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Planning for Future Users

The Spring Issue of *Library Hi Tech* (#33) is devoted to the changing face of humanities scholarship and its implications for libraries in the 90's. This week I will participate in a two day symposium at the University of Michigan on the implications of changes in the methods of scholarly research on archives in the 21st century. Last month I attended a series of planning meetings hosted by the Singapore National Computer Board to explore integration of cultural information systems for scholarly, educational and even touristic use as part of its IT 2000 plan for "The Intelligent Island". What is this all about? Simply put, it is planning for an inevitable revolution.

The technologies of extremely high density storage, flat displays, and high speed telecommunications which are already in laboratories and development testing assure that before the end of this decade professionals and students at secondary levels and even lower will be carrying electronic notebooks serving as their personal libraries and voice, fax, and electronic mail boxes and access devices. People equipt with such devices will very rapidly become accustomed to access to multimedia information in processable forms regardless of its storage location or storage format. The implications of this are that institutions and countries which are able to provide information to such users (eg. content-providers) will profit tremendously and those which are unwilling to adjust will fail.

Some disciplines, like classical scholarship and chemical engineering, are making great strides in converting the corpus of their fields so that it is machine-readable and machine usable. Museums and archives possess the most and the best of the cultural evidence of our civilization, and if they take steps to make it available in electronic form they could greatly enrich the universe of electronic data in which future generations will work. They could also stand to generate substantial revenues from being in a position to provide remote access to their holdings. As a practical matter this is becoming much easier to do and it is exciting to see some organizations and countries making plans for the coming decade based on the assumption that to survive will mean digitizing the full range of their information resources and building mechanism to access them. By developing ten-year plans, these organizations can build towards the future without requiring new sources of support or sacrificing today's objectives.

Such forward plans are conceived to take advantage of current work, reduce on-going work loads, and employ existing standards. Standards currently exist for interchange of free text, fielded text, numeric data, still images and sounds. Therefore efforts to capture this information will be investments that can be carried forward. By capturing the information in conjunction with on-going work the institution achieves efficiencies and improves the liklihood that the data it captures will be used again (following a 90:10 rule which holds for most cvollections). Each time current work calls for handling an object, data about that object is recorded. If work calls for an image to be made or supplied, an image is digitized. If conservation is required, a decision can be made to provide a digital surrogate. Over time the database grows and reduces the overall workload. The pace of digital conversion can then increase.

David Bearman, Editor

In This Issue

RAD, MAD, and APPM: The Search for Anglo-American Standards for Archival Description

by Steven L. Hensen, Duke University

One of the more significant conclusions of the recently completed work of the Working Group on Standards for Archival Description was their recognition of the essential preeminence of description in all archival practice and processes. By defining it as "...the process of capturing, collating, analyzing, and organizing any information that serves to identify, manage, locate, and interpret the holdings of archival institutions and explain the contexts and records systems from which those holdings were selected,"[1] it has moved all discussion of archival description away from products and defined it more in terms of *process*.

The importance of this should not be overlooked. Until recently, discussions of archival description focused nearly entirely on the inventories, series descriptions, registers, finding aids, and, even more recently, cataloging records that are produced as the culmination of archival activity. By recognizing the entire range of meaningful archival enterprise as essentially descriptive in nature, a central distinction between archival material and other research material (i.e., books and other printed material) has been demonstrated. This is that the former do not speak for themselves in the self-conscious manner of the latter, by way of blatantly announcing their origins and subject matter through such devices as author and title statements. Since, virtually by definition, all archival materials were created for some purpose other than that for which they are preserved, it then becomes the archivist's job to help the materials explain themselves towards the ends of this new purpose. Thus, by constantly defining and describing the context or provenance of the materials throughout all appraisal, arrangement, and description activities, their essential *raison d'etre* is revealed. Furthermore, by using this context as the basis for all subsequent analysis and description, the fundamental meaning and importance of the materials is both preserved and revealed.

The recent release of the "Statement of Principles Regarding Archival Description" by the Ad Hoc Commission on Descriptive Standards of the International Council on Archives at Hohr-Grenzhausen, Germany[2] further underlines the growing understanding of the importance and centrality of description to archival theory and practice. These principles state that "the purpose of archival descriptive standards is to:

a) ensure the creation of consistent, appropriate, and self-explanatory descriptions;

b) facilitate the retrieval and exchange of information about archival material;

c) enable the sharing of authority data; and

d) make possible the integration of descriptions from different repositories into a unified information system."[3]

This is the context into which two recent works on archival description have been published. And while they don't address the entire array of newly recognized descriptive activities, they do address aspects of it; and furthermore, they do so with an understanding and appreciation of these new trends in archival thinking.

With the release of the Canadian *Rules for Archival Description* (RAD)[4] and the British *Manual of Archival Description*, (MAD)[5], one is tempted to conclude that, in combination with the widespread acceptance in the U.S. of *Archives, Personal Papers, and Manuscripts* (APPM)[6], the spread of the gospel of archival descriptive standards is now nearly complete. Although their appearance is entirely separate from and coincidental to the work of the SAA and ICA groups, it seems nonetheless clear that they emerge from the same stream of consciousness that has informed and motivated the other work.

When the Society of American Archivists designated APPM as its first official "standard," it was tacitly acknowledging two things: first, that "bibliographic" description of archival materials was a legitimate activity that required standards to ensure consistency; and second, that the Society had an authoritative role to play in promulgating and setting standards for the American archival profession. (In addition, they were also unwittingly endorsing the ICA principles laid out above.) While some comparisons between APPM and RAD and MAD are not only inevitable but desirable, it will also be seen that there are some significant differences among these works. The consequence of these differences is to wonder whether, in this time of international agreements and a coalescing of principles on archival descriptive standards, true agreement can ever be found on these questions among the American, British and Canadian archival communities.

While both of these new volumes acknowledge to some extent the ground-breaking work that had taken place in the United States in the area of archival standards development, it is clear from the beginning that each of them is staking out separate territory from that which has been claimed in this country and, in the process, are taking very different approaches towards the larger problem of descriptive standards. While one would have hoped that these efforts would have moved everyone closer towards a kind of international agreement, we shall see that that is not the case.

The Canadian *Rules for Archival Description* was prepared under the direction of the Planning Committee on Descriptive Standards which is a committee of the Bureau of Canadian Archivists (BCA) which, in turn, represents the Association of Canadian Archivists and the Association des archivistes du Qubec. It grew out of the work and recommendations of the Canadian Working Group on Descriptive Standards, also operating under the

aegis of the BCA, most specifically represented in the report, *Towards Descriptive Standards*.[7] It was this report that both prepared the Canadian archival community for the idea of descriptive standards as well as making some specific recommendations on what some of those standards should be. While some of their conclusions were not all that surprising (*e.g.*, assuming that the principles of provenance and multi-level description provided the only appropriate context in which to discuss archival description), there were others that were nothing short of revolutionary. Perhaps the most significant for the purposes of this discussion was their bold assertion that archival description had much to learn from the library cataloging model. When they stated that "cataloguing is the library function most analogous to the archival function of description,"[8] and that "the bibliographic description function parallels the most extensive and significant aspects of archival description,"[9] decades of archival intransigence on this subject were being overthrown in one fell swoop. To be sure, *APPM* had laid some of the groundwork for this in the United States, but, while demonstrating that archival description could be accommodated within a library model, it did not dare go so far in asserting such a direct link between the two. That such a statement is no longer surprising nor provocative testifies to how far we have come since then.

Following the recommendations of the above report, a Planning Committee on Descriptive Standards was formed to oversee the process of developing archival descriptive standards as well as a number of working groups to explore descriptive issues relating to various archival media and the development of authority files and subject indexing.

The structure of this work follows very carefully that of AACR2, with Part I devoted to rules for Description and Part II to Headings, Uniform Titles, and References. The present volume represents the first two chapters of Part I. The first chapter, written by the Planning Committee, is titled "General Rules for Description" and lays out "rules governing all levels of description for all media."[10] This chapter is roughly analogous to chapter one of AACR2 . The second chapter is the result of the report of the Working Group on Description at the Fonds Level and presents rules for the description of "Multi Media Fonds." Also included here are appendices on Capitalization, Abbreviations, Numerals, and a Glossary. Additional chapters will eventually be issued for this part on text, graphic materials, cartographic materials, architectural records, moving images, sound recordings, computer files, and microforms. Part II will ultimately contain chapters on choice of access points, headings for persons, geographic names, headings for corporate bodies, uniform titles, and references. This is clearly an ambitious project and, having already issued the full table of contents with these first two chapters, the Planning Committee has publicly committed itself to fulfilling these promises. While working through the elaborate committee and working group structure that underpins this project has certain advantages, production speed is not one of them. One would hope that the completion of this volume would be more expeditious that was the issuance of its first fruits. Nevertheless, there is still enough here to draw some opinions on not only what has been done, but also perhaps to speculate on what might be coming.

As a manual of archival cataloging, RAD is, on the whole, exemplary, following AACR2 perhaps even more punctiliously than APPM, and offering even greater attention to certain details where they might be required. To be sure, there is a certain inevitably opacity to some of the language (difficult to avoid when writing cataloging rules!); but this is balanced by an introductory preface that is a model of clarity and that properly puts the whole effort in the appropriate philosophical and theoretical context. Following AACR2 and APPM as closely as it does, there is no point in getting into discussions of individual rules. Suffice it to say that it would be difficult for an expert to look at an individual archival cataloging record and try and determine whether it had been created using RAD or APPM. RAD's particular strengths are in its recognition and accommodations for specifically defined archival levels (repository, fonds, series, filing unit, and item) which generally correspond to emerging international standards in this area.

My only quibbles are over what I regard as an excessive reliance on the use of the term *fonds* (I question whether the average user approaching a records series description is going to understand this term when used as it would be ubiquitously following these rules in all series titles). At the same time, I am willing to grant that this perhaps may be more a question of my own national and cultural perspective. Secondly, there is an almost fastidious avoidance of the use of the word "collection," even to the point of not providing "specific rules for the description of collections or items that do not form part of a recognizable fonds."[11] I understand that a certain precision of terminology is sought here and that the authors wished to make a sharp distinction between "organic" and "non-organic" (or is it "inorganic?") accretions of material. However, to dismiss both the more general use of the term as well as not providing specifically for the treatment of such material is to ignore the daily reality of most archival repositories. All repositories have such "collections" and specific provisions must be made for them. The historical record is none the less legitimate nor important simply because it has not survived in an unbroken chain of custody from the time of its creation.

Given that the origins of RAD are tied so closely to the application of library cataloging techniques to archival description; and further, that it is so very carefully and explicitly structured upon "the framework of AACR2," what is perhaps most curious about this work is the impression it attempts to convey that the rules are designed for archival description in general, rather than specifically towards constructing catalog level descriptions of archival material. As noted above, it is really quite an exemplary archival cataloging manual. If, on the other hand, one of the purposes of this manual is to "make possible the integration of descriptions from different repositories into a unified information system" (see ICA statement above),

then I wonder if this hasn't been interpreted too broadly here (as also in MAD, but more of that below).

