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# Archives and Museum Informatics

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## From the Field to Exhibits

Attending the meeting of the Museum Documentation Association in York, England permitted me to join their study tour at the York Archaeological Trust. I had hoped to look at the ways they were using computers in field work, data analysis and publication. As it happened, the Trust had just mounted a major show of holograms of archaeological treasures of the Soviet Union, so I was also able to see an application in exhibits as well. From one end to the other it was extremely impressive.

The goal of the Trust's computing program is to speed the analysis of data from rescue archaeology to publication, which has traditionally spanned decades. By bringing computers onto the excavation site, integrating data collected on site with analysis conducted following the excavation, and linking the resulting database to desktop publishing and CAD tools, the Archaeological Trust has already dramatically shortened the lag time to publication. In addition, the database tools and cartographic plotting facilities have improved analysis.

Jeffrey Maynton, Senior Computing Officer of the Trust, and a staff of two maintain a Novell network with 50 micro-computers using applications written in-house with DBaseIII and Clipper, and interfacing to the native facilities of AutoCAD, SuperCalc V and Ventura Publisher. The major applications are the Context Recording System, used in the field; FINDS, a database containing the full description of each artifact; the Interactive Development System, a pilot front end to videodisks; and the Drawings Office Systems, which include creative uses of AutoCAD and Ventura in conjunction with FINDS. The Drawings Office also uses Hindsight, a program by Brian Alvey, which allows the staff to construct and view three dimensional graphics. The emphasis of the computing staff is on simple

systems, with similar interfaces, and high degrees of reliability (including uninterruptible power supply for the file server), in order to gain the confidence of the professionals and volunteers working with the Trust.

The holography exhibit, on the other hand, is most definitely a state-of-the-art show. The stunning results achieved by the Institute of Physics of the Ukrainian Academy of Science in Kiev using an emulsion technique developed in the early 1970s by Prof. N. I. Kirillov, far exceed anything I have ever seen in the West. The holographic plates are large (some in this show were 30"x24"), have a crisp resolution and show a reasonably true color, avoiding much of the red/green laser shift. The Ukrainian Ministry of Culture is using the technique in traveling exhibits where the original artifacts can not be shown - even enabling traveling exhibits to go from town to town on buses. The low technology of viewing holograms (requiring an incandescent light bulb focused at a proper angle with a framing mask) makes them an ideal way to experience many artifacts. Fourth century BC gold bracelets, silver cups, and bronze finials show with such detail and three-dimensionality that one tends to peer inside bowls and helmets. And you can see the decorations there!

The cost of making the holograms is still relatively high, approximately \$750 each, both because the plates are difficult to prepare and because small artifacts must be held in the laboratory for as long as a week while all the motion is dissipated from them in order to get resolutions that are clear to one half the wave length of light. Nevertheless, mounting an exhibit of holograms can be less expensive than traveling the objects. We owe Dominic Tweddle, Deputy Director of the York Archeological Trust a debt for having arranged for this exhibit to come West.

DAVID BEARMAN, Editor

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## Letter to the Editor

In your recent review of ARGUS by Questor [*Archival Informatics Newsletter* 2(Winter 1988/89):73-6], you indicated that there was a contemporary time-period bias in PICK's storage of a date as the number of days before or after December 31, 1967. There is no bias in handling a date in this manner. PICK will store the date July 4, 1776 as -69942 and handle it just as easily as January 18, 1988, which would be stored as 7321.

The great advantage of PICK's method of storing dates is that one can perform arithmetic operations to get ranges of dates. To simplify searching for recent entries, one can create definitions in the data dictionary that will use the date in an ENTRY-DATE Field (MARC 008/00-05) to create true or false flags for Boolean virtual fields with names such as ENTERED-LAST-WEEK or ENTERED-LAST-YEAR. A searcher would employ the field with a search statement such as:

LIST PHOTOS IF ENTERED-LAST-WEEK

One could use the same functions to create fields for historic time periods, such as DURING-CIVIL-WAR, BEFORE-CIVIL-WAR, and AFTER-CIVIL-WAR. For information about railroads before the Civil War the searcher would enter the statement:

LIST HISTORY.DATA IF BEFORE-CIVIL-WAR  
AND SUBJECTS = "Railroads"

Note that no programming is needed to create such utilities. A repository would not have to call in a consultant to re-write and re-compile an application program. Instead, a knowledgeable user could create and modify the dictionary definitions.

It is also very easy in PICK to create definitions in the data dictionary which would extract separate beginning and ending dates from ranges of dates. Thus if the field CAPTURE-DATES (MARC 033) was recorded as "1950-1960," dictionary items could be created for BEGIN-DATE and END-DATE that would retrieve 1950 and 1960 separately. And best of all, no programming is required.

Since dates and ranges of dates are crucial to the retrieval of historical information, it might be interesting to consider how different systems handle

date access. One of the reasons that I switched from Rbase to Pick was that in Rbase 5000, all dates were presumed to be 20th century.

It is a shame that Questor, after extolling the virtues of PICK, does not give the user direct access to the system. No application program can cover everything that a user might want to do. One of the great advantages of PICK is that if your application program cannot perform the task that you need, you can drop down into the operating system to do the job, albeit with somewhat more learning required. For example, Pick contains a command SORT-LABELS which will print labels in sorted order. The command prompts the user for the number of labels across the page, the number of lines per label, and the other necessary information.

David L. Clark  
Malibu, California

**Archives and Museum Informatics** carries news, opinion and research on information technologies, techniques and theories relevant to archives and museums. Submissions of notes, letters to the editor and articles are welcomed, and should be addressed to Lynn Cox, Managing Editor.

Copy is preferred typed, double-spaced. Longer articles may be requested in machine-readable form if accepted for publication. Authors assume full responsibility for accuracy and for any opinions or judgments expressed.

Deadlines for submissions are the 15th of March, June, September and December.

## UN Tackles Electronic Records Issues

RICHARD E. BARRY

In part because of the initiatives of Charles Dollar of the U.S. National Archives (author of the RAMP study *Electronic Records Management and Archives in International Organizations*) and Gertrude Long of the International Monetary Fund (chairperson in 1987 of the ICA's Section of Archivists of International Organizations [ICA-SIO]), the UN interagency Advisory Committee for the Coordination of Information Systems (ACCIS), undertook to study key issues relating to the management of electronic records. A Technical Panel on Electronic Records Management (TPREM) was established and held its first meeting at the World Bank in December 1987. The panel consisted of about 25 interdisciplinary representatives of UN organizations, under the leadership of Richard Barry (Chairman, World Bank, Washington, DC), Ljiljana Kojic-Bogdanovic (World Bank), Alf Erlandsson (UN headquarters, NY), Linda Scheiber (UNDP, NY), Brian Denton (ILO, Geneva) and Liisa Fagerlund (WHO, Geneva). The panel was ably assisted by outside consultants and observers: David Bearman (Archives & Museum Informatics), Tora Bikson (RAND Corporation) and Charles Dollar (US NARA.)

TPREM was charged to develop guidelines for implementation of electronic archives and records management programs for use by UN organizations; identify and describe standards for effective utilization of a broad range of new technologies within such programs; and facilitate coherence and integrated development of electronic archives and records management.

The panel concluded its work in September of this year with a preliminary presentation to the ICA-SIO in Vienna on September 14, and with formal presentation of its findings to ACCIS in Geneva the following week. The products of TPREM's work were accepted by ACCIS with considerable enthusiasm and a working group, to be led by Gertrude Long of the IMF, was established to assist ACCIS in following up on some of the recommendations in the TPREM report.

The underlying issue, as is well known to most archivists and records managers, is that both public and private organizations are becoming concerned over the consequences of the burgeoning use of information technology. The recent and rapid diffusion of electronic workstations at the individual employee level has created a sense of urgency about the need to capture and preserve records of potentially long-term or permanent value. In some cases, e.g., some electronic mail, matters of potential record may never leave their native electronic form. What were previously worries confined mainly to archivists and records managers have now also become the concerns of other information managers and chief executives, who worry that traditional approaches to archives and records management are not keeping pace with changes in information technology and in the way people perform knowledge-based work today-- and that the gap between the two is growing. The focus of the group was *not* on the automated management of paper records, which is something in wide use, but rather on the management of electronic records.

The results of a survey of UN organizations showed the dramatic rise in the use of electronic records, especially facsimile and electronic mail. It confirmed the need for spade work to provide guidelines for the development of policies and strategies for electronic records management and of approaches to implementation of those policies.

These developments, along with the increasing use of electronic word processing systems by authors of correspondence and reports suggest that, for many organizations, the composition of the "corporate data base" has changed very substantially since the early 1980s, when the vast majority of digital information holdings were in the form of numerical databases and systems. Today, by contrast, many organizations find that the vast majority of their digital holdings are in the form of textual information. Yet few organizations have established policies to deal with the records or archives aspects of this information. A few organizations take the view that traditional approaches are insufficient.

Some of the more important TPREM findings and recommendations will be summarized here. They are not likely to be foreign to most archivists and records managers, but having them endorsed by archivists and records managers alone, without the

active participation of other information managers and line managers, will not solve the problems of electronic records management. The undertaking of TPREM was to bring archivists, records managers, and information technology specialists together to tackle these problems, and to lead the way to solutions which will not only be accepted by the different disciplines and interests, but which will be embraced and implemented by senior organizational line executives.

Key findings and recommendations put forward by TPREM include:

1. Organizations must examine their structures, policies and procedures, taking account of the full "life cycle" of information, including, specifically, creation and identification, appraisal, control and use, and disposition. The traditional information processing model (input, process, output) which has formed the approach to automated systems development is inadequate to address key institutional records and archives management concerns. The widely varying approaches to such functions as records management, archives, communications, and data processing suggest that the life cycle approach may also be an effective tool for reviewing organizational arrangements. We are all information managers in one form or another, each with our own competitive advantages to offer one another.

2. Collaboration between archivists, records managers and other information resources managers must become a reality-- something which senior management insists upon, and something which traditional data processing managers and specialists embrace because they understand the need for it. At the same time, archivists and records managers will need to become proficient in the new tools of information technology and management, which are essential to their credibility in addressing electronic records management.

3. Advantage should be taken of automated systems to make appraisal decisions at the time of record creation, rather than when the paper version of the record is introduced into the records system. This and other archives and records management requirements should be treated like any other functional requirement in the design of systems. The cost of fulfilling such requirements should be addressed in much the same manner as the

institutional requirements for information security are built into good systems. For example, disposition management for records maintained in electronic form should become a matter of system design. This would allow for the automated handling of retention scheduling (the actual criteria for which should be handled off line as part of the normal intellectual control processes for information management), meta-information reporting on the status of records, early warning of the scheduled disposition of records according to upcoming schedules and actual disposition of electronic records.

4. Responsibility for the physical management of records may more sensibly be assigned to substantive managers responsible for automated systems in their fields of responsibility, or to information systems managers, than to records managers or archivists. This may already be the case for paper-based records in many modern organizations. Archivists and records managers should concentrate more of their efforts on establishing intellectual control of electronic records, which involves acquiring data administration skills.

