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- Environmental Design
- Pictures
- Consulting
- Map Acquisition
- Special Library Budget

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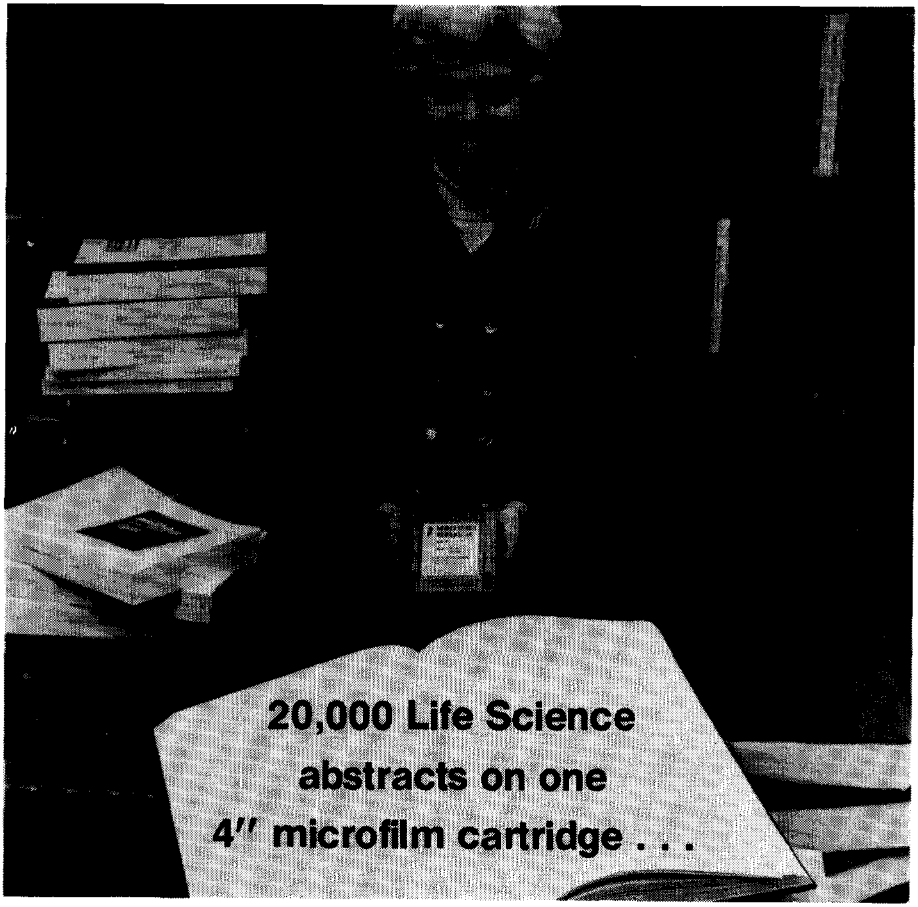
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Dear SLA Members

Let's Talk Together Some More

Edward G. Strable, President

Last time around, on this page, I raised the question "What About Our Unserved Population?" and asked for response to the concern of some of our members about the job we are (not) doing to stimulate the establishment of new special libraries to serve these unserved. At this writing, there has not been time for response, publishing schedules being what they are. But let's move on to another, closely related, concern:

From Special Library to Information Center—Move It or Lose It?

This question can best be clarified by a brief literature review.

In "Toward Information Centers" (*Special Libraries*, May–Jun 1971, p.238–240), Eugene B. Jackson spells out very clearly the information processes which are typical of libraries and those more typical of information analysis centers. He argues that it is crucially important that libraries adopt a more active mode of operation and that special libraries, as they become increasingly active, will take on some of the characteristics of, or become part of, information centers. He suggests that the optimum information center concept provides us *all* with the unparalleled opportunity to hitch to this star.

An interesting study which describes the purposes, establishment, practices, and problems of "technical information centers," and focuses attention on the unique relationships that do or could exist between the "traditional" special or company library and the "modern" technical information center, is the basis of the article "Technical Information Centers: Specialized Services to Science and Technology. An Overview," by Judith A. Douville (*Journal of the American Society for Information Science*, May–Jun 1972, p.176–184).

David Garvin's article, "The Information Analysis Center and the Library" (*Special Libraries*, Jan 1971, p.17–23) discusses the complementary functions of these two units and offers the thesis that the special library can, and probably should, provide the information gathering functions now being undertaken by most analysis centers.

One of the most significant recent articles about special librarianship is "The Special Library Concept of Service" by Bill M. Woods in the David H. Clift Festschrift issue of *American Libraries* (Jul–Aug 1972, p.759–768). Woods writes about where special libraries have been and where they are going. A good chunk of the article discusses information centers, information analysis centers, and information dissemination centers and systems as *forms of replacement offered for the special library* (emphasis mine). Woods concludes: "There is a real need for the special library to continue the dynamism which characterized it in the 1950s. The special librarian must move to center stage in the information transfer process and do more than perform an archival function."

One of the growing impressions which has come to me as a result of my presidential ubiquitousness is that the point-of-view expressed in such articles as those cited above is creating feelings of great uneasiness among many of us. Just watch the hackles rise as the information center is described as "innovative," "non-standard," "dynamic," "outreaching," and "modern," as it is compared to the "archival," "traditional," "standard," "limited," and "record-centered" special library.

Raise the subject of the special library/information center relationship and watch the reactions vary. Few actually deny the validity of the point-of-view. Many admit they do not like it. Some don't know and some don't care. Some insist there are no basic differences between the special library and the information center (or there shouldn't be). Some have decided, at least, to change the name of their special library to information center. Others have a definite program for moving from the special library idea to the information center concept.

And then there are those who demand: *what is SLA doing about all this?* That's where we need some dialogue—some input from members—some answers to questions. Questions like these: Is the special library in fact in the process of being replaced by something different, under the direction of someone different? Should the special library be auxiliary to an information center, or should it *become* the information center? Should SLA, for example, be developing institutes on how to change special libraries into information centers in more than name only? Does the special library as we know it now require new definition and objectives, and should these be developed by the Association? Anyone have an opinion?

Environmental Design Applications

Marjorie Appleman Lyles

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■ One aspect of special library design that has been virtually ignored is the physical environment of the user. Although considerable work on interior design has been done, little has been transformed into the operational layout of the library. The relationship of color, light, sound, spatial arrangement, furniture and furnishings with the user is explored as well as his expected behavior as a result of different combinations of these variables. In effect, the environment of the library is shown to be as important as the service it offers.

IN EMBARKING on a study of "Environmental Design Applications to Special Libraries," I anticipated finding that special libraries are being planned to be aesthetically pleasing as well as designed to exert a positive influence on their users. In addition to interviewing several people concerned with planning special libraries, I sent a questionnaire to other new libraries but received only nine responses. As a result of this survey, I have concluded that little is being done in terms of studying the user's behavior within the special library. Some changes in traditional library design are noticeable, as is evident by the fact that four of the surveyed libraries had incorporated a conversation area into their plan. In addition the librarians used terms like "pleasantly quiet," "informality," and "warm" in describing their libraries. It would appear that there is a desire to make library environments more responsive to the user. However, more than just intent is necessary to create an atmosphere appropriate for library objectives.

Behavioral research in terms of environmental design can make that difference apparent. For some time it has been known that the environment of a space can and does exert a tremendous influence on the activities and attitudes of the people within that space. Behavioral research will help to define what is the proper environment for a particular special library. It will determine how the people are influenced by and how they use the space. Hence, it will not be necessary to rely on an intuitive approach to decide on the most appropriate environment.

Most architects and interior designers traditionally have not had the time or the inclination to involve themselves or their staff in research. As a result more behavioral research studies have been conducted by psychologists or consultants, such as the Interior Environment Research Council. Since many of these studies are college-based, school and university libraries are beginning to utilize some of the results in their designs. However, I have found no evidence that behavioral studies have been incorporated into the design of special libraries.

As a matter of fact, many special libraries have not had an interior designer or an architect do their interior. They have been planned and designed by a range of people from the supplier's salesman to the director's wife. Obviously these people have little knowledge of environmental design.

The necessary type of research is done primarily by observing the behavior of the users with a space. Little can be gained by asking the user how the environment has influenced him *(10)*:

"Questionnaires or survey approaches to the study of environmental influences are limited by the fact that the environment tends to affect people beyond the focus of awareness. Except in rare instances, such as standing awestruck in a grove of majestic redwoods or alongside the eternal calendar of the Grand Canyon, people do not articulate in any organized way how their environment affects them."

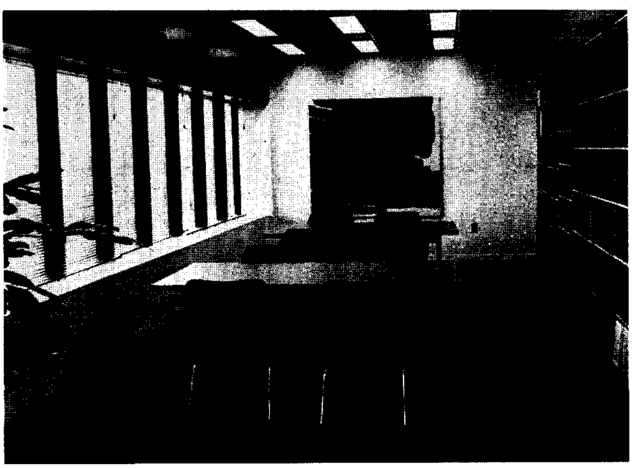
Librarians have been aware of user idiosyncrasies but rarely, if ever, have they utilized this knowledge. For example, a librarian who is aware that many of her patrons like to take a newspaper to an individual carrel might suggest that the carrels be widened so that they can more easily accommodate newspapers.

The question might arise as to why the special librarian should go to the trouble to hire a research consultant or an architect familiar with research techniques. There are many important reasons. First, the special library is established to serve its users. It should try to do this in every way possible including providing an environment more conducive to information flow. Second, this research may help to increase the architect's understanding of the library's functions and activities. Certainly this is very important since many architects dread working with librarians because of the communication problems. Another reason, albeit indirect, is illustrated by the following quotation *(9)*:

"One study found that in communities where hospital bond issues failed in public election, the hospital was frequently regarded as a cold and impersonal place."

Special libraries, like hospitals, rely on funding. We can safely assume that if the library has the connotation of being a pleasant place in which to work, there is a greater probability for it to receive funding.

Following are several areas of environmental design. These certainly do not encompass all factors that determine the appropriate environment for a special library, but they help to illustrate what has been done and, hopefully, open the



Mary Vasilakis, Librarian, Westinghouse Electric Corp.

Paintings and plants are a good way to add color, to provide a focal point and to provide an easy way to change the environment.

channels of thought to what could be done.

Light and Color

Much has been done in other fields to determine man's behavior within an environment. There are implications here in designing libraries.

Faber Birren has studied the effects of light and color. He says *(3)*:

"The overwhelming advantage of functional color is that it is purposeful. It is concerned with measurable things, and since this is so, one can predict with considerable accuracy what is likely to happen if certain definite principles are followed. Personal opinion and even whims, which so often complicate color choice, may be set aside for sound technical practice."

He suggests that lighting and color can have a tremendous effect upon people as well as animals. This effect is not only psychological but also physiological *(2)*.

"Here are some effects on human beings—under conditions of brightness and warm colors there is an attraction to the stimulus—the body wants to reach out toward the light and warmth. There is measurable increase in muscular tension, respiration rate, heart action, blood pressure and brain activity."

In dealing with lighting and color, a person's response will be greatly affected by his personality and his attitude. Nevertheless, some generalizations can be made. For example, high levels of illumination and warm colors have the effect of an outward stimulation. They are conducive to encouraging extroverted activity. In a library these may be used in the lounge area where conversation is allowed. On the other hand, the cooler environment has the effect of drawing the attention inward: ". . . there is less distraction and a person is better able to concentrate on difficult visual and mental tasks" *(4)*. Hence this would be more appropriate for the study area.

He also suggests that "a gray or buff world has little outward appeal. It tends to lead to subjective moods, to inner tension and monotony *(3)*. It is interesting to note that the three standard colors of the equipment supplied by one company are Gray-Rite, Fawn Beige, and Gray-Mist. These colors were chosen primarily because the company has huge vats of them for coloring their machinery. Other colors can be acquired from them but only at an increase in price. Of course, once the library designer is aware of the importance of colors, many avenues of escape are open. He could buy one of the standard colors for equipment and use the colors of the carpeting, chairs, display boards, etc., to advantage.

Spatial Interpretation

Spatial interpretation is another concept that should be explored in terms of library design. Man's sense of space is determined by his expectation of action within that space. It is important to recognize that this concept is based on all the senses. A person hearing or smelling another person may feel just as crowded as someone seeing another person. Hence, "in restaurants, libraries, and public places, cutting down on movement in the peripheral field should reduce the sense of crowding somewhat, whereas maximizing peripheral stimulations should build up a sense of crowding" *(5)*.

Edward T. Hall has coined the word "proxemics" to stand for "the interrelated observations and theories of man's use of space as a specialized elaboration of culture. He has found four distance zones prominent in adult Americans. All are dependent upon the expected activities within the zone. For example, a person will allow very little distance between himself and another on the subway but this distance is totally inappropriate within a library. Hence it is important to recognize the activities, emotions, and relationships connected with the space.

"Garfinkel reported that the violation of individual distance produced avoid-

ance, bewilderment, and embarrassment, and that these effects were most pronounced among males. Felipe and Sommer systematically staged invasion sequences under natural conditions (people seated on benches and at library tables) and demonstrated observable flight reactions" (11).

It can be recognized that if these areas are not designed properly it can lead to an environment that causes stress for the user.

Continuing with the idea of certain distances being appropriate for different activities, space can be used to encourage or discourage an activity. Humphry Osmond found that there are spaces that tend to keep people apart, sociofugal spaces, and those which tend to bring people together, sociopetal. The interpretation of these spaces is often personal and relies on many factors. However, "what is desirable is flexibility and congruence between design and function so that there is a variety of spaces and people can be involved or not as the occasion and mood demand" *(5).*

Further implications are that if a conversation area has been included in the library and no interaction between the users takes place, it is possible that a sociofugal space was designed rather than a sociopetal. Studies can be made to determine how to convert it into a sociopetal space. Understanding the characteristics necessary for a sociofugal space could aid in the design of study areas.

Another spatial interpretation to be considered in library design is that of territory. A familiar example is a user going to sit at a library table and putting his possessions on the rest of the table; hence, declaring the table his territory. Barriers of some kind can increase the density of an area while still allowing for territorial control. For example, a raised strip down the center of a table can serve to separate the two sides of the table. Sommer found that subtle color changes or painted lines were effective as symbolic divisions. He wrote *(9):*

"From our studies we find that social stimuli are a major source of distraction for readers, and unwanted eye contact must be avoided by allowing each reader to have a territory that does not overlap that of his neighbor as well as a neutral place where he can rest his eyes during pauses and breaks."

One perception of personal space that is often ignored in libraries is that of the work space. There are three zones to an American work space within an office *(5):*

1. *The immediate work area of the desktop and chair.*
2. *A series of points within arm's reach outside the area mentioned above.*
3. *Spaces marked as the limit reached when one pushes away from the desk to achieve a little distance from the work without actually getting up.*

Often libraries have ignored zone three, the result being the user at a table in an aisleway or interfering with someone using the stacks.

Furniture

Included in the total design of the library should be the furnishings. Work in this area has been done to make the design of the furniture more suitable to the patron's needs. In 1964 Jens Risom of Jens Risom Design, Inc., said *(8):*

"We need to know what to produce in order to meet your needs, and we need to know what effect our products and their use have on the psychology and sociology of people working and learning together. There is still much to be learned, but we are coming closer to defining the limits of our ignorance."

Shortly Herman Miller Research Corporation will publish the results of their research.

Noise

One use of lounge furniture which is generally not mentioned is that thickly stuffed furniture and draperies help to reduce the noise level by holding down the reverberations which magnify noise.

Another example of noise control might be separating conversation areas from the study areas by book shelves. These would act as a buffer between the two areas as well as helping to absorb the noise and to break up the sound waves. Hardwood paneling laminated into place with a neoprene adhesive and carpeting also help to reduce the noise. Another approach is "noise masking" which employs a soft background noise to overcome the irritating noises.

Changing Environments

Another challenge to design is the concept of changing environments. There has been some research done on the significance of design on eye scanning behavior. The eye as a matter of reflex will follow the pattern of a logarithmic spiral. This spiral is related to a linear proportion of .618. This proportion is said to have been developed by the ancient Greeks in their architecture and has been found to correspond to tree proportions as well as to the parts of the body.

"If it is true that in order to get significance out of any design pattern the eye must effect a closure out of the movement implied by that pattern and that the pattern of a logarithmic spiral is the basic pursuit scanning movement that the eye instinctively follows as a matter of reflex, then it is safe to say that visual displays as well as all other elements of our school house design should reflect this pattern and the proportions associated with it" (6).

Additional research by Buswell has concluded, however, that people will fixate on an object that they find interesting. This is determined by personal preference as well as sex. The implications for librarians are to have interesting displays in the areas where reflexive fixation normally occurs. Art work can easily provide this point of interest as well as add to the design.

Furthermore, it has been found that unless there is complexity within the visual field, man will get bored.