It is now widely understood that the chief motivating principle behind archival descriptive standards is the ease with which such standards make the sharing of descriptive information, not only among archival repositories, but also with the larger world of research information needs. It has also been understood that the level of description most appropriate for this information sharing is the summary catalog record, which, in turn, is derived from the more detailed descriptions (inventories, series descriptions, registers, and other finding aids) found in the repositories. There are several reasons for this: First, the length of most of the latter descriptions are beyond the record size capacities of most bibliographic systems into which they would be entered. Second, the level of detail offered in the finding aids is simply more than is usually required for a scholar working at some remove from the materials themselves.[12] And finally, catalog-level records lend themselves much more easily to the sort of formal structure of such descriptive standards as those found in RAD and APPM. While there may be (and indeed there is) some legitimate interest in promoting general descriptive standards for all levels of archival description, it is misleading to think that the same formal standards that apply to the creation of archival bibliographic records can also apply to more detailed finding aids.

If APPM can be considered purely an archival cataloging manual and RAD a mixture of standards for both cataloging and more generalized description, Michael Cook's and Margaret Proctor's Manual of Archival Description (MAD) falls at the far end of the spectrum, being designed "to provide standards which will control the production of finding aids and finding aid systems in archival repositories and archives services."[13] Moreover, it explicitly distances itself from both APPM and RAD by stating "Neither is MAD2 intended to be a guide for the production of bibliographic descriptions (relating to archival materials) which would form part of cooperative databases or online public access catalogues."[14] It dismisses AACR2 as being unsuitable for the description of archives in that "the production of a finding aid system for an archives service must proceed upon quite different planning assumptions, [and] will take a form quite different from that of a library catalogue...."[15] It does concede, however, that the finding aids produced under MAD may be "preliminary to the AACR2-compatible description,"[16] while offering no guidance for creating that description.

The fact that British archivists found that AACR2 was not suitable for the production of archival finding aids is not at all surprising since it was never designed for those purposes. Thus MAD's dismissal of it seems somewhat strained and quite besides the point.[17] Furthermore, when the authors of MAD assert that British archivists were under no particular pressure to conform to AACR2, unlike their colleagues "elsewhere in the English-speaking world,"[18] they have seriously misapprehended the history of such developments in Canada and the U.S. The only "pressure" to adhere to AACR2 came out of a conscientious desire to participate in the developing library information networks by way of making information about the untapped research potential of their holdings more widely known. If such networks had developed in Europe and Great Britain as quickly and to the extent that they have on this side of the Atlantic, I feel certain that British archivists would have been as anxious to participate in them as their Canadian and American colleagues were.

This, however, is beside the point. Having agreed that AACR2 is not generally useful for most archival finding aids, does MAD in its designs have anything useful to offer by way of suggesting standards for the "production of finding aids and finding aid systems" for archives? The answer, in short, is that it is difficult to tell.

As noted above, the real purpose of establishing standards is to ensure some measure of consistency within a shared environment. While there may be some larger professional interest served by promoting general standards in matters of archival description, repository level finding aids do not generally fall into a "shared environment" situation. While some of the more advanced current thinking envisions a day when such finding aids will be available online nationally and internationally (and indeed, even full text databases of archival documents themselves), it still seems likely that the pointers to such material will probably be structured catalog records, obviating the need for a more formal structure in the finding aids themselves. Thus the need for a highly structured approach to the finding aids themselves seems highly dubious at best.

Beyond simple questions of whether such an approach is even needed, however, MAD remains highly problematical. While being generally aware of some differences between aspects of American and Canadian archival practice and their analogs in Europe (France and Germany, for example), I had nevertheless been under the impression that we had rather more in common with the rest of the English-speaking world. After examining MAD, I am no longer so sure.

MAD represents an approach to archival description that is so extremely complex and detailed (if not to say confusing) that it virtually defies analysis. While there are recognizable aspects to some of the theoretical base that underpins it, there is also much that is unfamiliar for American archivists. I'm not sure whether this due to different archival and cultural traditions or sensibilities or whether MAD represents, in fact, an almost thoroughly singular and idiosyncratic approach to archival finding aids. In addition, I'm sorry to say that this situation is made even more confusing by a writing style that is so technical and turgid as to be virtually unreadable.

Ultimately, however, what is most discouraging about MAD is that, in its almost dogmatic dismissal of bibliographic techniques for archival description, it seems to have embraced, somewhat desperately I fear, an older, paper-based registry system. There are many pages of examples of forms and records description that quite ob-

viously have no electronic destiny or purpose other than exacting repository level control. Furthermore, MAD's even more punctilious attention to small matters of style and punctuation in archival finding aids almost obscures the fact that for repository-based descriptions which are explicitly and admittedly *not* destined to "form part of cooperative databases or online public access catalogues," none of this makes the least bit of difference. Rather than put so much effort into developing these elaborate local structures and standards, the authors would have been better off asking why there has been so little pressure for British archivists to work in some sort of shared environment and perhaps laying the groundwork for British archival description to move in this direction. As it is, most American archivists will find little to either use or with which to identify in MAD. In spite of some decisive first steps elsewhere towards developing international standards for archival description, the indication from this volume is that the time for Anglo-American archival standards clearly has not yet arrived.

1. "Report of the Working Group on Standards for Archival Description," *American Archivist*, 52:4 (Fall 1989), p. 442.

2. Giving the archival world its equivalent of the library world's "Paris Principles," one must suppose. But, "Hohr-Grenzhausen Principles?" One wishes that these deliberations could have been held in a location with a more euphonious name.

3. International Council on Archives, "Statement of Principles Regarding Archival Description adopted by the Ad Hoc Commission on Descriptive Standards, Hohr-Grenzhausen, Germany, October, 1990, p.3.

4. Planning Committee on Descriptive Standards, Bureau of Canadian Archivists, Rules for Archival Description, Ottawa, 1990. (hereafter RAD)

5. Michael Cook and Margaret Proctor, Manual of Archival Description, 2d edition, Gower, Brookfield, Vt., 1989. (hereafter MAD)

6. Steven L. Hensen, Archives, Personal Papers, and Manuscripts: A Cataloging Manual for Archival Repositories, Historical Societies, and Manuscript Libraries, 2d Edition, Chicago: Society of American Archivists, 1989.

7. Bureau of Canadian Archivists. Towards Descriptive Standards: Report and Recommendations of the Canadian Working Group on Descriptive Standards, Ottawa, 1985.

8. Ibid., p. 10.

9. Ibid., p. 11.

10. RAD, p. xiii.

11. Ibid., p. xv

12. For example, it is infinitely more important for the scholar working in Berkeley to know that Henry Stimson's papers are at Yale and that those papers contain detailed diaries than it is for him to know that the diaries are in containers x-y at shelf location z.

13. MAD, p. xii.

14. Ibid., p. xii.

15. Ibid., p. xiii.

16. Ibid., p. xiii.

17. This makes all the more curious some advertising brochures that Gower, MAD's publisher, has distributed which imply that MAD virtually replaces AACR2 for the purposes of archival description.

18. MAD, p. xiii. □

CONFERENCES

CALENDAR

August 21-23 Arlington, VA; Interactive Multimedia '91 [Learning Technology Institute, 50 Culpepper Street, Warrenton, VA 22186; 800-457-6812]

August 21-24 Dearborn, MI; American Association for State and Local History Annual Meeting "Working Together: Partnerships and Collaborations for the '90s" [AASLH, 172 Second Ave. North, Suite 202, Nashville, TN 37201]

September 3-6 Canterbury, England; Museum Documentation Association, 1991 Conference "European Museum Documentation Strategies and Standards" [MDA, 347 Cherry Hinton Road, Cambridge CB1 4DH, UK; 223-242-848]

September 4-5 Crystal City, VA; Electronic Democracy Conference [EDC, 1831 V Street, Sacramento, CA 95818; 916-443-7133]

October 7-10 Vail, CO; "Our National Parks: Challenges and Strategies for the 21st Century" [US Dept. of the Interior, National Park Service, Employee Development Division - DSC, 12795 W. Alameda Pkwy, PO Box 25287, Denver, CO 80225-0287]

October 14-16 Pittsburgh, PA International Conference on Hypermedia and Interactivity in Museums [Archives and Museum Informatics, 5501 Walnut Street, Suite 203, Pittsburgh, PA 15232-2311; 412-683-9775]

Impact of Electronic Records on Archival Theory

A small invitational meeting of international specialists on archives and information technology was held at the University of Macerata (Italy), May 13-17. The focus of the discussions of the four North American and four European "specialists" on the impact which new information technologies might have on archival theory and practice. Not surprisingly, the meeting was at least as interesting for what it revealed about differences between European and North American perspectives as for the contributions it may make to approaches to the management of electronic records.

The meeting was hosted in a grand style by Prof. Oddo Bucci of the University degli Studi Macerata. For a full week, participants were wined, dined, coddled and showered with presents, and although they worked hard each morning and afternoon, were left with more memories of incredible hospitality and the marvelous riches of the museums, galleries, and archives of the region than of the work sessions themselves. Nevertheless, the group, led by Charles Dollar of the U.S. National Archives, came to substantial consensus on issues ranging from the trends in information technology to the practice of archivists.

The opening day of the meeting revealed a fundamental difference between what the Europeans and North Americans considered archives: the Europeans distinguished between archives as evidence of organizations pursuing their legal obligations and documentation, or information gathered for use by the organization to support its work. Cynthia Durance of the National Archives of Canada noted that both types of materials are accessioned as archives in North America. Nonetheless, the participants agreed it was most fruitful to focus on records in the European sense, especially as they were able to arrive after several hours of discussion at the definition of records which was proposed by me and adopted by the United Nations ACCIS report, Policy on Guidelines for Management of Electronic Records (1990). By this definition, records are "communicated transactions," and the focus of management practice with respect to archives becomes intervention in electronic application systems to assure the capture of such records.

During the course of the first day of discussion the group explored broad trends in information technology, such as the exponential decreases in storage cost and increases in computing capability available at a fixed expense, the trend towards decreasing size of software code embodying "intelligence" (from system, to procedure, to routine, to intelligent data objects), and the merger of computing and telecommunications. In these trends the group identified some significant archival implications:

- cheaper storage would effectively eliminate the cost of storage media in themselves as considerations in the keeping of records.

- ever cheaper processing power will assure the universality of computers as the sources of information, and along with the marriage of computing and telecommunications, will reduce the dependence of work on the place of work and the physical relationship between the location of records and the locations of their use

- smaller units of code and increasing use of modularity and "layered" software architecture will increase the distance between the users mental model of the system and the way the system actually works and will provide means by which archivists can effectively intervene in systems.

On the second day of the meeting the discussion was designed to address the concepts of "original record," "original order," and "provenance." Peter Horsmann of the Dutch Rijksachief expressed the widely held European perspective that "originality" of records is not an issue of concern to archivists whose only concern is with authenticity (e.g. authentic records in an outgoing correspondence file will not be originals). Luciana Duranti (Univ. of British Columbia) attempted to bring the two ideas into harmony by emphasizing that original only refers to the first "effective" communication and that authenticity was a concern of legal systems rather than archives, which are concerned with what is genuine. In the end the group agreed that no principles relating to "original" records were held by archivists and that our collective attention should be drawn to the "record," not the "original."

In the discussion of original order, a number of interesting issues were revealed. Because of the registry tradition in Europe, archivists there immediately identified original order as the order imposed on records by the information management function of an organization. While North Americans had no problem with that formulation, they stumbled over what Christoph Graf (National Archivist of Switzerland) constantly equated with it - the necessary existence of a "reference code." Because the concept of a reference code, or classification, was so basic to the rest of the discussion, it deserves a fuller exploration.

Graf, Horsmann, Jean Pieyns of the Belgian National Archives, and the Italian participants all took for granted that records must be classified in order to be managed during their active life. They equated having a "reference code" with knowing the provenance, which is to say the function or competency which generated the records. They also regarded knowledge of reference codes by the creators and users as essential, and [as Bruna Colarossi of the Italian Ministry of Culture put it], were suspicious of software assigned reference codes because the organization would "lose its respect" for classification. However it might be indicated, it was evident that provenance was, to the European archivists, more clearly associated with systematic representation of the roles of creating context than it was with organization.