5. Organizational policies must ensure not only the preservation of electronic records, but also the retention of systems functionality-- context as well as content.

6. UN organizations should enforce in their procurement policies the Open Systems Interconnection Reference Model set of information standards, to facilitate information exchange among different technological environments and to assist in overcoming some of the problems of technology migration.

7. The UN should conduct periodic surveys of its organizations to keep abreast of shifts in the use of information technology and the electronic records implications.

Information on the publication, cost and availability of the reports related to this work within and outside of the UN system may be obtained by contacting Celine Walker, Executive Secretary, ACCIS, Palais des Nations 1211, Geneva 10, Switzerland.

## Conferences

### "Sharing the Information Resources of Museums"

The Museum Documentation Association  
3rd Annual Conference, York, England,  
September 14-18, 1989

One hundred twenty five participants from fourteen countries gathered in York England in mid-September to discuss current efforts in museum information exchange and the technical and political implications of expanding these efforts. The meeting as a whole was exceptionally rewarding, both for the papers that were given and the discussion they inspired. For North American participants, the opportunity to see computer systems not seen on this side of the Atlantic was an added benefit, although the Europeans were disappointed not to see demonstrations of commercial systems from North America and New Zealand.

The conference was opened by Andrew Roberts of the MDA, who noted that 1989 was the 100th anniversary of the founding in York of the Museums Association, which had as one of its initial objectives "a compendious index of the contents of all provincial museums and collections." A short history of museum information exchange initiatives over the past century brought Roberts to ICOM Resolution 89/4, just passed in the Hague, September 5, which recommended that:

1. Museums in all countries be encouraged to develop and implement effective methods of bringing together and disseminating all manner of museum information.

2. ICOM encourage and promote the development of an international accord to facilitate the exchange of museum information among professionals, institutions and countries.

Roberts then introduced Peter Homulos of the Canadian Heritage Information Network, the keynote speaker. Homulos documented the growing importance of the museum, and of cultural resources in general, as a component of modern Western economies, and argued that the product of the museum is part of the information product of the society. He pointed to the need for information

exchange standards and the importance of museum agreement about the content of museum information over agreement on systems. And he noted the need of museum managers and national governments for guidance on the ethical, legal and economic issues of museum information collection and exchange. In the discussion which followed, the plans for the European Museum Network, a pilot project for linking exhibits of museums using broadband telecommunications, was cited as an example of how the commercial interests in our society appreciate the value of museum information more than museum management does.

In the second session, Steve Neufeld of the Ontario Museums Association and Richard Light of the MDA discussed efforts by museum membership organizations to further systems and data standards. Neufeld argued for the benefits of exchanging relatively high level information regarding management and policy between institutions as an alternative to sharing of disaggregated data, and discussed the success of the Trileum project in Ontario in attracting systems developers to museum automation, in spite of the very small budgets of individual museums, by the promise of potential bulk purchases. Neufeld claims that three such software products developed in Ontario owe their genesis to the efforts of Trileum in the past two years.

Richard Light, current chairman of the CIDOC Working Group on Reconciliation of Data Standards, spoke about some fundamental bases of consensus that have developed over the past few years. Agreement has been reached that data exchange will employ the OSI model and appropriate standards at each level of that model such as standard character sets at level 6 (ISO 2202) and representations of time (ISO 2041). There is also consensus that museum application data will be exchanged in the format of ISO 2709 and that identifying appropriate content designation for ISO 2709 will fall to such groups as CIDOC, CIMI (in the United States) and CHIN. Light set a target date of 1992 for the development of a common data standard and exchange format.

The afternoon of the first day was devoted to presentations on existing and successful museum information networks and exchanges in Denmark (by Carsten Larsen), England (by Andrew Roberts) and Canada (by Barbara Rottenberg) who were

later joined by Deirdre Stam of the Museum Computer Network, Kathleen McDonnell of the Conservation Information Network and Joan Bacharach of the U.S. National Park Service. Andrew Roberts unveiled a commercial initiative in which the MDA has joined with Chadwyck-Healey Ltd. to publish, in microform and on CD-ROM, the databases of museums in the U.K. Larsen and later Bacharach also stressed doable, relatively low technology solutions. Representatives of CHIN and CIN reflected in their talks the immense efforts that go into quality control so that shared databases will be valuable, and the continuing need to establish shared purposes and to involve participants in real decision making.

The sessions on the second day of the conference focused on the development and use of databases. The opening session candidly revealed some of the problems of museum object catalogs. Victor de Vries reflected on the failure of an information center established to provide in depth information about objects at the Rotterdam Maritime Museum. Peter Davis and Tim Petegrew reviewed the more than ten years of separate development which preceded the merging of some collection data from the Hancock Museum and the Tyne and Wear Museum Service. Catherine Voorsanger of the Metropolitan Museum of Art reported on the implementation of separate public access and museum cataloging systems in the New American Wing study center. The two systems, developed by the same consultant, each took several years and cost hundreds of thousands of dollars.

In the second session, two talks on the production of exhibition catalogues were followed by Isobel Pring, organizer of the IMAGE meeting held in London in the spring, who reported on several image projects. Among these were the Vienna Interactive display from the National Gallery of Art in Vienna. In England some recent projects of note include a series of vignettes on Inuit culture by the British Museum, and on Henry Moore and British sculpture prepared by the BBC and the Tate Gallery. The French have recently produced a number of high resolution discs including one on Albert Kahn from the Albert Kahn Museum that uses four frames of analog video for each image and overlays them on an HDTV screen, and the Musée d'Orsay disc which uses 1024 x 1280 pixel, 24 bit per pixel, resolutions on digital disk.

In the afternoon of day two, the first session focused on resource databases. Barbara Snyder of the Conservation Information Network detailed the role that a new front end system is intended to serve in upgrading the quality of data in the CIN databases. Toni Petersen of the Art and Architecture Thesaurus discussed tests undertaken to determine the feasibility of translating the AAT into five languages. The studies found that while exact identity between structures was not possible, term translation was. Bill Pettit reported on the construction of a collections level database of natural history collections (FENSCORE or the FEderation for Natural Science COllections REsearch) by British museums over the past decade. Originally undertaken for political and self-preservation purposes, the project has now spawned a database of independent usefulness both for researchers and policy makers.

The final session of the day, chaired by Alan Seal of the Victoria and Albert Museum, was devoted to library automation efforts involving museum data. Rachel Allen of the National Museum of American Art reported on the use of a bibliographic system for the construction of the Index of American Sculpture, a reference database locating and describing all works of sculpture in the United States, and noted that with a few modifications, the MARC visual materials format suited their purposes. Leonard Will of the Science Museum, London reflected on the usefulness of AACR2 rules for most of the kinds of data representation issues confronted by museums, and noted that library information retrieval systems are well suited to retrieving the access points required by museum curators. He noted that while MARC AMC and VM had come a long way towards meeting the needs of museums, considerable further extension of data elements would be required before those needs are met, and that MARC based systems would need to handle whole/part relations better than they do at present.

I reported on a project to identify the information exchange requirements of archives and museums as part of a systems design effort sponsored by the Research Libraries Group. I described the background of the project and the system design, and then identified four major categories of information exchange requirements:

Administrative - corresponding roughly to those

identified by Steve Neufeld

Collections - of which there are relatively few

Authority or reference files - which are the most promising kinds of data that museums require access to but don't necessarily have themselves

Transactional - involving loans, exhibits and other resources flowing between institutions.

Sunday was devoted to systems demonstrations. Vendors present included DCS showing ADLIB; MDA showing both MODES and TINMUS; Cambridge Interactive Video Systems, Cognitive Applications showing the Design Museum hypermedia, Ampersand; Mohacs International showing Hyperdoc; CHIN; CIN; Bureau IMC showing the Dutch PC system; and Saztec Europe.

Demonstrations of local implementations on commercial systems were shown by Rachel Allen (Index of American Sculpture online from the Smithsonian GEAC computer system), John Burnett (the National Museum of Scotland online from the MINISIS system on an HP minicomputer), Joan Bacharach showing ANCS on DBase III and Clipper.

Demonstrations of non-commercial applications included the Tyne and Wear Museum Service, National Galleries and Museums on Merseyside, FENSCORE, Art & Architecture Thesaurus, and the Sedgwick Museum.

I found two of the applications being demonstrated particularly impressive. The Getty Art History Information Program (AHIP), showed a clean and clever implementation of its Union List of Artists Names, designed to serve as an environment in which its projects can check each other's usages, enter their own usages, and review the usages by other authority sources. Searches by soundex, Boolean logic, truncation and other devices located similar names. The operator could easily form clusters of names for the same individual. The system also allows the user to link bibliographic and biographical sources to the whole cluster, to one form of name, or to any given piece of information. AHIP doesn't change the values entered by participants, but the system's clustering capabilities demonstrate that "authority" control can be achieved without forcing agreement on one form of name.

Nordic Design Consultants, represented by Dag Bergman, showed a prototype project developed to test user interfaces which employs Oracle, Hypercard and Studio 8 on a Macintosh computer to provide full text access to an Egyptology database. Searching by hieroglyph results in retrieval of images and/or associated text from the database. Both the Egyptology and artist name systems were limited in their scope, but impressive for their sensitivity to the way they would be used and the value of understandable presentation logic.

The morning of the final day of the conference was devoted to discussion of commercial opportunities. Two vendors, Peter Williams of Saztec and Francis Cave of Pindar, gave sales pitches for their data conversion efforts, but other vendors showed great understanding of the audience and its needs. Ben Rubinstein of Cognitive Applications walked the conference through the process by which his client, the Design Museum, settled on a low cost, low end, hypercard application for visitors. Malcolm Lewis explored the detailed pre-planning and project monitoring required to bring a video production project in under budget. In addition, he and Sir Charles Chadwyck-Healey discussed the need of museums to better understand their markets, and the role that commercial partners can play in conducting the necessary market research. The talks inspired a brisk discussion of the museum/vendor partnership and its pitfalls and potentials.

On the afternoon of the last day, the conference turned towards the policy implications of information exchange for an individual institution, a nation and the international community. Martha Morris, Registrar of the National Museum of American History reviewed institutional policies developed at her museum related to data security, integrity, and access. For example, the person having custody of a physical object cannot also control the data on that object; different offices have add, change and delete permission with respect to different data. Access to objects is only through the curators. Now that information about the collections is automated and storage is being planned largely outside the museum, one issue that has arisen is whether to store objects by their storage requirements rather than by curatorial unit. While not resolved yet, this kind of discussion illustrates the policy impact of information systems. Gwen Myers, Surveyor of Collections at the Victoria

and Albert Museum described a similar impact, and detailed how the V&A strategic plan calls for accountability through documentation. She explored the requirement this imposes on the museum for agreement internally about data content and format, and noted the critical importance of associated or reference data to the purposes of the museum information system.

