
At the Confluence of Three Traditions: Architectural Drawings at the Avery Library

ANGELA GIRAL

NEXT TO AIRLINES, libraries today boast one of the most successfully shared databases of information. As with airline reservations, the initial impetus for the computerization of library cataloging was economic—the computer as a speedy way to communicate essentially repetitive information over vast distances. This is based on the assumption that many libraries across the land would all be cataloging the same book, and that the costly intellectual work could be shared by many libraries if there was an easy way of copying the first record entered into the database (American Library Association 1978).

It was not easy to develop the international standards necessary for this cooperative effort. It took approximately 100 years for the adoption of the *Anglo-American Cataloguing Rules* (AACR2) that are today the “Bible” of book cataloging in this country.

But unlike libraries, both archives and museums collect materials that are, by definition, unique. The economic incentive of “copy cataloging” has no validity for archives or museums and thus it has taken longer for these two kinds of institutions to agree to the concessions and compromises that are necessary to achieve standards. Two incentives seem to exist for the creation of standards for museum cataloging practices. One is the proliferation of cross-disciplinary collections and the desire for integrated catalogs (architecture as part of material culture as well as of art history and socioeconomic history). The other is the ability to incorporate the image into an automated cataloging system.

Trevor Fawcett (1982), in his criticism of AACR2, called for an effort to “harmonise standards” and said that “if the potential scope of

catalogs is to be all embracing, the characteristics of artworks and many other candidates for inclusion will need pondering as much as the familiar book" (p. 30). And Wendy Sheridan (1981) of the London Science Museum) wrote that "if the coming decade, with signs of economic decline and microtechnological growth, is to produce transferable data records, it follows that liaison to achieve total compatibility of fields and discuss common problems may be timely and mutually beneficial" (p. 30).

A simply stated goal within the mission of the Avery Architectural and Fine Arts Library at Columbia University is the provision of integrated access to the contents of the collection regardless of the format. Ideally, a user should be able to find in one spot an answer to a question such as "What do you have on Frank Lloyd Wright?" and know that there are 156 books by him, 136 books about him, at least 178 periodical articles on him, and approximately 600 drawings by him.

The specific subject of this article is the work that has been done at the Avery Library on a project named AVIADOR (Avery Videodisc Index of Architectural Drawings on RLIN). The name tells it all: it is a project for the creation of a cataloging (or indexing) system for architectural drawings that will allow integration of bibliographic and intellectual access to that collection into the databases of the Research Libraries Information Network (RLIN) along with the bibliographic access to information for the more traditional collections of books and periodicals. We propose to utilize the new technology of videodisc for the incorporation of a graphic data element into this cataloging and indexing system.

This project has often been referred to as a prototypical application of emerging national standards, and thus the word that the acronym spells is a name appropriate both to this notion and to the national origin of the project director, for AVIADOR means pilot in Spanish. The project has received funding from the Mellon Foundation, the National Endowment for the Humanities, and from the Eastman Kodak Company.

The goal of project AVIADOR is to create a computerized catalog of a select group of 45,000 architectural drawings in the Avery Library collection incorporating a videodisc image as a graphic data element in the system. A fuller description of the project and its goals is published in an article in the spring 1986 issue of *Art Documentation* (Giral 1986); this present article will focus on some of the problems encountered in the implementation.

This present article's title, "At the Confluence of Three Traditions," describes appropriately where we find ourselves today with architectural drawings in general and with the project in particular. The three traditions referred to in the title are the archival, the curatorial, and the library traditions.

Architectural drawings are a significant component of the personal archives of individual artists and designers, the corporate files of architectural and construction firms, or the official files of state and municipal building and public works departments. Architectural drawings can also attain singular heights of beauty and as such have traditionally found their way into museums and artistic collections. It has been suggested that, given the prices attained by some contemporary architectural drawings, surely their designers make more money from selling their drawings than from selling their buildings. The proliferation in recent years of architectural exhibitions, gallery sales, and even architectural museums (of which there is a burgeoning international association, the International Council of Architectural Museums [ICAM]) is but the latest manifestation of a strong curatorial tradition in the handling of architectural drawings.