This distinction became even clearer in the subsequent discussion of provenance. Provenance, Cynthia Durance noted, had meanings associated with the context of creation, use, custody, and control and each of these could be different. I urged that these contexts of creation, which were business applications, be made explicit to users by intervening in design and implementation of systems with a user interface that enforces the mental model of the business tasks and by linking retention to the context of creation.

All participants agreed that the principle of provenance, which derives from the fact that records document the activity by which they were created and the activity by which they were maintained for the creator, was the central archival principle from which all practices derived. Luciana Duranti, who stressed that nothing has changed in this respect as a consequence of electronic environments, presented historical precedents for dynamic documents and for the archival creation of a record when none would otherwise have been created. The "dynamic" mail merge document which consists of a form letter and variables from a database corresponds to the largely blank pages of notarial records of the Renaissance in which the notary recorded the names of persons and the matter and folded up the corner of the record over these variable data; later, if a record was required, the whole would be written out from the variable data and a formulary. The archival creation of a record corresponds to the medieval practice of creating an archival act to correspond to the historical fact.

Questions arose regarding the status of cooperatively maintained databases of multiple provenance, and it was generally agreed that different views of such databases could have created records in each user agency, but that 1) such records might not be created unless designers were aware of the need for evidence and 2) that the possibility of these views would be recorded in metadata. Adriana Valente of the Consiglio Nazionale delle Ricerche in Rome suggested that we needed to address how metadata systems could contribute to archival administration, particularly what metadata must be recorded in order to adequately define the records creating systems context.

By the third day the discussion turned to appraisal and custody, and description and reference. In the morning Jean Pieyn emphasized the criticality of the "reference code" appraised in the European tradition. Maria Pia Mariani of the Italian Ministry of Culture was alone among the Europeans in even believing that one could appraise at all without such a code, or link to creating function. North American participants saw the issue in terms of capturing information about the context of creation, but their point was the same: in electronic systems we are appraising activity rather than records.

There was considerable dispute about whether appraisal needed to be ongoing (continuous) or only take place once. Although the group failed to reach a consensus because of terminological differences, I believe that as a practical matter all agreed that in the first decades after records are created numerous decisions about migration of software functionality and fixation of records without such functionality would have to be made by creating organizations, records managers/registry offices, and archivists. As a consequence, the central appraisal issue becomes how much data of a contextual character needs to be retained and how much of the original processing functionality can be maintained.

In this respect, a difference of emphasis emerged between myself and Christoph Graf. Graf felt that creating agencies could not be made to keep records and functionality and that we would therefore be obliged as a matter of practice to save software independent representations of records. I continue to stress the importance of control over that of custody and to assume that over the next 10-20 years we will save most records in the creating agency environment through regulation and intervention in systems requirement definition. In the end, we and other participants seemed to agree that many routine records would have acceptable software independent "document-like" representations that could be held centrally or be decentralized, but that many more complex software environments would lose significant contextual meaning if removed to software independent structures today. Everyone agreed that in any case no archival principle of "central archives" exists except as a pragmatic and/or political formulation within one nation.

Cynthia Durance presented the archival principles in description that were recently adopted by an ad hoc committee of the ICA, which include top down description from Fonds to File where the Fonds is a logical construct relating to provenance and the File is a physical thing. Between these are the level of series which has both logical and physical properties. Bruna Colarossi noted the distinction between the a priori work of descriptive classification and the a posteri work of preparing an inventory and it was generally agreed that the "subject" of the fonds was a functional classification. The discussion of specific data elements of descriptions reached agreement only on two points: that the Information Resource Directory System (IRDS) should be the implementation environment for an archival description system, and that we need to study the functions of archives and the needs of users to define the data that should be contained in such systems. For electronic records the advantages of being able to "acquire" metadata, rather than engaging in a posteri description was not simply a convenience, but a necessity for control.

There was little difficulty reaching agreement that in reference servicing that remote access was increasingly going to be desired and that users needed to be informed about the records from which information they desired was being provided so as to make appropriate use of the data. It was also agreed that tools provided for reference would not be derived from the original functionality, but rather provided from a toolset appropriate to information retrieval and analysis at the time of use. Considerable time was spent discussing privacy and security concerns,

but no new concepts or consensus emerged that I could see.

On the final morning of the meeting, I introduced a discussion of preservation, which led to agreement that our concerns with preservation of electronic records shift from the physical to the logical around the three criteria of readability, usability and accessibility. Because media will last longer than our ability to read them, we will need to continue to convert electronic media. Because data will last longer than the software giving it meaning, we will need to do software migrations, and because information will last longer than the platforms on which it will be accessed, we will need to regularly upgrade our information delivery systems. The discussion turned on the role of standards in these three conversions and it was generally agreed that business requirements would assure adequate media and information delivery standards contributing to interoperability (which we felt we could do little to hasten) and contextual data capture and interchange (where we felt we had an opportunity).

The contextual data opportunities we discussed included X.500, SGML/ODA/ODIF, and IRDS. We agreed that concrete statements of archival requirements for electronic communication envelope data (X.500) and structured declarations of content (SGML/ODA/ODIF etc.) were critical if we were to influence these already mature standards. Much of the discussion turned on how to monitor evolving standards so as to contribute archival requirements at an early stage of definition of emerging standards proposals.

At the conclusion of the meeting the participants discussed how Charles Dollar, whose issues paper had helped to frame the discussions, would revise his paper to reflect the conclusions of the group and underlined a few concluding themes on which there was such general agreement that they had been left largely unsaid, including that archivists must intervene in the design of business applications and that failure to do so to date means that the records for the past 20 years are, for practical purposes, lost. Rather than expend effort on these records, which in any case have had less evidential value than paper records of the period, we need to develop methods, particular to our own political contexts, to seize the initiative in the future. Everyone concurred that the best opportunity was to work with the natural information policy agency in this effort, focusing on systems development and implementation policy and metadata.

Dollars' report will be drafted in time for the September meeting of the ICA Current Records Committee and discussed again at the October meeting of the ICA ADP Committee. A final version will be submitted to the University of Macerata for publication, in English and Italian, hopefully by the middle of 1992.

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Digital Image Rights II

A second session of an informal group of museums concerned with digital image rights was held during the AAM meetings in Denver. Participants included David Bearman (Archives & Museum Informatics), Susannah Fabing (National Gallery of Art), Katherine Lee (now Director of Virginia Museum of Fine Arts), Kent Lydecker (Metropolitan Museum of Art), Alan Newman (Art Institute of Chicago), Alan Tucker (Research Libraries Group). The agenda was a discussion of legal issues, a discussion of current projects, and a discussion of future cooperation.

Introducing the legal discussion, I presented the text of a draft contract for image rights developed by Brian Kahin (Harvard University) for the Electric Book Company and Archives & Museum Informatics. The purpose of the contract is to serve as a model for rights holders to use in negotiations with potential licensees of image rights and to alert those involved in such negotiations to the kinds of protections they should seek. Numerous suggestions were made about how to expand and improve on the draft. The draft model agreement, and some notes on its application are reprinted below for use and comment. It is undergoing revision and other model agreements for purposes other than one time use of images in published software packages are likely to be developed, so it would be smart to inquire about the latest drafts if you are planning to incorporate some of this into any actual contacts.

A round robin of the participants revealed a large number of digital imaging and high-definition television projects underway. One on one negotiations with NHK, Interactive Home Systems, IBM, Sanyo and others were discussed confidentially. It was agreed that such discussions, involving "large rights", or rights of a quantity that warranted bartering, were the province of individual museums, but that while the market for digital imagery for multimedia products was currently seriously hampered by the absence of any means of procuring "small" rights, or those rights for which it was uneconomical to negotiate one on one with each rights holder.

In this respect, we agreed museums were in substantially the same position as photographers. We saw a need for a consortium that could provide image catalogs of images available for licensing and which could administer royalty payments for use of such images in software products. Alan Tucker was asked if the Research Libraries Group could serve as a means for disseminating such a catalog and administering licensing fees and if it would be willing sponsor a meeting at which this need of the community could be discussed, and he agreed to look into it. The Electric Book Company might also be interested in representing museums in the same way that it will represent photographers. Over the next several months both options will be explored further.

D.B.

Model Agreement for Owners of Images Licensing to Multimedia Producers

This agreement is entered between _____, Owner of the images described on Schedule A, and _____, Producer.

1. Owner licenses to Producer the images described on Schedule A on a non-exclusive basis for reproduction as an integral part of the software product described on Schedule B for public distribution within the United States. [Original transparencies are delivered with this agreement and shall be returned insured to the Owner within 30 days. The value of each original transparency is $_____, which shall be payable as liquidated damages in the event of loss or damage. Producer shall be fully responsible for the transparencies until they are received by the Owner, and Producer agrees to maintain adequate insurance for loss or damage at all times.]

2. Reproduction of the images within the product is limited to a single digital image of _____ resolution, which may be displayed in the same or lesser resolution. The image shall not be cropped more than ___% or otherwise altered without the Owner's permission. Permission is not required for minor color correction or the removal of technical defects, if both the original digitized image and the corrected image are delivered to _____.

3. Upon execution of this agreement, the owner shall be paid $____ for an initial pressing of _____ copies of the product. Additional copies after the initial pressing shall generate royalties of $____ each, payable upon pressing. Photographer must be informed in writing at least five days in advance of each additional; pressing.

4. The producer agrees to encode the digital images using the procedure and label described in Schedule C to facilitate identification of unauthorized copies.

5. Producer agrees to provide the owner with a copy of each encoded digital image promptly upon scanning and of each encoded image promptly upon encoding. These images shall be provided in a ___-format file on _____ media. Producer also agrees to provide owner with ___ copies of the final product within 10 days of pressing.

6. The product shall be designed so that the digital images are accessible only as a screen display and not as individual files. Specifically, it should not be possible to print out, copy, or otherwise extract the images in the normal course of using the product. The product shall bear a copyright notice and a legend containing language substantially as follows:

This multimedia product and its contents are protected under copyright law. The following are prohibited by law:

-- any public performance or public display, including the transmission of any image over a network;

-- the preparation of any derivative work, including the extraction, in whole or in part, of any images;

-- any rental, lease, or lending of the program is prohibited.

This notice and legend shall appear prominently on the outer package (in plain view of the purchaser), the front page of the documentation, the optical or magnetic media, and the opening screen of the program. If the product is licensed to end-user or distributed with shrink-wrap licenses, the above language shall be included prominently in the license. No advertising shall represent or suggest that any rights under copyright are licensed to the user or that the product may be used in violation of such rights.

7. This license is effective until _____; thereafter, it may be renewed annually upon payment of _____, at least 30 days prior to the date of expiration. Expiration shall not affect the Producer's right to distribute copies pressed prior to the expiration date, provided the royalty on any undistributed copies has been paid within 10 days of pressing and prior to the date of expiration.

8. The image shall be identified as the property of the Owner with a copyright notice and the dates set forth in Schedule A. This notice shall appear in documentation accompanying the product and at least once in the text accompanying, referencing, or indexing the image. [In addition, information about each image as set forth in Schedule A shall be included in text accompanying, referencing, or indexing the image.] Any text linked to the image shall not misrepresent the subject matter, origin, authorship, or ownership of the image.