Charles McGee, Director General, Museums & Heritage, Department of Communication in Canada explored the national policy implications of Peter Druckers' adage that "knowledge is the capital of developed countries." He described policy goals of his department involving creating opportunities for museum information exchange, building common databases, assessing technologies and providing support services, in recognition that the information about objects is as much apart of the national heritage as are the objects themselves.

The three speakers were joined by Crispin Paine of the Areas Museum Council, Brian Morris, Chairman of the Museums and Galleries Commission, and Geoffrey Lewis, Chairman of the Department of Museum Studies at Leicester, all of whom emphasized the importance of convincing the public of the need for documentation and access. A lively discussion ensued with the audience over issues of copyright protection and transborder data flow, areas of public policy which it was agreed needed modification in light of cultural information exchange opportunities. There was less agreement when the discussion turned to the relative benefits of object level or collections level recording of museum holdings, but consensus re-emerged when the discussion turned to the relative benefits of reference or research databases over object oriented databases for both museums and their clientele. Museums were urged to find ways to enhance and add value to reference databases; as one speaker put it, the value of "intellectual collections, as well as object collections, needs to be impressed upon museums".

One could hardly find a more fitting summary to a conference on the sharing of museum information; now the challenge is to move from assertions to initiatives.

David Bearman

## "Preserving Archival Futures"

A Meeting to Draft a Nationwide Strategy for the 1990s for the Preservation and Use of the Historical Record, University of Pittsburgh, September 25-27, 1989

Fifteen archivists, archival educators, conservators, consultants, librarians and preservation administrators, and three observers from national funding agencies were gathered in Pittsburgh for three days of discussion and planning for the next decade of archival preservation activity. The starting point for the discussion was the findings of one and a half years of research, conducted by the Society of American Archivists with support from NEH, on the current state of archival preservation programs in U.S. institutions. The meeting had two purposes: to allow the research and findings to be reviewed by representatives of the preservation community, and to use the findings to create a strategy document. The session was scheduled so that the results could be presented to SAA Council at the Society's annual meeting.

The research conducted by SAA was designed as a means of evaluating the Basic Archival Conservation Program (BACP), which operated from 1981 to 1987, and which encompassed workshops, consultant services, a preservation management institute, and supporting publications. One of the chief research tools was a survey of 320 participants in the conservation workshop program. Eighty percent of the population surveyed completed a multi-page questionnaire which outlined the training and preservation practices of individuals, and the institutional context in which preservation programs are operating. The high response rate, representativeness of the sample and the level of detail of the survey, combined with additional research tactics, generated empirical data on archival preservation with usefulness beyond the original objective of evaluating SAA's educational programs. Participants in the September meeting were introduced to this data by a paper which described the research methodology, summarized the findings in text and tabulated data, and offered a draft strategy for future action.

SAA Preservation Officer Paul Conway, who designed the research, organized the meeting, and led the discussion, began by introducing the participants' institutional and professional

perspective and preservation expertise. Conway then announced the goals for the day and for the meeting, and described the approach the group would use to formulate a strategy. Participants were charged with inferring needs from the picture of archival preservation created by the research data, and, using their individual and collective expertise, devising a strategy to meet those needs, rather than composing a list of activities in a top-down approach.

Discussion began in earnest when Conway called for comments and reactions to the findings as a means of understanding the institutional setting of archival preservation (the variety and commonality among programs), the "intensity of care" currently given to archival materials (a term coined to measure the preservation challenge in terms of the quantity of material needing care and the resources available to do the job), and the major indicators of need. The ensuing responses were the most far ranging of the meeting. For example, participants cited as relevant issues whether any additional study was necessary to support the design of a strategy; whether the current state of archival selection and appraisal could support responsible preservation decision-making; whether a consensus about archival preservation administration was shared by a large enough group to influence the profession; whether useful models existed in national library preservation initiatives; whether the nature of archival collections and archival processes dictated that broad based educational objectives receive top priority; and whether a strategy could be devised to incorporate the gamut of people (in addition to professional archivists) making preservation decisions for archival materials.

By the end of the first day, participants had affirmed the group's original charge to devise a strategy by first prioritizing needs, and had identified the audience and purposes for the document to be created. The consensus was that the first purpose of a nationwide archival preservation strategy would be to mobilize the archival profession to do its work, and to empower archivists to fulfill their preservation responsibilities using the widest possible range of resources. Potential uses for the strategy document were also identified: as an education tool within the profession, as an endorsed statement of professional practice to present to resources allocators, and as a guide for funders to the needs of the profession.

### A Nationwide Archival Preservation Strategy: the Next Steps

The suggestions garnered at the September meeting were incorporated into a revised document to which meeting participants contributed additional suggestions by mail. The newly revised strategy statement resulting from this second review was presented to SAA Council at the Society's annual meeting, and will be published with a call for comment in the January 1990 *SAA Newsletter*.

In response to the draft document, SAA Council created a Task Force on Preservation, co-chaired by Chris Ward of the New York State Archives and Records Administration and Howard Lowell of the Oklahoma Department of Libraries. The task force is charged with disseminating the draft for review and comment in order to identify local priorities and actors, and with formulating SAA's response to the initiatives proposed in the strategy.

With the target audience in mind, discussion on the second day focused on evaluating and revising the draft strategy. Participants were asked to contribute objectives and activities they considered essential to meet the needs evidenced in the research. The process of listing recommended actions indicated the degree to which the working draft was already endorsed, and revealed themes that would surface later in the strategy process as objectives, under which specific actions would be prioritized-- preservation management, education and training, access, public commitment, research, standards, cooperative action.

Over the afternoon of the second day and morning of the third, the group discussed each objective in the draft document to ensure a common understanding of the strategy, incorporating initiatives suggested in the earlier discussion. An informal process was used to rank the proposed activities as a means of seeking consensus on priorities dictated by need, and to suggest an order for the presentation of the objectives in the next revision of the strategy. The remainder of the

meeting was used to gather additional suggestions for the language of the document, to assess which activities deserved increased priority because of currently available opportunities for action, and to identify possible actors for priority activities.

The issues so thoughtfully debated at this meeting, and the research data which provided the meat for discussion, indicate that archival preservation may be at a turning point. To move forward, preservation will have to assume a new position as an integral management concern and a standard by which to measure professional practice. For this to happen, archivists must recognize how the body of preservation knowledge has changed from knowledge about "hands on" treatment methods to preservation administration, which relates the gamut of actions from holdings maintenance to full conservation treatment to reformatting to all of the essential archival functions. Understanding this interrelatedness introduces the possibility that preservation will drive changes in other aspects of archival theory, particularly selection and appraisal. In this respect, archivists will be called on to realize that the change in preservation theory mirrors the evolution taking place in the larger body of archival theory.

If this realization takes hold, preservation could be the issue which motivates archivists to come to grips with the importance of institutional context to the management of archival programs. The SAA findings reveal the high percentage of archival programs functioning in contexts where preservation cannot be justified for vaguely defined cultural purposes; archives will have to demonstrate institutional value to win support for preservation programs. The preservation initiatives discussed at this strategy session, and the process of matching priorities with methods of implementation will challenge archivists to evaluate their base of financial support, and to investigate funding resources and methods beyond those on which they have traditionally relied.

In the larger societal context, the current call to review, revise and implement a nationwide archival preservation strategy is also a valuable opportunity to define which needs are held in common with other cultural repositories, and which are unique to archival processes and archival institutions.

Lynn Cox

## CALENDAR

### *Calls For Papers*

IASSIST 90, May 30-June 3, 1990, Poughkeepsie, NY. "Numbers, Pictures Words & Sounds: Priorities for the 1990's" (Laura Guy, Data and Program Library, 3308 Social Science Bldg, 1180 Observatory Drive, University of Wisconsin, Madison, WI 53706)

Museum Computer Network, Annual Conference, October 10-13, 1990 Richmond VA. (Jane Sledge, Collections Information Systems Coordinator, Office of the Registrar, Smithsonian Institution, Washington DC 20560)

Mid-Atlantic Regional Archives Conference, November 1-3 1990, Alexandria VA. "Automation in Archives" (Don Harrison, Chair, Center for Electronic Records, NARA, Washington DC 20408)

### *Upcoming Conferences*

**April 30 - 3 May 1990** Ottawa, CANADA  
"Documents that Move and Speak: Managing Moving Images and Recorded Sound Documents in Archives," National Archives of Canada. (Symposium on the New Media, International Council on Archives, P.O. Box 3162, Station "O," Ottawa, Ontario K1P 6H7 CANADA)

**May 2-4, 1990** Winnipeg, CANADA  
"Museums and Information: New Technological Horizons," co-sponsored by the Manitoba Museum of Man & Nature and the Canadian Heritage Information Network. (Doug Leonard, Manitoba Museum of Man & Nature, 180 Rupert Ave., Winnipeg, Manitoba R3B 0N2 CANADA)

**May 3-5, 1990** Ottawa, CANADA  
"Archiving the Audio-Visual Heritage: A Joint Technical Symposium," Canadian Museum of Civilization. (Fred Granger, Chairman of the JTS Organizing Committee, Canadian Museum of Civilization, Hull, Quebec K1A 0M8 CANADA)

**May 9-13, 1990** Chicago, IL  
American Association of Museums Annual Conference. (AAM, 1225 Eye St., NW, Suite 200, Washington, DC 20005)

## PUBLICATIONS

### *Book Review Essay*

*Directory of Grants in the Humanities.* Phoenix: Oryx Press, 1988, 499 pp. \$74.50.

Roland Kuniholm. *Maximum Gifts by Return Mail.* Ambler, PA: Fund-Raising Institute, 1989, 261 pp. \$34.95.

Harold J. Seymour. *Designs for Fund-Raising.* 2d ed. Ambler, PA: Fund-Raising Institute, 1988, 216 pp. + index. \$29.95.

Carolyn L. Stolper and Karen Brooks Hopkins. *Successful Fundraising for Arts and Cultural Organizations.* Phoenix: Oryx Press, 1989, 114 pp. + appendices. \$23.50.

Richard P. Trenbeth. *The Membership Mystique.* Ambler, PA: Fund-Raising Institute, 1986, 280 pp. \$34.95.

Denise Wallen and Karen Cantrell. *Funding for Museums, Archives and Special Collections.* Phoenix: Oryx Press, 1988, 355 pp. \$48.00.

Museums and archives have traditionally had very different approaches to fundraising. Museums have been pioneers and innovators with regard to membership and, beginning in the late 1970s, even mid-size museums without much previous experience in fundraising began to create development offices. This is not to say however, that museums as a rule employ a wide range of fundraising approaches and methods; membership and grants are the basis of philanthropic support for many museums.