As tools for the study of architectural history and for the scholastic training of new professional practitioners, architectural drawings traditionally have also been found in libraries. Some librarians have gone as far as seeing somewhat of a parallel with the book in 20th century sets of architectural working drawings. They both have elements such as title blocks and cover sheets, sequential numbering (or pagination), and they are produced in multiples, thus enhancing the possibility that exactly the same set of drawings may be found in various distant repositories, one having come from the architect, one from the construction firm, one from the owner, etc.

This article is written from the point of view of a librarian about a collection that exists in a library. It was found, however, in the process of defining the cataloging elements that were necessary for the intellectual control of the collection as a library collection, that we neither could nor wanted to discount important elements that come from either the curatorial or the archival tradition. The word *confluence* in the title was chosen in order to acknowledge that just as in the confluence of strong streams of water, the initial result is turmoil—turmoil that appears to impede progress—so it is also in AVIADOR although this author wishes to retain the vision of a calmly flowing estuary through which the records are beginning to glide into the ocean of orderly intellectual information for the study of architecture and allied disciplines.

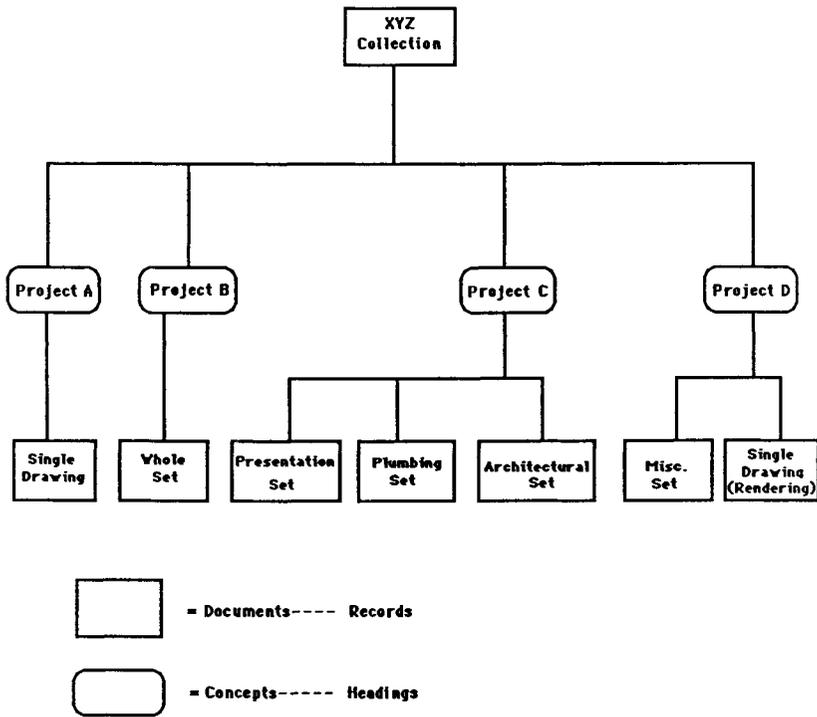
At a conference convened in early 1981 by the American Institute of Architects Foundation, bringing together people from diverse disciplines under the title "Toward Standards for Architectural Archives," it took the good part of a day for some librarians to figure out that the insistence of archivist colleagues of the importance of appraisal as a preliminary to cataloging did not mean that they wanted to bring in an outside expert to place a monetary value on the collection so that the donor could take a tax deduction. That is what appraisal generally means to librarians.

To quote Dennis McFadden (1981), "the need for consistently used terms and for developing a naming methodology is of primary importance" (p. 3). In spite of this early warning, months into the project, it was realized that one of the impediments to progress was a lack of consensus among the project principals on the meaning of some basic words. A set of working definitions was produced for the words *collection*, *project*, and *set*, and a chart was prepared (see Figure 1) outlining the relationships among these three concepts ("Working Definitions for Cataloguing" 1986).