"Relating this to 'information theory,' we might say that man needs information in order to keep his brain interested in the task at hand. Unless the visual field can offer this complexity, and offer it at a rate that is manageable yet challenging, the viewer is going to lose interest" (6).

Windows have traditionally served as this focal point, but in a library without windows it becomes obvious that the environment must be made stimulating in terms of the color or some other kind of design device.

A more generalized application is taking the environment of the total building into account. If the average user has a small desk in the middle of a large room, he will well need a retreat. The library can serve as a welcome change from the impersonalization of most office buildings.

Going back to the idea that people define an area according to the task to be done therein, the environmental design must be modified for changing tasks. Assuming that behavioral research has already concluded what elements are necessary for a particular task, as the tasks within the library change so must the design.

"The fact that we cannot precisely predict such future requirements does not preclude the possibility of specifying the environmental contingencies; it only means that the physical system must be programmed to change its state when disequilibrium occurs. The design of such physical systems may very well define the conceptual and technical challenge of the future for environmental designers" (13).

Hence, the concept of a changing environment is challenging not only in terms of keeping the atmosphere interesting and stimulating but also in terms of the changing tasks within the library. As the special library incorporates more and more special media equipment, the environment will have to change also.

Furthermore, until some way is devised to make the environment the dependent variable in research, the environment will have to be able to be changed so that the various behavioral effects can be studied.

"There is also room for serious systematic experimentation in the design of library facilities. This would involve building facilities with a goal of learning something—trying one arrangement for a year and then switching to another arrangement, systematically observing reader behavior all the while. Such observation can be done quickly, discreetly, and without any upset at all" (9).

In this case, attempts could be made to find the best arrangements, etc., for the user's needs.

Utopia

At this point, it is appropriate to visualize what we might expect the utopian special library to be like. The entrance way looks upon a conversation lounge and the librarians' work area. The conversation lounge allows for the spontaneous exchange of ideas between the user, for casual reading, and for an area to release tension for the researcher. It is a sociopetal area done in warm colors such as coral or peach. The furniture is thickly padded and the room is otherwise designed to absorb as much of the noise as possible. The lounge is separated from the study area by bookshelves.

By putting the lounge area next to the librarians' work area, it is possible to make the user have a feeling of "belonging" within the library staff. He can see them at work, watch their activities and talk to them if he wishes. It opens up the library's activities to the users and puts together all the areas where conversations may occur.

The library is decorated throughout with paintings, graphics, photographs, other kinds of artwork, and plants. These provide visual focal points, additional colors in the environment, and another means of involving the user in the library (everyone considers himself an art critic). In addition these portable objects can serve as an easy means of changing part of the environment and of reducing boredom or monotony.

The library would also have a combination of study facilities *(9)*.

"The ideal library would not be one with all individual study rooms or all open areas but, instead, would contain a diversity of spaces that would meet the needs of introverts and extroverts, lone studiers, browsers and day-long researchers. It is a serious mistake to assume that all people have the same spatial needs."

There would be individual carrels, several with media equipment, tables that could sit either two or four, and several study rooms. The number of these would depend on the size and the needs of the company; however, all would be individually controlled.

Since man's response to the environment is not completely understood and is based on factors within the individual's background, his culture, and his current attitude, there must be areas to allow for individual preferences. The study rooms would be designed to satisfy individual needs. They would be equipped with all the media equipment and at least one of them would be large enough to house a small group. The rooms would be individually thermostatically controlled, and background noises could be selected such as white noise, music or even rushing water. At least one of the walls would have its color controlled by a lighting system whereby the individual could choose any color within the spectrum.

Hence, the special library would be designed with the majority of its users in mind, but would allow for individuality and be based on behavioral research. Furthermore, the design would be flexible so that it could be changed in the future to comply with further research or with changing goals.

Conclusion

As is obvious, planning special libraries based on research has not entered its beginning stages. Consequently library design is going to have to incorporate the work that has been done in other fields and relate it to the special library and its objectives. The planning will have to involve psychological studies as well as input from the librarian and the architect.

"The time would thus seem most auspicious for experimental psychologists to take their place alongside their colleagues in social psychology, sociology, geography, architecture, planning, etc., in a broadside attack on the problems facing us in improving the quality of our environment" (14).

The special librarian has a difficult task in front of him with no promise of immediate reward. However, by recognizing that in planning a special library, the concept of a design team is as important as the statistics and standards of library equipment, an important step will have been taken towards designing the appropriate environment.

Literature Cited

1. Archea, John and Charles Eastman, eds. / *EDRA TWO*. Proceedings of the 2nd annual environmental design research association conference. Oct 1970, Pittsburgh, Pennsylvania. p.11–94.
2. Birren, Faber / "How Color Can Create an Environment of Excellence in the Classroom." An advertising brochure for the American Seating Company, 1969.
3. ——— / *Light, Color and Environment*. New York, Van Nostrand Reinhold, 1969.
4. ——— / Psychological Implications of Color and Illumination. Reprint from *Illuminating Engineering* (May 1969).
5. Hall, Edward T. / *Hidden Dimension*. New York, Doubleday, 1969.
6. McVey, G. F. / Designing for Quiet. *Design & Environment* 1 (no.4): p.41–45 (Winter 1970).
7. ——— / *Environment for Learning, the Application of Selected Research to Classroom Design and Utilization*. 1969.
8. Poole, Frazer G., ed. / *Library Environment, Aspects of Interior Planning*. Proceedings of the Library Equipment Institute conducted at St. Louis, Missouri, Jun 26–27, 1964. Chicago, American Library Association, 1965.
9. Sommer, Robert / Ecology of Privacy. *Library Quarterly* 36: p.234–248 (1966).
10. ——— / Man's Proximate Environment. *Journal of Social Issues* 22 (no.4): p.59–69 (1966).
11. ——— / Small Group Ecology. *Psychological Bulletin* 67 (no.2): p.145–152.
12. ——— / Sociofugal Space. *American Journal of Sociology* 72 (no.6): p.654–660 (May 1967).
13. Studer, Raymond G. and David Stea / Architectural Programming, Environmental Design, and Human Behavior. *Journal of Social Issues* 22 (no.4): p.127–136 (1966).
14. Wohlwill, Joachim F. / Physical Environment: A Problem for a Psychology of Stimulation. *Journal of Social Issues* 22 (no.4): p.29–37 (1966).
15. Zeisel, John / Interior Designers Discover Behavioral Research. *Design & Environment* 1 (no.3): p.41–43 (Fall 1970).

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Picture Organization

Practices and Procedures, Part 2

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■ Picture storage and retrieval are discussed. The use of Individual and Group cataloging is explained.

THREE METHODS of picture storage and retrieval are under discussion. Self-indexing files were explained in Part 1.* Individual cataloging should be given to valuable items such as original cartoons, artists' drawings and architectural drawings, historical prints, fine prints, posters, as well as fine photography. Group cataloging is recommended for less valuable pictures with a common theme.

INDIVIDUALLY CATALOGED PICTURES

Cartoons and Caricatures, Original Drawings and Architectural Drawings

When is it justified to catalog pictorial items individually? The cataloging process is so expensive that the image must possess historical, artistic, documentary or monetary value to receive this amount of attention.

Original drawings, cartoons and caricatures should not be kept in boxes or files open to casual readers. They should be stored in closed stacks and cataloged individually following the rules set down in the *Anglo-American Cataloging Rules (1)*. Descriptive cataloging rules have been developed for single works, sets of works and collections of pictures.

Library patrons should be advised to make their initial selections by using either catalog cards, visual catalog cards, inexpensive paper prints or photographic copies of the originals.

One of the problematic areas in subject cataloging is the development of suitable entries for cartoons with titles which do not sufficiently explain the contents of the cartoon. The images themselves without captions are often not self-explanatory. A cartoon in *Harper's Weekly,* August 19, 1871, is captioned " 'Who stole the People's Money?' —Do Tell. 'Twas Him." (Figure 1) It shows 15 men in a circle, each one pointing a finger at his neighbor. These men represent the Tammany Ring, notorious for misappropriating monies intended for the New York County Courthouse.

One subject approach to this cartoon could be *William Marcy Tweed* (1823–1878), the main figure in the scandal. It could also be cataloged under *"Tammany Ring," 1871: political cartoons, "Tweed Ring,"* or *Democratic Party, 1871.* In a chronological file of political cartoons it should be entered alphabetically under title for the year 1871. Thomas Nast, the creator of the cartoon, should also

* Part 1 of "Picture Organization: Practices and Procedures" appeared in *Special Libraries* 63 (no.10): p.448–456 (Oct 1972).

be represented by name because he is famous enough to have become a subject of research.

The artist and the title of a cartoon do not ordinarily cause difficulties for the cataloger. The subject analysis, particularly for 18th and 19th century political cartoons, is often a difficult task. It necessitates research in contemporary newspapers to clarify forgotten events and personages.

Subject headings for pictures with a literary or story content such as popular 19th century lithographs are more compatible with book subject headings than are those needed for drawings or cartoons. For more specialized collections, e.g., architectural drawings, new subject heading lists have to be created to serve the need of specialists. The Historic American Buildings Survey in the Library of Congress is arranged geographically by state, county, town or vicinity. A subject index on cards leads to appropriate examples for *Covered Bridges, Shaker Architecture* or *Log Cabins.* These subject headings were created to fill the needs of architectural researchers. Many of the terms such as *Dog Run* are not used as book subject headings.

Most collections of original drawings are arranged alphabetically by century under artist's name. If the title, e.g., *Cat and Butterfly* (Figure 2) explains the subject matter, this will only incidentally aid the user of the catalog. Separate subject entries are seldom provided because the primary purpose of most collections of original drawings is not pictorial documentation.

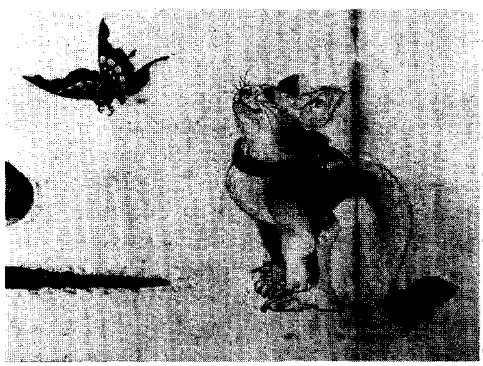
Historical Prints, Fine Prints and Posters

Historical prints in contrast to fine prints are defined as images of primary interest for their subject matter. A typical example is a view of a city or a series of prints based on travel sketches made in exotic places. These prints can be entered in a dictionary catalog under artist, title and subject. Aperture cards or visual catalog cards can be used for quicker identification of pictures. Sub-

Library of Congress

Figure 1.

"Who Stole the People's Money?"—Do Tell. 'Twas Him. Wood engraving based on a drawing by Thomas Nast attacking Tammany Hall and its boss William M. Tweed. **Harper's Weekly,** Aug 19, 1871. LC-USZ62–22116 p.19.



Courtesy of the Smithsonian Institution, Freer Gallery of Art, Washington, D. C.

Figure 2.

Cat and Butterfly.
Detail from a Japanese handscroll, Edo period, Ukiyoe school by Katsushika Hokusai, 1760–1849. Color on paper. 10½" x 44' 17⅜". Freer Gallery of Art, Smithsonian Institution, Washington, D.C. p.20.

* *

ject headings may be broad in small collections but these should be more specific in collections encompassing tens of thousands of prints. As a rule historical prints are easier to analyze by subject than artists' prints, the contents of which are often hard to translate into words.

Fine prints are cataloged under artist's name. These prints receive more thorough treatment than any other pictures because of their value. Size, the state of the print, and provenance are recorded in order to help identify the print.

The favorite subjects of well-known artists are known to print specialists. Thus a print of a needed subject may be traced to an owner through printed sources, e.g., exhibition catalogs, oeuvre catalogs or sales records. Subject cataloging of fine prints is not a common practice because these prints are usually in collections organized separately from documentary pictures. Fine prints should be mounted professionally on acid-free board. Readers should never be allowed to work with them without staff supervision.

Poster cataloging also follows the Anglo-American Cataloging Rules. If the artist is unknown, the poster can be filed according to nationality, provenance, or promotional goal. Following this scheme Swiss travel posters will be filed under sponsor advertisers as well as posters promoting the Red Cross, Scouting or Milk Consumption. Since the physical handling of posters is difficult because of their size, posters may be mounted on muslin or rag paper, or enclosed in protective mylar sheets to strengthen them and to prevent tears when consulted by readers. It would be desirable to have a set of inexpensive paper prints or other cheap reproductions made to help the public find needed posters. Here again, the organization is mainly a question of money because visual catalog cards or copy photographs are fairly expensive solutions to the preservation of the originals.

* *

Figure 3.

Niagara-Dixon Crossing Niagara on a ⅞ inch wire. Stereograph by George Barker, © 1890, Library of Congress. LC–USZ62–11018 p.23.

Library of Congress

Daguerreotypes, Calotypes, Ambrotypes, Tintypes and Master Photographs

Collections devoted to photographic prints as works of art are of fairly recent vintage. The Museum of Modern Art uses a photograph documentation record which lists 32 different aspects of each photograph. It covers information on the photographer, his technique, restrictions placed on the reproduction of the photograph, exhibition data, and subject classification. This thoroughness in cataloging can hardly be managed on a small budget, so in most cases a decision will have to be made in advance establishing the minimum information needed for proper description of individual photographs (Figure 3). The following information ought to appear on each caption and catalog card (not necessarily in this order):

▶ Photographer (his dates)	Barker, George
▶ Title of photograph	Dixon crossing Niagara
▶ Date of negative or original picture	1890
▶ Place photograph was taken	Niagara Falls
▶ Credit Line	Library of Congress
▶ Restrictions	No restrictions
▶ Subject	Tightrope walker
▶ Negative number	LC-USZ62-11018

Photographic assignments could be divided into stories for easier retrieval and listed chronologically under photographer's name. Thus the *Chinatown* photographs of Arnold Genthe would be a separate story and described as such.

When an institution owns the lifetime production of a photographer, a chronological breakdown into major periods should be established to facilitate the use of the collection. It is also desirable to publish a guide to the organization of the photographer's production for the benefit of outside readers.

An objective approach is a goal hard to achieve. Sometimes collections are maintained by one individual for so long that the interior arrangement becomes personalized. When this happens, only the cataloger can locate needed pictures. It is a fatal mistake to build one's retrieval system on the memory and experience of one individual. This is, however, today quite often the only way to locate a picture in a photographic collection.

Fine photographs are usually stored flat in boxes mounted similarly to fine prints. Daguerreotypes are arranged in vertical files in boxes or Permalife envelopes separated by cardboard or other padding to prevent breakage. When a daguerreotype is of unique value, it should be copied and the original stored in a vault inaccessible to casual readers. In any case, daguerreotypes are very difficult to consult in their original form; researchers will find well-made photocopies far easier to use.

GROUP CATALOGING

When neither self-indexing files are suitable nor individual cataloging needed, pictures and photographs can be cataloged in groups. These batches can then be described on one catalog card as logical entities. As an example of this practice, we are reproducing a catalog card (Figure 4) describing photographs taken in California in 1866 by George S. Lawrence and Thomas Houseworth. In preparing these group cards, the Anglo-American Cataloging Rules should be consulted. The following elements ought to be included in the description:

- Name of photographer or sponsor
- Title of the collection (contributed by cataloger if necessary)
- Subject
- Date
- Place
- Negative numbers (original or copy negatives should be specially pointed out)
- Restrictions
- Credit line

Subject headings for visual material should be inspired by the material at hand. Library of Congress subject headings for books could be consulted for possible entries but if nothing fully suitable has been established, the cataloger should invent a heading compatible with visual subject matter. The more concrete the heading is, the easier it is to use.

Pedestrian facilities may be an acceptable heading for a book. For pictures one may find it preferable to use sidewalks or paths or whatever term comes closest to describing the actual picture. It may be frustrating to attempt to arrange pictures according to book subject headings, and I feel it is both more desirable and more efficient to think pictorially and to create one's own expressive picture subject headings. Deep coordinate indexing is being used more and more in picture collections. Hierarchical indexing does not meet the requirements of modern pictorial informational needs. It is based on 19th century book cataloging concepts and does not fill today's demands for speed, accuracy and specificity. Any large collection should build its own thesaurus of retrieval terms to meet the specialized needs of picture librarians and picture users. It does not matter how peculiar a subject heading is—if it is needed, use it! The New York Public Library has a heading for *Opposites* needed for pictures of Summer/Winter, Night/Day, Rich/Poor, beautiful/ugly and similar

Figure 4.

Catalog card from the Prints and Photographs Division. Library of Congress. Lawrence and Houseworth, opticians, publishers. p.24.

Lot 3544

Lawrence (George S.) & Houseworth (Thomas), opticians.
Gems of California scenery...Photographed and published by Lawrence & Houseworth, San Francisco, 1866. (Documentary scenes and views of California and Nevada.)

860 stereograph halves, 3 x 4 in., with printed catalog.

File prints from copy negatives filed in 71 geographic and subject sub-divisions.

Library of Congress

subjects. The Library of Congress has a heading for *Rear Views* because pictures were asked for under this term.