If the norm of museum fundraising can be described as innovative within certain established limits, fundraising in archives can best be described as limited. Recent archival literature has called attention to the tendency of archives and archivists to rely on grants (usually from federal and occasionally from local sources) and to ignore the arsenal of diverse resources and fundraising methods available to not-for-profit causes today. (See Richard J. Cox, "Fund Raising for Historical Records Programs: An Underdeveloped Archival Function," *Provenance* 6 [Fall 1988]:1-19 and *Strengthening New York's Historical Records*

*Programs: A Self-Study Guide*, Albany: New York State Archives and Records Administration, [1989], Section 3, "Fund-Raising.")

Regardless of differences in the sophistication of their fundraising programs, both archives and museums are affected by the great change in sources of support that has occurred since the seventies. A look at a chronological list of the monographic literature on fundraising from the 1930s to the present reveals a clear pattern: the days of equating fundraising with obtaining federal grants are over for the foreseeable future. Recent titles mirror more of the variety of the first thirty years of publishing on the subject (1930-1960), than the "grantmanship" (albeit, some of those were foundation grants) theme of the second twenty years. This shift is partly the result of funding realities brought about by political and economic change, and partly the outgrowth of the development of fundraising as a profession.

The titles briefly discussed in this essay reflect this increased professionalism in several ways. They identify a range of sources of support-- individuals, businesses, foundations, state, local and federal governments-- and propose that effective fundraising addresses them all, using methods tailored to each kind of resource. The methods themselves-- membership, direct mail-- are sufficiently complex to warrant separate volumes. And several of the books considered here indicate that the established wisdom of fundraising is now being targeted to specific audiences within the non-profit sector, in this case select cultural organizations.

How useful are these particular publications to archives and museums? When description of funding sources is the purpose of the publication, fundraising literature should of course describe resources pertinent to museum and archival programs. Literature targeted to specific kinds of cultural organizations should evidence awareness of the fundraising tactics commonly used, for better or for worse, by the organizations, and the ways that existing strengths could be expanded and integrated with additional methods. Even advice addressed to non-profits in general could be made more pointed, and therefore more effective, by acknowledging the distinct fundraising traditions under the non-profit umbrella. The titles in this review were read with these criteria in mind, and with an additional concern of interest to *Archives and Museum*

*Informatics* readers, namely, what do the publications reveal about the information systems necessary to support effective fundraising?

*Directory of Grants in the Humanities* is one of several publications extracted annually from the GRANTS database, available on DIALOG. The book contains descriptions of 3000 current funding programs for institutional and individual activity, available from corporations, federal and state government agencies, foundations, and professional organizations and associations. Museums should be aware that the directory includes the fine, visual and performing arts within the scope of the humanities.

The directory is organized into four sections: the detailed program profiles arranged alphabetically by program title, and three indexes. The individual program descriptions are generous, but sometimes leave the reader in doubt as to how a given program is indexed. For example, #1871 Minigrant Program Project Grants, is only indexed under literacy and not under any subject having to do with volunteerism, which appears to be a major focus of the program. This could be disconcerting to a user who tries to locate new sources of funding by checking to see how sources with which he is already familiar are indexed.

A subject index follows the program descriptions. Subject access seems fairly lavish, and both the program names and entry numbers are helpfully recorded under the headings. Access is provided by kind of institution (archives, public libraries) and function (information dissemination, preservation programs) as well as by fields of knowledge. A random test of subject access did raise a question, however. By pure serendipity I turned to the description of a program called Holography Production Grants, under which experimental work in the application of holography for aesthetic purposes is funded. I was unable to locate this program in the subject index under any of eight subject headings, including holography. This experience planted the suspicion that not every program entry is indexed, which would be a particular problem in the case where a user was interested in holography and the program name did not begin with "h." My experience may have been a fluke, but it might indicate one of hazards of extracting a specialized directory out of a larger database.

**Directory of Grants in the Humanities** contains two additional indexes, one by sponsoring organization and one by type of sponsoring organization. The first alphabetically arranges the sponsoring organizations with lists of all the programs of each. This gives a good sense of the comprehensiveness of the directory, at least as regards many familiar programs. Included are long lists of NEA and NEH programs, an improved list of NHPRC programs over previous editions of the directory, appropriate NSF programs and some foreign sources for archival programs. The sponsoring organization index is important for linking the alphabetically disparate programs of an organization, but users should be aware that they will need to read all of the program descriptions for a given organization to get a sense of the parent agency's purpose. That problem could be addressed by the sponsoring organization by type index, but it is not. The index by type only separates government agencies from other sources, and then interfiles all levels of government support alphabetically, so that the advantage of this access is not clear.

In all, of course, the *Directory of Grants in the Humanities* is an important resource, and one that shows improvement in the access it provides to sources of support for archives and archivists, even if the Bentley Library fellowship program continues to be omitted.

A second directory from Oryx Press purports to address the funding needs of museums and archives in particular. *Funding for Museums, Archives and Special Collections* profiles 525 programs listed alphabetically by sponsoring institution, each program having a separate entry number with the sponsor's name repeated as necessary. The title is somewhat misleading. Authors Wallen and Cantrell describe the purpose of the directory as facilitating the search for financial support for museums and museum activities and programs, and this is more on the mark. Though they also claim to have identified funding sources for "aquariums, archives, art, history, natural history...historic sites and museum villages...special collections and zoos," the programs cited (and those omitted) indicate a fuzzy concept of archives as institutional entities. The sources which are described include private and corporate foundations, corporate direct giving, government agencies, associations and organizations. State arts and humanities councils are not included.

The profiles of individual programs are clearly organized in a format which I preferred over the arrangement of the larger humanities grant directory. The sponsoring agency name is followed by the name of the division which oversees the program (a choice which does a lot to facilitate browsing the directory), the address, program title, CFDA number and program description. Then come descriptions of sample projects recently funded, eligibility limitations, and a field somewhat awkwardly named "fiscal information," which includes patterns or records of giving, duration of grants, and matching requirements. Each entry ends with application information, deadlines, and an infrequently used field for additional information.

Three indexes provide access to the profiles. The subject index of keyword terms includes disciplines (African art), funding mechanisms (fellowships) and types of support (capital support.) The concept of the subject index is better than the execution. There are two headings under archives (research and support), no comparable headings under the other kinds of institutions to be served by the directory, and a heading "culture," under which 125 of the directory's 525 programs are listed. The authors recommend that the geographic index always be consulted as a means of determining whether a prospective funding source focuses or limits its support to a specific geographic area. Sources are then listed according to five types of geographic limitations. Similarly, the sponsor type index sorts the funding organizations, with references to program numbers, as corporate, federal, foundation, museum/library, nonprofit organization or university. The indexes are followed by a list of sponsoring organizations with addresses, and a short bibliography of printed sources and online databases related to funding sources.

Organization is the strength of *Funding for Museums*; unfortunately, the information to which access is given is not as good as the organizational scheme. For example, only the publications and records programs are listed for NHPRC, and entry #319 under National Archives lists "National Archives Reference Services," which appears to describe the right of the general public to use the Archives' resources. -It seems that not only were archives given short shrift (the Bentley program was, of course, overlooked), but that the entries included were not thoughtfully evaluated. A combination of the organizational premises of

*Funding for Museums* with the more comprehensive and accurate content of *Directory of Grants in the Humanities* would produce a very useful tool indeed. Unless that combination occurs, archives in particular would do better to acquire the more general directory for an in-house fundraising library, and to use the online database for comprehensive searching.

The four other publications to be discussed here are not directories of resources, but manuals for implementing fundraising programs or using specific solicitation methods. *Designs for Fund-Raising* is a reprint of pioneer fundraiser Harold J. Seymour's 1966 work, with a new introduction and ten pages of annotations by fundraising consultant Charles E. Lawson. The original edition was written at the end of Seymour's life, and summarizes the principles and methods which he and the first generation of professional fundraisers developed. As such it is the source of many of the concepts and turns of phrase, the legendary "rule-of-three" for example, now regarded as received wisdom in fundraising circles. It also reflects the strong traditions of soliciting support from individuals and corporations which shaped early academic fundraising in the days before government grants, and which are once again receiving attention.

*Designs* is not a process-oriented how-to manual on the order of the two other works from the Fund-Raising Institute reviewed here. Its ten chapters are somewhat casually sorted into three sections: essential background, campaign procedures, and things to know more about. The reader has the impression of specific advice (some of it very useful, such as recommended reporting frequencies for field workers) being sprinkled throughout the text rather than systematically introduced. Seymour's style is articulate but folksy; he relates concepts by anecdote and example, and by use of the "telling quote," which occasionally obscures more than it reveals for the modern reader. As might be expected, the examples are dated in that they are drawn from early academic campaigns (1920s and 30s) and the numerous homefront appeals conducted during World War II. Annotations are usually provided for significant points where Seymour's methodology or statistics are sufficiently dated to be misleading.

The strength of the book is its direct and implicit statement of an ideology of fundraising-- the

conviction the "vineyards of philanthropy are pleasant places." On this theme Seymour's somewhat antiquated eloquence is both instructional and inspirational. Novices involved on a volunteer basis and trainers will find *Designs* an unthreatening introduction to terms and methods that have become the foundation of modern fundraising, and a particular source of encouragement for approaching individuals for support.

*Successful Fundraising for Arts and Cultural Organizations* could be considered an effort to systematize and update the material covered by Seymour, though this is not the authors' expressed purpose. The book is an ambitious attempt to place fundraising practice in the context of institutional management, and to correlate diverse sources of support with institutional goals, while explaining specific fundraising techniques in some detail. The audience for this information is not clear. "Cultural organizations" are not well-defined, and archives are never included as examples. Most of the references to institutional programs seem to refer to the performing arts. This bias should be particularly apparent to museums, since the concept of membership is not mentioned.

Stolper and Hopkins begin by describing the process of institution building as essential to fundraising. The level of an institution's organizational development, as measured by its statement of mission, and the existence of an effective board and professional staff, long-range plan, and established track-record for programs, will determine which funding sources are available. From this premise, *Successful Fundraising* moves to a discussion of institutional leadership in general, and leadership (board and staff) for fundraising in particular.

The most substantive chapter of the book describes the design and execution of the annual fundraising campaign. In addition to explaining planning tools such as the fundability index and a formula for computing the annual campaign goal, chapter three details the distinct files in a manual record system to support fundraising, and devotes five pages to applications for automated systems. The next four chapters each describe a kind of funding source-- business, foundations, individuals, and government-- and the methods for approaching each. A final chapter evaluates special events as a fundraising method.

Most of *Successful Fundraising* is taken up with nine appendices, the longest of which consists of examples of fundraising documents used by the Brooklyn Academy of Music and AFS Intercultural Programs, Inc. Some of the sample forms are referred to in the main text, but none are discussed in detail. The other eight appendices amount to a bibliography on fundraising methods and sources. None are very long, and no special purpose is served by segregating the various kinds of sources. A seven page index unnecessarily cluttered with personal names and providing inadequate subject access concludes the book.