9. the name, address, and telephone number of the [Owner/] Owner's licensing agent are :

This information, together with instructions to contact the [Owner/]agent concerning any licensing of the Owner's images, shall be included in the documentation or readily locatable within the product itself.' [The agent is authorized to act on behalf of the Owner in all matters under this agreement.]

10. The Producer's reputation and skills are an essential inducement to the Owner's entry into this agreement. hence this agreement is personal to the Producer and may not be assigned without the express written permission of the Owner. The finished product may be distributed through a third--party publisher or distributor, but the Producer shall be responsible for ensuring that the publisher and all distributors are bound to all relevant terms of this agreement.

11. The Producer and Owner agree to promptly notify each other of infringements of the product or of the images as embodied in the product as such infringements come to their attention. They further agree to advise and cooperate in a timely manner concerning any litigation resulting from such infringements.

[BOILERPLATE: inspection of books; severability clause; governing law; arbitration; integration clause; amendments to be in writing; limitation of waivers; binding of heirs and assigns; etc.]

_____

_____ Owner (date)

Producer (date)

[by:_____

by:_____ Agent]

(title)

Notes on the "Model Agreement"

This model agreement is designed to help photographers (and other image owners) understand issues involved in licensing images for publication in digital form. It is a nonexclusive license which transfers the right to make a specified number of copies of the images for a single multimedia product for the consumer market. It includes safeguards to protect the images from alteration and reuse by others.

The provisions in the model agreement are designed to provide a negotiating position for the photographer rather than a reflection of the marketplace realities. Naturally, the photographer's ability to secure such terms depends on his or her bargaining power. If the product consists entirely of the photographer's work, he or she is in a powerful bargaining position. On the other hand, if the product is a multimedia encyclopedia, in which much of the value is in the text and for which thousands of stock images are used to illustrate the text, each individual photographer will have relatively little bargaining power. Even so, the model agreement can serve as a reference point to help clarify what rights are being bargained away.

One feature of the model agreement, the keying of royalties to copies made rather than copies sold, is a radical departure from present publishing practices and is certain to be resisted by producers. However, it reflects the principle that each copy produced is an exercise of the photographer's reproduction right, and it lessens the need to monitor the publisher's accounts. Putting the risk of unsold copies squarely on the publisher is most appropriate when the publisher creates or assembles most of value and least appropriate when the photographer creates most of value.

Rights Under Copyright

The photographer has four exclusive rights under copyright law: the right to reproduce the work, the right to prepare derivative works, the right to distribute copiers to the public, and the right of public display. The first three are involved in the agreement with the producer: The Producer is granted the right to make a certain number of copies; these copies may actually be derivative works inasmuch as they are digitization of the original photograph and may be cropped or color-corrected; and these files may be distributed to the public within the U.S as part of the described multimedia product. Since the agreement says and implies noting about the public display right, the producer gets no public display rights.

The model agreement assumes that the product is going to be sold in commerce - i.e., that it is intended for a mass market, so that licensing arrangements between a publisher or distributor and the consumer will be impractical or ineffective. This means that the consumer owns the copy but gets nothing more - no special rights, but no special obligations either. In particular, the consumer gets none of the right to make copies or prepare derivative works that the producer gets.

"Shrink-wrap licenses" are use by software publishers to try to create a contractual relationship with consumers, but most legal commentators are skeptical that such licenses are of more than psychological value. The same is true of restrictive notices such as "for home use only," which operate only to reinforce protection already provided by copyright. Nonetheless, if such licenses or notices are used, they should advertise the rights of the photographer as well as other rights holders.

Rentals

If the multimedia product is merely a database, it can be resold, rented, or loaned by anyone - just like videocassettes are rented by home video stores without requiring permission from the studio which owns the movie. However, if the product includes a computer program, it may be resold but it cannot be rented on a commercial basis without permission from the owner of the copyright in any and all computer programs contained in the product.

Since the model agreement provides that the photographer's images may not be accessible as independent files, there will necessarily be some computer program in the product which is needed to access and display the images. the presence of such a program means that rental of the product would normally be precluded, and the clause precluding distribution with rental rights ensures this. Note that as long as the photographer's images are securely embedded in the program, it can be argued that home copying of rented products would be very limited (much may depend on how storage technology evolves) and that multimedia rentals should be encouraged in order to stimulate the market.

Networks and Other Special Uses

Since no public display right is granted, the consumer normally has no right to mount the multimedia product for remote access (i.e., beyond "the place where the copy is located"). There is a special exemption for teaching purposes in educational institutions and governmental agencies that may permit such network use, but use for remote reference is clearly not permitted.

Libraries would be able to offer public access to the product on a single machine. They may be able to provide access to the product on a local network within the library if only one person can access the image (or the multimedia product) at a time.

Public display rights only came into being with the 1976 copyright. The long-established public performance right is broader but does not ordinarily apply to single images. However, there is likely to be a "public performance right" in the multimedia product, which can be used to preclude the library uses described above. Specifically, when images are displayed "in any sequence," there is a performance - which can only be done publicly with the permission of the copyright owner. Also, merely using a computer program may constitute a performance. Thus, the ordering of images and the computer program can be used to assert greater control over the images, but it may not be desirable to do so.

There is an explicit exemption to both the public display and public performance rights for use in the course of face-to-face instructional activities. Thus, the only way to prevent such use is to carefully license the product so that the licensee agrees that it will not be used in the classroom. However, if the product is sold outright to the general consumer market without effective licensing, there is no way to keep those copies from being used for classroom instruction.

Australian Society of Archivists

The Australian Society of Archivists meeting held in Sydney June 11-16 was attended by about 200 Australians and a handful of foreigners, including myself. As it was my first ASA meeting I was struck by the degree to which this community shares a number of professional assumptions which are different from those of U.S. archivists (they are Jenkinsonian's, and take Peter Scott's series oriented control for granted). At the same time, the conference made me aware that the ASA is facing many of the same disputes that trouble us: debates over the role of manuscript collections in the community of archives; disputes over the viability of the concept of documentation strategies; the need to develop description standards and frustration in defining tactics for electronic records management. It also reminded me, because the sessions were largely plenary and one could therefore attend almost all of them, that we archivists are dealing with a bewildering array of issues from permanent paper to electronic records and from manuscript collecting practices to information resource management without any coherent organizing principle.

The meeting was opened by the Governor-General of Australia, the Queen's representative who is an ex-politician and user of archives and who gave an astonishingly perceptive opening address on the implications of information technologies on archives (I suppose we unfairly assume that such ceremonial roles are going to be performed content-free).

I followed with a keynote entitled Documenting Society in which I returned to my essays on "Archival Methods" to examine an argument not stressed in the original publication which emphasizes the technical reasons why archivists could not continue to use the methods which they have hitherto employed: that is the philosophical arguments against continuing to do things the way we have. Specifically I noted that in selecting and acquiring records we should treat only evidence as archival or we would have to defend the indefensible position that we are better able to judge what records should survive than others are. I asserted that in retaining and preserving records we must think of retention only for continuing value or we jeopardized our position as managers by arguing to retain materials without current use. I argued that in describing and controlling we should control materials based on description of organizations and their functions in order to achieve management status within organizations. And I argued that in proving access to records we should be aggressive and proactive, if necessary demonstrating uses of our records in order to build the clientele for archival programs.

The following session on archives and national identity revealed a problem in Australia akin to our own problem with museums holding the remains of indigenous peoples: Australia's aborigines want to reclaim the archives relating to their heritage. The problem is that they want to physically reclaim the archives and that Australian archivists seem to be cowed and unable to, publicly, refute this claim with higher principles of archival ethics. Ironically, in protecting the records of the Australian government for reasons of accountability, archivists would be better serving the cause of aborigines than by denying access to these records of the disgraceful treatment of the aborigines by government policies extending well into the late twentieth century.

A brief session on the benefits of permanent paper was followed by a talk by Toni Bearman on archival education in the context of library, information science and information resources management education which reflected on the curriculum being developed at the University of Pennsylvania by Richard Cox and his colleagues.

The fifth session of the day was another paper by me entitled "Descriptive Standards Revisited" in which I reviewed the history of North American description standards efforts from NISTF and APPM through the Canadian and recent ICA working groups and argued that all of these efforts were essentially bottom up: they offered principles based on practice. These efforts all fall short of what we need because they fail to ask the question of what functions archival description is intended to support and how. The work currently being conducted on archival information architecture standards, which began as draft by Szary, Weir and myself, is examining the mission of archives and their functional requirements for information in order to produce a sound basis for description standards.

Dagmar Parer, Director of Development and Planning for the Australian Archives chaired the final session of the first day on access to and use of electronic records. She gave the audience a preview of draft Guidelines for Management of Electronic Records being prepared by the staff of the Australian Archives for proposal late in 1991. Among the interesting features of the guidelines were three models of how access might be provided: active access in which the archives holds the data and provides access, passive access in which the agency is required to provide access, and networked access in which the data resides in the agency but metadata is held by the archives and users access records through the metadata front end.

Charles King, Senior Advisor to the Information Exchange Steering Committee (IESC), Commonwealth of Australia which is a coordinating body with representation from all agencies of the national government, discussed the work of the Electronic Data Management (EDM) Sub-Committee charged with planning for the management of the paperless office, including managing electronic mail and archiving of documents. King recounted that when he first developed the rationale for the EDM sub-committee, information technology managers did not find it compelling even though they were aware of the rapid growth in their information holdings. The sub-committee only got off the ground because the Defense Department was interested. The terms of reference were to review and develop guidelines for electronic registry systems, indexing of documents, con-

trol of information flow in office systems, electronic mail housekeeping, interfacing of electronic and paper based document systems and to define the methods of creating, storing, retrieving, culling and archiving of electronic records that would assure continued accessibility. They restricted the scope to electronic documents, and are currently focussing on version control and the identification of corporate information. The full work-plan, to be issued in August, is based on ten principles for electronic data management including: authorship must be demonstrable, standards must be cost effective, documents storage must be format independent etc..

Roger Jones, Head of the Social Science Data Archives of the Australian National University followed with a paper on social science data archives in Australia which illustrated the extent to which FOIA legislation and the existence of a research community that demands access to government funded social science data has been a factor in the U.S.. In Australia these factors have been absent and most social science data developed by government has been lost through inadvertence or purposeful destruction. Mr. Jones argued, but without swaying his Jenkinsonian audience, that data archives should be the province of archivists and that they should do more to assure that such databases are retained.

The second day of the meeting was devoted to special interest groups on school archives, university and college archives, business archives, local government, performing art, religious archives, archives of science, technology and medicine, and government archives, each meeting for half a day.

On the final day of the conference the first session was devoted to influencing the legislative process. While the process itself is somewhat different in Australia, the issues certainly are familiar. Chris Coggin (Director of the State Archives of Western Australia and ASA President) opened the session with a review of his efforts to get new legislation for the State Archives, a process which began with audits in 1988, consultation with the legislative branch in 1989, and is temporarily on hold because of a change in government. The functions and authorities he is seeking are essentially those that would be sought by state archives in the U.S. Commentators made observations from their experiences that it is usually easier to make changes in legislation by introducing small clauses in other acts, and that the real problems continue to be making public officials aware of their obligations, not having adequate authority. There was discussion of the placement of the archives in the bureaucracy and the desirability of legislation requiring qualified archivists and only qualified archivists to be involved in disposition. All of which seemed painfully familiar.