MICROFORM USE IN PICTURE COLLECTIONS

Picture collections with storage problems and materials in many different sizes can profit from using microforms. Copy photographs in several different standard sizes can be easily made for patrons who can use these for many different projects. Pictures can be stored in cartridges, aperture cards, microfiche and rolls of microfilm. Although library users are often reluctant to use microfilm readers, these are convenient for picture retrieval in large collections.

Each type of microform has its own advantages and disadvantages in regard to storage, refiling, image retrieval and customer service. The total cost of microform use depends greatly on the in-house facilities of photoduplication available to the library. For this reason it is impossible to recommend one type of microform above another to a collection contemplating miniaturization in some form.

The field of picture organization is an exciting challenge to librarians because so much remains to be done. The intention of this paper is to raise questions and create interest in finding solutions to the many problems with which we are faced every day.

Literature Cited

1. "Pictures, Designs and Other Two-Dimensional Representations." In *Anglo-American Cataloging Rules,* Chicago, American Library Association, 1967.

The Special Library Consultant

Some Pragmatic Guidelines

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■ Guidelines are presented to assist the library consultant to determine what services, facilities and resources management requires its library or information center to provide. Some additions and modifications will have to be made since each organization is unique. These guidelines can also be used for self-evaluation of an existing library or information center. They have been used since early 1970 and have been found to be successful.

THE SPECIAL LIBRARY CONSULTANT should always keep in mind that his services were contracted by an organization's management because of its desire to establish or improve its library or information resource center. Consequently, the consultant should seek to develop and maintain a viable relationship with the entire management team since only management can implement his recommendations. The consultant should first learn the mission and functions of the organization. He should also learn its broad long-term plans and goals. Then, he should seek to determine what services, facilities and resources management requires a library or information center to provide for the benefit of the organization's staff. The consultant should enlist management's support for his assignment by explaining the methodology he proposes to use to meet management's goals.

First, the consultant will review the library facilities by evaluating its location, layout, size and equipment. The mission and functions of the library as well as the professional qualifications and job-oriented competence of the librarian will be surveyed.

Second, the consultant will conduct interviews with key staff members, representing every component of the organization, to analyze the level of service each is receiving from the library. As part of these informal, unstructured interviews, the consultant will request the interviewees to suggest any ideas that will enhance the effectiveness of the library in providing for their specific needs.

Management should be requested to make its key staff members available for these informal interviews with the consultant. It should encourage them to be as cooperative as possible during the course of these interviews, since they will eventually gain from any improvement which will result from the survey.

Advantages of Improving an Existing Library or Resource Center

Undoubtedly, one question that will arise from the management team is: what are the advantages of improving an existing library or resource center?

The most important single reason is to save the time of professional staff members and thus lower costs. This can be done in many ways *(1)*:

1. The duplication of costly research is often eliminated.
2. Specific publications can be found to answer specific needs.
3. Extensive and expensive collections of books, periodicals, pamphlets, research documents, reprints and other materials scattered among its departments and offices, in desk drawers, file cabinets and storage areas are eliminated.
4. Funds are no longer used to buy multiple copies of books and periodicals for individuals in the organization, when fewer copies properly centralized, circulated and controlled would better serve the needs of all.
5. Time and money spent by executives, to telephone around the country in search of information, is greatly reduced.
6. Important decisions are no longer delayed because of a lack of correct and current information.
7. Free but valuable information is no longer overlooked through lack of knowledge of its existence.
8. Professional employees no longer complain that they have to buy too many work-related books and journals out of their own pockets—an expense many cannot afford.
9. Professional employees do the reading necessary to keep up with new developments in their field.
10. New employees are encouraged and favorably impressed by the effective information services of their new employer.
11. Employees can borrow from non-public libraries when the lending library requires that materials be requested on interlibrary loan through their company library.
12. Trips to the public library to "look something up," which result in returning without the needed information, are reduced.

Administrative Review

Before visiting the library, the consultant should explore the areas of staffing, supervision and administration. Questions that should be explored are:

1. Is the person in charge of the library a graduate librarian, a professional grade employee or a clerk?
2. Under what criteria (i.e., standards or guidelines) was the person in charge of the library selected?
3. Does the job description clearly define the scope and duties of the person in charge?
4. Who, other than the librarian, determines library policy and procedures?
5. Does the librarian participate in planning for the future growth and development of the library's services and facilities?
6. Does the librarian have the primary responsibility for internal organizational structure and management of the library's facilities and services?
7. Does the librarian participate in determining the budgetary requirements for the library?
8. Does the librarian have the authority to expend funds relating to library functions? If yes, describe the extent of authority. If no, explain.

Library Review

Some questions regarding acquisitions:

1. What bibliographic sources does the library have and use?
2. Does the library have a continuing program for acquisitions?
3. Does the library have a current up-to-date selection policy?
4. Is the library recognized as the central point for the acquisition of books, periodicals and related library materials, ordered by components of the organization? If not, should it be?
5. Does the librarian possess the authority to approve or disapprove the purchase of books, periodicals and related library materials ordered by components of the organization? If

yes, what criteria and guidelines are used?

Questions that should be explored regarding the organization and retrieval of library materials:

1. Are materials readily retrievable by author, title and subject?
2. Has an effective list of subject headings been developed with adequate cross-references?
3. Does the classification system adequately serve as a basis for the systematic organization of the library's collection?
4. Does the cataloging provide the user with sufficient information to make a proper selection of material to meet his needs?
5. Are adequate catalogs and indexes available to the user?
6. Are the library's control records adequate to fulfill their objectives?

Questions which should be asked with respect to reference service:

1. Does the librarian locate library materials and information promptly on request?
2. Is telephone reference provided? If not, why not?
3. Are library materials circulated?
4. Is an adequate charge-out system used when materials are borrowed?
5. What type and quality of services are provided to users?
6. Is the librarian aware of information sources outside of the organization which are available to its users?
7. Is the librarian aware of reader interests in specific areas and are publications automatically routed to interested users?
8. Are microfilm and/or microfiche used? Is this material readily retrievable?
9. Is there an audiovisual collection? Is this material readily retrievable?

Informal Interviews with Key Staff

The following questions were adapted from an in-house series of informal interviews with key staff members *(2)*. They are sufficiently comprehensive in scope and depth to be used as a basic tool for the consultant in evaluating the effectiveness of library service in any organization. These questions are to be asked on a face-to-face basis with the interviewee. Only those which are applicable should be used. Whenever a question raises a series of responses which were not included in the outline, the consultant should pursue the responses until he is satisfied that he extracted all the information the question generated. The questions to be asked are:

1. Do you use your organization's library? If not, why not?
2. Do you use libraries outside of your organization? If yes, why?
3. What information did you request the last time you used your organization's library? Did you receive the information? Were you satisfied? If not, why not?
4. By what means did you request the information from your organization's library? How would you prefer to request information from your organization's library?
5. What additional library or information services would you like to have?
6. Do you have any trouble obtaining or locating technical information in the performance of your tasks? How do you resolve these problems?
7. Which organization publications do you read? What sort of information do you hope to obtain from them?
8. What non-organization professional publications do you read? Why do you read these publications?
9. What professional publications or documents should you read regularly but do not? Why do you not read them?
10. What do you consider your main area of professional interest?
11. The last time you needed job-related information, what was the first organization or person you went to, in order to obtain this information? What was the principal reason you used this first source?
12. What was the depth of information you received? What was the depth

of information you wanted and needed?

13. From the time you requested this information how much time did it take to get it? Was this amount of time considered adequate to meet your needs?
14. After the task was completed, did you find any information that was available, but unknown to you, at the time you were doing the task?

Summary

Since an organization's management contracted for the services of a special library consultant for one or more of the following reasons: to improve communication within the organization, to avoid duplication of prior work effort, to test the usefulness of existing technical information services (including the technical library) and to develop new information services, it is obviously aware that the need for information has a dynamic quality; it seldom remains constant.

Based upon this premise, the consultant should, at the completion of his survey, make an oral presentation of his findings and recommendations to management. This presentation should consist of a general overview of the current status of the organization's ability to provide information through its library or other resource centers to its professional staff, and recommendations for improvement, if warranted. Management should be assured that it will receive a detailed written report concerning the findings and recommendations resulting from the survey. Both the oral presentation and the written report should cover such topics as:

1. The role and function of the organization's library;
2. The effectiveness of the library's ability to serve the organization's professional staff to meet their job-oriented needs;
3. The degree and extent of utilization of the library's facilities and services by the organization's professional staff;
4. The library's physical space, location, accessibility to users, equipment, lighting, furniture and duplicating facilities;
5. The competence of the librarian and subordinate staff to fulfill their responsibilities to the organization's staff; and
6. The organization of the library's holdings (by the use of classification and cataloging systems) to provide prompt retrieval of pertinent documents to meet the needs of the professional staff.

The above factors are only a small segment which an oral presentation and a written report should include. Since each survey will uncover findings which are unique to any organization, modifications, deletions and additions to the above six points may have to be incorporated in the consultant's recommendations. In any event, a special library consultant's success will be measured in pragmatic terms by the organizations that avail themselves of his services. He should provide management with data which can be implemented with due regard to cost, disruption of interrelationships between the library and its clients, and the tangible benefits which will accrue to the organization.

Literature Cited

1. Strable, Edward G., ed. / *A Guide for Management*. New York, Special Libraries Association, 1966. p.4–5.
2. Landau, Herbert B. / Methodology of a Technical Information Use Study. *Special Libraries* 60 (no.6): p.340–346 (Jul–Aug 1969).

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Acquisition Philosophy and Cataloging Priorities For University Map Libraries

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■ An acquisition philosophy for university map libraries should be formulated to produce a well-balanced reference and research collection which will serve the needs of its academic community. Emphasis should be given to those areas or subjects of most importance to the school. The philosophy should also define the extent of support materials such as gazetteers, journals, cartobibliographies, etc., needed for use in conjunction with the maps and atlases. In order to make maps speedily accessible to users, a system of cataloging priorities emphasizing the subjects and areas of major importance to the university should be set up, especially for map libraries with backlogs. A cataloging and classification scheme which is easily understood, rapid and inexpensive is also essential.

A UNIFIED, well-defined acquisition philosophy is essential to the effective development of the university map library. Since an acquisition philosophy will be broad in scope and will affect the work of numerous staff members both within and without the map library, there is much to be said for a written policy. Such a written policy should take into consideration the teaching needs and research interests of the academic community, the strengths of the existing collection, and reasonable projections of financial support. Thirty map libraries were surveyed to discover the types of acquisition philosophies in use. Interestingly, while most map libraries were following some type of informal unwritten policy, only a very few of these map libraries had formal written philosophies. A written acquisition philosophy provides an organized plan to use when the necessary and frequent re-examination of priorities occurs in these days of budget cuts. Such a philosophy aids in the elimination or reduction of wasteful overlapping and duplicate purchasing. It reflects a knowledge of the university curricula and the interests of the academic community. An acquisition philosophy should indicate items that are not to be collected, as well as those considered necessary or desirable. The philosophy should not be rigid, but should be subject to frequent re-evaluation.

Differences in acquisition philosophy will be caused by variables including the position of the map library within the university library structure, the budget available, the size of the university, and the space available. Space and budget will be the most restrictive factors. In general, the size of the map collection, both in terms of depth of coverage and number of maps, will vary in proportion to the size of the university. Location of a map collection within a department of a university library will result in a more generalized acquisition philosophy than that for a map collection associated with an academic department such as geology. The types of materials collected will also result in variations in acquisition philosophy. Some map collections will collect only maps, others will acquire maps and atlases, and some will include maps, atlases and related materials.

Detailed Acquisition Philosophy

Based upon personal experience and information supplied by other map librarians, I have developed the following outline of the considerations to be studied in arriving at a detailed philosophy on the acquisition of maps, atlases and related reference and support material. Broadly, the purpose of the collecting activities of a university map library must be to support the research and teaching activities of the university community. A well-rounded collection of world-wide coverage of small and large scale general and thematic maps; national, state, regional and thematic atlases; and related reference materials will be necessary. Such a collection will support the projects on and sustain the interests in numerous geographical areas and subjects which will be the result of the diversity of curricula and research activities at a university. A comprehensive collection allows better coordination of research activities and saves time in answering map reference questions.

Secondly, a number of people have mentioned that there are many advantages in specializing or concentrating on collecting certain types of maps or maps of certain areas. Certainly, detailed topographic and thematic maps of the local area should be acquired unless another local map collection already fills this need. At the University of Michigan, for example, we usually collect only reproductions or facsimiles of early maps of the Americas, because the William L. Clements Library of Americana concentrates on that area. The Clements Library while not a part of The University of Michigan Library system is one of a number of independent specialized libraries within The University of Michigan. On the other hand, we have the major collection in Ann Arbor of early maps of Michigan and the Great Lakes as the Michigan Historical Collections, one of the other independent specialized libraries on campus and a possible logical center for such maps, does not wish to set up a special map collection.

The most important maps in almost every collection are large scale topographic maps. The majority of readers seem to require detailed map information about small areas which these maps provide. In addition, since the large scale of such maps results in numerous sheets to cover an area, a large quantity of maps is involved. As mentioned earlier, large scale maps of the local area should be collected. This is of primary importance because university students and staff are often encouraged to do research within reasonable proximity of the school. Large scale topographic maps will also be needed for other areas of known general interest, such as the United States or Western Europe. Such maps should also be acquired for areas of interest to members of the academic community. At the University of Vermont, for example, the collections of the map library include comprehensive holdings of large scale topographic maps of Canada because of a strong Canadian studies program *(1)*. While large scale topographic map coverage of the entire world, as well as for local or special areas of interest, is an ideal goal, it is not practical for most map collections. A minimum practical goal is to have medium scale topographic coverage for the rest of the world. Expansion of large scale coverage may be accomplished as budget, space, interest and staff time permit. Participation in depository programs with the U.S. Geological Survey, U.S. National Ocean Survey, and U.S. Defense Mapping Agency, Topographic Center provides much of the large to medium scale map coverage for many university map libraries.

Depository Items

Depository programs also aid collecting activities in the next category of importance in acquisitions—general and thematic small scale maps and atlases of the world, continents, regions, and countries. Political divisions, physical features, transportation routes or systems, population relationships, economic conditions, climatic conditions, and historical events should be included among the types of basic information to be provided. Hydrographic charts of U.S. areas may often be acquired by participating in a depository arrangement with the U.S. National Ocean Survey and the U.S. Lake Survey. The U.S. National Ocean Survey may also be able to provide a depository arrangement whereby small scale aeronautical charts of the world and sectional aeronautical charts (1:500,000) of the United States may be acquired. These aeronautical charts are useful because they show relief and are updated frequently. Furthermore, the 1:500,000 series is the only set at that scale to cover the United States. Although the quantity of atlases acquired on depository programs is small, occasionally an important volume such as *The National Atlas of the United States* is received.

Another major acquisition category is national atlases. Since these atlases often provide the most comprehensive cartographic information about a country at the lowest cost, they should be acquired as available. Atlases of states, Canadian provinces, and of local and other areas of importance to the academic community should also be collected because of the compilation of cartographic information that they represent.

Maps and atlases of major U.S. and foreign cities are another essential part of the map collection. A comprehensive, up-to-date collection of maps and atlases of cities in the state should be maintained. Thematic maps or atlases should also be acquired for such cities, whenever available. To avoid duplication of collecting activity and to provide better service in terms of having maps of cities of interest, coordinate acquisitions in this area with the university's urban planning department. General and thematic maps and atlases of counties in the state or areas of interest should also be acquired. This should include plat books and facsimiles of early maps and atlases, if not collected elsewhere.

In general, most university map libraries cannot afford to collect early original maps and atlases of their areas of interest. However, relatively inexpensive facsimiles of maps or atlases which are of significant historical, cartographical or local interest may often be available. Collecting of early original maps or atlases must be coordinated both with budget priorities and with other collections on campus.

A library system with strong subject divisional libraries, such as astronomy or geology, will require a decision on areas and depth of acquisition of extraterrestrial maps and atlases and/or geological maps and atlases. If centralization of map materials is not essential, the map library should at least acquire maps and atlases in these specialized areas which will provide general information and leave the collecting of detailed materials to the divisional library. It is desirable in the case of astronomical materials, for example, to have in the map collection general astronomical and planetary charts, large scale maps of the moon and a representative collection of astronomical atlases. Some of this material, i.e., large scale maps of the moon, may come to the map library as part of the U.S. Defense Mapping Agency, Topographic Center depository program.

Because of the great detail that they show and the frequency with which they are usually updated, aerial photographs are often a suitable part of a university map collection. While detailed coverage of the entire state may be desirable, it is often impossible to achieve because of budgetary or storage problems. A useful minimum collection is index-mosaics for counties in the state and detailed aerial photographs of the local area. Arrangements may sometimes be made with local, state, or federal agencies to obtain superseded collections of aerial photographs.

An additional area of acquistion for a map library in an institution with a program in remote sensing or meteorology may be satellite or other types of high altitude photography, including infrared and radar. At a minimum, examples of the types of maps and atlases produced by this technique should be collected. Some such maps may be obtained at low cost or on deposit from the U.S. Geological Survey.

Supplementary Materials

Globes are desirable for a university map library. Globes are not only decorative, but they are useful for their realistic representation of the earth or moon and for determining distances. As a minimum, a moon globe and a physical-political terrestrial globe should be acquired.

