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Special Libraries, December 1969

Special Libraries Association

special libraries

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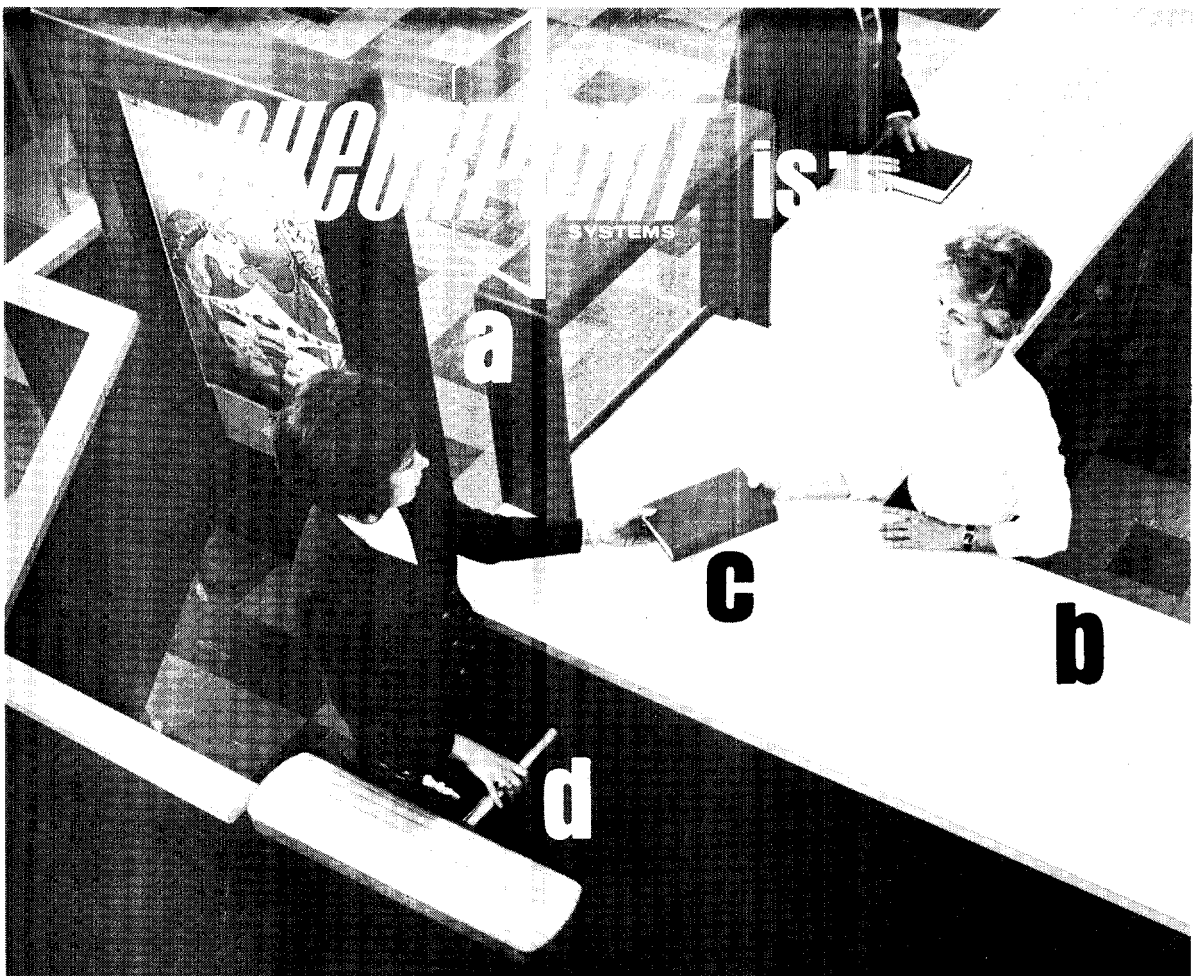

