer organizations within the Division of Archives and History (including the Museum of History, Historic Sites, Archaeology and Historic Preservation, and others).

Computerized Exhibits Directory

The Smithsonian's National Air and Space Museum has installed the first of 14 planned kiosks to be situated throughout the museum to provide visitors with an overview of exhibits and facilities. According to Federal Computer Week (vol.2 #43, October 24, 1988) the 85 touch activated screens of color information were developed with PC level image capture boards and CAD systems that assist in creation of exhibit blueprints.

City develops paperless budget process

According to the NAGARA Clearinghouse (vol.3 #4), the city of Westminster Colorado has eliminated paper in the preparation and submission of budgets including justifications, revisions and final authorizations. (Alan Miller, Assistant City Manager, City of Westminster, 3031 W. 76th Ave., Westminster, CO 80030).

CART prepares a Resource Directory

Glen McAninch (319 Linden Walk, Lexington KY 40508) has undertaken the preparation of Automated Records and Techniques in Archives: A Resource Directory on behalf of the SAA Committee on Automated Records and Techniques. The Resource Directory, scheduled for publication by SAA next winter, will contain lists and descriptions of organizations, clearinghouses, educational and training programs, utilities and databases, periodicals

and newsletters, as well as a select bibliography, a glossary of terms and acronyms, and a subject index.

LC Collects Software

According to the Government Computer News (Dec. 5, 1988, vo.7 #25) the Library of Congress's newly formed Automated Reference Collection is beginning to collect published software products as the first step of what Suzanne Thorin, acting chief of the General Reading Rooms Division hopes will eventually be a program to obtain copies of all software published in America.

A Public Domain Information Utility?

The Library Corporation has announced that it is forming CommonKnowledge, which it describes as a non-profit entity dedicated to dissemination of public domain digital data. In a dramatic call for cooperation, the Library Corporation sponsored a session at ALA mid-Winter "to share the excitement of this new day" and to "transfer the ownership of information access". For more information, write CommonKnowledge, Jefferson MD 21755

Intergovernmental Records Project

The National Archives launched its project to gather and exchange information about records of the Federal Government on December 12. NARA stated that it would enter records reported to it into the Research Libraries Information Network at the record group/collection and subgroup/series level. Report records to Thomas F. Soapes, Intergovernmental Records Project (NI), National Archives and Records Administration, Washington, DC 20408.

Electronic Dissemination by Supreme Court

The Supreme Court joined the other branches of government in considering disseminating its opinions electronically. The Court is evaluating preliminary proposals received in November which address how the project might be undertaken and the costs and benefits of such a service.

PROJECT & PROPOSALS

With the change in its charging structure, the Research Libraries Group has the potential to become a basic scholarly reference resource. Its projects illustrate the directions it is going.

RLG's Archives and Museum Information System

The Research Libraries Group project to design an archives and museum workstation, now named the Archives and Museum Information System project, met in Philadelphia on December 2. Representatives of seven of the institutions participating in the project were given instructions on background information to gather by David Bearman, who will conduct the on-site analyses of requirements, and Alan Tucker, the RLG Project manager. The participants include the International Species Inventory System, the Minnesota Historical Society, the National Museum of Natural History, the New York City Department of Information and Records, Old Sturbridge Village, the Rosenbach Museum and Library, the Virginia Museum of Fine Arts, and Yale University Department of Manuscripts and Archives. The first phase of the systems design process, which involves developing requirements for each of the institutions separately and merging them into a combined statement of requirements, will be completed in the spring of 1989. The merged statement of requirements will be available for critique prior to the development of an external design.

Machine-Readable Records in Libraries

Leon Stout, University Archives, Penn State University (C107 Pattee Library, University Park, PA 16802) recently circulated a copy of a draft report on the Pew Foundation funded study by members of the Research Libraries Group aimed at developing models for collecting, control, preservation and access to a Machine Readable Data Files. He noted that the study, being conducted at Cornell, Dartmouth, NYU, Northwestern, the University of Florida and the University of Pennsylvania, involved librarians, social scientists, research computing managers, but not archivists. Because some of the MRDF under discussion are personal datasets and faculty research

databases, Stout considered them archival. He noted, however, that "archivists are apparently not perceived as relevant to the process, a prospect some will regard with relief, others with dismay."