The next sessions were parallel and I attended "Documenting the AIDS Crisis" rather than "Making Archives More User Friendly" because I was interested in seeing whether the Australians, with their Jenkinsonian orientation, were better at dealing with demands for documentation strategies than Americans. John Ballard, a sociologist at the Australian National University related how he had been documenting the AIDS crisis using largely ephemeral publications and oral sources and few public records. Janet Foster of the London School of Hygiene and Tropical Medicine recounted the UK efforts to document who is collecting what about the crisis. Pleas were made for more and more coordinated collecting. But I found that Australian archivists haven't any answers to documentation strategies either.

So when the next sessions presented a choice between "Documenting the Greens" and "Acquiring and Exploiting Resources", I chose the latter. And here again, I found themes from North America, including much direct citation of the Levy Report. Norelle Crux, Corporate Archivist of BHP argued forcefully that the archives must serve business needs and must stress its role in support of the organization over vague cultural benefits. She recommended aggressive, proactive information delivery based on looking for needs the organization has for information from the archives and making the archives indispensable. And she suggested that positioning within the organization was less significant than achievement in determining funding.

Margaret Coffey, a "resource-allocator" also referred to the Levy Report and urged archivists to pay attention to the organizational budget cycle, use the language of the organization in presenting their case for support, put their needs in priority order, demonstrate good management of past budgets, and to use quantitative measures.

In the final session of the conference, Toni Bearman and I spoke on the future of archives, raising themes of constituency support and converging professions. Commentators Chris Hurley and Barbara Reed reiterated many of our points in an Australian context, with Hurley emphasizing that money was not the problem, but rather that the problems were political in the sense of achieving societal and institutional support for our mission and Reed noting that we shared with other converging information professions an orientation towards continuing value of records, a need to manage electronic records from the design stage, and emphasis on the current user and a need to hone our retrieval strategies and tools. Reed emphasized the special skills of archivists in the intellectual control of organizational function and provenance and in identifying the evidence of actions.

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ASIS Midyear Conference on Multimedia Information Systems April 26-29, 1991

This small informal conference attracted 200 mostly ASIS members to report to each other largely on practical exploratory applications they are making of multimedia systems. As such it revealed the yet unresolved problems facing multimedia systems implementors. It was a meeting at which people who were trying to integrate multi-

media systems spoke freely with other people who were usually equally knowledgeable.

The conference opened with a session devoted to museum applications, at which I spoke to the potential value for multimedia designers of the knowledge gained in decades of museum exhibit design experience and of the importance to museums not to lose sight of the fact that multimedia elements must be integrated into the museum exhibit design experience in order to work. At the same session, Judi Moline of the National Institute of Science and Technology presented a model for multimedia systems architecture based on an analysis of the current and projected state of standards, which was designed to accommodate long term data migration requirements. I consider it a very important piece of work for museum information professionals and recommend reading it when it appears in the conference proceedings this fall. The model makes explicit recommendations with practical consequences for the application platform and external environmental interfaces of any museum system.

The way the conference was scheduled, the second session each day was a plenary. In the first such plenary Horace Flatt of IBM Science Center in Palo Alto spoke about the use of image processing techniques to enhance the information content of images (as in the IBM sponsored analysis of the Mona Lisa) and further conservation objectives as in the IBM sponsored Archives of the Andes project in Seville. His enthusiasm for ubiquitous scanning was accompanied by optimism about vastly increased speeds of data transmission and dramatically reduced data storage costs in the very near future.

Subsequent sessions on day one included presentations on digital image and sound capture technologies and trade-offs, developments in information standards for archives and museums, and copyright. The capture session conveyed the importance of making appropriate decisions about data quality up front. The standards session reported in SGML and the work of Text Encoding Initiative, the Committee on Computer Interchange of Museum Information (CIMI), and the RLG Project to develop an archives and museums workstation. The copyright session featured a lawyerly discussion of multimedia copyright issues by Mark Ratcliffe of Ware and Freidrich, and a more impassioned plea by video artists Connie Coleman and Alan Powell to permit them to use existing images to make artistic statements. Unfortunately, the discussion following the presentations did much to clarify the issues.

On the second day, I attended sessions largely devoted to using the latest tools to create multimedia. From Steve Cisler's (Apple) plenary talk through numerous sessions, I was urged to explore how to take the wealth of new authoring tools to make "recombinant multimedia," always with asides to copyright issues. For me the single most valuable session of the conference, however, was a presentation by Carl Brown of the High Tech Center for the Disabled. Brown's talk addressed "assertive technology," or tools to help the disabled (and to help us all) make use of computers. He focused entirely on software rather than expensive hardware gimmicks and in low cost solutions and emphasized how research at the California High Tech Center has employed a tool box approach, with additive components, and emphasized ease of learning in its designs.

Brown noted that the Americans with Disabilities Act and the amendments to section 504 of the Rehabilitation Act 1973 (new section 508) establish guidelines for what accessibility to technology requires. Brown's Center focuses on providing systems with capabilities for large print display, read back by voice, voice controlled and body controlled interaction as well as other aids to use. What I didn't know is how extraordinarily successful these efforts have been. All Macintosh computers have a built in utility called CloseView which enlarges everything on the screen 2-10 times. A similar facility called VISTA is available for PC systems. All Hypercard systems also have a utility called EasyAccess which provides for interface alternatives to the mouse including keyboard, trackball, an "on-mouse" tablet that responds to finger movements to substitute for painting. The same utilities are, again, available for PC's. Brown described other low cost software options such as "OutSpoken," which provides audio prompts for all text prompts, and "Dragon Dictate," which turns discontinuous speech into ASCII at a speed as fast as 30-40 words per minute. People with disabilities are able to carry their own interfaces around on floppy discs to allow them to interact with many PC's and work is now underway to contract a terminal interface device which would enable a smart interface to dumb terminal environments. Brown had so much to offer that his best advice may have been to provide his audience with information about two important resources:

- A University of Wisconsin CD-ROM entitled **Hyper Able Data** containing 65-70,000 references
- His own 450 page book: **Computer Access in Higher Education for People with Disabilities**

The final session of the second day illustrated for me what is still wrong with our professional discourse about multimedia - it's too breathless. Somehow we need to stop being impressed by the products we work with (as well as those we create). We should require ourselves to have experience with several tools before we create against a set of objective defined at the time of project initiation. Thomas Krens of the Getty Museum displayed a video disc with a relative rudimentary interface of three menu options, two levels deep, and NTSC quality images that was intended to enhance visitor appreciation for illuminated manuscripts. It was overwhelmingly obvious that NTSC quality was not really adequate for the purpose and that budget decisions rather than intellectual rationale dictated how much to capture. But neither Krens nor others said so. Ching-Chih Chen from Simmons College raced through a description of dozens of significant decisions made over the course of the last five years on the Emperor of China videodisc and courseware tools, but spent the bulk of her time describing what the project was about to do with MAC, PC, and DOC toolsets rather than reporting critically on the suitability of particular tools for their specific purposes.

IN-BOX

REFERENCE

CD-ROM Marketplace 1991: An International Guide (Westport CT, Meckler, 1991. $30.

This work consists of 110 pages listing about 1000 publishers and distributors of CD-ROM's and three indexes (subject, geographical and personal name) to the publisher entries. About 25% of the entries describe the company product line; the remainder provide simply addresses, the name of a contact person, and (occasionally) titles of known CD's. The number and range of publishers is interesting, but the basic value of the title is as a phone directory.

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M. Stuart Lynn and the Technology Assessment Advisory Committee to the Commission on Preservation and Access, **Preservation and Access Technology: The Relationship between Digital and other Media Conversion Processes. A Structured Glossary of Technical Terms,** *Information Technology and Libraries* vol.9 (4) December 1990 p.309-336

Despite the title, the "structured glossary" is a sort of tutorial organized around the original document, the selection process, and the preservation copy which discusses each as terms are defined. I think it will be useful to managers faced with data conversion decisions.

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REPORTS

Association for Image and Information Management, **Technical Report #25 Optical Disks for Public Records,** 1990 33p (AIIM, 1100 Wayne Ave., Suite 1100, Silver Spring, MD 20910).

This report addresses the issues raised by the optical storage of raster images of public records including indexing, quality assurance, expungement, legal and access issues. It addresses standards, contains a basic bibliography and can serve as an authoritative primer and as a basic reference work.

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Australian Council of Archives and Australian Society of Archivists Inc., **Keeping Data: Papers from a workshop on Appraising Computer-Based Records,** Barbara Reed and David Roberts eds. (Sydney, ACA/ASA, 1991) 122p.

Judging by the papers, this October 1990 workshop was an exceptionally stimulating experience. After three papers on the nature of computers and software, Anne Picot addresses the "Computer System in its Context" and makes it clear that appraisal is based on organizational function and that the archival document is a transaction. Lindy Saul follows with an introduction to top down functional decomposition and the methodologies of systems planning that are critical to identifying those information systems of mission significance to the organization. Six authors then presented case studies which illuminate how these methods fare when applied in specific public and private organizations. In conclusion, Frank Upward, Michael Saclier and Glenda Acland offer their "reflections".

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Library of Congress, **Networks for Networkers II Conference: A Synthesis of Conference Papers and a summary of Conference Resolutions prepared for delegates to the 19912 White House Conference on Library and Information Services,** Barbara Evans Markuson editor (Washington DC, Library of Congress, March 1991) 30p.

This brief summary of papers by Ken Dowlin, Brian Kahin and Lewis Branscomb, Peter Lyman, Clifford Lynch, Barbara Evans Markuson, Nina Matheson, Howard McGinn, Douglas Van Houweling and Fred Weingarten which were presented at the second Networks for Networkers conference (the first held in 1979 prior to the first White House Conference on Libraries and Information Services) reflects a shift in emphasis from attention to mere connectivity between libraries to serious attention to the use of networks and the importance of access for scholarly research and citizens rights. A series of resolutions reflecting these concerns and the need for a National Research Education Network (NREN) are included. The full papers are scheduled for publication this fall.

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National Archives and Records Administration, **Experts Systems Technology and its Implications for Archives** by Avra Michelson (National Archives Technical Information Paper #9, March 1991) 41p.

This brief report provides a lay overview of the nature of expert systems and an account of their current use in the Federal government and in archives and libraries. It concludes that expert systems have implications for archives because they could be used to better manage archives, because archives will need to appraise them, and because researchers will use them. In my view it fails to stress adequately the significance of the appraisal issue because it tends to see expert systems as isolated things rather than examining the trend towards more intelligence embedded throughout systems. As a consequence it under-emphasizes the importance to archivists, especially government archivists, of documenting software code which purports to reflect policy, procedures and regulations, and which does in fact shape the way these are administered.

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Research Libraries Group Inc.: **Computer Files and the Research Library**, Constance C. Gould editor, with articles by Margaret Johnson, Anita Lowry, Lynn Marko and Katherine Chiang, (Mountain View CA, Research Libraries Group, 1990) 59pp.

This report includes an account of a workshop on machine-readable data files in research libraries held in the fall of 1989, papers on collections development and files selection, the reference service implications of textual files, bibliographic description guidelines and training issues, and brief project reports from six university libraries.

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Research Libraries Group Inc., **Information Needs in the Sciences: An Assessment by Constance Gould and Karla Pearce**, (Mountain View CA, Research Libraries Group, 1991).