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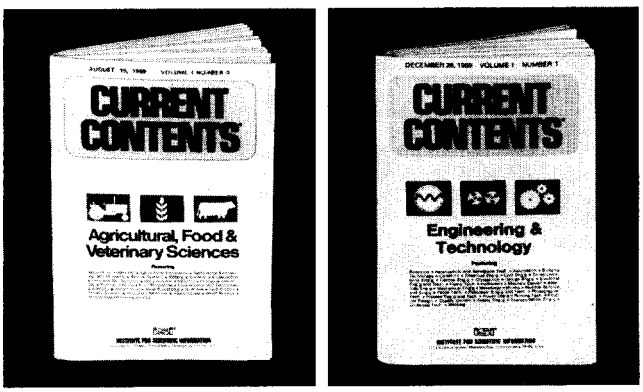

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SPLBA

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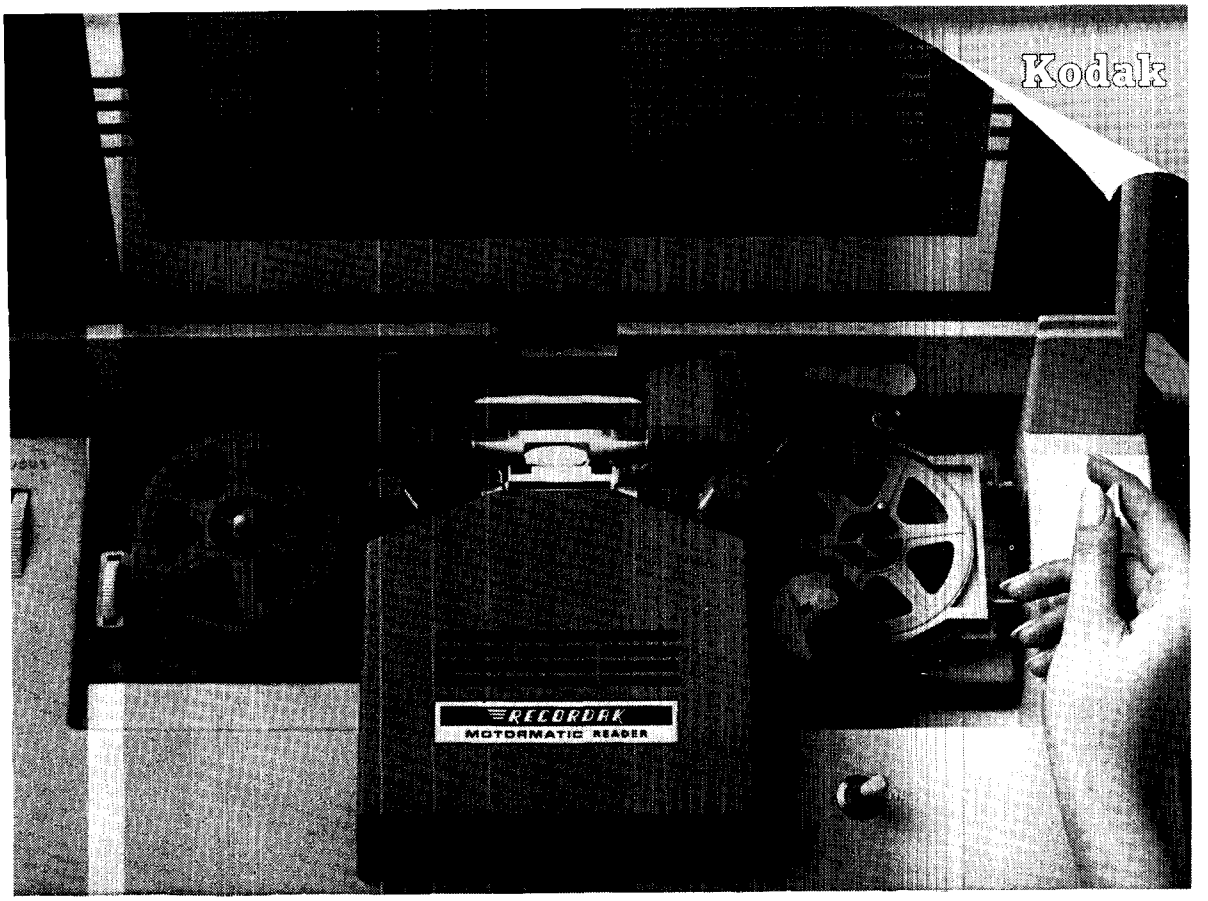