RLG Government Records Project

The steering committee of the RLG Government Records Project, the largest grant the National Historical Publications and Records Commission has made to a records project to date, met in Albany October 22. The project, which will officially get underway on February 1, further defined the goals and objectives of its working groups.

The Description/Search Strategies working group identified definition of common record linkage practices using MARC as one requirement. It established a goal of identifying successful search strategies for government records, and agreed to compile a compendium of practice on how fields were being used for government records, beginning with the practice of the seven states originally associated with the project. Over the course of the project it expects to define the use of biographical notes and agency history data. The Appraisal working group set as its objective the definition of the format and content of shared appraisal reports, their testing and evaluation and the revision of the standards for a retest. The Vocabularies working group agreed to define a format for form-of-material vocabulary and test prototype vocabularies. Toni Petersen, director of the Art and Architecture Thesaurus, who attended the meeting as an observer, offered the cooperation of the AAT.

The NHPRC requirement that the participants collect reference statistics in order to determine whether RLIN is being used for reference and the value of the information retrieved was discussed. Lisa Weber explained in a follow up letter that "the Commission is concerned that the project build some concrete means of demonstrating the reference use of the AMC database into its work plan." Specifically, project members will keep track of positive and negative results of searches for patrons and in-house users, whether for reference, appraisal, or other purposes.

SOFTWARE

Cactus Software Inc. (850 North State St., Chicago, IL 60610) has released Minaret, its MARC compatible archival collections management software package. Demonstration diskettes of Minaret, which was in beta test are now available for \$50 (which will be discounted against purchase) along with the package itself which has an introductory price of \$495 for the first copy.

Crowninshield Software (1105 Commonwealth Ave., Boston, MA 02215) has announced the availability of its CD-Formatter which enables users to generate a logical image of an ISO 9660 volume (formerly High Sierra CD Format) including all necessary directories, pathtables, and volume descriptor data from any MS-DOS directory. Priced at \$1995, CD-Formatter is also available as a module in the MediaBase CD Publishing Package (\$5750) with license to put runtime retrieval system on published CD's.

Delaware Computing Services Inc. (5700 Kirkwood Highway, Suite 205, Wilmington DE 19808) showed its Collections Information Management System (CIMS) publicly for the first time at the Museum Computer Network annual meeting. CIMS is an integrated package for Collections Management and On-line tour reservations initially developed for Winterthur Museum. Delaware Computing, which has offices in Belgium, the Netherlands Germany and France, is prepared to bid and install its system anywhere in the world.

Discus (64 Commercial St., Rochester NY 14614) developed interactive video programs from the NASA space archive discs for the Buffalo Museum of Science. They claim that the exhibit has become one of the museum's most popular since its opening in October, and are now working with other museums on similar products.

Inmagic Inc. (2067 Massachusetts Ave., Cambridge, MA 02140-1338) has announced MARC Adaptor a program that converts bibliographic records in USMARC format to INMAGIC for IBM and WANG PC's (but not the

reverse) for \$125. Also available for DEC VAX and MicroVAX systems.

Intel Corporation (Princeton Operation CN5325, Princeton, NJ 08543-5325) which purchased the Digital Video Interactive (DVI) technology from GE, announced at an October press conference that it will bring interactive, full motion video and audio PC products to market in the next two years. At the same time, Lotus Software Corporation promised to develop software for the popular market using DVI.

Zasio Enterprises (243 Buena Vista Avenue, Suite 110, Sunnyvale CA 94086; 408-739-5704) is shipping its "Versatile Software System" demonstration kit.