This, the third of a series of reports (prior reports covered the humanities and social sciences) addresses the information needs expressed by scientists assessing the frontiers of their disciplines. Physicists emphasized needs for current awareness services and networking facilities; chemists focussed on these needs but extended them to the patent as well as the serial literature and to publishing networks as well as electronic mail. Biologists were concerned about the need for data standards to describe biological specimens, including databases of museum holdings, and about the need to collect data regarding such biologically critical issues as genetic change and ecological history. Geoscientists noted the increasing dependence in their field on data collected by others and the importance of geographic information systems to the retrieval and analysis of such data. Astronomers were particularly concerned with establishing intellectual control over the large numbers of electronic data sets of relevance to their research. Engineers, mathematicians and computer scientists stressed access to data, especially to reference data and literature in foreign languages. All the disciplines agreed on the need to preserve the older literature of their fields, and possibly to concert it to electronic formats. The report, like the previous two reports in this series, is also useful to understand the changing nature of research in academia and the ways in which information technology is shaping particular disciplines.

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ARTICLES & BOOKS

Esther Green Bierbaum, **"MARC in Museums: Applicability of the Revised Visual Materials Format."** *Information Technology and Libraries*, vol.9 (4), December 1990 p.291-299.

The author asks whether the MARC VM format meets museum requirements (presumably for object control not for visual materials cataloging). She identifies 15 data elements which she believes are critical and finds 6 in VM. She then conducts a sloppy survey in which 83% of he responding museums claim to exchange information on their holdings with other museums and 87% found MARC 245 (title) adequate for object name and proposes that with a modest amount of fiddling, MARC VM would be suitable for museum use. The question, the methodology and the premises of her conclusions all strike me as dubious.

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Timothy J. Heintz, **"Object-oriented databases and their impact on future database applications."** *Information & Management*, vol.20 (2), 1991 p.95-103

Explores a case in which neither relational databases nor expert systems were suitable but in which object-oriented databases solved the problems well, and argues that such environments will soon play a substantial role in business computing. The explanation will be useful to archivists, and if he is right, it will soon prove necessary for archivists to understand object oriented environments which, by embedding intelligence in data have significant implications for transactional accountability.

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Marian Hoy and Lorrainne Macknight, **National Database Cooperation: A Case Study,** *Archives and Manuscripts*, vol.18 #2 (November 1990) p.231-241

Reports on a successful four year project of the Australian War Memorial to incorporate series and item level information about its museum collections into two Australian Archives databases. Both databases are now publicly available.

□

Lars Kann-Rasmussen and Carsten Larsen, **Photography and Image Databases: Documentation project at the National Museum of Denmark,** *Archaeological Computing Newsletter*, issue 26 (March 1991) p.1-7.

Reports on the methods being employed to link 400,000 records to a growing image base of 150,000 photographs by constructing an interface between the database and 35mm camera's which includes the accession number with each photograph as it is taken and then transferring slides to videotape and from there to videodisc.

□

Craig Locatis, James Charehas and Richard Banvard, **Hypervideo,** *Educational Technology Research & Development*, vol.38 (2) p.41-49.

Discusses a set of techniques for incorporating video into hypermedia products based on research showing that traditional; linear video must be condensed, its pace accelerated, and be made redundant in order to work well in hypermedia. Identifies numerous issues in hypermedia design and suggests solutions to them.

□

Judi Moline, **Designing Multimedia Systems for Museum Objects and their Documentation** in *Proceedings of the ASIS 1991 Mid-Year Conference* (forthcoming).

If this were the only paper in the proceedings of the ASIS mid-year conference on Multimedia Information Systems the volume would still be on my mandatory reading list for anyone involved with selecting, designing or implementing such systems in museums. Ms. Moline presents a framework for understanding the layers of standards which impact on such systems over the long term and thereby provides a blueprint for sound management choices over the course of the system life.

☐

Kristine Morrissey, **Visitor Behavior and Interactive Video,** *Curator* vol.34 #2, June 1991, p.109-118.

This study notes that visitor time to exhibits increased significantly for non-user of the interactive video as well as for users when the video was present.

☐

Elizabeth Orna, **Practical Information Policies: How to Manage Information Flow in Organizations** (Brookfield Vt, Gower, 1990) $69.95.

This theoretical framework and the case studies it presents of concrete information policy formulation processes within a variety of organizations worldwide, makes an exceptionally valuable contribution to our understanding of the concept of information policies, the definition of organizational missions that support information policy choices, the management of an information audit which identifies policy lacuni and how to develop, implement and monitor such policies within an organization. The presentation is clear, and nicely illustrated by graphics and examples, and the case studies are revealing (sometimes revealing the limits of the method as well). Useful reading for managers of any organization and for archivists attempting to influence information management practices within the organization.

☐

Sanjay Ranade, **Mass Storage Technologies** (London, Meckler, 1991) $49.50

As computing systems with access to many thousand terabytes of data become commonplace in the 1990's, they will transform the way we think about information more dramatically than any developments to date. This book explains, in technical terms but in language accessible to lay people, the hardware and software technologies which will bring about this revolution. Its focus on systems integration, standards and management issues is valuable; anyone considering implementing large scale computing environments in the next several years would be well advised to read this book carefully.

☐

Donald Read, Caryl Masyr and Kurt Shinn, **Automating the Inventory Process,** *The Records & Retrieval Report*, vol.7 #4 April 1991, 16pp.

Reports on a laptop computer based inventorying process developed and used by Framework for Information Inc., a New York based consulting firm.

☐

Erik F. Stronmen and Glenda L Revelle," **Research in Interactive Technologies at the Children's Television Workshop,**" *Educational Technology Research & Development*, vol.38 (4) 1990.

Summarizes research at CTW on interface devices and design and the content and size of instructions, error messages, and content nodes in interactive products and contains a very interesting bibliography of prior work.

☐

Genine Amada Tillotson, "**Lessons from the Exhibit Floor,**" *Instruction Delivery Systems* May/June 1991 p33-38.

Suggests that more is usually less in the museum environment and argues against sensory overload, too many options, and captioning of video and discusses the need to script for many audiences and for audiences of many when working in the museum context.

☐

Nadine Walters," **Computerization in Research in the Visual Arts,**" *Art Documentation*, vol.10#1 (Spring 1991) p.3-12.

Surveys bibliographic and art reference databases in the visual arts and compares them tabularly.

☐

NEWSLETTERS AND JOURNALS

Archivi & Computer vol. 1 #1 1991 contains articles by Wendy Duff, Kent Haworth and Michael Cook in English and others in Italian which are abstracted in English. Cooks article, entitled "Towards International Archival Data Exchange: Description Standards" is interesting because it reveals that he 1) clearly distinguishes between MAD as rules for developing inventories in-house and MARC AMC as a format for interchange and 2) that he is making an effort to have the U.K. community adopt MARC for the latter purpose while holding to MAD for the former. (This is particularly noteworthy in light of Steven Hensen's review of MAD in this issue). Duff and Haworth present the official version of the RAD process and argue for its universality.

☐

Computers and Texts (ISSN 0963-1763) #1, May 1991 is the successor to Computers and Literature, reflecting the broadening of focus of the Computers in Teaching Initiative of the Office of Humanities Communication at Oxford University. The first issue ranges from notes of software packages and databases around the world to discussions of teaching using software intermediaries and tools and of research on the impact of computing on the humanities. (Oxford University Computing Service, 13 Banbury Rd., Oxford OX2 6NN, ENGLAND)

□

History News (ISSN 0363-7492) vol.46#4, July/August 1991 is devoted to information technology in museums. It provides brief reports on the Philadelphia Project of the AASLH Common Agenda initiative, the Canadian Heritage Information Network, the Committee on Computer Interchange of Museum Information, the Documentation Committee of the International Council of Museums and the U.K. Museum Documentation Association as well as project updates on bar-coding at the Biltmore House, the use of the AAT in museums, and automation at Missouri State Historic Sites, the California History Computerization Project and statewide local history data banking in Minnesota.

□

The Informaa Quarterly (ISSN 0816-200x) is the official journal of the Records Management Association of Australia (hence the double "a" in Informaa?). Archivists will find the distinction between them and records managers is less in evidence in Australia, for reasons which Frank Upward argues cogently in an important theoretical article entitled "Records Management and Record Keeping: The Archival Document" in volume 7 #2 (May 1991).

□

MPR News (ISSN 0939-3927), is a biannual publication of the International Council of Museums, Museum Public Relations Committee edited by Janet Solinger (Smithsonian Institution). Its first issue (fall 1990) is handsome and informative, and certainly worthy the $5.00 subscription annual price!

□

SPECTRA, (ISSN 1042-3729) the Newsletter of the Museum Computer Network, has taken on a new look with volume 18 under the editorship of Lynn Cox. Technical papers in the first issue include papers on prototyping (Robin Dowden), multimedia (Katherine Jones Garmil and V. Judson Harward), geographic information systems (Daniel Cole) and digital image rights (Nathan Benn). Can you afford to be without it? [5001 Baum Blvd., Pittsburgh, PA 15213]

□

EPHEMERA

Archives Library Information Center Bibliography # 5, Management of Electronic Records. compiled by Jeffrey Hartley, June 1991, 276 entries with name index.

□

A useful, but oddly incomplete bibliography, presumably reflecting the holdings of ALIC. It could be used in conjunction with that in the **Automated Records and Techniques in Archives: A Resource Guide** (SAA 1990), but would have been more useful if organized chronologically.

□

Australian Archives, When It's Gone, It's Gone: Keeping and disposing of information on office automation systems and personal computers. Popular pamphlet on electronic records housekeeping and the law.

□

World Bank, Information, Technology and Facilities Department, **ITF Staff papers 1-6** (July 1989-August 1990).

These six papers explore computing technology architecture, communications architecture, document management architecture, information management strategies and frameworks for the World Bank, and while they are not directly applicable to other institutions they exemplify the kind of strategic planning for technology utilization taking place in major organizations, and demonstrate how concerns for the record and archival documents can be introduced into such planning processes.

□

Mission de la Recherche et de la Technologie, Ministere de la Culture, de la Communication, et des Grandes Travaux, (Direction de l'Administration Generale, 3 rue de Valois, 75001 Paris) has published **Bases de Donnees & Banques d'Images,** a listing and brief description of data and image bases in archaeology, archives, art, cartography, conservation, cultural development, and ethnology and of descriptive systems and vocabularies which control these databases, and **Se Documenter...,** a listing of agencies and offices within the French government providing cultural information services.

□

Mark F. Radcliffe, **Issues of Intellectual Property Rights in the Multimedia Environment** (Ware & Freidenrich, 400 Hamilton Ave., Palo Alto, CA 94301), presented at the ASIS Conference in April, is a clear and comprehensive statement of the legal issues surrounding copyright of multimedia.

□

National Association of Government Archives and Records Administrators, **A New Age: Electronic Information Systems, State Governments, and the Preservation of the Archival Record** (single copies free from Gaye Horton at 606-231-1887; multiples from Council of State Governments, Order Department, Iron Works Pike, P.O.Box 11910, Lexington KY 40578 at $1 each). The need for this pamphlet was recognized at a conference sponsored by NHPRC in 1990 at which NAGARA and NASIRE members talked past each other about cooperative strategies for electronic records management in state government. Drafted at the 1990 Pittsburgh Advanced Archival Institute, it includes a useful "checklist" of attributes of an acceptable program for preservation of archival electronic records.

□

Sue McKemmish and Frank H. Upward, **The Archival Document: Submission to the Inquiry into Australia as an Information Society, House of Representatives Standing Committee for Longterm Strategies**, Jan.1991, unpub. 13pp. (submitted for publication in Archives & Manuscripts).

This submission, intended to "convince the Inquiry to include the archival document and its effective management as a component of consideration within the National Information Policy" is the clearest statement of the nature of the archival document as the record of a transaction and the implications of electronic records for transactional accountability that I have ever read. It draws the same conclusions I drew in the UN ACCIS report but makes clearer the policy implications of these to the broader community.