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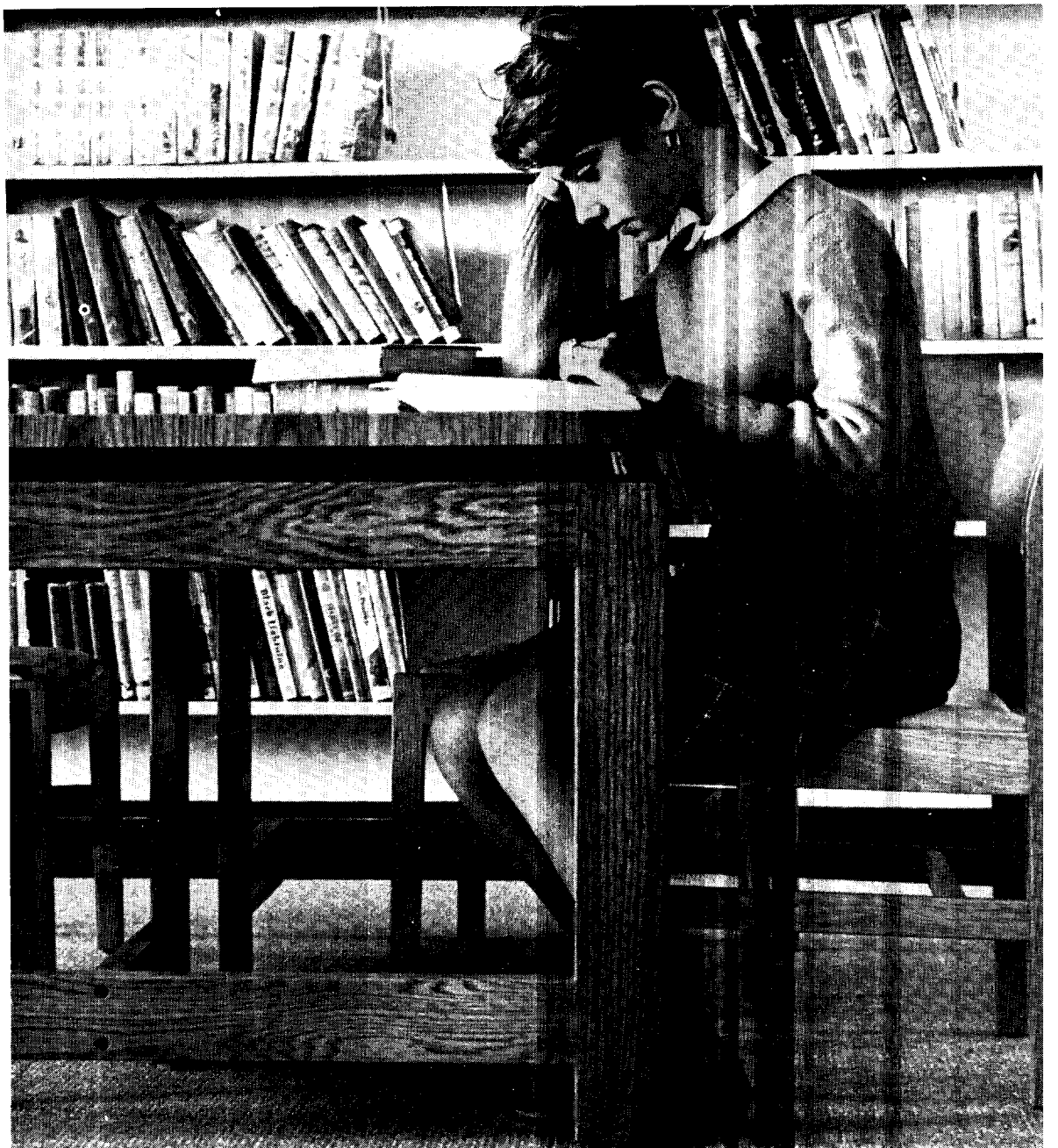