*Successful Fundraising* is ambitious but distractingly uneven. It begins at the pace of a 300 page text book, then covers its subject in a scant 114 pages. At times this unevenness causes confusion, as in the discussion of how to evaluate individual and corporate fundraising prospects, where it is not clear which evaluative criteria apply to which prospects. At other times, a lack of detail leaves the reader hanging, such as when the discussion of research tools advertises that "with the increasing use of computers in fundraising, many new research services are available," and then proceeds without naming any of these services. The book alludes to ways that an organization's existing information systems (records of subscription or single ticket purchasers) could be mined for new prospects, but does not take the time to develop these connections in support of the theme that fundraising is integral to institutional management. Like Seymour's classic, *Successful Fundraising* is sufficiently peppered with specific guidance not to be ignored, but a more evenly developed treatment of the subject would be welcomed.

*Maximum Gifts by Return Mail* is guidance aimed at non-profit organizations in general, but its advice is much needed, and should be highly applicable by museums and archives. The content is clearly organized, and Roland Kuniholm's style is simple, direct and engaging, without being either simplistic or gimmicky. The book includes eight chapters of instruction on designing, drafting, testing, revising, executing and evaluating solicitations by direct mail; a format for personalizing and applying the instruction; and a glossary of direct mail terms.

Archivists and museum personnel inclined to flinch at the prospect of direct mail promotion of their programs may be surprised to find that they

want to try their hand at this form of appeal by the end of the book. If so, it is likely to be because Kuniholm focuses on equipping the reader to understand and use the tool, rather than dwelling on the many (and there are many) potential pitfalls of executing a direct mail campaign. *Maximum Gifts* painlessly introduces the various kinds of statistical analysis necessary to test proposed packages and final results, and promotes testing as an essential part of the creative process. Kuniholm has given his subject the space and attention it warrants, and the result is a tool that can help museums and archives approach the individuals whose giving constituted over 80% of the funds raised by non-profit organizations in 1986.

One might quibble that the book could do more to introduce the mechanisms for physically executing a mailing-- acquiring mailing lists, applying labels, franking-- since all these steps potentially involve contracted services in addition to design. Kuniholm does not discuss the different kinds of list agents (brokers, managers and compilers), or the details of working with a lettershop to code different label formats. These omissions seem minor however (and they happen to be addressed in Trenbeth's *The Membership Mystique*, discussed below) in contrast to the specific advice supplied on how to guide a mailing through the internal review process, and on the kind of documentation (copy strategy memo and production notes) to produce during the design phase.

Between the lines of Kuniholm's straightforward guidance it is easy to perceive the ways that existing data will be manipulated and new information will be generated about an institution's current and potential constituency. The book does not address the use of computers in direct mail, except for the occasional reference to computer personalized letters, but could be used to determine many of the functional requirements of an automated system to support this fundraising method.

Richard P. Trenbeth's *The Membership Mystique* is another strong explication of a single fundraising approach. Archivists, and every museum director who has ever complained that memberships cost more than the income they generate, owe it to their institutions to give this book a thorough reading, as every chapter reverses a negative preconception or challenges an entrenched perception of membership as a fundraising tool. Trenbeth admits to being an

unabashed joiner himself, and convincingly argues that the exchange of benefits which is central to the membership relationship is a great long term investment for an institution.

*Membership Mystique* is not just an extended pep rally in favor of membership programs. It evidences a clear understanding of established membership practices, and acknowledges the successes of specific kinds of membership organizations, such as small genealogical and archaeological museums. The first four chapters develop the theme of membership as a marketable commodity and articulate the specific ways that a healthy membership program can serve as a fundraising resource. Three subsequent chapters address membership classes and dues, benefit structures appropriate to membership classes, and recruitment programs and methods. Chapters eight through ten examine direct mail as a demonstrably cost effective way of recruiting new members, and introduce the allowable-order-cost formula as a means of calculating how much an institutions can afford to spend to acquire a new member.

Once on board, the aim is not only to retain members, but to elicit increased giving from renewing members; tactics for achieving these goals are discussed in chapters eleven through thirteen. The following chapter describes the structure and maintenance of membership records (it advocates consulting a records manager for this purpose) and proposes a short list of questions to answer to determine if computer support is necessary. A concluding chapter discusses the kind of documentation of success and the promotional budget necessary to keep healthy membership programs moving forward, and profitable trends in membership. *Membership Mystique* might be improved by the inclusion of an index or bibliography, but the absence of these elements does not significantly detract from the book's substance.

As an overall observation of the four books on fundraising methodology reviewed here, little attention has been given to the way that automated systems might expand the resources and facilitate the work of fundraising. In this, the published literature is behind the actual practice of some institutions, museums and performing arts organizations in particular. Insofar as the books considered here addressed internal resources for

fundraising, none explored collection donor or retail sales databases as sources of prospects, much less proposed that computer were the logical means of linking these databases. Such functional requirements are influencing software development, and ought to be reflected in the next generation of books on fundraising tools and methods.

Lynn Cox

## INBOX

### Reports

New York State Library. "Technology and the Research Environment of the Future: The Impact of the Information Science Revolution on the Research Environment of the Future." Albany, NY: State Education Department, February 1989, 20p.

Summarizes the deliberations of an eminent panel on the impact of information on research and makes some suggestions for further research.

National Institute for Standards and Technology. "Framework and Policy Recommendations for the Exchange and Preservation of Electronic Records, A Report to NARA," by Margaret Law and Bruce K. Rosen, March 1989.

Attachment A: "Document Interchange Standards: Description and Status of Major Document and Graphics Standards," by Judi Moline, September 1988.

Attachment B: "Database, Data Dictionary, Interchange and User Interface Standards: Description and Status," by Margaret Law with assistance from Leonard Gallagher and Tim Boland.

This important study, commissioned by NARA at a cost of \$237,000 in August 1987, was intended to provide a framework for NARA policy on electronic records and to identify and demonstrate the use of international standards for data interchange. It goes a long way towards demonstrating that control over electronic information begins with the creation of systems in agencies and is documented through Information Resource Directory Systems (IRDS, or data dictionaries), and towards establishing that existing

standards are inadequate to assure transfer of usable databases between agency operating environments and NARA.

The study does not, however, draw the obvious conclusions that NARA must focus substantial funds and manpower on developing a government wide IRDS, and that it should leave records in the hands of agencies while exercising regulatory control over them. It will be interesting to see whether NARA can draw the appropriate conclusions over the next few years before it wastes more energy bringing in the occasional flat file, and bemoaning the loss of vast quantities of electronic data being generated in government agencies. Perhaps the decision of the Richey court in the PROFS case (see News) will force NARA's hand.

The appendixes of the study are the best and most complete review of the status of a wide variety of data standards that is currently available. It will be of great use to those reading the report of the Descriptive Standards Working Group to be published in the Fall 1989 issue of the *American Archivist*.

National Archives & Records Administration, Committee on Authorities and Program Alternatives. *NARA and the Disposition of Federal Records: Laws and Authorities and Their Implementation*. Washington DC: NARA, July 6, 1989.

The third report of an internal NARA committee, chaired by Frank Evans, is as intriguing as its predecessors (the first on Federal Records was dated February 1988, the second, on Presidential Records was published in March 1988.) It provides an overly optimistic account of the progress made by NARA in implementing the 1983 Appraisal and Disposition Task Force report, embraces scheduling as the most effective approach to records disposition yet tried in NARA, and suggests only modest changes in statutory authority, yet it hints at some fundamental problems. A "Memorandum for the Record" by Richard Jacobs, dated December 15, 1988, which is incorporated as Appendix C and which outlines the sources of the failure of retention planning, deserves to be widely discussed.

### **Newsletters and Journals**

*Canadian Humanities Computing* (ISSN 0843-2562) is published for the Consortium for Computers in the Humanities by the Centre for Computing in the Humanities at the University of Toronto. The newsletter carries software reviews, project descriptions, conference reports and product news. (Willard McCarty, Editor, Robarts Library, 14th fl., 130 St. George St., Toronto M5S 1A5, CANADA.)

*Hypermedia* (ISSN 0955-8543) is a new publication by Taylor Graham. Vol.1 #1 came out this summer, dated Spring 1989. It contains a useful article by Elizabeth Duncan on types of logical links between hyper-items, and an evaluation by Lynda Hardman of a hypermedia system in public use, which shows that what designers think is intuitive is not well understood by the public. (\$85 p.a. from Taylor Graham Publishing, 500 Chesham House, 150 Regent Str., London W1R 5FA, UK)

*MDA Information* (ISSN 0309-6653) reports on meetings and publications that are of interest to museums in the UK, and often picks up on items that have not been as thoroughly covered in the US literature. Vol.13 #2, July 1989, covers the IMAGE conference held in London this spring, the April meeting of the UK Museum Computer Group, and reviews Brian Abell-Seddon's *Museum Catalogues*, an HMSO publication on geology and local museums, and an Australian scheme for classification of collections of small museums. (MDA, Building O, 347 Cherry Hinton Rd., Cambridge CB1 4DH, UK)

*The Museologist* (ISSN 0027-397x) vol.52 #181, is devoted to museum consulting. The advice provided on general matters of contracting and managing consultants should be useful to anyone considering employing a consultant. An article by David Bearman addresses the kinds of consultants available for different museum automation related tasks.

**Museum Archivist** (the Newsletter of the Museum Archives Roundtable of the Society of American Archivists, available to members) is continuing its tradition of informative and useful information dissemination. Vol.3 #2, September 1989 contains articles on videodisc projects at the Southwest Museum, the Maxwell Museum Photo Archives and the Henry Ford Museum.

**SPECTRA, The International Journal of Computer Applications in Museums** (ISSN 1042-3729), published by the Museum Computer Network, continues to improve with each issue. Vol.16 #3, Fall 1989 contains articles by Jonathan Moffet on automating the Asmolean Museum, Deirdre Stam on authority work in building museum collections databases, and Robert Baron on retrospective and prospective approaches to database construction, along with the usual meeting and publication reports. (MCN, Information Studies, Syracuse University, Syracuse, NY 13244-2340)

**Views: the Newsletter of the Visual Materials Section of the Society of American Archivists**, is attempting to fill the gap created by the demise of the Special Libraries Association publication, *Picturescope*. Views addresses the interests of archivists (and others) who work with all types of picture collections. The three issues published since December 1988 are heavily weighted toward photography, but also include notes and queries on broader collection management issues. Available to section members. (Laurie A. Baty, Views Editor, NHPRC-NPR, National Archives Building, Washington, DC 20408)

### **Books and Articles**

Barrett, R(obert). "Optical Disks Add Images to Information." Seventh British Library Annual Research Lecture, 1988. London: British Library, 1989, 19p.

An overview of the optical disk technology and its uses to date which touts the CD-I standard as the direction for future investments. Personally I think this is the wrong choice.

Bearman, David. "Bringing Our Heritage within Reach." *CD-ROM End-User* 1 (August 1989):19-20.

Discusses why CD-ROM is not being used in museums yet, with a few exceptions that demonstrate the reasons. Since its publication, the Canadian Heritage Information Network has delivered to ICOM a CD containing self-portraiture by Dutch masters and associated data.