An important aspect of the acquisition program should be the collection of materials to use in connection with maps and atlases. It is useful to have a selection of gazetteers, comprising at a minimum the U.S. Board on Geographic Names gazetteers, and a few modern general gazetteers such as *Columbia-Lippincott* and *Webster's*. A similar selection of other types, such as national or state gazetteers, will be useful for providing place name information. The series of provincial gazetteers of Canada are very useful as are the gazetteers of Alaska and Delaware published by the U.S. Geological Survey. In addition, there are a variety of privately published gazetteers. Furthermore, it is also important to have some basic cartographical and geographical glossaries and dictionaries, foreign language map terminology dictionaries and general foreign language dictionaries. These items will be necessary for reader assistance if the desired map is not in a language well known to the reader.

While it seems appropriate, very few university map libraries include the geography book collection. It is desirable to have support material in cartography. General works on cartography, map reading, map symbols, map projections, mathematical geography and works which evaluate maps and atlases would be appropriate acquisitions. In addition, some university map libraries find that material on the history of cartography is pertinent to their users. It would be suitable to collect general works on historical cartography, works about specific important maps, atlases, cartographers, map publishers, cartographic productions of a certain country, and biographical dictionaries of cartographers, map publishers, printers, engravers, etc.

It is also advantageous to acquire directories, histories, journals or acquisitions lists, and printed catalogs of U.S. and foreign map libraries. These materials are often used to provide assistance in acquiring and cataloging maps and in referring requests.

Some journals in the fields of cartography, historical cartography and map librarianship are important because of their bibliographies, technical articles and listings of new maps and atlases. If it is not possible for all such journals to remain in the map collection, arrangements should be made whereby the important journals are sent to the map librarian for using in the selection process and for keeping up-to-date on recent developments.

Depending upon the strength and proximity of local public library or general reference collections, a university map library should also acquire a selection of guidebooks. While not usually essential to support research or teaching activities of a university, such materials are of recreational interest to members of the academic community and are of value in the same way that a browsing collection for recreational reading is of value. The extent of such collecting will, of course, depend upon the budget, space and staff time. Regional, national, and state guides such as those issued by Fodor and the various automobile clubs, city guides such as those published by

Baedeker and Michelin, and campground guides such as the ones published by Rand McNally and Sunset will be useful, and some are relatively inexpensive.

A major effort should be made to obtain cartobibliographies, whether they are on a subject, region, country, state, city, or mapping by government agencies. Some cartobibliographies, such as Phillips' and LeGear's *List of Geographical Atlases . . .*, are useful in identifying early maps. Other cartobibliographies, such as Küchler's *Vegetation Mapping . . .*, and the American Geographical Society's *Index to Maps in Books and Periodicals* provide access to materials which may be found outside the map collection. The printed catalogs of other map libraries are also useful for identification and location purposes. These cartobibliographies generally provide a wide variety of information about a map and usually provide a number of approaches to maps of a particular subject or area.

The last, but still essential, area of acquisitions is described by a term borrowed from Carlos Hagen, a "map information file" *(2)*. This is a collection of catalogs, indexes, and price lists from domestic and foreign, commercial and official mapping agencies and map dealers.

"To have such a file enables faculty and students to immediately determine whether the materials they want are published, and if so, their prices, technical characteristics, and the area they cover. The library, in turn, can immediately prepare acquisition orders for any area without having to write first for catalogs and price lists, something that, in the case of foreign countries, may take several months" (3).

There are a few items which I have not mentioned that may be collected by some university map libraries, such as weather maps, sailing directions or pilot guides, works on geodesy or surveying, and rolled maps. Quite often many of these materials will be collected by an individual university department for use in classroom instruction, as in the case of weather maps and rolled maps. Works on geodesy or surveying and sailing directions or pilot guides will usually be found in collections housing the books on engineering. However, it may be appropriate in some universities to have these materials in the map library, dependent as usual on budget and space priorities.

Cataloging Priorities

The second, and far briefer, part of my discussion concerns cataloging priorities. Most of the university map libraries surveyed did not have any priorities of cataloging. A few map libraries that had priorities put their own area first and others put subject or series maps in first cataloging priority. The methods employed in cataloging, classifying or otherwise processing incoming maps and the amount of staff time available must be considered in establishing cataloging priorities. It is essential that such methods be easily understood, rapid, and inexpensive. Recataloging or cataloging an entire collection which has been previously uncataloged will also require determining priorities. Dave Cobb of Indiana University defined the following priorities for cataloging previously uncataloged maps: Indiana, United States, Canada, World, Latin America, Africa, Asia, and Europe *(4)*. There may be some disagreement as to the order of priorities as established by Cobb, but the important fact is that he established them, presumably based upon knowledge of the academic community served by the map library. Such priorities help insure that those maps likely to be of most interest to the academic community will be processed and available in the shortest time possible. Separating items to be cataloged into area subdivisions, as done by Cobb, facilitates handling maps rapidly and, also very important, permits some chance of finding maps which have not yet been cataloged. Separating single maps from maps in series within these area subdivisions may also save time and effort since it is often possible to establish rapid processing methods for a series once it is initially cataloged.

Preparing map index sheets indicating coverage and accessioning such maps is one method of rapid processing.

Conclusion

In conclusion, a written statement of acquisition philosophy provides essential guidelines for effective development of the university map library in order to provide the best possible service for university map users. Consider well the academic community and the map collection and draw up an acquisition philosophy that does justice to the interests of the community and to the strengths of the collection. Then establish cataloging priorities to hasten availability of maps of most requested areas or subjects.

Literature Cited

1. Letter from Nancy B. Crane, Map Librarian, The University of Vermont, Burlington, Vermont 04501, Oct 18, 1971.
2. Carlos B. Hagen / The Establishment of a University Map Library. Western Association of Map Libraries *Information Bulletin* 3 (no.1): p.11 (Oct 1971).
3. *Ibid.*
4. Letter from David A. Cobb, Map Librarian, Department of Geography, Indiana University, Bloomington, Indiana 47401, Oct 8, 1971.

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The Special Library Budget

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■ Problems encountered by librarians in developing and living with a budget are described. PPBS (Planning-Programming-Budgeting Systems) is shown to be the most effective method of budgeting to insure acceptance and adequate funding of the library's facilities and activities.

A BUDGET may be defined as: a financial statement of the *estimated* revenues and expenditures for a given period of time. Because it is an estimate, it is, then, only a guide and should be treated that way. Unfortunately, the budget is often thought of as law. The administrator cannot overspend by one penny, unless he gets approval from the authorities. If he underspends then the money goes back into some consolidated revenue fund, and perhaps his budget request for next year will be trimmed in view of the fact that he did not spend all of this year's money. Is it really compulsory to spend exactly the hypothetical amount in question?

There are a number of significant purposes behind a budget, in addition to being an estimate of monies: 1) the budget brings about a regular, periodic reconsideration and re-evaluation of the firm's* purposes and objectives; 2) the budget facilitates a comparative evaluation of different purposes and programs in relation to each other, and in relation to their relative costs; 3) the budget provides a periodic link among the working units.

It can be assumed that a special library generates little net revenue. Photocopying charges for outside use, research fees for use of facilities, fees for borrowing books, and the like are attempts to pay the costs of external usage of the firm's library—use that is generally not provided for in a budget, but could be if the librarian had sufficient data to determine the cost. External usage is extremely variable; sometimes it is a nuisance to the library staff, and it is usually operated on a *quid pro quo* basis called "library cooperation" when dealing with other libraries. As to individuals or students, the subject is wide open. The library can charge what the market can bear, or it can be generous and charge a token amount. One thing to consider is that any revenues generated may or may not affect the total sum of money that management gives to its library. Indeed, there is no guarantee that revenues will even be credited to the library budget.

Components of expenditures are relatively easy to calculate. Most special libraries are small operations, dealing

* "Firm" is used throughout to represent any institution with a library.

with sums under six figures. There are three basic parts to library spending: 1) salaries of library personnel (generally, 50%–80% of total); 2) literature and services costs (generally, 10%–40% of total); and 3) supplies, equipment, travel, etc. (generally, about 10% of total budget). Special libraries have their spending within these percentage ratios. But that does not mean that the budget may reflect these costs. For instance, supplies may come from the firm's general fund; books may come from a company-wide fund; even salaries may be charged to another area. A library budget, for example, may be costed at $15,000—all for books and periodicals. The rest comes from other sources. But this article will deal with the *total* cost of running a library, which includes the *pro rata* cost of telephones, lighting, floor space rental equivalents, etc. This, to management, should be an accurate reflection of what the library costs in dollars and cents, and for them to see how effective this cost may be to the personnel that make use of the library.

The special library within a firm will have its budget preparation affected by the *type of management theory* prevailing in that firm. There are several schools of management, dealing with classical thought, mathematical models, human behavior, and objectives. From these schools, the firm will devise its management tactics, and its type of budgeting procedures will affect the shape of the library's budget. Each librarian should know how his firm is managed. It might be easy to get by with a set of statistics showing increased use (but as no measure of effectiveness), and ask for 10% more funds next year. But what happens if the manager orders a 10% cut? Where will the librarian cut back? Does he have a cost-effectiveness report on the library? Does he know where every penny goes, and what can be cut or saved? Does he recognize alternatives or choices? The simplest solution for an unsubstantiated budget appears to be to cut back on non-salaried expenses. But if 30% of the library budget goes for literature, services, and supplies, then a 10% library cut will be about a *third* of this area.

Program Budgeting

One way to establish library priorities is to use the technique of program budgeting. This is most applicable for non-profit bodies, and a library, or any administrative support or back-up service, is essentially non-profit in its own operation, and in relation to the firm as a whole. It is just one device, but it appears to be the most comprehensive to put the library on a sound basis when discussing budgets with management.

It is part of "planning-programming-budgeting systems" (PPBS), which is a technique for organizing and displaying information about the activities or programs of an organization and their resource allocations. A program is a set of activities, having a common objective, which can be costed and evaluated as a whole. The problem here is that libraries are support bodies, and thus they are essentially passive and non-policy making. However, the activities *within* can be looked at and costed in relation to the program as a whole.

The purpose of PPBS is to help management to make better decisions. It is an *aid*, to sharpen the manager's judgment, and thus it is *not* an end in itself. However, it has the advantage that cost figures are required so that costing of library operations must be done. This provides the basis for a more formal analysis of cost-benefits. Cost-benefit analysis is a microscopic look at costs in terms of their benefits. It is comparative. For instance, a cost study of use of books by itself is nothing—there are only figures. But if periodicals, microforms, and other operations are costed, then there is a comparison upon which to base effectiveness—in essence, a cost-benefit analysis. Much of it is common sense, an attitude rather than a technique. Some of the tools used in sophisticated cost-benefit analysis include multiple regression analysis, critical path method, and PERT (Program Evaluation Review Technique).

PPBS, as a method of budgeting, is not concerned with items, or objects of expenditures, or aggregations of cost categories (e.g. salaries, travels, communications) but with activities that can be measured (e.g. reference services, study space, microforms) for long-term involvement. The components of a PPB system are:

- Objectives (identified);
- Choices (the most important component);
- Costs (inputs);
- Benefits and by-products (good and bad outputs);
- Analysis of alternatives.

The result should tell management what it is getting for its money.

The easiest way to start in PPBS is to find out what the library has now and what the library now does. For a typical library *(1)*:

Mission: to be a single source of all published information in the field of "x" research and development.

Goals and Objectives:

- Collect all applicable published information;
- Maintain it under bibliographic control;
- Disseminate it, or products resulting from processing it.

Activities:

- Provide circulation services;
- Provide reference search services;
- Prepare bibliographies;
- Provide "current awareness" services;
- Provide question-answering services;
- Others.

Operations:

- Acquire documents;
- Catalog documents;
- Store and retrieve documents;
- Search catalogs and other sources;
- Others.

Thus, the objective is not to fill a library with books but to see that information gets into the hands of those who need it. For each activity the librarian needs to determine the benefits that will be produced. Correct input is needed to determine the identification of those activities with high and low payoffs.

Cost Measurement

For measurement there is a tool called *performance evaluation*. A cost figure (from cost accounting, which takes in the physical plant) is attached to the performance of a function or activity rather than to outright purchases. This is a costing of what is done or performed, not what is bought or purchased. Input and output must be quantified (e.g. actual cost per catalog card). The work effort must be expressed in monetary terms for each job performed, not in total salaries. Terminology should be consistent for comparative purposes with other libraries. Work programs are identified, along with their costs, and perhaps the interrelationships of the programs are given, but there is no real consideration in cost accounting as to whether the programs are needed or not. For example, the librarian may tell management that he had 10,000 catalog cards done last year at a cost of $0.20 each, but this does not tell the manager anything beyond the expenses. Indeed, if he is a good manager, he will ask, "why do you need so many cards?"—a question that will not be asked if you have already outlined your programs and find that a card catalog, and its updating, are essential to dissemination of information, and that each book needs "X" number of added entries for effectiveness (such a number being determined by the diminishing returns factor). This method will probably ensure that budget cuts, instead of being made across the board, will be confined to those programs least necessary for the effective management of the library, and gives the librarian some control over his budget.

Performance evaluation does have certain weaknesses. There is a lack of accepted standards against which to measure work, and quantity rather than quality is measured. However, performance evaluation is a procedure used within the PPBS framework, such framework assuring that quality is measured.

Resource Allocation

By defining objectives, by measuring, by analyzing all choices available, the library can be better prepared to handle budget cuts, status quo budgets, or unexpected surpluses. The key here, in times of stress and budget reductions, is resource allocation. To allocate wisely *(2):*

1. Find the best choice for accomplishing an objective.

For example, suppose the staff tells the head librarian that the reference area needs more tools, while the cataloging area needs more staff. But maybe the reverse is true; that is, reference really needs more staff, while cataloging needs more tools. Some coordination here is necessary. More cataloging tools may mean less time spent in processing, freeing the present staff to cope with any backlog. In the reference area, the library should have the tools already. Perhaps the problem is that the staff cannot identify the question, the answers, or know where to look. Thus, they have to be trained or replaced. Perhaps the problem is that too many questions are being asked for the size of the staff. While it would be handy to have all the answers in one specific book rather than scattered around the collection and hence time consuming to search, maybe such a tool does *not* exist. The librarian may have to write it himself. Thus, if the librarian has to spend money anyway, recognizing that he might have to hire staff and buy tools, which way is the most effective? For the users, perhaps more reference staff is desirable. It looks good; it means the library has less people and costs for "hidden" services such as cataloging; maybe there will be enough staff time to compile those needed reference works, etc. Tools in the catalog area can be a help for the reference staff; it may mean later hiring a library technician as a replacement to cope with the regular books and certain aspects of cataloging and classification, while allowing the professional librarian then to be more of a manager, with a morale boosting increase in status, etc.

What would happen if the librarian hired more catalog staff and bought more reference tools? First, management might balk at these people in the "back room." Second, the tools, as mentioned earlier, may not exist, or may be part of an expensive service that has done the searching work but otherwise may be useless. Of course, this is all hypothetical. All choices open to the library should be studied before allocating resources.

2. Go after the right objective.

The real objective may be hidden. What is the objective of circulation control? It could be to see where all the books are at any one time; to see that the right person has the right book at the right time; or to prevent loss and theft. Are all these circulation control systems and subsequent forms really needed?

3. Pursue the right objective up to the point of diminishing returns.

Are second notices really necessary in circulation control? The notice is the forfeited benefit of putting that money elsewhere. It might be simpler to go and get the book. As to cataloging, are there any minutiae that may not be applicable to certain books? If so, then do not note them, and thus save time. What about the length of time that a user has to wait for service? Does the library need more staff? If so, how much? If the patron has to wait 15 minutes, then consider extra staff to reduce this to five minutes, but not zero minutes.

4. Recognize all the costs involved in a choice.

For example, suppose more effective reference service is required. The library may need better and more tools, or more staff. For tools—consider the cost, shelf space, acquisitions, cataloging, time value, etc. For staff—consider training, fringe benefits, salaries for professionals, phones, lunchroom load, payroll costs, space requirements (usually costly), desks, etc. These secondary and tertiary costs must be carefully considered.

A cost-benefit analysis, through performance evaluation, can help produce a higher proportion of better decisions in resource allocation than can other methods of budgeting.

Sell the Library

Special libraries do not exist by themselves. They are linked with the organizations they serve, and the functions and finances of the firm will determine the functions and finances of the library. There are a number of fundamental points about special library administration and budgets. The librarian works with his manager to determine the scope and extent of library services. From this can come a financial plan for producing such services. Generally, personnel may be subject specialists, with library experience. This tends to increase salaries, but may be offset by the fact that some libraries get supplies and equipment that will not be charged to their budget. This situation, of course, does not reflect the true operating costs of the library. Support generally depends upon the ability of the librarian to convince the manager of the value of the service, the extent the library is used, and how well the library staff serves the personnel in the firm. Support, then, is directly related to acceptance and respect for services rendered.

As Gordon Knapp *(3)* has said, "The budgeting process provides the librarian the opportunity to sell the library and its program to management. In budgeting, it is good to consider the business climate. The prestige of the library may be affected by the day to day contact with the library patrons as well as with supervisory personnel of equal or higher rank in the division of the organization."