Versatile supports central or networked control over active records with features designed to accommodate local classification systems (both sorting appropriately for multi-level classification schemes and documenting the scope of levels and values). It provides folder labels and barcodes and box labeling with codes. A "User Reservation" facility serves as an internal file circulation manager, keeping track of users and sending reminders and further routings.

The inactive records management system, which can operate with or without its active record counterpart, includes its features and supports scheduling of records at file folder or record series level by records life events. Changing regulations will update schedules and external events can move disposition forward. Inactive records management providers for box storage.

Graphical features of the software, which support the design of file and box labels with barcodes (and which blew up my version of the demonstration software because its documentation failed to note a need for graphical hardware capabilities) also provide for windowing. Inactive records management comes with a chargeback sub-system that can track use whether actual billings are sent or not. Security is provided by password and user id to search only functions and to other capabilities. The user interface is either command driven or menu driven and the menus are laid out in an easy to use fashion. Based on the demonstration disk, I will explore this system further.

STANDARDS

Commodities Names

Standard International Trade Classification: Revision 3 (ST/ESA/STAT/SER.M/34/Rev3) is now available from the UN Statistical Office Sales order No. E.86.XVII.12, \$12.50. It consists of over 3000 headings for commodities entering external merchandise trade.

Moving Image Genre Terms

The Library of Congress Cataloging Distribution Service announced publication of Moving Image Materials: Genre Terms (\$25) to supplement their recently published Archival Moving Image Materials: A Cataloging Manual.

Voice Messaging Standards

The Information Industry Association has launched a one year project to develop specifications to assure data interchangeability between voice messaging systems. AMIS, the project for Audio Messaging Interchange Specifications will be directed by Bob Mercer, Senior Vice President of Hatfield Associates (IIA, 555 New Jersey Ave., Suite 800, Washington DC 20001)

Resolving AMC/VM conflicts in MARC

Lisa Weber, SAA representative to MARBI, presented a modification to discussion paper 26 at the meeting of January 7, which is intended to make it possible for curators of any kinds of materials to use the special coding provided for in MARC fields 006, 007 and 008, while still coding their holdings as archival. This has been a problem, especially for curators of archival visual materials, as reflected in the proceedings of the VM Conference (see In-Box). The discussion option, which was favorably received, would create a new leader byte for "type of control" that could be coded as archival or bibliographic, and redefine leader byte 6 "b" as "mixed materials" for collections that are not composed solely of one type of material. Collections consisting of one type of material, whether textual, graphic, machine readable or whatever, could be coded in leader byte 6 according to that type of material while still having archival coded as the type of control in leader byte 8. A formal proposal will be made to MARBI at its next meeting in July.

Licensing Standards Proposed

Property and Propriety in the Digital Environment: Towards an Examination Copy License, an EDUCOM Software Initiative White Paper by Brian Kahin (EDUCOM Software Initiative, P.O.Box 364, Princeton, NJ 08540) 23p.

Brian Kahin makes an intriguing proposal for software publishers and universities to consider two types of "evaluation copy" licenses: one for circulating copies and one for distributed copies. Hopefully it will stimulate the kind of discussion EDUCOM wants. Even those not concerned with these issues however will be interested in this provocative little brochure for its sophisticated historical discussion of the problems of software licensing and copyright.

SAA CAIE Meeting

The Society of American Archivists Committee on Archival Information Exchange, under the new chairmanship of Richard Szary, met at the SAA conference in Atlanta. Members include Jean Dryden, Kathleen Roe, Alan Tucker, Lisa Weber and Ted Weir, in addition to ex-officio members representing the Description Section and the Committee on Automated Records and Techniques. It was agreed that Kathleen Roe will serve as SAA liaison to the MARBI advisory committee (after the January meeting at which Lisa Weber represented SAA), and that Marion Matters, SAA Automation program officer, will attend future MARBI meetings. The Canadian Bureau of Archives descriptive standards project and Steve Hensen's revision of APPM were discussed, along with format integration, and the needs of archival users of the VM formats. Specific MARC format issues including the proposal for faceted subject headings to accommodate AAT, proposals for cataloging of multiple versions of records, and the concept of "national level records" were discussed. As always, CAIE expressed interest in hearing from the community about how its information interchange needs can best be met. Proposals and discussion papers before MARBI can be obtained by subscription through the Library of Congress Cataloging Distribution Service.