Burnett, Christopher. "Hypertext Computer Applications for Picture Collections: Representing the Fabric of the Archive." *Visual Resources* 6(1):1-18.

This is a useful introduction to hypertext opportunities in the visual arts, which expresses an appropriate degree of caution. It should give a reader unacquainted with hypertext a non-technical sense of what the technology is.

Duranti, Luciana. "Diplomatics: New Uses for an Old Science." *Archivaria* 28 (Summer 1989):7-27.

The first part of a six part article promises to introduce North American archivists to diplomatics, and diplomatics to the world of modern documents and records management. This first installment delivers on both promises and leaves us with tantalizing questions about whether the electronic records revolution will really be susceptible to analysis by diplomatics approaches.

Gagnon-Arguin, Louise. "An Introduction to Authority Control for Archivists." Bureau of Canadian Archivists, Planning Committee on Descriptive Standards, 1989, 28p. (in English and French)

This is a ten page essay on authority control with a number of appendixes, published as a free standing pamphlet in two languages. It is clear and concise, but it is also very basic. As a political document it serves the purpose of directing archivists to authority control and AACR2, but to be of much value as guidance, it should be augmented by more detailed discussions such as those in Avra Michelson, ed. *Archives and Authority Control*, 1988.

Hunter, Eric J. *Classification Made Simple*. Aldershot, Hants, UK: Gower Publishing, 1988, 115 p.

Eric Hunter has explained faceted and hierarchical classification approaches and their relative advantages and disadvantages as clearly as anyone. The book is brief, laden with easy to understand examples, and directed at those with concrete applications and practical questions.

Linhartova, Vera. "Databases in Japanese Art Museums." *ICOM News* 42 (1):10-11, (2):4-5.

This short article provides a catalog of Japanese art museum databases and a discussion of the issues specific to Japan, including its alphabet, that have impeded automation.

McCrack, Lawrence J. ed., *Databases in the Humanities and Social Sciences 4*. Medford, NJ: Learned Information, 1989, 718 p.

These proceedings of the 1987 international conference contain, as would be expected from a collection of 87 papers, some useful articles and much that might well not have been said. Unfortunately, the papers are printed alphabetically by author, thereby losing their original context and coherence within sessions, and no conference program is provided. The copy we received contained numerous blank pages. The volume does contain 23 pages of index, which such proceedings often lack. Authors familiar to readers of this journal include: David Bearman, Howard Besser, Frank Burke, Ching-Chih Chen, Donald Harrison, Leslie Hume, Clifford Lynch, Douglas Marschalek, and J. Penny Small.

Summers, John E. and Summers, Edward G. "The Computerized Cataloging of Historic Watercraft: A Case Study in Information Retrieval in Museology." *Journal of the American Society for Information Science* 40 (4):253-61.

The authors propose a structure for recording data on historic watercraft that is consistent with the CHIN data dictionary and standards and has thereby allowed the resulting data to be mounted on CHIN as an authority file. They assert the

advantages of controlled vocabularies, citing similar opinions in the museum literature, but introduce no new evidence. Despite its title, the paper does not report on a case study of I/R.

Waterman, Annette F. "First Steps in Planning the Automation of a Slide Collection." *Art Documentation* 8 (Summer 1989):61-5.

Discusses the issues of intellectual access and system objectives that should be defined before the selection of automated systems for slides or any other collections.

### *Ephemera*

American Association of Museums, Technical Information Service. *Organizing Your Museum: The Essentials*. Susan Nichols, ed., 1989, 200p.

Organizing here means founding, not managing collections, and this booklet provides good practical advice from numerous sources on what to do if you are considering forming a new museum institution.

Canadian Heritage Information Network. *Humanities Data Dictionary of the Canadian Heritage Information Network, Documentation Research Publication #1, Revision 2*. February 1988, 259p.

Natural Sciences Data Dictionary of the Canadian Heritage Information Network, *Documentation Research Publication #2, Revision 1*. October 1988, 259p.

These revisions to earlier CHIN data element dictionaries follow similar conventions, but are more consistent and contain a few more elements.

NARA, Records Administration Information Center. *Automated Records Management: An Information Package*, 1989.

This list of fourteen vendors of records management applications contains brief, non-judgmental, prose descriptions of each software package and price and availability data.

NARA, Office of Records Administration, Agency Services Division. *A Federal Records Management Glossary*. Washington, DC: NARA, 1989, 41 pp.

Traditional records management vocabulary and terms from related disciplines, such as ADP and information science, are included in this glossary of terms selected for their current relevance to federal records managers.

National Archives & Records Administration. "NARA Life-Cycle Systems Data Elements Manual." March 8, 1989, approx. 125 pp.

An update to an earlier in-house standard.

"1989 Buyers Guide to Interactive Videodisc Products and Services." *Instruction Delivery Systems* 3 (4):22-40.

This is an exceptionally complete and useful list of vendors of hardware, authoring systems, design services and advice in interactive systems development. It includes conferences, training opportunities and publishers.

Treasury Board of Canada, Secretariat. *Management of Government Information Holdings*. October 10, 1989, 27 pp.

This new policy formulation sets broad national policy on records in Canadian agencies and assigns agencies substantial independent responsibility, monitored by the National Archives and others, in their administration. It treats information as a resource more rigorously than the OMB circulars or the Paperwork Reduction Act.

Subscriptions to **Archives and Museum Informatics** are offered on a calendar year basis for \$40, including postage, to both U.S. and foreign addresses. Additional subscriptions to the same address are available for \$20 each. An additional \$5 charge applies to billed orders. Payment must be made in U.S. currency. Subscription orders should be addressed to Lynn Cox, Managing Editor.

## NEWS

### Court Rules Electronic Presidential Records Subject to Review

On September 15, Federal District Court Judge Charles R. Richey ruled in the case of Scott Armstrong et.al. vs. George H.W. Bush et.al. that the plaintiff had legal grounds to seek the assistance of a Federal Court to review compliance by the President of the United States with the Presidential Records Act, and in particular to require archival review of the contents of electronic records systems such as PROFS files in the National Security Council. In denying the defendants motion to dismiss the case or issue a summary judgment, the Court ordered the parties to submit a joint memorandum suggesting how best to proceed with the case by January 2, 1990.

The verdict could have a significant impact of electronic records management throughout the government because the judge found that the Presidential Records Act (PRA) of 1978 and the Federal Records Act (FRA) of 1950 as amended require that specific types of records be retained, and that therefore the provisions of the Administrative Procedures Act (APA) which remove from court review matters left to Presidential discretion by law do not protect the President from review of records disposition decisions. Further it found that PROFS information may constitute agency records or Presidential records and that whether they are can only be determined by court review, for which prior standards exist in the Kissinger and Nixon cases and more broadly in *Marbury vs. Madison* and the *United States vs. Roberts*.

The Court ruled that:

"...the PRA sets forth clear standards by which the determination is to be made, and the President bears the clear, nondiscretionary duty to apply those standards properly. If the President errs, a court, having the power -- indeed, the duty -- to declare what the law is, must correct the mistake.

"Concededly, § 2203(a) grants the President some latitude in determining how best to effect the retention of Presidential records. Nevertheless, while the means may be left to the President the end is not; the obligation to actually retain

Presidential records is clear and nondiscretionary. Under the PRA, the President may not, for political reasons incident to the performance of his duties, decide not to retain documents that otherwise qualify as Presidential records. Further, once he has determined that a particular document is a Presidential record, the President has no discretion to dispose of the document otherwise than in accordance with the procedures contained in the statutes.... Thus, to the extent that any information on the PROFS system qualifies as a Presidential record, and has not otherwise been reduced to hard copy, the President's unilateral decision to 'flush' the PROFS system would appear to be an exercise of discretion that violates the PRA's disposal provisions."

Because the Court ruled that the basis for the standing of the plaintiffs was the APA, which governs also the heads of agencies under the FRA, it would seem that the decision establishes the rights of citizens to seek court redress for the disposal by agency heads of electronic records systems not adequately recorded in hardcopy. The Court specifically dismissed the claim made by the defense that because the White House had issued a directive instructing all staff to reduce PROFS information that was Presidential records to hardcopy, the system could not therefore contain any Presidential Records. This, the court said, was precisely what was subject to review. In the process, the Court also dismissed an argument that the PROFS information was analogous to telephone conversations, noting that what made telephone conversations nonrecord material was that they were not recorded on a medium that could be retained, but that when they were, as in tape recordings and memoranda of conversation, they were potentially records, as is the information in the PROFS system.

### **NARA and Electronic Records**

NARA announced that the Archivist of the United States has transferred primary responsibility for the appraisal of electronic records to the Center for Electronic Records from the Office of Records Administration as of October 1, 1989. In the same news release, NARA states that the results of the recent conference on Electronic Records in the 1990s are being developed into a formal plan by the Office of Records Administration.

### **Executive Order 12667**

Two days before the end of his term, President Reagan signed an Executive Order giving himself lifetime powers to prevent disclosure of "privileged" papers generated by himself or others during his administration. Executive Order 12667 issued on January 18, but not published in the Federal Register until January 23, seems to have been intended to undermine the provisions of the Presidential Records Act Sections 2203 and 2205. It has not yet been challenged in court or rescinded by President Bush but it is attracting the attention of some journalists, such as M.B.Schnapper, founder of the Public Affairs Press, whose article in *Legal Times*, July 17, 1989, was brought to my attention.

### **NHPRC Records Committee**

The newly appointed Records Committee of the National Historical Publications and Records Commission held its first meeting in June 1989. At its fall meeting, the Records Committee will receive a briefing on electronic records issues.

### **NARA Expert Systems Project**

Avra Michelson is circulating a project underway at the National Archives to evaluate the potential of artificial intelligence in expert systems to improve the scheduling of government records [see notice of the project in *Archives and Museum Informatics* 3(Summer 1989):17]. A key product of the research will be the development of a prototype expert system to assist records managers and archivists in the disposition of federal records. The first two phases of the project will create a logical model and a prototype system. In the final phase, it is hoped to adapt the prototype system for use in an electronic environment. [Contact Avra Michelson, National Archives & Records Administration (NSZ), Rm. 14N, Washington DC 20408.]

### **Foundation for Intelligent Systems**

Stephen Toney and Mary A. Paterson announced the formation of the Foundation for Intelligent Systems in the Social Sciences, Arts & Humanities. They are compiling a directory of AI projects. To be included, contact the Foundation at 2637 Asilomar Dr., Antioch, CA 94509.

### **CBI to Document NSF Computing History**

The Charles Babbage Institute at the University of Minnesota has been awarded funds by the National Science Foundation to document NSF contributions to computing and computer science. A previously funded project examining the role of the Defense Advanced Research Projects Agency (DARPA) will be conducted concurrently by CBI, permitting researchers to compare the two and acquire complimentary documentation. (Contact Arthur Norberg or Bruce Bruemmer, CBI, University of Minnesota, 103 Walter Library, 117 Pleasant St., SE, Minneapolis, MN 55455.)