This schema in turn has clarified that what we are describing, cataloging, and indexing are the drawings and not the building projects for which they are working documents. However, the project (its name, its owner, sponsor, occupant, etc.) is a key concept in unifying the set and in making the link to other types of information (books, periodical articles) related to it that may be found in the library and thus in the integrated database.

The next barrier that was encountered was the concept of authorship. In the development of cataloging rules for books, one overarching principle was that "the catalog should both identify a particular book and assemble the works of a particular author" and that the "fundamental basis for the organization of the catalog [was the recognition of authorship]...this principle has been basic in western librarianship from earlier times, although eastern cultures have usually preferred to consider title as more important" (Wright 1976, pp. 39-40). The AACR2 that we use describes the main author as "the person or persons responsible for the intellectual or artistic content of the work." Easy, we said, it clearly means the architect. Invoking the library tradition we told ourselves that it is not the typist or the typesetters, but the author of the book who gets the credit and is symbolized by the main entry. In the same manner, it is the architect, and not the draftsman who puts pencil to paper, who should get the credit. Thus Cass Gilbert is the author of a drawing in the Avery Library of the New Haven Railroad Station, although it clearly states in the drawing that it was "drafted by T.R. Johnson."

Ben Tucker, head of the Descriptive Cataloging Division, at a meeting held at the Library of Congress, volunteered the same explanation by way of telling us there was no problem that needed a rule interpretation. He was not so sure however when we expressed faith in the prevalence of corporate authorship of architectural drawings, for the current trend in book cataloging is to move away from corporate authorship. Rule 21.1B2, in the current *Anglo-American Cataloguing Rules*, lists the categories under which a work must fall in order to warrant entry under a heading for a corporate body. A strict interpretation of this rule prohibits using corporate entry for architectural drawings. But it is the case in modern architectural practice that design and



Choice of Treatment

The decision on how to treat the drawings in a collection is primarily a curatorial one, i.e. the drawings will come for cataloging with a list on which the preferred treatment has been indicated by the Curator. Catalogers can challenge that choice if it presents them with special problems and may suggest an alternative.

The primary choice in this project is to create a record for a group of drawings (i.e. the whole set for a project) unless:

1. The significance of the individual drawing(s) in a set or a collection warrants single item records, or
2. The large number and/or complexity of the drawings warrants breaking them up into various sets.

Figure 1. Chart of relationships for the terms collection, project, and set

construction are team efforts in which it is frequently hard to pinpoint individual responsibility.

Until, and unless, further guidance on the matter is received, we have established as a working principle that the appearance of one or more names in the title block of a drawing followed by the word *architects* (in plural) implies corporate authorship and we must establish the name as such. Thus the design of the John Hancock Tower in Boston is credited to "I.M. Pei Associates" although those in the know are aware that the partner in charge was Henry N. Cobb whose design it really is, and that the drawings were executed by the hand of several

draftsmen in the Pei offices. Similarly “Lever House,” although primarily the work of Gordon Bunshaft, should properly be entered under “Skidmore, Owings, and Merrill.”

In reaching this decision, the concept of legal responsibility was invoked, and we risked being led astray by this when we considered for a moment whether logic required the creation of a corporate entry for the work of one “Frank Lloyd Wright, architect” when his name was found so listed in a title block, for there surely was an implication of legal incorporation. We have tentatively settled on the use of the plural as the touchstone that will determine when to opt for corporate entry versus personal entry.

We then began to catalog Hugh Ferriss’s collection and stumbled upon the problem of the renderer—i.e., someone who works independently and not only for architects but sometimes directly under commission from the client (corporate or individual), or for a newspaper in search of illustrative matter, or sometimes even on his own, like Ferriss.

Here we were tempted to use the archival tradition in order to claim that since the focus of the collection was Ferriss, with a donation from his daughter at its core, Ferriss should be the main entry. But we were not altogether comfortable with deriving a rule from the preeminence of a single renderer and we welcome input from the experience of colleagues in other repositories. When the rendering was clearly done for an architect, it is the architect who gets the main entry. At this point you might say “Why bother with main entry?” One of the beauties of the online environment is the ability to give equal standing to all access points.