Archives and Museum Informatics is a quarterly newsletter published by Archives & Museum Informatics, 5501 Walnut St., Suite 203, Pittsburgh PA 15232-2311; 412-683-9775, fax 412-683-7366. The newsletter is edited by David Bearman whose authorship may be presumed for all items not otherwise attributed.

Archives and Museum Informatics carries news, opinion and reports on information technologies, techniques and theories relevant to archives and museums. Submissions of press releases, publications for review, letters to the editor and articles are welcomed. Deadlines for submissions are the 15th of March, June, September and December.

Subscriptions are available on a calendar year basis at $80 for institutions, $40 for individuals (to home addresses by personal check only), with a surcharge of $5 for foreign postage. **Archives and Museum Informatics Technical Reports** are separately priced, and available by standing order (with a 10% pre-publication discount) or single purchase. Write to the office for a complete list of Technical Report titles.

NEWS

AVIADOR ON RLIN

The AVIADOR project to catalog 40,000 architectural drawings from the Avery Library at Columbia University on RLIN and produce a videodisc so that remote users can search the database and draw up images from copies of the videodisc is now completed. [RLG, 1200 Villa St., Mountain View CA 84041-1100; 415-962-9951]

□

FREE COURSES ON COMPUTERS AND HISTORY

The History Computerization Project of the Regional History Center of the University of Southern California and the Los Angeles City Historical Society is offering free training as part of its effort to construct a regional history information network. Courses involve hands on cataloging with an introduction to cataloging standards and the History Database computer program authored by David Clark. [History Computerization Project, 24851 Piuma Rd., Malibu CA 90265-3036]

□

RESEARCH IN HISTORY OF ART

The National Gallery of Art database, Sponsored Research in the History of Art, is now available online through RLIN as part of the Research in Progress Database [RLG, 1200 Villa St., Mountain View CA 84041-1100; 415-962-9951]

□

VIDEO RECORDS OF TRIALS

The Judicial Conference of the United States approved a three-year experiment which will permit cameras to be deployed by news organizations in two courts of appeal and six district courts in civil cases. The Federal Judicial Center will monitor the program and report recommendations in early 1994. Since 44 states already permit news media to tape judicial proceedings and some Federal courts have experimentally used video tape to take official records of court proceedings, the decision may seem of little import, but it moves us closer t\o the day when the multimedia record will be considered the official document of court proceedings since it captures much more accurately the nuance and the sense of the testimony than the written record ever could. It is worth noting that this record is "electronic" and recorded on magnetic tape!

□

ASIS/MCN JUXTAPOSE 1992 MEETINGS

The Museum Computer Network will begin its annual conference on the last day of the meeting of the American Society for Information Science and members of both organizations will have opportunities to participate in programs of the other in Pittsburgh October 26 - November 2, 1992. Paper proposals may be sent to:

ASIS - Dr. Julie Hurd, University of Illinois @ Chicago, 3500 Science & Engineering, Box 8198, Chicago, IL 60680

MCN - Lynn Cox, MCN, 5001 Baum Blvd., Pittsburgh PA 15213

□

RLG REORGANIZED

At its June meeting the Board of Governors of the Research Libraries Group adopted two membership categories effective September 1, 1991 - "general" and "special". This summer members will elect a new Board of Directors consisting of nine representatives from and by the general membership, three from and by the special members and two at-large directors selected by all members. New dues effective September 1, 1992 will be $25,000 for general members and $3000 for special members with a transitional year of fees at 50% of prior year fee and 50% of 1992 fee. These rates represent significant reductions for RLG's current governing members which means the corporation will need to offer services that generate new revenues. A commission has been formed to look into how RLIN can be improved to better meet the needs of RLG members. Negotiations with OCLC to support linking of RLIN and OCLC for cataloging have been suspended.

□

NHPRC ENDORSES REPORT ON ELECTRONIC RECORDS RESEARCH ISSUES

At its June 27 meeting, the National Historical Publications and Records Commission endorsed the recommendations of a report submitted to it by the Working Meeting on Research Issues in Electronic Records which identified 10 research priorities and several advocacy projects, advised the NHPRC to task a leadership role but to collaborate with other funding bodies, and suggested criteria by which to evaluate proposals. The staff of the Commission was instructed to produce a pamphlet describing the research priorities in more detail, providing examples of proposals and elaborating on the evaluation criteria in order to encourage the submission of proposals.

□

SOFTWARE

IMAGE II

Contec Data Systems Ltd. [3 Birmingham Dr., P.O.Box 8035, Christchurch NEW ZEALAND; (64)(3)338-0399; fax (64)(3) 338-3570] is beginning to market its IMAGE II software for libraries and information centers in North America. According to Contec, IMAGE II provides sophisticated functions for selective dissemination of information, a cataloging database with multiple authority files, multi-level security, serials control, acquisitions, circulation and patron record management, and communications, and can be acquired with optional image management and OCR input capability. IMAGE II runs on IBM PC's with 8MB of diskspace under Advanced Revelation 2.0 (a runtime version of which is included in the license).

□

CHEDD-ANGIER ACQUIRES DTI

Chedd-Angier Production Company [700 Coolidge Hill Rd., Watertown MA 02172; 617-926-8300, fax 617-926-2710] a firm founded by John Angier and Graham Chedd and known for its role in developing the Nova series for WGBH, has acquired the Educational Multimedia Division of Digital Techniques Inc. whose principals, Gabrielle Dockterman and Genine Tillotson are known for creating the Earth over Time videodisc of the Interactive Video Science Consortium (IVSC). Chedd-Angier is the contractor for the next IVSC product on Health and Medicine. IVSC is a non-profit consortium which now has twenty members [IVSC, 1025 Vermont Ave. NW Suite 500, Washington DC 20005-3516; 202-783-7200].

□

THESAURUS FOR RECORDS MANAGEMENT

Records, Archives and Information Management Pty has developed a computer assisted filing scheme called LOGIC for LOcal Government Information Classification which it sells as a software tool in Australia to assist records managers in appropriately naming, and automatically classifying for retention, the records of local government agencies. The idea is intriguing even if not directly applicable to organizations outside of Australia.

□

INTERACTIVE VIDEO WALL

GWF Associates [960 Holmdel Rd., Holmdel NJ 07733; 800-451-5041, fax 201-946-7783] have been demonstrating VideoMontage a trademarked multi-monitor systems that is interactive.

WILLOUGHBY ANNOUNCES NEW PRODUCTS

At the Willoughby Users Group (WUG) meeting held in conjunction with the annual conference of the AAM, Willoughby Associated Ltd. [66 Linden St., Winnetka IL 60093; 708-501-4540] announced a plethora of new products and enhancements to its Quixis and Mimsy softwares schedules for release in the coming year, a quarterly users group newsletter, and the networking project, Project Catalyst, described in the last issue. New Products will include: SNAP! an inexpensive turnkey system for beginners or remote sites to be available in September; Lex-O-Matic a terminology look-up system containing the Art & Architecture Thesaurus (and soon to include Nomenclature); Pop-Cat, an image browsing system to assist in cataloging; InfoTouch, a multimedia touchscreen information delivery kiosk.

MIMSY enhancements will include incorporating recent Oracle enhancements, a new menuing system, new fields, Add-On Module for item histories which helps users to document photography, publication and provenance history of items, and a renamed and enhanced inventory control and loans module.

QUIXIS enhancements will include a graphic user interface, digitized images, and on-line documentation.

□

OPTECH TURNS ITS MICROSCOPES ON ART

Optech International Ltd. [U.S. address: 321 North Front St., Wilmington NC 28401; 919-251-0669; fax 919-251-0778] whose user controlled high-power microscopes with screen displays are popular in science centers worldwide under the product names Bioscanner and Cyberscope, was demonstrating the versatility of their system at the AAM meeting by placing cultural objects on the microscope platform and displaying extraordinary detail of coins and other ancient artifacts.

□

POSEIDON ADDS CLIENTS

Poseidon Systems Inc. [1898 S. Flatiron Ct., Boulder CO 80301; 303-449-4999] has announced new contracts with the National Mining Museum (Leadville CO) and the St. Louis Science Center. Poseidon offers TouchSource, an interactive multimedia toolset, and customized development services to its nearly 200 clients including about 35 museums and parks.

□

IMAGE ARCHIVES

Q Systems Research Corporation [75 Avenue of the Americas, New York, NY 10013-1902; 201-522-1774] demonstrated its Collection Image Archive facilities, including DVI based compressed, storage on the Hewlett-Packard Optical Disk Library on either WORM or rewritable disks, access from PS/2 workstations under OS/2, local networking, and communication over Infonet packet switching worldwide. The system searches using Btrieve and stores both thumbnails and full color images of VGA quality. The system is currently used both by the Centrox Art Information Service (an online art auction system) and the Art Loss Register's Stolen Art Database. At a recent demonstration of the latter in Denmark, my correspondent John Perkins remarked that compression made a degree of image based retrieval possible so that a dealer could search for an image based on an image of the object in-hand and retrieve a set of similar images.

□

INTEGRATED COLLECTIONS & FUNDRAISING

Westar Systems [907 West Pikes Peak Ave, Colorado Springs, CO 80905; 719-473-4387] came to the AAM meeting in Denver with a series of low-cost, dBase IV based software modules which are sold separately and as a turnkey system. The turnkey version of the collections management module (MCMS) includes 386SX (1MB RAM, 20 & 130MB hard drives, and tape backup system) for a single user at $9995.00. An appropriately larger system for five users sells at $24995.00. In addition, Westar offers a development system (Fund Tracker) which includes volunteer tracking, development history, pledge management and cash receipting for $2875 (single user; double for multi-user), and an image management system (VIMS) for $2395 with lecture coordination and circulation management for $1090 extra (double both figures for multi-user licenses). Westar also sells Foundation Tracker, a database with search software to assist in identifying granting agencies, and Universal Cataloger, a low end package for initial cataloging, field research, private collections or branches which has about 12 fields and can be searched in a free text narrative.

□

ART AUCTIONS ONLINE AT AAM

Centrox [17 East 78th St., New York, NY 10021; 212-772-9173] demonstrated on-line access to visual information about upcoming auctions at 172 auction houses worldwide over COLIN (Centrox-Online Interactive Network) at their booth at AAM. Assuming the user wants to search for artists, works or auctions, and the installation of special hardware with DVI chips, the system provides rapid and useful visual feedback and details on each sale and terms. Centrox is considering a data-only license for users who do not want to upgrade their equipment.

□

ASTOR HOUSE LINKS WITH GALLERY SYSTEMS

Astor House [439 Lafayette St., New York, NY 10003; 212-982-1500] an image and information company specializing in archiving art collections and providing historical auctions data, has entered into a joint venture with Gallery Systems developers of integrated computer software for galleries and museums. Gallery Systems, which provides its 65 gallery and collector clients with inventory management, client management and accounting software, will now be able to offer imaging and subscriptions to the International Auctions Laser Reference sold by Astor House.

□

STAR RUNS ON PC's UNDER UNIX

Cuadra Associates [11835 W. Olympic Blvd., Suite 855, Los Angeles CA 90064; 213-478-0066, fax 213-477-1078] is now shipping STAR for IBM PC 386 and 486 systems under Unix System V. While it has been possible to run STAR on OPC's in the past, this was accomplished using a special Alpha-Micro Conversion Board. Now the software will run without such a board under Unix. STAR has recently been sold to the Tower of London (Royal Armouries Museum) and the Museum of American Folk Art in New York. The Museum of Modern Art, which acquired STAR in 1990, has moved its 30,000 filmographic and film inventory records to a STAR system joining the Cinematheque Ontario Film Reference Library.