To sell the library, especially at budget time, statistics of use, costing of programs, and effectiveness of the library in the firm's program are needed.

Effectiveness is difficult to assess. Existing criteria and standards are unsatisfactory because only some aspects of libraries lend themselves to quantitative measurement, such as the number of items cataloged, ordered, or retrieved in a period of time. The qualitative measurement of the value of a library service such as a literature search, bibliography, or current awareness service is difficult to assess. Yet assessment is vital if it is to be a part of the budget, especially if the budget is to be cut.

How does one evaluate the library, assess effectiveness, etc.? One way (not necessarily the best) is the comparative method *(4)*:

- *Norms:* Relate existing norms for library collection, staff budget, and size to total organization size and budget. Use data in library directories regarding collection, staff and budget for comparison, basing standards on data from better libraries.

- *Quality of Collection:* Compare with published lists of key literature or citations in the library's most used journals. Note records on library's ability to fill users' requests.

- *Referral Service:* Record number of questions handled per week, time and cost per question. Most important is percentage of questions solved in a reasonable time period.

- *Performance Index:* Determine ratio of material used to material requested.

Another is to assess the impact of the library and staff on the research program and staff. A performance evaluation, with proper costing, a look at other choices, and user surveys should tell the library if it is heading in the right direction. From this, the librarian should be able to determine which programs are more effective or have more of an impact than others. But it would not necessarily "justify" the library.

Preparing the Budget

All of the above must be considered before actually making the budget. It is sad to report that libraries are usually low on the priorities list of any firm. It is easy for administrators to cut budgets, without any understanding of what a library is all about, even those research directors who are responsible for libraries. In assessing their own costs, Research Directors evaluate their budgets according to the number of publications written (publish or perish), the cost per patent application, sales figures, or formulas developed per man week. A library, on the other hand, because it generates nothing tangible, is usually evaluated by user surveys or comparisons with other libraries. The overall result is that the library budget is prepared by the "add-a-little-bit-on-knock-a-little-bit-off" technique, with certain areas padded so that some budget cuts are not dangerous to existence. In many cases, the library is simply given some money and told that it must do what it can. The difficulty with both of these methods is that when the librarian really wants something, he cannot get it. He cannot show what the library has been doing or what it can do. He has no options, no cost figures, just a guess. And it is the same with formula budgeting.

Basically, there are two parts to any budget paper. First, there is the *resource acquisition* part. This is what is given to the Boss in order to get money (i.e. acquire). Usually, it has some formula budgeting to communicate the library's need for funds. Much has been written about this in the literature. The second part is the library's own budget (the *priorities* part). This is allocating resources among the competing demands for them. There are "X" number of books to buy, to catalog, to service; reference and research queries, etc. The librarian cannot spend his time attaching each item to a formula. A formula can be useful as a minimum standard to meet, and to exceed, in getting funds. But now these funds have to be spent. Libraries, unfortunately, have unlimited objectives and limited resources. There has been little written about this second budget part (probably because of its indefinite nature or that it rarely exists as a piece of paper).

Formulas vs. Unit Costs

Many formulas exist for budget determination (most are described in the articles in the bibliography). The budget can be established by determining a fixed amount, based upon the total sales of a company, or based on a certain percentage of the research budget, or based on the number of persons served. Alternatively, the budget can be based on the type and extent of services provided. PPBS analyzes the costs of such services. This provides management an insight into where funds are going, and permits the library administrator to communicate the cost of each service and plan for future budget requests.

Calibre of library staff and their status depend greatly upon the extent of funds available to pay salaries (salaries account for over 50% of the budget). Equipment and facilities account for another large chunk of the budget, especially for a one time expense in the initial setting up of a library.

But systematic budgeting by formula has no relation to the effectiveness of a library. It is most often used in large operations such as academic libraries, and there are acquisition formulas based on enrollment, importance of program, degrees offered, number of faculty, etc. Total funds may be expressed as a percentage of operating expenditures (usually 5%). For a special library, some interesting formulas for staffing can be related to potential users (such as 1 staff member to 100 users, less if special services are demanded), or as fixed amount of dollars per users. Books are acquired by a number of means: based on user requests in the past; based on totals expended by similar types of libraries; based on the average cost of books in each subject field, with consideration to the total number that may be bought; based on one bought for every 10 loaned; based on fixed amount of dollars per user; based on a fixed amount of dollars per library staff member; or based on a percentage for rate of annual growth (e.g. 5%–10%).

Formula models can be used, but the most convincing argument for management is unit costs (in fine detail) to link time with money. These are found by any of the following:

- *Job order cost accounting*—Determining the costs of a particular job order, such as a literature search;
- *Process cost accounting*—Determining the cost on the basis of the processes the product passes through and knowing the unit costs for each process, such as cataloging;
- *Cost centers*—The geographical locations or functions where costs originate;
- *Combining fixed costs* (building, maintenance or administrative costs) *with variable costs* (cataloging, reference and circulation);
- *Cost of being ready and cost of services* (services cost 25%; the rest has been obligated before any service begins).

Assembling the Budget

The components of a budget (programs, activities, costs, future trends and probable costs, etc.) now have to be put together. First, there is the determination of the work units. Then, there is the measurement of services. Finally, all of these are added up to reach the grand total (assuming that there are no budgetary constraints and no new expensive services, and that the budget has not been cut). But if the cut must be made, at least the librarian knows where the cut will be least harmful.

Originality now becomes important. Each library operates differently, and the budget document can thus vary from place to place. But the librarian must recognize that he is a manager of information and of people. He has managerial responsibilities, no matter how slight. He is in a position to sell the library to higher management, and there is no better way than through the budget.

The first budgetary item should be the mission and goals or objectives of the library. Then, the cost of each activity should be broken down, with notes to explain why these activities are needed and what will happen if they cease. Each operation in a library should be interrelated to justify its existence. For example, "X" may seem unusual, but without it "Y" and "Z" may not exist to carry on. Statistics by themselves are of no real value; costing is a value. So what if the library circulated 50 items a day? How much does this cost on a per item basis? $1.00? $2.00? $0.50? If this looks high, then find out why. Statistics can be relegated to an appendix or displayed on a graph. It always helps to have some comparisons, and management is able to read curves and charts. These pictorial representations are easy to extrapolate for future trends. The efficiency of a library is related to financial support, and while it is difficult to quantify growths and regressions, this must be done. Also, the librarian should be prepared to produce costs related to sole library activities (i.e. not performed for users). This is usually a small percentage, but takes in education, travel, conferences, entertaining, work done for outside users. At the same time, mention should be made of any non-library type activities that the librarian may be saddled with and could do without. Management will be interested in learning that certain activities might cost more in the hands of the library than in the hands of the public relations area, or office services.

The acquisition budget should be in two parts, with an addendum. Part one will be requests for items needed to maintain the services performed during the past year at the same level. Part two will be requests for new services, or for substantial increases in the level of existing services. Needless to say, part two will involve a lot of explanations and costing. Both parts should give the administrator an understanding of the effect of budget cuts, if such cuts are to be made. The addendum should be a multiple 5-year forecast, updated each time the budget is submitted. Again, the librarian should have a part one and a part two for each of these five years. This will give management a view of where the library costs are going. Costs and explanations will again be needed. Sometimes the librarian might be able to put in a part three where he can project the library services, given unlimited funds.

I have been purposely vague about physical presentation because each one is unique, and is based on each librarian's experiences and on each librarian's present library situation. A budget presentation should be done whether called for or not. It is a chance to sell both the librarian and the library, to earn management's respect for a professional job, and to do it on their terms—by costing effectiveness. Perhaps it can even show where reductions or additions are needed. This is particularly valuable if the librarian cannot transfer funds from one category (e.g. salaries) to another (e.g. books).

Typically, all non-revenue producing areas or areas with no product to push are among the first to suffer cutbacks. The library is in this position. Library support is a two-way street. To cut back on library expenditures will reduce the effectiveness of the library in its support role. And, the axiom is true: *that all firms deserve the library services they get*. A good, administratively supported library reflects on the firm, and the firm deserves it.

To live with an adequate budget (assuming no cuts), the librarian tries to stay within the boundaries that he has set for the library. Throughout the fiscal year, he will need to evaluate the budget periodically, and take the initiative to make reallocations as needs dictate. If he has a genuine need for more funds, then the cost analysis, based on new data (such as increased outside costs), will support the case and he can communicate this to management. There is no guarantee that the librarian will get an increase, but good management will at least listen and perhaps even be sympathetic, leading to more funds next year. But the librarian should ensure that he has control or the authority to switch around categories of expenditures to reallocate funds properly. It should be remembered that categories are related to each other. For example, reduced acquisitions mean fewer forms, less cataloging and classification, less supplies, less shelf space, more money for other items, more staff time, etc. The cause-and-effect relationships of priorities must be learned. Another tricky business is the type of budget requirement that funds be given monthly on a *pro rata* basis. This is a temporary budget cut when periodical renewals come up, and manipulations must be made. Also in this same category is the type of financial system employed, where monthly *pro rata* allotments may be common, prepayment may be denied, deposit accounts may not be allowed, books must have arrived before invoices are paid, petty cash may not be available, etc. This has some effect on the budget towards spending policies.

To make budget cuts, look at the library's costing analysis and trim the least important items. Following are many possibilities to consider.

Possible Budget Cuts

General Cuts

1. Eliminate *all* non-library activities (e.g. clippings, PR, recreational programs, distribution, entertainment guides, etc.); *or* offer to assume some services, with the provision that the library's budget will *not* be cut.
2. Reduce cooperation with other libraries. Borrow *from* rather than lend *to*.
3. Utilize a computer if a systems study shows that net savings would result.
4. Eliminate library budget altogether, and put it on a billing system for the user branches. Service is only given to those areas that have library funds.
5. Try to get the library shifted (administratively) to an area that seems to do well and seldom gets its budget cut, etc. (e.g. Research?).
6. Stress to users that services will deteriorate because of budget cuts. May be bad for morale all over the firm.
7. Rethink the technical services area. The library already provides a "free" service

for reference, etc., so why not a "free" service of books? It might be cheaper to just give an item away, especially if it is a paperback.
8. Charge a lot of money for external use of library: research fees for use of facilities; fees for borrowing books.

Personnel

1. Reduce staff—by firing, by attrition. Eliminate expensive employees. Early retirement.
2. If a vacancy occurs, (a) do not fill it. (b) institute gapping (the library might get an excellent person later). (c) go below specified qualifications. (d) reduce the salary level before hiring.
3. Cut salaries of existing staff. Do not give out merit pay *or* reduce merit pay.
4. Cut back on travel expenses. No conferences this year.
5. Go on a four day week at less salary *or* work longer hours during the normal five day week.
6. No student or summer part-time employment.
7. No Christmas bonuses.
8. Reduce hours of service (e.g. open an hour later and close an hour earlier). *Either* (a) staff works less hours for less pay, *or* (b) a reduced staff works for Public Services during the open hours and Technical Services during the closed hours (e.g. banking hours).
9. Replace some or all librarians by library technicians.
10. Time and motion study of existing staff to see where operations can be made more efficient.
11. Encourage sabbatical type leaves of absences, or a straight leave for a while.

Space

1. Reduce space. Try for extensive weeding or cheaper storage area.
2. Try to move more books out of the library. Increase or decrease circulation time.
3. Eliminate multiple copies.
4. Use more microforms and reader/printers if space is a problem. It costs more to store hard copy than it does microforms.
5. Sell duplicates, weeded copies, and other materials to a used book dealer or as waste scrap.

Books

1. Shop around for a cheaper source.
2. Use more "begging letters."
3. Use more interlibrary loans.
4. Weed shelves if space is packed.
5. Eliminate multiple copies.
6. Drop the idea of a balanced book collection. Users will not read what they do not want to anyway.
7. Buy fewer books. Be more selective.
8. Suspend acquisitions over a slack time. Re-order later, perhaps in bulk. Maybe the need was temporary.
9. Offer to review books for journals or the local newspaper, to get review copies for the library.

Periodicals

1. Cut dubious subscriptions to certain periodicals (e.g. *Time, Newsweek*). Does the library really need them? Do a user survey. Does this type of magazine end up in the lounge area?
2. Cut President or some high official off the routing list of a marginal publication *not directly* related to the work at hand. See what happens, but have an explanation ready.
3. More interlibrary loans to be used for user requests.
4. Eliminate multiple copies.
5. Get long term subscriptions (if the library can afford it now) for definitely worthwhile periodicals.
6. Get memberships charged to user branches, but have periodicals and books resulting from such membership revert to library.

Supplies

1. Use cheaper supplies, and use scrap items instead of new materials.
2. Get other administrative areas to pay for office costs (e.g. regular office furniture, supplies, postage, photocopies, etc.).
3. Cut back on publishing schedules. Drop an issue of accessions list now and then, or reduce frequency by half.
4. Charge back photocopies to users' own budget.

Cash Flow

1. Do not cut the rate of spending. Hope for the best, that maybe things will improve before the fiscal year ends. Convince the supervisor that few expenditures occur near the end of the fiscal year.
2. Use undated invoices towards the end of the year (deferred payments). Ask for a pro rata rate for periodicals that fall partially inside and partially outside the fis-

cal year. Ask for partial invoices, the balance to be paid in the next year.
3. Do not mail too frequently. Slow down the invoice processing.

Information Resources

1. Reduce the parameters of literature searches (diminishing returns).
2. Ask for aid in book selection so that the library does not have to wade through countless lists.
3. Let the users come to the library (i.e. close down the PR work). Be a *source* of information, do not be outward looking.
4. Examine the effectiveness of library use and the needs of users.
5. Use the telephone more *or* reduce the number of phone lines.

Literature Cited

1. Wessel, C. J. and B. A. Cohrssen / *Criteria for Evaluating the Effectiveness of Library Operations and Services,* vol. 1. Washington, D.C., John I. Thompson, 1967, p.7.
2. Modified from Keller, John E. / Program Budgeting and Cost Benefit Analysis in Libraries. *College and Research Libraries* 30: p.157 (Mar 1969).
3. Knapp, D. Gordon / The Executive and the Librarian: Administrative Relationships. *Special Libraries* 50: p.196 (1959).
4. Maizell, R. E. / Standards for Measuring Effectiveness of Technical Library Performance. *IRE Transactions on Engineering Management.* EM-7(2): p.69–72 (1960).

Bibliography

General

1. Bacon, Jeremy / *Managing the Budget Function.* New York, National Industrial Conference Board, 1970. 88p. (Its Studies in Business Policy, 131)
2. Bierman, Harold, Jr. / Managerial Accounting: An Introduction, by Harold Bierman, Jr. and Allan R. Drebin. New York, Macmillan, 1968. 414p.
3. Fazar, W. / Program Planning and Budgeting Theory. *Special Libraries* 60 (no.7): p. 423–433 (Sep 1969).
4. Mosher, Frederick C. / "The Study of Budgeting." *In Program Budgeting;* Theory and Practice, Chicago Public Administration Service, 1954, p.1–18.
5. Swanson, Don. R. and Abraham Brokstein / *Operations Research;* Implications for Libraries. Chicago, University of Chicago Pr., 1972. 176p. Proceedings of the 35th Annual Conference of the Graduate Library School, Aug 2–4, 1971. Also as *Library Quarterly* 40 (no.1): (Jan 1972).
6. Tudor, Dean / *Planning-Programming-Budgeting Systems.* Monticello, Ill., Council of Planning Librarians, 1972 (Exchange Bibliography #289).
7. Young, Helen / Performance and Program Budgeting: An Annotated Bibliography. *ALA Bulletin* 61: p.63–67 (Jan 1967).