### **Accountants for Public Interest (API)**

API is a national network of volunteer accountants who assist non-profit organizations. To find an API volunteer near you, contact API, 1625 I Street NW, Suite 717, Washington DC 20006, 202-659-3797.

### **Pioneer Pushes Videodisc/CD Player**

At the Summer Consumer Electronic Show in Chicago, Pioneer announced a combination CD and Videodisc player, the CLD-1070, with a list price under \$600. They hope to sell 80,000 this year and 500,000 in 1990, many through discounters at under \$500, as part of longterm strategy to saturate the market with new programming as well as inexpensive hardware.

### **Videodisc Directories**

Two directories of videodiscs and videodisc projects in archives and museums are currently being compiled for first quarter of 1990 publication. Roberta Binder is updating the report published by Future Systems in 1987 entitled *Videodiscs in Museums: A Project Report and Resource Directory*. It is expected to include detailed descriptions of more than 120 applications. (Contact FSI P.O. Box 26, Falls Church, VA 72046)

Isobel Pring (PLF Communications, Towermead Business Center, High Street, Old Fletton, Peterborough PE2 9DY ENGLAND), will publish a directory with a focus on European projects.

### **Packing & Crating Network**

A group of professional packers, craters, shippers and registrars has formed PACIN, the Packing and Crating Information Network. PACIN is open to all individuals who deal in packing, crating, moving, handling and installing cultural objects, fine arts, decorative arts, and historical or scientific objects. It is intended principally as a forum for ideas, so that techniques in the field can be disseminated and guidelines of practice can be established. PACIN is organized as a task force of the Registrars Committee of AAM (Michael Smallwood, National Museum of American Art, 8th & G. St. NW, Washington DC 20560, or Scott Atthowe, 926 32nd. St., Oakland, CA 94608)

### **Computerization Guide**

The Museum Computer Network has received a grant of \$15,000 from the New York State Council on the Arts to hold a conference on November 9th to identify the contents of a guide to computerization to be written for small museums. (Deirdre Stam, MCN, Information Studies, Syracuse University, Syracuse NY 13244)

### **European Museum Network**

*ICOM News* 42(no 2, 1989):1 announced the formation in December 1988 of a European Museum Network in which nine museums and the telecommunications industries of Commission of the European Community countries will participate in a pilot project to culminate in the 1992 Seville EXPO. The concept appears to be to develop inter-museum, interactive, hypermedia systems.

### **Graduate Course in Museum Information Systems**

Pnina Wentz is offering a course on museum information systems as part of the postgraduate diploma program in Library and Information Studies at Ealing College in London. The course is "intended to provide an understanding of the museum environment, of information resources in museums, and of the methods of documentation and information management in museums." This is not the first such course in England but may be the first in a library school context. It reflects the growing recognition of museum documentation as a specialty within the museums in the UK.

## The UK Museum Databases Project

The Museum Documentation Association and Chadwyck-Healey Ltd. have announced a joint initiative to collect, publish and distribute computer databases from individual museums and groups of museums in the United Kingdom. A pilot database of fine and decorative arts from the records of twenty one museums, including the Imperial War Museum, the Tate Gallery, the Victoria and Albert Museum and the National Maritime Museum has been produced. The pilot database consists of 17,000 records, from 25 separate collections. Microfiche of a 10% sample of these records are being distributed by Chadwyck-Healey in an advertising packet intended to attract participants in the project and buyers of data.

The eight fiche are: a main catalogue, an artist/producer catalogue, a simple name index, a title index, a content index, a production place index, a production date index, and an acquisition index. Record numbers are comprised of an MDA code for the museum plus the museum accession number. Confidential information (such as valuation data, storage location, audit, loan and disposal details as well as donor addresses) is, of course, excluded, but the catalogue is otherwise somewhat more detailed than the CHIN database, as might be expected from the greater detail of MDA data standards. Data comes from MDA systems, such as GOS and MODES, and from other locally developed and commercial systems. All the data was read into GOS, but it is not anticipated that the MDA or Chadwyck-Healey would edit records except to undertake some global revisions to improve consistency of presentation, such as inverting personal names, ignoring case when sorting, interpreting dates in a consistent style, and ignoring non-standard characters when sorting, on the presumption that they represent local conventions.

It will be interesting to watch over the next couple of years to see if this scenario for sharing data proves attractive to museums, and whether the data is commercial. If it sells, the idea of sharing may become more attractive, since the museums are to share in royalty incomes. Chadwyck-Healey has reserved the rights to distribute some or all of the data in the form of CD-ROMs in addition to or in place of the microform, but doesn't yet see the market. While access to the data in microform may

seem like a very low technology approach, it has the advantage of inexpensive distribution, and that subsets of the data of interest to particular researchers can readily be distributed to niche markets. On the other hand, the museums themselves will derive little benefit from a system of distribution that manages only end products of the collection management process. CHIN and other online network visions of information sharing between museums assume that the benefits of collections management are necessary for information sharing to succeed.

## Cultural Resource Databases at the NPS

On request, the National Park Service will provide a "List of Information Systems for Cultural and Natural Resources," consisting of databases other than the ANCS that it maintains. A selection of sources included on the cultural resources list includes:

- National Archaeological Data Base (NADB)
- Cultural Sites Inventory (CSI)
- Ethnographic Resources Inventory (ERI)
- Spanish Heritage Cultural Resources Data Base (HISPANIC)
- Cultural Resources Database Index (INDEX)
- Historic American Buildings Survey/Historical American
- Engineering Record Information System (HABS/HAER)
- Historical Preservation Fund Database (HPF Program)
- National Register Information System (NRIS)
- American Monuments and Outdoor Sculpture Database (AMOS)
- Census of Treated Masonry Buildings (CENSUS)
- Stone Buildings Inventory Database (STONE)
- Cultural Resources Management Bibliography (CRBIB)
- Landscape Inventory (LANDSCAPES)
- List of Classified Structures (LCS)
- National Maritime Initiative Inventory (MARITIME)
- NARO Preservation Management Information System (PMI)
- National Landmarks Information System

## SOFTWARE

### Software Review

#### ANCS - Automated National Catalog System, version 3.3

The March 1989 release of the National Park Service ANCS system has been compiled on CLIPPER, so that it runs on any IBM compatible PC with 640K RAM. It is recommended that collections of less than 10,000 items acquire a PC AT with 30-40MB, collections of 10-50,000 items acquire a disk of 70-130MB, and that collections with more than 50,000 items use 80386 based systems and implement networking. Like the earlier versions, it is distributed by the National Park Service, without support but with documentation, for \$25. Documentation consists of a loose-leaf user manual which describes the software, and the *Museum Handbook*, Part II, Museum Records, which describes NPS documentation practices and acts as a framework in which to understand the automated system. At the moment, the handbook is out of print. A revised edition is scheduled to be published in 1990.

The system creates two major kinds of records: an accession logbook and an object record. Some object record fields are different for natural history objects and cultural history objects so they occupy separate physical files in ANCS.

The Accession Log Book is a single screen record used to describe the contents of an accession by discipline and volume, and associate it with a donor/source. The user enters the accession number and the number of items estimated or the bulk of the material received when no item measure is possible. Subsequently the user might refine the record by noting the actual count of objects. The Accession Log records form the core of a report to the national office and provide national planners with consistent data on the size of the collections in each park.

The object recording, or Catalog System, supports data entry into either cultural or natural history catalogs. Following the election of which catalog, the user may enter fixed length data into fields on three screens, of which the bulk of the first screen is data shared by both catalogs. Default values can be set and data can be carried over from the

previous record on a field by field basis. Data validation checks for the presence of data in mandatory fields and for invalid catalog and accession numbers, some coded data, locations and some classification information for natural history specimens. Validation takes place as a separate step, rather than being interactive with field level data entry.

Searching the databases is limited to object name and catalog number for cultural history objects, and scientific name and catalog number for natural history. Hits are "decoded" to show the full values of encoded fields. The system comes with eight preprogrammed reports which are columnar in format.

Though limited, the system works. It is in use in hundreds of parks and will soon be feeding data into larger systems at the headquarters of the Park Service. The question for other museums, given the fact that the NPS distributes it and in a sense promotes it, is whether it is a viable system for use outside the Park Service. My view is that it is not, for two reasons. First it is not good policy for a museum to acquire an unsupported software system regardless of how inexpensive it appears to be. In this case, NPS has saved institutions from the worst problems of such unsupported software by writing the package in compiled Clipper, so that it can't be extended, but still the institution cannot get help when it needs it. The second reason not to acquire ANCS is that it is very particular to the Park Service and its needs. This is, of course, the very reason it is working for the NPS, but the limitations of the package for other users cannot be overstated. It uses fixed length fields, doesn't assist in collections management or tracking of materials, and provides for virtually no scholarly data or references to sources; what it does do can be done equally well on numerous flat file management systems and could be put together in a matter of hours.

Given the limitations imposed by ANCS in its current version, it is difficult to see why any museum would want to live within its constraints. But the number of institutions that have acquired it, if only to see what it can do, does testify to the demand for a museum cataloging/information retrieval system in the less than \$1000 price range.

## Software at MDA

At this year's MDA conference, a number of vendors who have not been seen in North America demonstrated systems of interest to archives and museums.

**Ampersand Systems Ltd.** (Armourers House, 50 Queen Charlotte St., Bristol BS1 4HE, UK) is marketing &MAGUS, a set of tools designed to aid museums in collections management and documentation. UK clients include the British Museum, the National Army Museum, the Royal Botanical Gardens Kew, and the Royal Commission on Historical Manuscripts. The system runs on Prime minicomputers under Info/Basic and is built with &PACE, an applications development system proprietary to Ampersand. &MAGUS is built around an object record with multiple repeating variable length fields and groups of fields, using thesaurus validation and a variety of nice data entry tools including integrated word processing. Indexes include date ranges with BC and fuzzy dates, and retrieval is by a command language employing Boolean operators. Reports can be ad hoc or written in a report generator with good sorting facilities and optional special character sets. The system is menu driven, with formatted screens and on-line help, and is constructed so as to conduct some activities in background mode during periods of peak processing.

**Cambridge Interactive** (Barnwell House, Barnwell Drive, Cambridge CB5 8UJ, UK) is marketing CDS 2000-V, a visual information system using videodiscs for IBM compatible machines. At the MDA meeting they showed museum related products along with commercial videodiscs.

**Cognitive Applications Ltd.** (4 Sillwood Terrace, Brighton, E.Sussex BN1 2LR, UK) provides consultancy and applications development support for image and databases using hypercard and other tools. They have designed systems ranging in complexity and cost from that of the Design Museum (described in MDA Conference report) to that of the National Gallery, London.