□

LOW END IMAGING

Barneyscan Corporation [1125 Atlantic Ave., Alameda CA 94501; 800-933-0330] offers CIS Gallery, a MacIntosh database for your scanned images, for $695. New Media Graphics [780 Boston Rd., Billerica MA 01821-5925 offer Super VideoWindows for PC's including display of full motion digitized video in any window, still compression boards, tv tuners for watching TV in a window and other board level tools at $695 and up.

□

MODEL 1000 ADDS SOUNDEX

Travis & Software [;214-544-3937] announces release 1.1 of its Model 1000 fundraising system available to licensees for $199.995, which includes duplicate checking using Soundex, as well as more reports and label formats.

□

TITAN

While in Melbourne last month I had the opportunity to see Titan, a software package marketed by Knowledge Engineering Pty. Ltd [57 University St., P.O.Box 1185 Carlton 3053, Victoria, Australia; (61-3) 347-8844, fax (61-3) 347-3764] in operation at the Museum of Victoria. Titan runs under Unix and was operating there on a RISC PC and on some 386 class machines. Prized by information systems manager Grahame Searle and curator Martin Gomon for its ease of development and the speed at which it searches large files, Titan is installed in numerous Australian museums. Gomon had developed a number of related files in this essentially flat file environment (dubbed "post-relational" by the vendor) which enabled him to catalog specimens, link them to collecting sites data, and keep track of their use. Titan uses a "signature" encoding scheme which results in faster searches the more complex the Boolean query and which can search large fulltext databases for terms in context with exceptional speed. The databases we searched were only 70,000 records so we did not get a chance to fully demonstrate the speed - but it was fast.

□

NOTIS SUPPORTS CCL

Notis Systems [1007 Church St., 2nd Fl., Evanston,IL 60201-3622; 708-866-0150, fax 708-866-0178] has begun shipping version 5.0 which includes support for the Common Command Language (Z39.58) and the USMARC Format for Holdings and Locations. Other recent announcements include shipping of a new keyword search system for all fields of the MARC record and a facility to allow for searching of local databases, a new serials control module scheduled for 1st quarter 1992, access to IAC databases, and a proposed test of X12 book ordering protocols to be undertaken with Blackwell North America.

□

BARCODE TRACKING FOR MUSEUMS

O'Neil Software/Electronics [15251 Alton Parkway, Irvine CA 92718; 714-727-1234, fax 714-727-4350] has announced a version of its TRACKER bar-coding system for PC's geared for artifact display and museum management.

□

VIDEODISC & CD-ROM PRODUCTION

Belser Knowledge Services [54 West 21st St., Suite 309, New York, NY 10010; 212-727-3888, fax 212-727-3773] has announced the completion of their state-of-the-art multimedia production facility in Manhattan and its availability for production of videodiscs and CD's. In addition to enabling clients to produce their own titles, Belser offers its Docent software for image base interfaces and consulting assistance.

□

MARC ACCESSIBLE DIGITAL IMAGES

CARL Systems Inc. [777 Grant, Suite 306, Denver CO 80203; 303-861-5319 and the Boulder Public Library have cooperated in developing digital image links to folder level MARC records as part of the CARL library automation system. The system uses field 530 to note that a digital image is present and 755 for linking. An image is scanned using a Microtek 300Z scanner and a 386 PC and stored with 1:10 compression for display on terminals with graphics monitors ate a cost estimated by CARL of about 18 cents per image.

□

STANDARDS

FCC PROPOSES INTERACTIVE VIDEO DATA SERVICES

The Federal Communications Commission released a "Notice of Proposed Rule Making" on March 4, proposing to allocate .5MHz of the spectrum at frequency 218.0 to 218.5 for Interactive Video Data services proposed by TV Answer Inc. which has been operating in the Washington DC area under an experimental authorization. TV Answer Inc. views itself as providing as a combination of impulse buying, ATM bill paying, pay-per-view TV, interactive games and entertainment and political polling system. [for more information: TV Answer Inc., 1941 Roland Clarke Place, Reston VA 22091].

□

SECURITY GUIDELINES

Check out the "ACRL Guidelines for the Security of Rare Book, Manuscript and other Special Collections" in College & Research Library News, vol.51(3) March 1990 p.240-45.

□

CONSERVATION THESAURUS

The Getty Conservation Institute and the Art and Architecture Thesaurus have launched a cooperative effort to produce a conservation thesaurus. Initial tests demonstrate that 46% of the terms in the ICCROM and AATA indexes are already in the AAT. Beginning in January 1991, a full time analyst has been researching conservation terminology and developing candidate terms . Publication of a comprehensive conservation thesaurus is projected in June 1992. [CIN, 4503 Glencoe Ave., Marina del Rey, CA 90292-6537].

□

OFFICE DOCUMENT ARCHITECTURE

Computer Standards & Interfaces (vol.11 #3, is devoted to Office Document Architecture. It should greatly clarify the standard, including the relationship between ODA and SGML (topic of an article by B.C.Watson and R.J.Davis).

□

CHARACTER SETS - STILL

Randall K. Barry has written an exceptionally useful discussion of "The Standards Dilemma of Character Sets" in *Information Standards Quarterly*, vol.3 #2, April 1991 p.8-16. As long as the jury is still out about how to represent all the world's symbols in computer code, the differences between ISO/IEC 10646 and Unicode will be an issue that anyone involved in collection-related computing in museums and archives will need to know about.

□

CIMI FRAMES DECISION PAPER

At its April 21-22 meeting in Washington DC, the Committee on Computer Interchange of Museum Information (CIMI) developed a framework for an options paper to be researched by John Perkins, Project Manager, which it expects will provide a basis for deciding on appropriate interchange protocols for museum applications. The Committee reached a consensus that not all applications would necessarily be best served by the same protocols and therefore defined a framework for decision-making which would begin with a matrix of museum applications on one axis and communications protocols on another axis. The cells of the matrix would represent the option of using a given protocol for the particular museum application and the options paper will analyze and discuss of the pro's and con's of each reasonable option represented by a cell in the matrix. For example, if one application was defined as "Loan and Traveling Exhibition Management", the potential of communicating the data required by this application using a variety of protocols, such as ISO2709 (MARC), Standard General Markup Language (SGML), Electronic Data Interchange (EDI), Abstract Standard Notation (ASN1), etc., would be examined. The capacity of each protocol to carry the type of data required, and the likelihood of its being accepted by the kinds of non-museum organizations that would be involved in the application, would be assessed. Project Manager John Perkins is currently defining the applications and the protocols that will be analyzed. When the framework is defined, he will be seeking advice from technical experts and museum networks and vendors on the problems associated with particular protocols for specific purposes. He will present his finding in a systematic options analysis paper at the CIMI meeting on November 3 and 4, 1991 in Santa Monica, California. [For drafts of working papers and/or an invitation to participate in the discussions contact John Perkins, 5659 Merkel St., Halifax B3K 2J1 Canada, 902-454-4077, fax 902-453-6153; e-mail Internet perkins@dcd1jh.das.net or Dialcom @ TCN4200].

NISO THESAURUS & CCL STANDARDS

Revisions of ANSI Z39.19-199x (Guidelines for the Construction, Format, and Management of Monolingual Thesauri) and ANSI Z39.58-199x (Common Command Language for Interactive Information Retrieval) are now in final comment phases. Review periods end July 31. [NISO, P.O.Box 1056, Bethesda MD 20827; 301-975-2814].

□

MARC FORMATS

The Library of Congress has issued Update #3 to the MARC Format for Bibliographic Data ($25) and a new format, the USMARC Format for Classification Data ($30) intended principally for in interchange of Dewey Decimal and LC Classification information. LC has also published USMARC Code List for Relators, Sources, Description Conventions updating the 1988 edition and including more that 200 codes ($16). [Cataloging Distribution Service, Washington DC 20541-5017; 202-707-6100, fax 202-707-1334].

□

CD-RDx version 3.1

In May, 1991, the Intelligence Information Handling Committee released version 3.1 of its CD-RDx standard proposal which incorporates substantial changes proposed since December 1990 (3.0) particularly in order to increase the efficiency of the client/server protocol by transferring larger blocks of data and eliminating synonymous and near synonymous messages. [for comment, Edward Rishko, CD-RDx Program Manager, IIHC, Washington DC 20505]

□

RARE BOOKS

As of July 1, 1991, the Library of Congress is using the rules embodied in Descriptive Cataloging of Rare Books (DCRB), rather than the 1981 edition Bibliographic Description of Rare Books, in all rare book cataloging. The new manual was co-edited by Jackie Dooley (U.C.San Diego) and Ben Tucker (Library of Congress). To order a copy send $23 to Cataloging Distribution Service, Customer Services, Washington DC 20541-5017; 202-707-6100.

□

OFFICE SYSTEMS STANDARDS

The Canadian Treasury Board, Office Systems Standards Working Group (TBOSSWG) is working on developing standards for office systems. A draft revealing the directions in which it is working was circulated May 7, 1991 entitled Standards for Office Systems: A Quick Reference Guide. [John McDonald, National Archives of Canada, 395 Wellington St., Ottawa K1A 0N3, Canada; 819-953-5721]

MUSEUM DATA STANDARD REVISED

The Museum Documentation Association has issued a revised edition of the MDA Data Standard. While I am still awaiting my review copy, you can order yours for 45 pounds sterling plus postage (easiest simply to provide Visa/Mastercard number & expiration date). The new standard includes a complete data dictionary as well as application guidelines and bibliography. The data elements are classified as "Primary Fields" (which are, essentially, entities), "Group Fields" (which are attributes of those entities) and "Common Fields" (which are complex data types with representation rules that are treated by the MDA as a sort of floating subfields available for qualification of themselves and other attributes.

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RULES FOR ARCHIVAL DESCRIPTION

The Planning Committee for Descriptive Standards of the Bureau of Canadian Archivists has distributed some of Part II of its Rules for Archival Description in a draft for comment. Part II, "Headings for Persons, Geographic Names, Corporate Bodies and References", provides instructions on the choice of access points (Chapter 21), formulation of headings for persons (Chapter 22), geographic names (Chapter 23), Corporate Bodies (Chapter 24) and References (Chapter 26). Comments are requested by December 15, 1991. [Bureau of Canadian Archivists, c/0 National Archives of Canada, 344 Wellington St., Rm.5078, Ottawa K1A 0N3].

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NARA JOINS IN TEXT & IRDS STANDARDS

The National Archives announced in May that members of its Archival Research and Evaluation Staff will participate in technical committees of ANSI X3 devoted to Text: Office and Publishing Systems (X3 V1) and Information Resource Directory Systems (X3 H4).

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ARCHIVES USE OF STANDARDS

In conjunction with her work on a Handbook of Description Standards, Vicki Walch (65 N. Westminster St, Iowa City, IA 52245; 319-338-6650) conducted an informal survey of 53 archival institutions on their use of standards. Of the 37 which responded, 31 were using APPM and 3 were considering it (30 using AACR2 and 4 considering). What a change in five years! Equally interesting were the responses regarding almost 100 other standards (cataloging manuals, rule interpretations, MARC formats, thesauri and authorities, codes, labeling and filing rules and transliteration standards). A substantial number of these are being used by some institutions, and some have "tried and abandoned" their use, reflecting the reality that the implementation of standards is an expense, and that as with all other management decisions, the benefits of standards need to be demonstrated in each case.

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