Library Budgets

1. Axford, H. W. / An Approach to Performance Budgeting at the Florida Atlantic University Library. *College and Research Libraries* 32: p.87–104 (Mar 1971).
2. Axford, H. W. / Automated Book Budget Control at the University of Denver. *Colorado Academic Library* (Colorado Library Association) 3: p.13–16 (Winter 1966).
3. Bach, H. / Why Allocate? *Library Resources and Technical Services* 8: p. 161–165 (Spring 1964). Rebuttal by F. W. Hanes, with rejoinder. *Library Resources & Technical Services* 8: p.408–412 (Fall 1964).
4. Baldwin, D. R. / Managerial Competence and Librarians (PPBS). *Pennsylvania Library Association Bulletin* 26: p.17–25 (Jan 1971).
5. Bromberg, Erik / "Simplified PPBS for the Librarian." 11p. (Prepared for the Dollar Decision Pre-Conference Institute, sponsored by the Library Administration Division of the American Library Association at Dallas, Texas, Jun 17–19, 1971).
6. Brutcher, Constance, et al. / Cost Accounting for the Library. *Library Resources and Technical Services* 8: p.413–431 (1964).
7. Byers, Barbara B. / PPB—An Aid to Decision-Making. In Special Libraries Association, Toronto Chapter, *Bulletin* 31: p.12–19 (1971).
8. Cowle, S. R. / Presenting the Library Budget to Appropriating Authorities. *Minnesota Libraries* 22: p.329–334 (Autumn 1969).
9. Fairholm, G. W. / Essentials of Library Manpower Budgeting. *College & Research Libraries* 31: p. 332–340 (Sep 1970).
10. Howard, Edward N. / Toward PPBS in the Public Library. *American Libraries* p.386–393 (Apr 1971).
11. Keller, John E. / Program Budgeting and Cost Benefit Analysis in Libraries. *College & Research Libraries* 30: p.156–160 (Mar 1969).
12. Kountz, John / Library Cost Analysis: A Recipe. *Library Journal:* p.459–464 (Feb 1, 1972).
13. McAnally, A. M. / Budgets by Formula: Bibliography. *Library Quarterly:* p.159–171 (Apr 1963).
14. Morey, G. E. / *Identification of Common Library Goals, Objectives, and Activities Relative to a Planning, Programming, Budg-*

eting System. 1970. 75p. Thesis (EdS) Western Michigan Univ.
15. "Program Budget." (In Raffel, J. A. and Shisko, R. / *Systematic Analysis of University Libraries:* An Application of Cost-Benefit Analysis to the MIT Libraries. MIT, 1969, p.3–6.)
16. Schad, J. G. / "Allocating Book Funds: Control or Planning? *College & Research Libraries* 31: p.155–159 (May 1970).
17. Summers, William / A Change in Budgetary Thinking. *American Libraries:* p.1174–1180 (Dec 1971).
18. Viebrock, Ingo / PPB—An Aid to Decision-Making. In Special Libraries Association, Toronto Chapter, *Bulletin* 31: p.5–11 (1971).
19. Wessel, C. J. and B. A. Cohrssen / *Criteria for Evaluating the Effectiveness of Library Operations and Services*. Washington, D.C., John I. Thompson, 1967–1969. 3v. Contents: Phase I—Literature Search and State of the Art (Feb 1967); Phase II—Data Gathering and Evaluation (Aug 1968); Phase III—Recommended Criteria and Methods for Their Utilization (Jan 1964). Available from NTIS as AD 649 468, AD 676 188, and AD 682 758 respectively.
20. Williams, Gordon, et al. / *Library Cost Models:* Owning Versus Borrowing Serial Publications. Office of Science Information Service, National Science Foundation, Nov 1968. 161p. NTIS PB 182 304.

Budgeting in Special Libraries

1. Bloomfield, M. / Cost Characteristics of Library Service. *Special Libraries* 58: p.686–691 (Dec 1967).
2. Bouman, G. P. / Cost Analysis in Company Libraries. *Bibliotheckleven* 36: p.281–290 (1951).
3. Campbell, Wayne R. / "Feedback from the User—Sine Qua Non." In Paul W. Howerton, ed., *Information Handling:* First Principles. Washington, D.C., Spartan Books, 1963, p.107–136.
4. Dillehay, Bette / Book Budget Allocation. *Special Libraries* 62: p.509–514 (Dec 1971).
5. Fisher, Eva Lou / *Checklist for Organization, Operation, and Evaluation of a Company Library*. New York, Special Libraries Association, 1966.
6. Graham, Earl C. / Administrative Policies for the Special Library: An Inventory. *Special Libraries* 45: p.367–370 (1954).
7. Hoey, P. O'N. / Information/Library Statistics as a Management Aid: A Graphic Presentation. *Special Libraries* 63: p.8–12 (Jan 1972).
8. Huleatt, R. S. / What Do Libraries Do All Day? *Special Libraries* 61: p.78–80 (Feb 1970).
9. Knapp, D. Gordon / The Executive and the Librarian: Administrative Relationships. *Special Libraries* 50: p.196 (1959).
10. Maizell, R. E. / "Standards for Measuring Effectiveness of Technical Library Performance." *IRE Transactions on Engineering Management*. EM-7 (2): p.69–72 (1960).
11. Orgain, M. M. / Newspaper Library Budgeting. *Special Libraries* 55: p.30–33 (Jan 1964).
12. Organization for Economic Cooperation and Development / *Setting Up Your Company's Technical Information Service*. Paris, 1965.
13. Randall, G. E. / Budgeting for a Company Library. *Special Libraries* 58: p.166–172 (Mar 1967).
14. Schultz, J. S. / Program Budgeting and Work Measurement for Law Libraries. *Law Library Journal* 63: p.353–362 (Aug 1970).
15. Waldron, H. J. / Business of Running a Special Library. *Special Libraries* 62: p.63–70 (Feb 1971).

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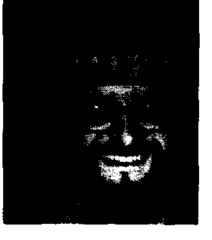

Three Pronged Approach for Centralized Library Services

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■ A three phase program whose purpose is drawing together nine small hospital libraries (522–2,300 volumes) into a cooperative, functional unit is shown in terms that evaluate both errors and over-all good planning. The authors describe the subsequent initiation of a strong central library (now 7,000 volumes) to give guidance and to provide liaison to and between each unit of the network that was created.

THE CATHOLIC MEDICAL CENTER OF Brooklyn and Queens, Inc. (CMC) was incorporated in 1967 to enable the diocese of Brooklyn to continue its century-long concern and care for the sick and the poor. CMC is based on the concept of regional planning and, at that time, it encompassed six community hospitals and two satellite outpatient units located in widely diverse sections of the boroughs of Brooklyn and Queens. In addition, there were three hospital schools of nursing, each containing its own library.

All the hospitals were accredited by the Joint Commission on Accreditation. Nine medical education programs (internships, fellowships, and residencies) are approved by the Council on Medical Education of the American Medical Association, and the pertinent American Boards of Medical Specialties. The three schools of nursing were approved by the National League for Nursing. The current single, centralized school, designated The CMC School of Nursing, is fully registered.

The philosophy for the organization of the hospitals into a comprehensive medical center and the long-range plan for the CMC have been reported *(1)*. Essentially the philosophy is to have the six hospitals affiliated in a manner that will make the most efficient use of their resources of manpower and facilities. Centralization is the keystone of the operation. One innovative approach is to employ physicians as full-time departmental chairmen who are responsible for the patient care in their respective departments as they exist in each of the hospitals. Another approach is an increased involvement as evidenced by the establishment of satellite clinics, by training neighborhood health aides, by employing community organizers, and by serving deprived areas: specifically, the Bedford-Stuyvesant section of Brooklyn and the low income Jamaica area. Realization of these goals could not have been achieved if the administrators of the institutions involved were not ready for such a move.

Library Survey

Shortly after the CMC became operational, it was decided that a study of the library situation was mandatory. Accordingly, Sister Mary Labouré, O.P., Administrative Assistant, was commissioned to do a study of the medical libraries of the hospitals. Although Sister Mary Labouré had no library training or experience, she did a detailed and perceptive study of the six hospitals and depicted results that were both startling and disturbing to the administration. Sister had served an administrative residency as part of her Master's requirement at Columbia University, School of Public Health and Administrative Medicine. She visited the medical libraries, making observations and holding discussions with the individuals charged with the care of the library collections. She held conferences with the CMC medical chairmen to ascertain their requirements and their objectives relative to a hospital medical library, and she also made a literature survey of medical libraries to determine what the trends were in this field.

The plan she outlined established thirteen immediate goals and six long-range goals (Table 1). One of the immediate goals called for the appointment of a consultant to aid in setting guidelines for the administrators and to help in setting priorities for library development.

Dr. Pauline M. Vaillancourt was retained as consultant and met with the first CMC Library Committee on October 31, 1968. This was an exploratory meeting attended by the key physicians representing CMC and its member hospitals. At the second meeting, they asked the consultant to re-evaluate the first survey, revisit the hospital libraries and to present her own recommendations. A new library committee was appointed with representation from each constituent hospital and from the administrative staff.

Phase I

The consultant had been meeting with this committee and supported them in their decision to employ a qualified librarian to set up the CMC library. She had recommended Sister Regina Clare who was librarian at the School of Nursing Library of Mary Immaculate Hospital, one of the units of the CMC. Sister was appointed on July 1, 1969 and on September 25, 1969 the consultant's 66-page report was presented. It contained 25 recommendations and an analysis of the immediate goals as shown in Table 2.

This concluded Phase I, which was the decision to centralize. Interest and cooperation in this concept had been explored by the consultant with the directors of these hospitals. All had expressed genuine interest.

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Table 1. Summary of Long-Range Goals Projected in First Survey

1. To research the possibilities of obtaining a federal grant for the construction of a central medical library.
2. To explore the possibility of receiving a grant for training medical librarians and other information specialists in the health sciences.
3. To develop the ability to make films.
4. To establish a firm production laboratory and a closed circuit TV system.
5. To consolidate medical and nursing libraries depending upon the disposition of the nursing education program.
6. To develop a computerized communication network such as a teletypewriter (TWX) with existing resources to speed interlibrary loans and other information services.

Phase II

Phase II is concerned with the implementation of housing for the new centralized library and the development of plans and policies for the ultimate organizational structure among the libraries of the various hospital divisions of the CMC. Phase II is partially completed but still on-going.

The three nursing libraries presented a special problem because the schools were to be phased out by 1971 and a single, unified school of nursing was to be established and attached to Mary Immaculate Hospital and be called the CMC School of Nursing. This school became operational in September 1969.

Nineteen recommendations, which crystalized and detailed aspects of centralization, served as a pattern for building the cooperative functional network of services that emanated from the CMC Library to the individual medical libraries in the member hospitals.

It was recommended that the Coordinator take over the Medical Library of the hospital (called the "hub" hospital), where the CMC administration was housed, establish her office there and render library services to the medical and paramedical staffs of the hospital as well as to the CMC staff. The previous medical librarian had retired. This recommendation was accepted even before the consultant's full report was made.

All nine libraries had at least part time help but with varied educational backgrounds. In many cases the professional library decisions were made by the physician on the Library Committees. All collections were classified but one. However, one used Boston Medical, two used Cunningham, two used Dewey, one used a personally created classification, and two used the Bellevue Nursing

Table 2. Immediate Goals Projected in 1968, Analysis of 1969.

IMMEDIATE GOALS (projected 1968)	ANALYSIS (as of Sep 1969)
1. To establish a Central Medical Library.	Realized.
2. To employ an experienced full-time, trained librarian.	Sister Regina Clare employed. Library Assistant also employed.
3. To establish a target date for the completion of the physical facilities.	Projected: Jan 1, 1970. Realized: Jul 1970.
4. To acquire a collection of periodicals.	Started Jan 1, 1969. Also took over collection of one hospital in Jul 1969.
5. To provide a budget.	Budget of $49,235 was approved in May 1969.
6. To develop an interlibrary loan system.	Phase I started—Jul 1969. Phase II—started in Jan 1970.
7. To develop a photocopy system.	Established.
8. To provide records, videotapes, and audio tapes on a loan basis.	Made a long-term goal. However, audio-tape collection numbers over 100 cassettes.
9. Communication network between the Central Library and the hospital libraries.	Telephone service activates Courier Service (twice a day) to convey AV equipment and books, journals, etc.
10. To establish a basic or "core" library in each hospital (2).	A core collection has been selected and placed.
11. To develop and maintain continued communication between the Administration, the Planning Department, and the Medical Chairmen in the development of a centralized library.	This has been implemented.
12. To retain a consultant in the medical library field when necessary.	Consultant was commissioned in Oct 1968 and is on call.
13. To explore current resources: includes new equipment, memberships in existing, external networks, and educational institutions.	This has been started but is an on-going project.

Classification. It was recommended that all medical libraries adopt the National Library of Medicine Classification *(3)* and subject headings (MeSH) *(4)*. Seven recommendations outlined how this should be done. Because the Coordinator had the facilities, staff, and experience, she did all the cataloging for the medical libraries that were to continue in operation. One hospital was merged with the "hub" hospital which absorbed its patient care load. The library collection of that hospital was transferred to the CMC Library. The nursing libraries continued without change because two were scheduled to be phased out.

Centralization of acquisitions, binding, and journal purchases was also accomplished. One of the hospitals had previously issued individual purchase orders and separate checks for each journal on order. Since there were 88 journals received by this library, great savings were achieved by consolidating the journal list and using an agent.

CMC Library receives all books and they are fully cataloged and processed and then sent to the individual libraries. A record is kept of the location of the specific titles. This means that the CMC Library has a Union Catalog of books held throughout the center. In addition, for all books received since the inception of the CMC Library and held by that library uniquely, each hospital medical library receives a single main entry card which is added to its records. Since the CMC Library receives every book that any division medical library may order, this functions as a Union Catalog of books.

Each library has submitted its list of journals received which have been meshed into a Union List of Serials. The librarians routinely refer to it before going to outside libraries for loans.

Phase III

Phase III constitutes the long-range idealized goals of the CMC, especially the continued and continual exploration of available resources. For example, when Sister Regina Clare paid a courtesy visit to the library of York College of the City University of New York (CUNY), she observed medical journals among their holdings and inquired into their readership in an essentially Liberal Arts College. This led to an introduction to the Dean of the Division of Natural Sciences and Mathematics with the invitation to the Department and its Faculty to use the CMC Medical Library facilities. A memo to that effect was released by the Dean and within six weeks contacts had been established between York College and the CMC Medical Library. Among the users is a physicist, a prominent author, who is using the library for the literature needs of his latest research project. The visit was intended to be a cooperative, goodwill gesture toward York College which is one of the newest of the CUNY Colleges, located in Jamaica in an effort to serve conveniently local underprivileged students.

Other Phase III goals that were envisioned but not realized were numbers 1 and 2 (Table 1) relating to grants.

In December 1970, the CMC had applied for a grant to form an Audio-Visual Center and to complete a Union List, which, though not funded, served as an excellent exercise for constructive thinking about future plans. It is felt that within a few years the library may well serve as a place where meaningful research may be located and that funding should be sought at a later date for a specific research project or projects.

Goals 3 and 4 were not considered feasible as a library operation although the library might well control distribution of tapes, films and videotapes.

Another foreseeable goal for Phase III is the consolidation of the CMC Medical Library and the new CMC School of Nursing Library to achieve economy of staff, space, book and journal resources and to afford the School of Nursing access to audio-visual materials which it does not have currently. Among the added services the library provides photocopies, quarterly acquisition lists and library news briefs, interlibrary loans and MEDLARS Searches, and weekly showing of films.

Number 6 concerning TWX is a viable goal.

Finally, the educational experience of the library staff should be enhanced. While the staff previously did not take part in professional meetings, with the advent of the network, they have been encouraged and urged to do so. Funds have been provided by the member hospitals and by the CMC for attendance at local meetings, for membership dues, and for travel expenses to workshops and meetings. The staff has taken advantage of this. However, while in-service training sessions have been started, there is need for more formal in-house education sessions which might also be opened to the community by making them available to the librarians of the neighboring hospitals.

Summary

The realization of centralization in such a unique setting, as that of the CMC, has been a challenge. Of the nine libraries there now exists a network of four strong medical libraries and one nursing library. Both hospitals and libraries have been strengthened by consolidation, by effective utilization of personnel and equipment, and by economy achieved through centralization of various services.

Economy to the community of libraries has been achieved by having hospital libraries turn first to each other before turning to the large medical libraries of the region. In the case of the libraries, the guidance from CMC's Library Coordinator has promoted this concept of unity and service.

However, in regard to both hospitals and the library network, the greater gain has been in enrichment of service and in creation of many new diversified services in the field of health science.

Literature Cited

1. Butler, John J. / A Comprehensive Health Plan for a Catholic Diocese. *Journal of the American Medical Association* 206 (no.1): p.112–114 (Sep 30, 1968).
2. Stearns, Norman S. and Ratcliff, Wendy W. / A Core Medical Library for Practitioners in Community Hospitals. *New England Journal of Medicine* 283 (no. 27): p.1489–1498 (Dec 31, 1970).
3. U.S. National Library of Medicine / *National Library of Medicine Classification.* 3rd ed. Washington, D.C., Government Printing Office, 1969.
4. U.S. National Library of Medicine / *Medical Subject Headings.* v.10. Washington, D.C., 1969.

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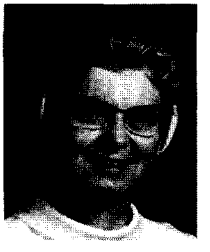
VAILLANCOURT



WOODS

Dr. Pauline Vaillancourt is a member of the staff of the School of Library and Information Science, State University of New York at Albany, and was consultant on this project. Sister Regina Clare Woods, O.P., is Coordinator of Medical Libraries, Catholic Medical Center of Brooklyn and Queens, Inc., Jamaica, N.Y.

Commentary on Library Education

Pauline Atherton's suggestions (*SL,* Jan 1972, p.31–36) for changes in library education merit careful attention from library schools, although they may be last to concede that radical alterations in training for librarianship are very much overdue.

The first of Atherton's several proposals, however, seems unworkable. It suggests a new admissions procedure "to determine if the student has the potential to develop in professional competence and take his full responsibility as a librarian." This determination would apparently be made primarily on the basis of interviews by practicing librarians, faculty members, and students at the library school. The interviews "would be designed to determine the enrollee's independence of thought, intelligence, and potential competence as a professional librarian."