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e Tektonic 100 table. Before we built it, we had to find out a few things. Human things. Such as, how high is too high. w comfortable is comfortable. To learn this, we simply studied students. Analyzed their work habits. And got some eresting facts. For instance, we learned that 28 inches, not 29 or 30, is the ideal writing surface height. That it's smart cut down the contrast between the surface and reading material. That student ideas of study comfort vary from et-propping to elbow-leaning to even table-top sitting. So we had to make this table as strong as possible, as com- table as possible, as useful as possible. And make it esthetically pleasing as well. As you can see, the design is oak. re. Honest. Strong of character. This table won't ever protest. Write us about it.

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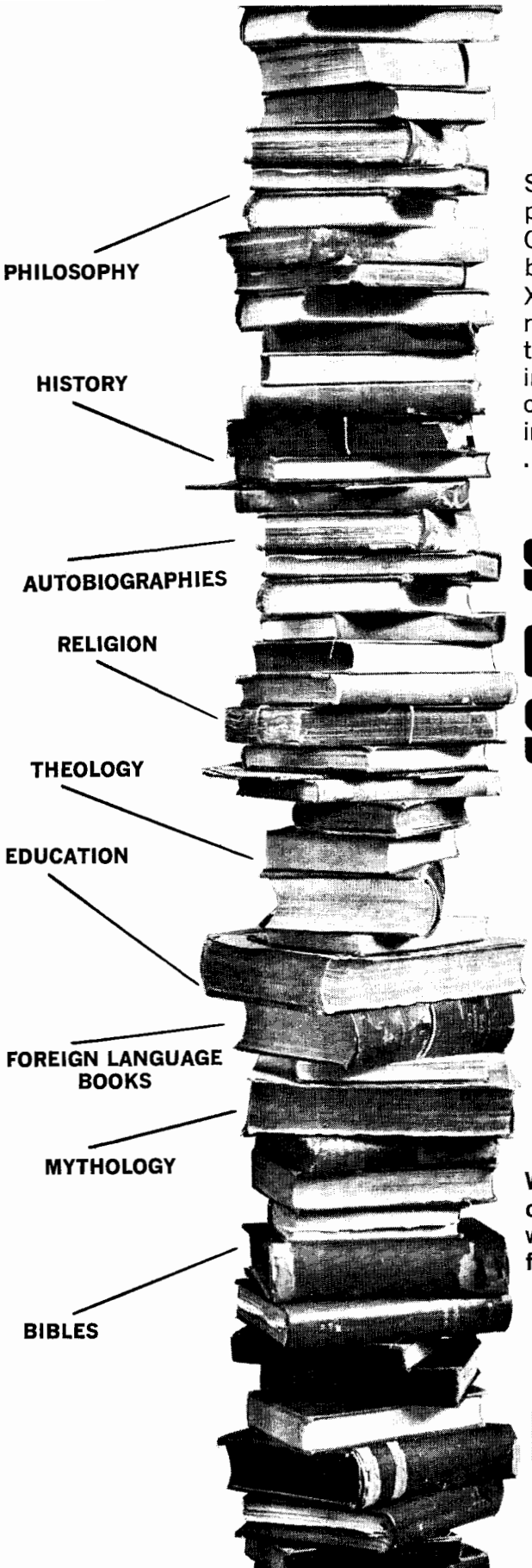

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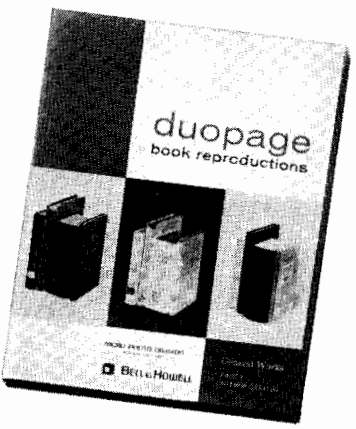

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What Do You Want?