**Databasix Computer Services Ltd.** (54-70 Moorbridge Rd., Maidenhead, Berks SL6 8BN, UK) has expanded its marketing of the library information retrieval system ADLIB to museums. The Belgian National Art Institute (KIK) in

Brussels is using ADLIB to document 800,000 photographs, 1,000,000 negatives and 6,000 research reports on the Belgian National Art Collection, and the National Museum of Science and Industry (London) is using ADLIB for documentation of a quarter of a million object collection. The Jewish Historical Museum in Amsterdam is using ADLIB for its "mediatheek".

**GECI International** (Tour Winterthur, Cedex 18, 92085 Paris, FRANCE) is making a splash in European museums with its Hyperdoc product, a hypermedia development tool. They exhibited a variety of museum implementations at the MDA meeting.

**Saztec** (Peter Williams, Saztec Europe Ltd., #1 The Courtyard, Swan Centre, Fishers Lane, London W4 1RX) has entered into a joint marketing agreement with the Museum Documentation Association to provide a "Museum Conversion Service," keying and scanning museum documentation off site with a guaranteed accuracy of 99.5%, and providing museums in the U.K. with data in MDA standard format. The analysis of requirements for the conversion is conducted jointly by MDA and Saztec staff.

## The MacIntosh, Oracle, Hypercard Environment

When Willoughby Inc. (266 Linden Ave., Winnetka, IL 60093) announced its implementation of MIMSY on a MacIntosh computer [see *Archives and Museum Informatics* 3(Summer 1989):21], it was clear that the options for museums using Oracle databases had been considerably expanded. Now several other institutions and projects are exploring the MacIntosh, Oracle and Hypercard environment with impressive results. At the MDA conference, Dag Bergman (c/o Nordic Computer Consultants, Olus Petrigatan 6, 115 34 Stockholm, SWEDEN) showed a system for Egyptological documentation featuring Hypercard as a user interface instead of concentrating on its hypertext features. The Museum of London is also using the MacIntosh, Oracle, Hypercard approach, and is planning to develop a system and complete documentation of their collections by the end of 1990. (Isabel Metcalfe, Computer Manager, The Museum of London, London Wall, London EC2Y 5HN, UK)

## Select Software Agreement

Select Ticketing Systems offers PASS (Point Admission & Selection System), its membership and participation system, under an unusual kind of software agreement. Instead of acquiring a software license, an institution signs a five year membership agreement to join a consortium of users which entitles the institution to upgrades from the vendor as well as to enhancements developed by other users. As a member of Select Ticketing Systems, an institution acquires consulting services, seminars and training opportunities, user group meetings and 24 hour a day, seven day a week technical support. Technical support includes setting up the initial seating charts for each institution.

The system itself provides ticketing integrated with membership and development facilities, including marketing and bookkeeping. Each ticketing window is networked to a central database that can also work with Ticketron and other commercial ticketing outlets. Each window has its own cash drawer and end of day reports. Sales personnel can call up any event and performance, see what tickets are available, select tickets using a light wand, and record information about the purchasers to be used for marketing, charging, and ticket exchange purposes. Subscriptions can be processed for ticketing multiple performances. Other addresses, ticketing history, incentives, donations and pledges and campaign histories can be maintained for each client. PASS interfaces to word processing for solicitations, and tracks solicitor records as part of its membership and development functions. For users with in-house accounting systems, PASS also interfaces to a number of commercial accounting packages.

## Software Publications

VIDI-O Image Manager (Vidionics International Database Inc, P.O.Box 221085, San Diego CA 92122) is reviewed in *Visual Resources Association Bulletin* 16 (Summer 1989):11-13, by Gary Seloff of the Lyndon Johnson Space Center.

Pixel Pusher, a public domain image display manager for VICAR images on the MacIntosh II is reviewed by Timothy Andrews in *CD Data Report* 5(July 1989):7-8.

ZyINDEX, a commercial fulltext retrieval package for PC's is reviewed by Susie Bock, Beinecke Library, Yale University in the *Mid-Atlantic Archivist* 18(3):15.

## Product News

Explorer Technology (6475 Christie Ave., Suite 510, Emeryville CA 94608) has installed the Explorer System for the Houston Museum of Natural Science.

Master Software Corporation (8604 Allisonville Rd., Suite 309, Indianapolis, IN 46250) has signed a contract with the American National Red Cross for at least 50 copies of Fund-Master.

Interpoint Inc. (1905 Terminal Dr., Richland WA 99352) published a short instructional article, "Unobtrusive Measures: Don't Overlook Your Data," in the Summer 1989 issue of its customer newsletter on the way that the American Museum of Natural History used Interpoint's TouchCrafter interactive terminals to gather information about visitor response to a recent exhibit.

Interactive Support Systems Inc. (575 Eighth Ave. 14th fl., New York, NY 10018-3011) announced further upgrades to its fulltext database product MARCON, including online help enhancements and full extended ASCII, a French language version and links with 3-COM in its series 3 release. Hypertext, hierarchical thesauri and numerous programmable features are scheduled for series 4.

Inmagic Inc. (2067 Massachusetts Ave., Cambridge, MA 02140-1338) announced the availability of SearchMAGIC, an end user search system for databases created using Inmagic.

Persoft Inc. (UW Research Park, 465 Science Dr., Madison WI 53711) released an upgrade to its fulltext search database product IZE, and a new product called IZE Reader on September 25.

ARCOSPACE, a package for spatial analysis of archaeological data, was announced in *Archaeological Computing Newsletter* 19(June 1989):3. (H.P.Blankholm, Department of Prehistoric Archaeology, University of Aarhus, Moesgard, 8270 Hojbjerg, Denmark)

## STANDARDS

### Standard for Computer Software Description

NISO proposal Z39.67-198x, Computer Software Description, is being circulated for review. The proposed standard is designed to describe off-the-shelf consumer software in packaging and bibliographic references, not archival copies of previously distributed software or non-commercial systems. The purpose of the standard is "to allow users to unambiguously identify the contents of the software package and determine readily if the product meets user's needs and hardware capabilities." It is unfortunate from the perspective of archivists that the committee aimed for such a limited purpose, but the standard deserves review for what it is. (\$25 from NISO, P.O.Box 1056, Bethesda MD 20817)

### Computer-aided Acquisition and Logistical Support (CALs)

The Department of Defense has recently begun to include requirements for CALs, a kind of electronic exchange of technical information generated in the development of contracted technologies, in its procurement RFPs. DOD estimates that from 10-30% of the cost of defense contracts is attributable to the cost of acquiring technical data - the B-1B bomber is accompanied by 1,000,000 pages of documentation! The CALs initiative depends heavily on the adoption of standards, such as SGML (Standard Generalized Markup Language), CGM (Computer Graphics Metafile) and IGES (Initial Graphics Exchange Standard). While it is too soon to say whether the program will work, it is catching the attention of industry as reflected in articles in *Computerworld* (August 14, 1989) and elsewhere.

### Nitrate Films

The AASLH has published a technical leaflet by Christine Young, paper conservator at the Nelson-Atkins Museum in Kansas City Missouri, on "Nitrate Films in Public Institutions," which discusses the identification of nitrate hazards and appropriate actions.

### Multi-Media Information on CD-ROM

The June 1989 issue of *CD Data Report* contains an article by Doug Carsten of DCA Inc. on utilizing the sub-channels of CD-ROMs to deliver multi-media information without having to wait for CD-ROM XA, DVI or CDI standards to mature. In the same issue Neil Shapiro and F. John Bowers of General Electric discuss the standardization of technical documentation on CDs. These and similar articles testify to the continuing software dependency of CD based information and the risks that are still involved in using this format.

### Paper-Based Records Storage

A report on the work of NISO committee SCR on the environmental conditions for storage of paper-based records in archives and museums appears in *Information Standards Quarterly* 1(3):13-14.

### Canadian Fonds Report Debate

Debra Barr has published a response to the proposed standards of the Working Group on Description at the Fonds Level, in *Archivaria* 28:141-145. Those concerned with the development of archival description practices in North America should read it.

### Committee On Archival Information Exchange

Richard Szary, Chairman of the SAA Committee on Archival Information Exchange (CAIE) has circulated drafts of new guidelines for the committee including mission statements for three new Working Groups: Descriptive Standards, Education and Publication, and Exchange Scenarios. It is hoped that these working groups will be able to carry forward the larger purposes of CAIE, which have been stalled by lack of financial support from SAA and by a too narrow focus on CAIE as the liaison to MARBI for MARC revisions. Under Szary, who also serves as SAA representative to the Network Advisory Committee, the CAIE has taken a more aggressive outreach role.

## AAM Publishes Standard Facilities Report

The Technical Information Service of the American Association of Museums (1225 Eye St. NW, Suite 200, Washington DC 20005) has published the Standard Facilities Report developed by the Registrars Committee from 1986-1988 and adopted by the Association in June 1989. The advantages of being able to complete a single facilities report to satisfy the requirements of all lending institutions need not be impressed upon registrars. All museums and institutions borrowing museum objects are being urged to adopt the use of this form immediately (in spite of its 21 pages), and to accept it in lieu of their in-house instruments in future transactions.

## Common Agenda Project Report

The AASLH has published as Special Report #3 a 16 page report by James Blackaby and other members of the Common Agenda Database Task Force on "Managing Historical Data," which details the conclusions of that group concerning the documentation of collections and objects. The report describes two instruments designed to serve as minimum standards for data recording, one for collections and the other for objects. The publication also reports the task force findings that historical collections data fields are typically logically linked into repeatable segments, and that catalogs include data both about objects and historical associations, and should be structured so that reference data are maintained in linked separate files.

Catherine Johnson, Common Agenda intern and Mary Alexander, Coordinator of the Common Agenda Project, have also completed a brief report on a meeting sponsored by the Common Agenda in June, at which representatives of the NEH and NHPRC met with librarians, archivists and museum personnel to discuss the information sharing experiences and needs of each community. (The Common Agenda, MBB-66, Museum of American History, Washington DC 20560)

## TECHNICAL REPORT SUMMARY

### Functional Requirements for Membership & Development Systems

Archives and Museum Informatics Technical Report (ISSN 1042-1459) Vol. 3 No. 3, Fall 1989

DAVID BEARMAN and GAIL LORD

Some of the best documented successes in archives and museum automation have taken place in membership and development. Numerous commercially available systems now compete for this market, but dissatisfaction with existing systems is widespread. This report examines the most critical features of such systems.

*Functional Requirements for Membership & Development Systems* lays the groundwork for evaluation of systems by describing and analyzing membership, participation and development functions in cultural repositories, including the processes of acquiring members, providing services, marketing services, managing fundraising campaigns and administering gifts. The functional requirements for information systems to support these processes are then discussed in detail.

Approaches to evaluating membership and development systems are presented on the basis of this understanding of functional requirements. Comparison of features, integration, implementation constraints, and management concerns in systems acquisition are addressed.

Available as a single issue in January 1990 for \$35 prepaid including postage; \$40 billed. Orders should be addressed to Lynn Cox, Managing Editor, Archives & Museum Informatics, 5600 Northumberland St., Pittsburgh, PA 15217.