Unfortunately, well-documented cases in fields other than librarianship indicate that interviews by supposedly qualified persons are *not* successful in determining these things. Consider, for instance, the admissions procedure followed by the London School of Economics *(1):*

> Prospective students were interviewed along the traditional lines by a Senior Tutor, with special attention to the likelihood, on personal and intellectual grounds, of their succeeding in completing their courses. This interview determined their acceptance or rejection. Those accepted were also given psychological tests *(2),* the results of which were not made known to anyone until the students in question had either graduated (with good or poor honors) or failed. Predictions made by the interviewers (all very experienced at the job) had zero predictive accuracy. The tests predicted future success quite well. Actually, the accuracy of the interview was probably much lower than zero, i.e. negative; interviewers had available headmasters' reports and other material about the candidate's past career, as well as some essays he had written, and this material by itself gave quite a reasonable prediction, although not as good as the IQ tests. The interview by itself must have lowered the predictive value of all the material available to the interviewer until a zero prediction accuracy was reached; thus the value of the interview as such must be assessed as being roughly —0.3 in terms of correlation with terminal performance. (It is hardly necessary to tell the reader that as a consequence the LSE refused to have any truck with IQ tests, and continued the demonstrably useless interviewing procedure.)

My experience, and I believe that of most librarians, has been that job interviews are not consistently accurate in predicting the performance of prospective library employees. We have all encountered the applicant who made an outstanding impression during the interview, and proved to be less than competent on the job.

It would seem preferable to continue giving the greatest weight in making decisions about admission to the applicant's transcript, performance on standardized tests of intelligence and academic competence, and recommendations from professors and employers. Atherton's suggestion that the admissions procedure also include two months of actual library work is a good beginning, but probably does not go far enough. Library schools (and new librarians) might encounter fewer disappointments if applicants were required, or at least strongly encouraged, to obtain a minimum of a year's work experience at the pre-professional level before entering graduate school. This would provide the practical knowledge of elementary library work which should not be properly transmitted in a graduate-level classroom. In addition to gaining better-prepared applicants, admissions committees would have employers' evaluations of how they performed in real library situations over a period of months. These should be considerably more illuminating than interviews.

This is not to suggest that interviews of library school applicants be completely eliminated; if only by providing face-to-face confrontations between students and faculty, they serve a purpose. However, one doubts that they would work satisfactorily in the way which Atherton proposes. It would seem suitable for some research-oriented library school to make the experiment, though, with a test group and a control group, to determine just how competent their interviewers really are!

Edith M. Bjorklund
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References

1. Hans J. Eysenck / *The IQ Argument; Race, Intelligence, and Education.* New York, Library Press, 1971, p.56–57.
2. Context shows that by psychological tests Eysenck means intelligence tests and not personality tests, which are well known to be unreliable.

The Author Replies

The results of the London School of Economics' interviewers cannot be used as evidence against my proposal because they had no built in cross-interviewing of the kind I proposed: namely, students, librarians, and faculty would interview prospective students. Their joint reports would constitute a better check, in my opinion, than a single person's interview report and an exam.

I did not mean to rule out the usual data collected for admissions, but meant to insert some methods for better prediction.

Bjorklund is right to conclude that some library school should try both methods and test the results.

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Actions of the Board of Directors Oct 5–7, 1972

The Board of Directors held its Fall Meeting Oct 5–7, 1972 at the Gramercy Park Hotel in New York City. Board members met Wednesday and Thursday evenings, Oct 4 & 5, to hold discussion sessions to identify a Positive Action Program and to consider matters pertaining to copyright.

The Board visited the Association's New York Offices to familiarize themselves with headquarters operations and to meet members of the staff.

General Fund Budget—The Board approved the General Fund Budget for FY 1973 (page 536).

Chapter and Division Allotments—The Board approved the recommendation of the CLO and DLO for allotments for FY 1973 to be paid at the same rate as last year. Chapter allotments of $3.00 per member per year and Division allotments of $2.00 per member per year will be paid by the Association in 1973 for all member categories except Student Members. Payments, based on the Dec 31, 1972 membership count, will be mailed about mid-February.

New Chapters—A European Chapter was approved. The Chapter's geographical boundaries include: Austria, Belgium, Denmark, Federal Republic of Germany, Finland, France, Great Britain, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and Turkey. Antonie L. Baker (Special Services Library, Munich, McGraw Kaserne, c/o APO New York 09407) is Chapter president.

A Kentucky Provisional Chapter was approved. Marian S. Veath (General Electric Company Library, Appliance Park, Louisville, Kentucky 40225) is president.

New Division—A Physics-Astronomy-Mathematics Provisional Division was approved. John W. Weigel, II (University of Michigan, Physics-Astronomy Library, Ann Arbor, Michigan) is chairman.

1973 Salary Survey—Advisory Council discussion at the 1972 Winter Meeting resulted in a Council recommendation that an SLA Salary Survey be undertaken every three years. Since the latest survey was conducted in 1970, the Board approved $8,000 for a 1973 Salary Survey.

Positive Action Program

As a result of Board and Advisory Council discussion in June, President Strable appointed a committee of the Board to determine ways in which a Positive Action Program may be carried out to promote careers in special librarianship within minority groups and the disadvantaged. The Board met with Peter Chen, Assistant to the Director to coordinate the Positive Action Program, Brookhaven National Laboratory (Upton, Long Island, New York) for this purpose. The Board adopted the Committee's proposed policy statement on a Positive Action Program for the Association:

The Special Libraries Association endorses a Positive Action Program relating to minority groups and to the disadvantaged. This program shall involve all units of the Association and shall be directed by a committee called the Committee on Positive Action

(contd. p.536)

General Fund Budget (Summary) January 1–Dec 31, 1973

Dues & Fees	$242,500
Less Allotments paid to Chapters and Divisions	(41,300)
Net Dues & Fees	$201,200

INCOME

Net Dues & Fees		$201,200
Periodicals Programs		
Special Libraries Program (Net)	(12,900)	
Scientific Meetings Program (Net)	3,700	
Technical Book Review Index Program (Net)	5,600	
Periodicals Programs (Net)		(3,600)
Conference Program (Net)		47,800
Education Program (Net)		600
Promotion Program (Net)		(13,500)
Interest Income		8,000
Other		14,000
Income for General Fund		$254,500
Expenses of General Fund		250,800
Anticipated Excess Income Over Expenses		$ 3,700
Transfer to Reserve Fund		(2,000)
		$ 1,700

EXPENSES, GENERAL OPERATIONS

Salaries & Wages	$142,000
Employee Benefits	11,400
Office Services	49,400
Occupancy Costs	39,100
Professional Fees & Services	21,600
Travel	7,700
Member Services	4,900
Bank Charges	400
Miscellaneous	100
IRS	6,000
Salary Survey	8,000
Research	500
Contingency	500
	$291,600
Less Reduction of Costs for Overhead of other Funds and Programs	(40,800)
Expenses of General Fund	$250,800

Gross Income

Because the program budget does not really indicate total SLA income, anticipated gross income for FY 1973 follows:

Dues & Fees		$242,500
Periodicals Programs (Subscriptions and Advertising)		
Special Libraries	98,100	
Scientific Meetings	19,300	
Technical Book Review Index	29,200	
Total		146,600
Conference (Exhibit Booths, Program Advertising and Registration Fees)		91,400
Education Program		9,000
Promotion Program		1,000
Interest		8,000
Other		14,000
Gross Income		$512,500

(Positive Action Program contd. from p.535)

Program for Minority Groups and the Disadvantaged.

A Positive Action Program is defined as one that commits the Association to a variety of activities that will encourage and assist members of minority groups and the disadvantaged in entering and advancing in the field of special librarianship and information service. Examples of activities include public relations, scholarship programs, publishing, recruitment and encouraging membership in the Association.

This Committee will be charged with the responsibility of planning a Positive Action Program, directing the development of the program, and with monitoring the progress of the various phases of the program. The Committee will report to the Board of Directors at its Winter Meetings and at the Annual Conferences.

Revision of the Copyright Law

The Chairman of the Senate Subcommittee on Patents, Trademarks and Copyrights, Senator John L. McClellan, has announced that it is now feasible for the Senate to resume active consideration of legislation for general revision of the copyright law in the 93rd Congress (Jan 1973). It is hoped that the Subcommittee can limit its further consideration to issues where there have been significant developments since Dec 1969.

In 1969, special provisions were added to Section 108 of the bill, concerning library photocopying. The Subcommittee is now particularly interested in new testimony relating to library photocopying.

The SLA Board has asked William North, in cooperation with SLA's Copyright Committee (chairman, Jack Ellenberger), to represent SLA in the negotiations relating to revision of Sections 106, 107 and 108 in the proposed draft of the new copyright law: Section 106 (Exclusive Rights in Copyrighted Work); Section 107 (Limitations on Exclusive Rights: Fair Use); Section 108 (Limitations on Exclusive Rights: Reproduction by Libraries and Archives). The Committee is now working to present its views to the Subcommittee.

One point of concern is whether the draft law as now written applies to private libraries or libraries in for-profit organizations as well as to those open to the public.

SLA on Copyright

At the SLA Board meeting in June 1972 the Board of Directors reaffirmed its position on copyright in a Position Paper on Library Photocopying. That statement, which affirms the concept of "fair use," appeared in *Special Libraries* 63(no.7): p.338 (Jul 1972).

At the October meetings, to emphasize the Association's position on the "fair use" provision in copyright as applied to the Association's own publications, the Board accepted the recommendation that the following statement appear with the copyright statement in *Special Libraries* and *Scientific Meetings:*

"Material protected by this copyright may be photocopied for the noncommercial purpose of scholarship or research."

Williams & Wilkins Statement

In June, Williams & Wilkins had issued "A Statement to Librarians from the Williams & Wilkins Company." This Statement announced that, as a result of the report handed down by Court of Claims Commissioner James F. Davis on Feb 16, 1972, Williams & Wilkins would, beginning with the 1973 volumes, charge new, higher institutional subscription rates for its journals. These higher rates would provide an automatic license to make single-copy photocopies of articles for library patrons but not for other institutions or for fulfilling interlibrary loans. A five-cents-per-page fee would be charged for photocopying to fulfill interlibrary loans.

Librarian Reaction

In response to this Statement and to librarians seeking advice in considering their journal renewals, ALA published its official reaction in the *ALA Washington Newsletter* 24(no.8): p.2 (Aug 11, 1972). The ALA statement noted that:

"First, *a number of leading libraries have individually determined that they will not renew their subscriptions at the Special Institutional Rate;*

"Second, *Williams & Wilkins' assertion that 'a license such as that in the institutional subscription rate is a legal requirement' is based on a Commissioner's Report and is not, to date, the decision of the Court of Claims;*

"Third, *the propriety of the Commissioner's Report is being strenuously contested in the Court of Claims . . .;*

"Fourth, *libraries in which copies are made on coin-operated photocopiers not under library supervision and control, derive substantially no protection which they do not already enjoy under the license granted by the Institutional Subscription Rate;*

"Fifth, *general acceptance of the 'use tax' concept of the Williams & Wilkins Institutional Subscription Rate may reasonably be expected to encourage other journal publishers to levy their own 'use taxes' at ever-increasing rates;*

"Sixth, *the Institutional Subscription Rate* *does not authorize copies for interlibrary loans and thus contemplates a continuing and rigorous restriction on access to scholarly materials contained in Williams & Wilkins' publications.*

"Each library must decide for itself whether it will pay a premium for Williams & Wilkins' works notwithstanding the significant limits imposed on their use, and on the access to them, by the Institutional Subscription Rate."

Shortly thereafter, the following appeared in the SUNY Upstate Medical Center *Library Bulletin* 12(nos.8–9): p.93–94 (Aug–Sep 1972):

"The copyright problem resulting from Williams and Wilkins suit against the National Library of Medicine and the National Institutes of Health Library took on new proportions when Williams and Wilkins notified libraries that the subscription price on some of its journals would be raised to license libraries to make photocopies of individual articles for library users on the premises but not for interlibrary loan. Acceptance of such a licensing agreement would impose enormous charges on the library and would, in all likelihood, reduce or eliminate the interlibrary exchange of photocopies for individuals or for libraries. The SUNY Central Office legal counsel has advised us to place a moratorium on all renewals of Williams and Wilkins publications pending clarification of the issues involved. Some fourteen professional associations have allowed their official organs to be used in this test issue and all members of the faculty are urged to voice their opinions regarding this practice to their professional bodies. They include: American Society for Pharmacology and Experimental Therapeutics, American Gastroenterological Association, Histochemical Society, American Association of Immunologists, Society for Investigative Dermatology, American Association for Surgery of Trauma, American Urological Association, International Academy of Pathology, International Pediatric Research Foundation, American Society of Plastic and Reconstructive Surgery, American Association of Plastic Surgeons, American Society of Radiologic Technologists, Biological Stain Commission and Transplantation Society.

"All of the major national library associations have urged libraries not to accede on this point, and to wait until a decision is arrived at in the courts regarding the initial lawsuit.

"Copyright law is currently being rewritten in Congress, and unless the issues involved in the present suit are resolved in favor of the author rather than the publisher, many journals may well disappear from libraries. One solution to the problem would be for authors to retain the copyright to their work or to publish in journals and for associations which will allow the flow of information to proceed without inhibiting charges."

As a follow-up to that report a letter from the American Association of Immunologists indicated that the Society had no knowledge of Williams & Wilkins' plan to charge an institutional rate for the Society's official organ, *The Journal of Immunology.*

The advice of the Medical Library Association on this matter was reprinted in *Special Libraries* 63(nos.5/6): p.276–277 (May/Jun 1972). An analysis by a member of SLA's Copyright Committee appears in that same issue (p.275–276).

In general, librarians felt that if they subscribed to the journals with the higher rate and license to photocopy, they would be conceding the publisher's right to charge for copying.

New Williams & Wilkins Arrangement

In early October Williams & Wilkins issued a letter stating that after consideration of the misunderstandings caused by their new institutional rate to include a license to photocopy, they would maintain the new higher rate but it would not be related to any such license. Their statement is as follows:

"To Our Customers and Friends:

"After many discussions with librarians, administrators, scientists, and scholars, The Williams & Wilkins Co. has arrived at an arrangement concerning the photocopying of copyrighted material which we hope you and the rest of your library staff will find appropriate.

Background of W&W Position

"First, let us say that we have been publishing medical journals since 1909 and it is our hope and intention to continue doing so for as long as we are able. In most instances, the journals we publish have made modest earnings for their societies as well as a fair margin of profit for The Williams & Wilkins Company. This, we feel, is a reasonable and

proper situation. We also feel, and have always felt, that our function as publishers is an important and necessary one to the rapid dissemination of scientific information. Neither the medical society nor The Williams & Wilkins Company is in the publication business to make a quick killing or exorbitant profits. But as publishers and businessmen, we would be remiss if we did not consider all the factors that influence the economic viability of our journals. For when this economic viability is threatened, so too is the very existence of the journals and their role in the spreading of vital medical and scientific information. Over a period of time, an exhaustive analysis of the situation convinced us that uncompensated photocopying could lead to the demise of the scientific journal as we know it. We did not, and do not, wish to discourage scholars and physicians from photocopying journal articles. In fact, we encourage this as a most logical and practical method of disseminating information. It is our contention, however, that the costs of the journal must be spread equitably among all its users to offset the losses in revenue due to dwindling subscriptions.

W&W Versus the United States

"To establish this principle, we eventually found it necessary to bring suit against the federal government. In February 1972, Commissioner James Davis of the U.S. Court of Claims ruled in favor of the Williams & Wilkins Co., thereby upholding our contention that we are entitled to 'reasonable and entire compensation for infringement of copyrights.' Our action following this decision has been consistent with our long term objectives, which are to continue publishing journals and thereby serve the scientific community, while earning revenue for their societies and a reasonable profit for ourselves.

W&W's First Proposal

"Instead of resolving the copyright situation, however, Commissioner Davis's ruling seemed only to generate hostility and confusion. Part of this confusion, we must confess, was brought about as a result of our own action. Since we deemed it desirable to implement the ruling as soon as possible, The Williams & Wilkins Co. established a plan that would spread the cost of our journals among all of their users while continuing to allow the unimpeded flow of knowledge. As you know, our plan called for a modest rise in the journal subscription rate to institutions which would include a reproduction license. In return for this license—which, incidentally, averaged less than four dollars for the 56 year term of the copyright —we proposed to allow unlimited single-copy reproduction of all articles, current and past, in journals published by the Williams & Wilkins Co. carrying an institutional rate. (For a complete list of these journals, please see enclosure.) In addition, the plan called for a five-cents-per-page fee for interlibrary loan reproductions. Since it is our position that a Commissioner's ruling, unless reversed, has the full weight of law, it seemed logical that we proceed from his decision by requesting that the institutional reproduction fee be paid. Perhaps naively, we did not anticipate the strenuous objections by some segments of your library community. Until the government's appeal has been processed, it is their contention that the ruling does not have the weight of law and that compliance with our new procedures would imply acceptance of our position.

Reaction to the Proposal

"To further complicate the situation, during the months following our proposed plan announcement, much confusion and conflicting reports circulated as to our intentions. Some exaggerated charges stated that our subscription rates would soar to four or five times what they are at present; it was charged that burdensome bookkeeping would be required by librarians; some claimed that we even wished to curtail the practice of photocopying altogether. As a result of these charges, an atmosphere of distrust was created with both sides maintaining that they could not compromise their legal positions. In a letter to The Williams & Wilkins Co. of July 31, 1972, The National Library of Medicine stated that it is its position that it would accede to a rise in price based on an institutional rate to all libraries, great and small, but could not accept the implication that a license for photocopying is necessary.