The notion of doing away with main entry was adumbrated by Henriette Avram in the first document describing the MARC format (Avram 1975), and it has been embraced by the *Avery Index to Architectural Periodicals* when it went online in RLIN in 1979. Those who have consulted the Avery Index online must be aware that the 1xx (or main author) entries have been eliminated. Each record begins with a 245 (or title) entry and has a varying number of 7xx (or added) entries.

There are at least two reasons for not abandoning the concept of main entry. The first is pragmatic (and some might even call procrustean) in that, since we have chosen to work in the RLIN environment, we want to take cognizance of the parameters of that environment.

In RLIN, when the result of a query matches more than a single record, the first display received is called a MULTiple which contains up to seven records per screen with very abbreviated information for each individual record. It was considered important to have an author, as well as a title, as part of that MULTiple display, thus the need to determine who is that author—i.e., the main entry.

The second, and perhaps more significant, reason for retaining the concept of main entry brings us to the third stumbling block, which is more in the nature of a coral reef (both in its magnitude and its potential

for beauty). And this is the question "What is the title of an architectural drawing?"

In this area there is a strong response from the curatorial tradition that bluntly says "The title of a drawing is what I say it is," and that is in direct conflict with the library tradition that says "The title of a work is what *it* says it is on the work itself." Let us examine these two traditions a little more closely. The curator is an interpreter of collections and a creator of exhibitions, and in that role she/he has both the right and the obligation to name things appropriately. Appropriately to the task at hand that is. Thus if a drawing with a title in Italian is being exhibited in front of an American audience, clearly the obligation of the curator is to translate the title. In preparing an exhibition with a unifying theme, the curator has the responsibility of consistently labeling the items exhibited, and that can justify perhaps the relabeling of some drawings. In an exhibition of the work of a single architect, the name of the architect need not appear on every label.

But librarians see the task as describing the collection as accurately as possible for the use of curators, historians, preservationists, practitioners, etc.—i.e., for a multitude of users. Aware of the fact that we are using words, treacherous words, for the description of documents that contain mostly images, the words inscribed on that document are considered as a singularly unequivocal identifying element that we are not entitled to change.

The solution hinges upon an adaptation of the concept of a uniform title developed in the library tradition. There are two titles given for almost every drawing, recording the "title proper" in the 245 field, and creating a "uniform title" for the 240 field, the function of which is to collocate, in an orderly manner, all the drawings that pertain to a particular project. In this manner, the librarian's desire can be accommodated for "truth in labeling" in giving a drawing by Hugh Ferriss a 245 title that corresponds to the seemingly fitting title given on the drawing proper in his own hand: "Eight plazas and a park" and acknowledging in the uniform title that this is one of the design development drawings for Lincoln Center by Harrison and Abramovitz.

It is not always as easy to recognize the "title proper" even though one may think so from the notion that most 20th century architectural drawings contain what is known as a title block. But that title block may not have significant information, may have been stamped later, and in other cases there may be no title at all. When there is no title, the rule in *Graphic Materials* (Betz 1982) is that the cataloger may devise a title, at which point the librarian is given the same freedom as the curator.

Subject headings constitute another group of problematic access points. When this project was first designed, it was thought that we would like to have subject access to the drawings collection, which is something unavailable now. The Art and Architecture Thesaurus (AAT), then under preparation, seemed to be a promising vocabulary,

and in turn a collection with no prior subject indexing seemed like an ideal testing ground for the AAT. The AAT is also being tried as a source of new terminology for the *Avery Index to Architectural Periodicals* and one of the eventual, albeit ambitious, goals is to see the AAT as a way of unifying or standardizing subject access in Avery's diversified collections. The AAT has provided the Avery Library with copies of the completed hierarchies. Among these are four dealing with the built environment: (1) Built works components; (2) Single built works and open spaces; (3) Built complexes and areas; and (4) Settlements, systems, and landscapes; and three dealing with documents: (1) Document types, (2) Drawings, (3) Visual genre. The AAT also sends us review copies of the hierarchies under development.