Free Publication on OSI

Commitment to Standards: An OSI Guide for Management (Boston, Digital Equipment Corporation, 1988) 50p.

This nicely illustrated, pocket size book is the best basic introduction to Open Systems Interconnection yet. Free from DEC, so get it.

Archaeological Data Exchange

A draft standard for data transfer for site specific data is proposed by Ben Booth in the latest issue of Archaeological Computing Newsletter (#16). The standard, essentially a comma delimited format with established order of fields, is proposed for comment.

Information Standards Quarterly

The National Information Standards Organization NISO, has launched a new journal, Information Standards Quarterly under the editorship of Walt Crawford, which will begin publication in January 1989. For subscription, send \$40 to NISO, P.O.Box 1056, Bethesda, MD 20817

Bureau of Canadian Archivist

The November Newsletter of the Planning Committee on Descriptive Standards reported on the status and membership of all working group projects. In an update at the beginning of January, Heather MacNeil, Project Officer advised me that comments have now been received on the Report of the Working Group on Description at the Fonds Level and that a digest of those comments was compiled for a meeting of the working group in mid January. Jean Dryden has resigned as chair, so the group will elect a new chairperson at that meeting. It hopes to revise the proposal in light of comments received and to prepare a new draft for distribution by summer. The "Introduction to authority control for archivists by Louise Gagnon-Arguin will be ready for distribution by late April. A manual for implementation is planned later in the year. The working groups on graphic materials, moving image materials and sound recordings have each met and the working group on machine readable records is now organized and will meet for the first time in February. An education planning officer has

been hired and is beginning to draft a five year plan for training of archivists. When adopted, this spring, the plan is expected to result in hiring of both an English and a French language training officer.

Format Integration Document

The Library of Congress Network Development and MARC standards office has issued Format Integration and Its Effect on the USMARC Bibliographic Format (\$20, LC Cataloging Distribution Service), to help institutions plan for integration. The document consists of two parts: an overview of format integration with a definition, history, general model and description of the types of changes it brings, and a listing of all integrated format fields, subfields and values with the changes highlighted.

Name Authorities

The Philadelphia Name Authority File, a working committee of the Philadelphia Area Consortium of Special Collections Libraries (PACSCL) has completed its third cycle of shared authority file for local personal and corporate names. Using utilities developed for WordPerfect 4.2 and floppy discs as a medium of exchange, the project is now readying itself to become a participant in NACO. For more information about this exciting grassroots effort, write to David Weinberg, Urban Archives Center Temple University Central Library, Philadelphia, PA 19122.

Standards Applicable to Archives & Museums

At the Museum Documentation Association meeting this fall, Axel Ermer from the Secretariat of ISO TC 46 suggested that we try to identify, and list, all International Standards and proposed standards currently applicable to museums. He sent a draft list which I have edited to include standards of interest to archives. I would be pleased to hear about additional standards that readers feel should be included; the draft we are now exchanging excludes both standards for data that is purely bibliographic and general data representation and transliteration rules, even though these are used by archives and museums. It cites:

ISO 214 (1976)
Abstracts for publications and documentation

ISO 639 (1988)
Code for the representation of names of languages

ISO 690 (1987) Bibliographic References: content, form and structure

ISO/R 860 (1968)
International unification of concepts and terms

ISO/DP 999.2 (1975) Index of a publication

ISO 2145 (1978, 2nd ed.) Numbering of divisions and subdivisions in written documents

ISO 2146 (1988, 2nd ed.)
Directories of libraries, archives and documentation centres and their databases

ISO 2382 (various dates, parts 1-22)
Data processing vocabulary

ISO 2709 (1981, 2nd ed.)
Format for bibliographic information interchange on magnetic tape