The Solution

"In order to allow the NLM and all libraries to subscribe to W&W journals at increased rates and include them in Index Medicus, *we now accept the NIH-NLM position. Our new institutional rates, which we shall continue to request, shall have no connection whatever with a license to photocopy, implied or otherwise. In short, libraries*

may continue to supply their users with royalty-free, single-copy reproductions of W&W journal articles as they have done in the past.

"As stated many times, we have no desire to obstruct the dissemination of scientific information between library and scholar, which would certainly be the result of cancellation of subscriptions. Further, in the same spirit, we are, again without prejudice, withdrawing our proposal for the five-cents-per-page inter-library loan fee until the appeal of our case has been heard. In the meantime, we hope to work with libraries in an effort to develop a solution which will be mutually acceptable. Both of these concessions have been made with a sincere desire to see that there is no interruption whatever to the flow of scientific information between you and your patrons which would result from subscription cancellations. We are sure this desire coincides with your own objectives.

"To facilitate greater cooperation, please feel free to call Mrs. Andrea Albrecht collect, c/o The Williams & Wilkins Company, with any questions, comments, or suggestions you may have.

Sincerely,

WILLIAM M. PASSANO
Chairman of the Board"

Shortly thereafter, Marcel Dekker, Inc. issued a similar statement announcing that they would maintain the new higher rates for 1973 as announced but that no license for photocopying would be involved. Also, like Williams & Wilkins, Dekker is withdrawing their proposal for the five-cents-per-page reproduction fee.

This is the situation as it stands as of this writing.

Where Does SLA Stand?

Special Libraries Association has continued to be concerned about the copyright case as it affects photocopying.

In 1970 the SLA Board voted to join ALA as amicus curiae in the original court case of Williams & Wilkins vs. National Library of Medicine and National Institutes of Health.

As reported above, SLA re-affirmed the "fair use" provision at its June 1972 Board meeting.

Since then SLA has continued communication with William North, ALA counsel, regarding SLA's amicus brief in the Williams & Wilkins matter.

It must be determined whether the entire case covers for-profit libraries in addition to not-for-profit (or, even more narrowly, only governmental) libraries.

Standard for Technical Report Numbering

Following is the text of the proposed American National Standard for Technical Report Numbering. The proposed standard is now being circulated for comment by ANSI Committee Z-39. Comments may be addressed to the Chairman of the subcommittee: Donald P. Hammer, Associate Director, Library & Information Systems, University of Massachusetts Library, Amherst, Mass. 01002.

1. Purpose

The purpose of this standard is to provide a uniform format for the creation of unique but compatible technical report numbers. The use of this standard will enable issuing organizations to assign numbers to their reports that will be compatible in format with those assigned by others. Indexing services will be able to provide lists of technical reports by number without confusion. Similarly, libraries, information centers, and other technical report users will be able to locate and to easily organize the literature according to a consistent and accepted pattern. The standard will also enable users to cite and reference reports efficiently and accurately.

It is intended that the numbering standard will be used with all technical reports, including those produced on nonprint media.

2. Definitions

2.1 For the purposes of this standard a *technical report* is any form of technical literature issued separately that is not covered by another standard numbering system.

2.1.1 A *report number* is the complete formatted alphanumeric designation that is usually the primary means of identifying a report.

2.1.2 A *report code* is that portion of the report number that designates the issuing or controlling organization, or, in some cases, a personal author or special series.

3. Report Number Description

3.1 *Format* The format of the standard technical report number is as follows:

Example shows maximum length.

Group Separators

AXXX/XXX-XX-XXXX (Local Suffix)

Group I

Group II

Group III

3.1.1 Group I, the first group of characters, the *code* portion of the number, shall consist of a minimum of two and a maximum of eight characters, and shall designate the issuing agency or corporate author and may designate a subdivision or, in some cases, a personal author or a special series. In lieu of a subdivision, a functional series designator, such as TR—(technical report), TN—(technical note), SR—(special report), etc., may be used. The first character of this group shall be an upper case letter and the remaining seven may be alphabetic or numeric. One character only may be a slash. The slash is a floating character whose purpose is to separate the subdivision or series from the primary body of the code. It may occur in any position from third through seventh as appropriate. Its absence indicates that no expression of subdivision or series is intended.

3.1.2 The next character, third through ninth depending on the length of Group I, is a hyphen and serves as a field separator.

3.1.3 Group II consists of the last two digits of the year of publication.

3.1.4 The next character, a hyphen, is a group separator.

3.1.5 Group III, the remaining one to four characters, is reserved for a sequential number consisting of Arabic numbers only.

3.1.6 The three groups described above constitute the standard report number, and all three parts must be present in every number.*

* A country code can be prefixed to the number, if that information is deemed necessary at some future time, but it is not a part of the present standard format.

3.1.7 The Local Suffix is an optional field in which any additional information desired by the issuing organization can be indicated. It is not a part of the standard number and may be of any length and include any type of characters needed. It can indicate type of publication, type of nonprint media, series, in-house number, subject, language, etc. When a suffix is used, it shall be enclosed with parentheses and follow the sequential number (Group III).

4. Characteristics of the Report Number

4.1 The number must be unique identification for a given report and shall be assigned to one report only. Each volume or part of a multi-volumed report shall be assigned a unique report number, and, if possible, the numbers should be consecutive.

4.1.1 The number shall appear on the cover and on the title page of the original document, or in a prominent position on nonprint media, and on all copies of that document as provided by Z39.——1971.

4.1.2 The number shall be regarded as a permanent assignment and shall never be changed or altered.

5. Application

5.1 *Centralized Authority* A centralized authority shall monitor the system in general and coordinate the assignment of unique report *codes.* It shall maintain a registry of *code* assignments, supply as requested information about previous assignments, and promote the assignment and use of the numbering standard.

5.1.1 *Assignment and Dissemination* The assignment of unique technical report numbers is the function of each independent issuing agency or corporate body. The issuing organization shall present its *code* assignments to the centralized authority for approval in order to prevent duplication, and it shall request the registration by the centralized authority of the approved assignments.

COMING EVENTS

Nov 19–21. "User Characteristics and Needs" . . . at Airlie House, Warrenton, Va. General Working Seminar on National Science Computer Network. Dec 10–12—"Organizational matters"; Jan 7–9—"Operations and Funding." For information: H. Eugene Kessler, EDUCOM (Interuniversity Communications Council, Inc.), Princeton, NJ 08540.

Dec 5–7. FJCC . . . in the Anaheim Convention Center, Anaheim, Calif. Contact: AFIPS, 210 Summit Ave., Montvale, NJ 07645.

Dec 14–16. COINS–72, The Fourth International Symposium on Computer and Information Science . . . at Americana Hotel, Miami Beach, Fla. Contact: COINS–72, Center for Information Research, 339 Larsen Hall, University of Florida, Gainesville, Fla. 32601.

1973

Jan 9–11. Sixth Hawaii International Conference on Systems Sciences . . . at University of Hawaii, Honolulu. Contact: Bharat Kinariwala, University of Hawaii.

Jan 17–19. National Microfilm Association, mid-winter meeting . . . at Del Webb Towne House, Phoenix, Arizona. For information: NMA, 8728 Colesville Rd., Silver Spring, MD 20910.

Jan 25–26. Computer-Based Operations Research Institute . . . at Embassy Row Hotel, Washington, D.C. Contact: The LARC Association, P.O. Box 27235, Tempe, Arizona 85282.

Jan 25–27. SLA Winter Meeting . . . at Fairmont-Mayo, Tulsa, Oklahoma.

Feb 1–3. Symposium on Library Systems Analysis . . . at Schrafft's Sandpiper Resort Inn, St. Petersburg Beach, Florida. Sponsor: Florida Chapter, SLA. Contact Mrs. Joan Baurer, librarian, Florida Power Corporation, P.O. Box 14042, St. Petersburg, Florida 33733.

Feb 27–Mar 1. COMPCON '73 . . . in San Francisco, IEEE Computer Society. Contact: S. Fernbach, Lawrence Livermore Lab., P.O. Box 808, Livermore, CA 94550.

For Future Meetings of Library Associations, see *Special Libraries* 63(no.7):p.361 (Jul 1972).

REVIEWS

Scientific and Technical Libraries: Their Organization and Administration, by L. J. Strauss, I. M. Shreve and A. L. Brown. Second edition. New York, Becker and Hayes, 1972. 450p. $14.95.

There are very few books which attempt to describe the operations of the special library. This latest edition of *Scientific and Technical Libraries,* an important addition to the literature on special libraries, attempts to cover all the aspects of organizing and operating a scientific or technical special library. I can think of no other book which can compare to the comprehensiveness of this one in the field of special libraries.

Since this book attempts to cover so much, it is burdened in trying to achieve a minimum level of coverage for all the operations it mentions. There is no way to be as detailed about all the library functions within the limits the authors set for themselves.

There is a liberal use of citations to published literature in the text portion. These citations can provide the depth which the book does not attempt.

One aspect of the book which seemed unnecessary is the seemingly endless subject bibliographies included in the Appendix. Eighty-two pages, or nearly 20% of the book, are devoted to these subject bibliographies. Another twenty pages are devoted to Basic Reference Publications. These Appendices are of value to the very beginner. I find myself somewhat perturbed that so much space in the book is devoted to citations which can be found elsewhere.

One feature is the inclusion of vendors and their addresses. I was also surprised to find a vendor who had been out of business since 1969. This particular vendor appears in four places in the book. Often a problem with new editions is that some material from the earlier edition is retained in the new edition without a careful screening.

This second edition is an improvement over the 1964 edition in appearance. The 1964 edition seems to have used a typewritten master for the copy even though the margins were justified. The latest edition has the look of a professionally printed book.

I can recommend this book as a reference work for all special librarians. The authors have worked hard to produce a good, general book on how to run a technical library. It is a must for the librarian who is faced with the task of setting up a technical library with little prior experience.

Masse Bloomfield
Hughes Aircraft Company
Culver City, Calif. 90230

Guidelines for Library Automation: A Handbook for Federal and Other Libraries, by B. E. Markuson, J. Wanger, S. Schatz and D .V. Black. Santa Monica, Calif., System Development Corp., 1972. 401p. $12.50.

This book presents practical directions on how to automate the library. Two other books which have the same function are *Library Systems Analysis Guidelines* by E. A. Chapman and others, and *Handbook of Data Processing for Libraries* by R. M. Hayes and J. Becker, both published in 1970.

The aim of these three books is to provide help to the librarian who is planning to automate a library activity. They all contain sample worksheets and flow charts. Without making an exhaustive content analysis of the three books, this reviewer favors the book published by SDC as the best. These authors seem to speak with more experience from viewing many automated operating library systems. I also felt more at home with their opinions about when to consider automating library operations. However, all three books should be available to the librarian beginning an automation program.

Guidelines for Library Automation is divided rather uniquely. The first section is devoted to general feasibility guidelines, then system development guidelines and finally guidelines for automating specific library functions such as circulation. The second section is devoted to a description of the automation programs in action at various governmental libraries. These descriptions, including the machines involved in the operation, provide a source of experience for the librarian who is planning a similar function with similar machines. The liberal use of examples throughout the book increases its usefulness.

In physical format the book is $8\frac{1}{2}'' \times 11''$. The copy has been typewritten and has unjustified right hand margins; a hard binding is provided.

I do not hesitate recommending this SDC book since it will serve librarians involved in automation projects. It is the kind of book designed to give factual information and simple direction to those who will have problems in operating computerized library systems.

Masse Bloomfield
Hughes Aircraft Company
Culver City, Calif. 90230

PLACEMENT

"Positions Open" and "Positions Wanted" ads are $1.50 per line; $4.50 minimum. Current members of SLA may place a "Positions Wanted" ad at a special rate of $1.00 per line; $3.00 minimum.

In each membership year, each unemployed member will be allowed a maximum of two free "Positions Wanted" ads, each ad to be limited to 5 lines including mailing address (no blind box addresses), on a space available basis.

There is a minimum charge of $10.00 for a "Market Place" ad of three lines or less; each additional line is $3.00. There are approximately 45 characters and spaces to a line.

Copy for display ads must be received by the first of the month preceding the month of publication; copy for line ads must be received by the tenth.

Classified ads will not be accepted on a "run until cancelled" basis; twelve months is the maximum, unless renewed.

Special Libraries Association reserves the right to reject any advertisements which in any way refer to race, creed, color, age, or sex as conditions for employment.

POSITIONS WANTED

Experienced Government Documents Librarian—Seeks position with advancement potential. Wide background in all phases of public and university library work. Administrative experience plus accredited MLS and MA (in progress). Box D-191.

Company Museum/Library Coordinator—Desires position in NYC. 10 yrs. exp. in development, administration; upgraded, selected, researched, classified materials; prepared and mounted interntl. exhibits. Box C-173.

MLS—due U. of Md. Dec 72. MS (economics). 6½ yrs. govt. economist. Law degree 2/3 completed. Seeks soc. sci./law libr. job. Will relocate if law study can be continued. Wm. Gigax, 5201 Cathedral Ave., N.W., Wash., DC 20016.

Librarian—Recent MLS, seeks position in any type library, commutable from NYC. Some editorial, proofreading and library exp. Fluent French and Hebrew. Write: Tina Derhy, 17 Fort George Hill, New York, NY 10040.

Young Librarian—MLS, AB in Computer Science, and 3 yrs. of library experience. Seeks either conventional library position or work in library automation. Donald Egan, 6442 Regent St., Oakland, Calif. 94618.

POSITIONS OPEN

Experienced Librarians—Needed now! Library Career Consultants need experienced librarians in all categories, to fill existing job vacancies, nationally. Send your résumé immediately; it will be treated in utmost confidence. Send to: John J. Donahoe, Managing Director, Library Career Consultants, 915 Saxonburg Blvd., Suite 212, Pittsburgh, Pennsylvania 15223.

Librarian II—Technological Institute. Library of over 200,000 items with staff of three professionals serving engineering, physics, and chemistry faculty and students. To be involved in reference, special projects, and the provision of SDI services. MLS, with subject training in the physical sciences or one year's experience in a science-oriented academic, governmental, or special library. Open now. Salary: $9,350 or higher, depending on qualifications. Send résumé to Larry Yarbrough, Administrative Assistant, Northwestern University Library, Evanston, IL 60201. An Equal Opportunity Employer.

Head, Mathematical Sciences/Computer Sciences Libraries—Administers two research branch libraries: staffing; acquisitions; public service; liaison with faculty, other Science Dept. Librarians, and Library technical services. Requires graduate of library school having ALA-accredited program, 3–5 years professional experience in science library assignments or equivalent, and management-supervisory ability. An Equal Opportunity Employer. Contact: Peter A. Johnson, Chairman Search Committee, Stanford University Libraries, Stanford, Calif. 94305.

SUNY-Binghamton Librarian Openings—*Art Librarian:* Management of a separate collection of Fine Arts materials including reference works, monographs, and periodicals. Provide service to researchers and general students and faculty using collection. Collection development a prime responsibility. MLS degree and subject masters requisite, plus several years experience in an Art Library.

Afro-American Reference Librarian/Bibliographer: Collection development and specialized reference service in support of Afro-American studies program. Liaison between faculty and library. MLS degree plus several years reference experience in an academic library, plus knowledge of bibliographic resources in special area requisite.

Please send résumé, the names of three professional references, and salary expectation to: Gregory N. Bullard, Acting Director of Libraries, SUNY-Binghamton, Vestal Parkway East, Binghamton, NY 13901.

THE MARKET PLACE

INDEX TO ADVERTISERS

STATEMENT of ownership, management and circulation (Act of August 12, 1970: Section 3685. Title 39. United States Code).

1. Title of publication: Special Libraries.

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5. Location of the headquarters or general business offices of the publishers: 235 Park Avenue South, New York, New York 10003.

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7. Owner (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given.): Special Libraries Association, Inc., 235 Park Avenue South, New York, N. Y. 10003.

8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: none.

9. For *optional completion* by publishers mailing at the regular rates. Not applicable.

10. For completion by nonprofit organizations authorized to mail at special rates. The nonprofit status of Special Libraries Association and the exempt status for Federal income tax purposes has been changed by Internal Revenue Service from 501 (c)(6) to 501 (c)(3).

11. Extent and nature of circulation:

	Average no. copies each issue during preceding 12 months	Single issue nearest to filing date
A. Total no. copies printed (net press run)	10,560	11,000
B. Paid circulation		
1. Sales through dealers and carriers, street vendors and counter sales	none	none
2. Mail subscriptions	9,808	9,771
C. Total paid circulation	9,808	9,771
D. Free distribution by mail, carrier or other means		
1. Samples, complimentary, and other free copies	200	200
2. Copies distributed to news agents, but not sold	none	none
E. Total distribution (sum of C and D)	10,008	9,971
F. Office use, left-over, unaccounted, spoiled after printing	552	1,029
G. Total (sum of E & F—should equal net press run shown in A)	10,560	11,000

I certify that the statements made by me above are correct and complete.

JANET D. BAILEY, Editor
Special Libraries

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Maine	$340.00	Texas	$179.00
Maryland	$541.00	Utah	$62.00
Massachusetts	$678.00	Vermont	$263.00
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Minnesota	$360.00	Washington	$168.00
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