We have worked with the AAT and with a task force of the Art & Architecture Program Committee of RLG on the development of an applications protocol for implementation in RLIN. What is meant by an applications protocol is a set of rules for composing headings or strings out of AAT terms. We have just begun to develop an implicit indexing policy for AVIADOR and in doing so have encountered some problems with conflicting standards.

The archival profession should be thanked for the introduction of the concept of genre into the MARC formats. First made available in the format for Archival and Manuscript Control, it was given the tag 655, and it is now also available in the Visual Materials format. Parallel to this is the 755 tag for an access point based on physical characteristics. We are giving at least one 655 heading and one 755 heading for each record. In a recent article entitled "Analyzing the Subject of a Picture: A Theoretical Approach" Sara Shatford (1986) relies on Erwin Panofsky's theory in the identification of three levels of meaning in pictures.

The first level of meaning Panofsky calls "pre-iconography," defined as "primary or natural subject matter," which Shatford equates with generic description. The second level, iconography, Panofsky calls "secondary or conventional matter," and the last one, iconology, is "intrinsic meaning of content" or interpretation. It is possible to describe Panofsky's first two levels of meaning as each having two aspects: *of* and *about*. At the pre-iconographic level, the *of* aspect is generic description of objects and events; at the iconographic level, it is a specific, or proper, appellation of those objects and events.

Shatford (1986) then goes on to make a comparison between meaning in pictures and meaning in language and she states "words are different from images...pictures are simultaneously generic and specific: any picture of a bridge, including a diagram, is of a particular and specific bridge, even if it does not represent an actually existing, named bridge" (p. 47).

Shatford's theoretical discussion is very useful in clarifying some elements of the evolving subject indexing policy of AVIADOR. We are

creating headings, or access points, that deal only with what drawings are *of* and not attempting to interpret what they are *about* or what are their stylistic characteristics. But in creating these headings, we are violating the word-based library tradition and giving both generic and specific headings. Thus there is always a heading for the name of the specific building depicted in the drawings as well as a heading for the building type it represents.

In the case of genre headings (field 655 of the MARC record) we are also indulging in this redundancy by giving every drawing that merits it the heading "architectural drawings" in addition to whatever specific type of drawing heading that corresponds to it—i.e., "blueprints," "working drawings," "plans," "elevations," etc. This convention allows these records to be retrieved as a subset of the larger file of Visual Materials records in RLIN and also allows them to be distinguished from those drawings in the collection that are made by architects but are not architectural (ornament drawings and nudes by Louis Sullivan, airplanes and nightscapes by Hugh Ferriss, etc.).

Building names present a serious problem: few of them have been established in the authority files of the Library of Congress, and those that have been established follow a somewhat peculiar division of the world which relates to the division of labor at the Library of Congress. In this division, the names of buildings such as banks, churches, or abbeys, occupied by a corporate body that could also be the author of a publication are established by the Descriptive Cataloguing division and tagged as 610. Names of buildings whose corporate occupant is not expected to publish—i.e., schools, villas, fire stations, and houses—are established by the subject analysis division and tagged 650; some buildings such as airports, farms, and parks are inexplicably tagged 651 because their name presumably starts with a geographical component.

The address could be an important access point, not only because frequently it, rather than a name, is what we find stated in a drawing, but also because a retrieval of architectural information by address is a potentially useful tool for the study of the architecture of cities. There is no acknowledged standard for the construction of street indexes except perhaps for the graphic coding of city sections that is used in Sanborne atlases. This author has fantasized along with a few others on the creation of an ISBN (International Standard Building Number) or ISLN (International Standard Lot Number) that could be developed with the aid of geo-coding principles already in existence. Such a number would retrieve information on the same building for those who call it "Saint Sophia" and those who call it "Ayasofia," or in another case for those who call it "St. Peters" and those who call it "San Pietro in Vaticano." But there do not appear to be any significant steps in that direction.