ISO 2788 (1988, 2nd.ed.)
Guidelines for the establishment and development of monolingual thesauri

ISO 3166 (1988, 3rd.ed.)
Codes for the representation of names of countries

ISO 4217 (1987)
Codes for the representation of currencies and funds

ISO 5127 (various dates, parts 1-14)
Documentation and Information Vocabulary

ISO 5963 (1985)
Methods for examining documents, determining their subjects, and selecting indexing terms

ISO 5964 (1985)
Guidelines for the establishment and development of multilingual thesauri

ISO 6156 (1987)
Magnetic tape exchange format for terminological/lexicographical records

ISO 6196 (various dates, parts 1-5)
Micrographics Vocabulary

ISO 6523 (1984)
Structure for the Identification of Organizations

ISO 7154 (1983)
Bibliographic filing principles

ISO/TR 8393 (1985)
Exemplification of bibliographic filing principles

ISO 8459 (1988, and new work items)
Bibliographic Data Elements Dictionary

ISO 8601 (1988)
Representation of Time and Dates

ISO 8632 (1987)
Computer Graphics Meta-file for the storage and transfer of picture description information

ISO/Draft International Standard 8777
Commands for interactive text searching

ISO 8879 (1986)
Standard Generalized Markup Language (SGML)

ISO 9293 (1987)
Volume and file structure of flexible disk cartridges for information interchange

ISO 9660 (1988)
Volume and file structure of CD-ROM for information interchange

ISO/Draft Proposal 9706-1
Permanence of paper for printed library materials

ISO/Draft Proposal 10160
Interlibrary loan service definition

ISO/Draft Proposal 10161
Interlibrary loan protocol specification

ISO/Draft Proposal 10162
Bibliographic search, retrieve and update service definition

ISO/Draft Proposal 10613
Bibliographic search, retrieve and update protocol specification

New work items (NWI), not yet draft standards:

NWI 39.2 Codes for Representation of Names of subentities

NWI 78.3 Bibliographic Data Element Dictionary part 3., Information Retrieval

NWI 106 Method of coding of historical territorial entities

NWI 115 Standard Technical Report number: Format and creation

NWI 117 Citations from electronic documents or parts thereof

NWI 118 Document types, components, entity declarations in electronic publishing

NWI 119 Establishment of registry for public document type definitions and entity declarations

A compilation with more details will be published in the Proceedings of the MDA Conference on Terminology Control for Museums.

FUNCTIONAL REQUIREMENTS FOR EXHIBIT MANAGEMENT SYSTEMS

by Rozell Overmire

Archival Informatics Technical Report
vol.2 #4, Winter 1988

In 1987, the author conducted a national survey of computerized travelling exhibit databases. The results of the survey indicated that documenting travelling exhibits requires a large amount of staff time. Despite the high level of exhibit loan activity, many museums were not using any automated assistance. A subsequent detailed case study of the Fine Arts Museums of San Francisco led to the definition of process flow charts and a data dictionary that defined the nature of the automation task more precisely. Further study of in-house exhibits planning and implementation, along with updating of the survey in May 1988, resulted in a complete definition of the needs of museums for exhibit management automation and the requirements that such systems would need to satisfy.

This report presents the results of the study, beginning with an examination of the exhibit planning and implementation process and proceeding, top-down, to a data dictionary. It identifies the logical stages in such a process and locates the information requirements of the various museum departments that participate in the definition and design of exhibits. It then explores the state of automated solutions to the needs of exhibits managers and identifies the areas requiring further definition. Appendixes include lists of automation assisted exhibits management systems in the United States, a bibliography, and a data element dictionary.

In the course of the discussion, attention is focussed on the management requirements for automation, particularly on how management should proceed with planning for automated support of exhibits.

Available in January, 1989, from Archives & Museum Informatics, 5600 Northumberland St., Pittsburgh, PA 15217 (412)-421-4638 for \$35 pre-paid, \$40 billed. Includes postage.