EROSION of good will between all men dominates all reports of our news media. Strife in all of man's communities is the rule of the day. The simple antagonisms of yesterday between the cities and the suburbs or between the working middle class and the welfare recipients are polarized. The generation gaps, the black communities and white communities, civil libertarians and proponents of rigid law-and-order, hawks and doves—each seems inelastically polarized.

The rarity of true harmony is further emphasized by tensions between French and English speaking communities in Canada, between Catholic and Protestant communities in Northern Ireland, between dominant and minority groups in Nigeria, and between Israel and the Arab nations—among others.

Such strong yeasts create ferment not only in our individual thoughts; they also influence our business affairs and our professional aspirations. Are we smart enough to separate constructive ferments from those strains of wild yeasts that exploded the bottles of our parents' home brew during the Prohibition Era—40 years before the psychedelic joys of 1969 were so easily available?

Complaints appear in the bulletins of our Chapters and Divisions that the "Association" is unresponsive, that the Board of Directors doesn't do something, or else that it does the wrong thing. *You elected the Board.* The Advisory Council is ineffective or dead. *You elected your Chapter's and Division's representatives on the Council.* Chapter programs are great, but Division programs at Conferences are weak. Division programs are great, but local Chapter programs are pitiful. You are the Chapters. You are the Divisions. You are the Council and the Board.

SLA has a proud heritage of accomplishments. Sixty years ago, the Association was born as the full-sprung inheritor of innovators. Readers of *This Journal,* who have a sense of history, will have found that at intervals of about 20 years identity crises have confronted the Association. These identity crises were often related to a slow response to external events. When balanced response was restored, SLA again moved forward.

Rules to prevent organizational dry rot, that have been learned from corporations and government agencies alike, are also applicable to membership associations. Members like employees react to unfavorable conditions. Associations that stifle individuality in their members also decrease their own organizational capacity for change. Members who feel like unnecessary cogs in a machine will behave like unnecessary cogs; they will resist ideas evolved by others.

An association must have an *effective* program to recruit and develop new members. There must be a steady flow of highly motivated persons. Such persons are always in short supply. If we want our share of the short supply, we must go out and get it—and we must have rules that are both fluid and responsive to changing external conditions.

There is a trend to invent new labels for both people and things so that some nebulous "they" will appreciate us more if we have different titles. Only a few years ago, documentalists and information specialists were anathema in some parts of SLA. Now that these species have renamed themselves as information scientists, some segments of SLA are rushing into the waters of the true baptism to wash away even the word "library" from the name of the Association. Are these the things that you want? Or are you just dissatisfied with your inadequate responses to external conditions?

"Is there any trend to social awareness in SLA?" This question was addressed to an SLA representative during a press conference some months ago. The answer was that in SLA there was less need for direct involvement than by members of the generalist library associations.

Are we too securely comfortable because so many of our special libraries are deeply embedded within corporations or government agencies that we have forgotten that the ultimate clients of all special libraries are all men? As we declaim our professional roles, do we forget that our responsibilities lie much nearer to the decision-making levels of business and government than do any of the generalist libraries?