An underlying principle in the conduct of the project activities can be stated simply as: "We will not reinvent the wheel, but instead we will

find appropriate wheels designed for other machines and fit them together in the development of a mechanism suitable for architectural drawings." In that process of fitting wheels together, there are inevitable gaps that need to be filled as well as instances where an existing wheel may need a modification in order to best serve the need. In the latter case, we have taken it upon ourselves to work with the original wheel designer to make the necessary modifications. It is in this spirit that we have developed working relationships with Elisabeth Betz Parker at the Library of Congress Prints and Photographs Division (for the interpretation and expansion of her *Graphic Materials*), with Ben Tucker at the Library of Congress Descriptive Cataloguing Division (for the interpretation of AACR2), with Toni Petersen of the AAT, and of course with the development staff at the Research Libraries Group (RLG) who, in designing software modifications or enhancements to the RLIN system for the project, are constantly keeping in mind how those enhancements and modifications may be useful to and used by other projects and institutions.

The link between bibliographic record and videodisc image will be created through the use of the 789 (component item entry) field. Designed by RLIN specifically for this project, it is a repeatable field that has been defined in a manner that could be useful to other projects and other formats as a field that "contains the entry for a component item when the record in hand is a bibliographic description of a collection containing the item described in the linking entry field." Using the 789 field, it is possible to identify, index, and describe the individual drawings that make up a set and to create a one-to-one link from each accession number listed in the RLIN record to its image in the videodisc (Lucker 1987).

In closing, a word of warning to anyone embarking on a similar project in which the goal is to advance the development of standards through a specific application. One of the most difficult tasks is that of careful navigation where, in addition to the specific stumbling blocks, one must beware equally of the Scylla of endless, if fascinating, theoretical discussions and the Charybdis of an excessively pragmatic approach that says "let's just pick a way that suits us and do it." The task can be frustrating in turn to the pragmatists and the theoreticians in the team, but it can also be immensely satisfying.

REFERENCES

- Avram, Henriette D. 1975. *MARC: Its History and Implications*. Washington, DC: Library of Congress.
- Betz, Elisabeth W. 1982. *Graphic Materials: Rules for Describing Original Items and Historical Collections*. Washington, DC: Library of Congress.
- Fawcett, Trevor. 1979. "Anglo-American Cataloguing Rules 2nd ed.: A Review Article." *Art Libraries Journal* 4 (Summer), pp. 23-30.
- Giral, Angela. 1986. "Architectural Drawings: An Automated Indexing and Retrieval System." *Art Documentation* 5 (Spring), pp. 11-13.

- Gorman, Michael, and Winkler, Paul W., eds. 1978. *Anglo-American Cataloguing Rules*, 2nd ed. Chicago, IL: American Library Association.
- Lucker, Amy. 1987. "The Visual Materials Format: Columbia's AVIADOR Project Links On-line Description to Videodisc Images Using the 789 Field." *Operations Update* (Research Libraries Group) 43 (September).
- McFadden, Dennis. 1981. "A Glossary for Architectural Records." In *Proceedings of the Conference Toward Standards for Architectural Archives* (held 12-13 February 1981). Washington, DC: American Institute of Architects Foundation.
- Shatford, Sara. 1986. "Analyzing the Subject of a Picture: A Theoretical Approach." *Cataloguing and Classification Quarterly* 6 (Spring), pp. 39-62.
- Sheridan, Wendy. 1981. "AACR2 and 'Graphic Materials': Use for a Descriptive Catalogue for the Science Museum." *Art Libraries Journal* 6 (Winter), pp. 13-33.
- "Working Definitions for Cataloguing." 1986. Internal paper on AVIADOR, 20 January 1986.
- Wright, Wyllis E. 1976. "The Anglo-American Cataloguing Rules: A Historical Perspective." *Library Resources & Technical Services* 20 (Winter), pp. 36-47.