Can we afford the continued leisure time of annual parliamentary games to maintain our own apartheid through self-proclaimed professionalism? Or can we focus our energies on the real problems of the 70's? FEMcK

special libraries

Picture Retrieval by Concept Coordination

A Self-Interpreting Model File

Stanley Rice

Harcourt, Brace & World, Inc., New York 10017

■ A humanities oriented picture filing system is described by which picture search may be conducted by coordinating the concepts represented in the search request—by serial use of generalized schedules and logical set operations. The concepts (feature descriptors) that are the basis of the model system approximate a minimum descriptive vocabulary for the humanities, especially the fine arts. A simple edge punched card model is given as an example. This can be adapted to other more sophisticated systems.

Within the limits of given collections the effectiveness of the system could be carefully tested, but a general test is not possible because the total information content of a general collection cannot be measured. A prototype version of this model was set up at Harcourt, Brace & World, Inc., under the direction of the author, to index pictures for a series of humanities texts. Statistical analysis of the prototype was not attempted.

THERE are no good dictionaries of the visual language, no neatly organized parcels of visual concepts like books of verbal concepts—with indexing by contents, glossaries, descriptive titles, classification schemes, heading schemes, catalogs, bibliographies, and all the apparatus that constitutes the traditional filing and retrieval apparatus of verbal collections.

Pictures are, on the surface, comparatively simple; but so far it has been difficult to classify them by any system that allows for general or complex file interrogation. Usually pictures have been filed by job numbers, or by the name of the photographer or artist, or by job titles, or by an alphabetical accumulation of subject headings.

Most frequently pictures are used in ways that are complementary to words—with a speech or in one form of publication or another. Consequently, teachers, authors, editors, and others who wish to write or speak (and have images to supplement their words) would like to be able to *find* pictures in their area of concern. They need to interrogate picture files, and to direct questions of precision and complexity to collections to which they may have access. This interrogation is not now possible, and it is to this problem that we address ourselves here.

Frustration!

As picture researchers we may be frustrated occasionally by pictures that are known to exist, but that have been misplaced or misindexed with different concepts in mind. But we are far more often frustrated by knowing *what* we want but not knowing *how* to search for it. Very often too, we know only *more or less* what we want, and we need to have our vision clarified by actualities and

practicalities.

If we do not have a job number or an artist's name or a photographer's name, we are usually reduced to using whatever heading schemes and file folder names have taken root in the picture collections that we query. These schemes generally follow the traditional schemes for verbal subject heading indexing—if they follow anything at all. Most of them are arranged alphabetically by subject; and any guide or thesaurus–dictionary is rudimentary if extant.

Some larger collections use two or three Dewey classification numbers in combination with assigned subject headings; but most picture classification schedules are simply of the grow-it-yourself variety. Such files acquire folders for whatever may happen along, and such schedules become highly ideosyncratic very quickly. The chief saving grace is that if the librarian has a long tenure, he will learn to locate the items that are most in demand. Then the folders will acquire names important to the local demand. Such files tend to be dormant except for the simple and repetitious demands. Duplicated use of the same pictures by many publications is by no means attributable only to the excellence or uniqueness of the pictures. Ideosyncratic files cannot be interrogated; they can only be browsed. Browsing is valuable but so is interrogation.

Concept Coordination

The concept coordinated system of record filing and retrieval has apparently been applied to picture retrieval only in a few sophisticated, mechanized and scientifically oriented collections. Sophisticated and mechanized indexing systems are clearly not the answer for very many picture collections; yet so far they appear to be the only use of concept coordination in picture filing.

Our purpose here is to discuss concept coordination in non-scientific, relatively unspecialized, small or medium collections, with correspondingly modest budgets. The aim is a generalized example, easy to modify for specific uses or to use in its present form for the humanities or social studies, and especially for the fine arts.

We shall attempt to deal here with general principles and modest applications. We must remember that sorting and listing procedures of many kinds are available, both in tab card form (with or without a reproduced image) and on tapes or discs. But the real problems are those of system structure, subject analysis, input coding, and file updating; these problems do not change appreciably regardless of the eventual methods of sorting and listing.

Let us think in terms of a few thousand valuable pictures that we wish to coordinate conceptually for serious interrogation. We shall want to ask the file some really discriminating and hard questions, not just: "Do you have a picture of the *Lusitania?*" or "a picture of Ulysses S. Grant?"

Let us consider a typical "hard" question. Let us ask a picture librarian:

> "May I please see your 15th century and 18th century Italian and French and your late 20th century American paintings and drawings that show the spirit of revolt in society as opposed to political acquiescence? We want these pictures in order to compare the art with the literary and philosophical writings of those periods and places. We want only color subjects. We also want to show poor people as well as rich; and we don't want all the virtue on the side of revolt or all the passivity on the side of the conservatives."

If the file being interrogated contains any real quantity of paintings and drawings of the countries and time periods in question, such a request is within the possible useful scope of the file. As with any file, of course, a fully specific question may produce a disappointment (an empty set); but this disappointment is also useful information. Other files may be more useful; but most questions can be generalized intelligently with increased chances for favorable findings.

If the file is a concept coordinated file (in which "items" are coordinated with their associated "features" or "characteristics"), we can question it in terms of the features or characteristics or attributes of the items we seek, rather than seeking the items directly by name. We may not know any name for the combination of characteristics we seek, let alone a name that might have been anticipated by the collection. What name would we give to the items sought in our "hard" question?

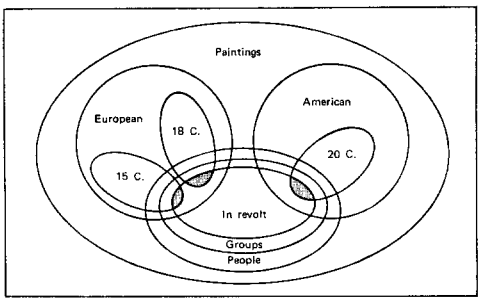

Fig. 1. Venn Diagram. The universe is the collection of pictures in the file.

We ask a concept coordinated file, serially, for a series of features, embodied in the items they represent: *1)* paintings; *2)* Italian and French, and *3)* 15th and 18th centuries; *4)* American, and *5)* late 20th century; *6)* people, *7)* groups of more than two; *8)* protesting or in revolt; *9)* active or heroic, or *10)* passive or static; *11)* affluent, or *12)* not affluent; *13)* powerful, or *14)* not powerful; and *15)* conflict related. This is the combination of features or attributes we seek.

There are a number of ways that this search could be carried out and listed, depending upon the particulars of the file and its handling system. This example is based generally, upon the model described in this paper. The handling will be described in its simplest terms.

A picture may be of some assistance in describing a search for pictures. Through Item 8 above, the relations between the sets of features requested can be pictured in a Venn diagram (Fig. 1) showing the "intersections" of the sets.

The strength of the concept coordinated file idea, in appropriate contexts, is difficult to appreciate with any exactness. The number of separate file folders "created" by a modest concept coordinated file such as will be proposed here becomes almost astronomical, especially when some of the schedules are composed of non-mutually exclusive features.

In the details of organization there is a considerable variety among concept coordinated file structures. The descriptive vocabularies of descriptors may be of fixed length or "free"; some hierarchy and some subject divisions may be useful adjuncts to break down files into smaller systems, and so forth. In the system suggested here, some elements of a hierarchical system are mixed with two lists of basic descriptors and with a specialized set of descriptors to be assigned on the basis of the type of collection being indexed. The type used as an example here will be a general humanities and social studies set, and perhaps especially useful for the fine arts. This is the least explored area in coordinated concept indexing.

The File Structure

We will need some definitions and classifications.

Picture. Any fixed image.

Universe of discourse. Entities (considered only in respect to the main picture subject) of which pictured representations exist in file.

Item. A picture, represented for classification purposes by an edge-notched card (or other vehicle) in file.

Feature. An attribute or characteristic of the main subject of the picture.

Vehicle. The edge notched card (in this simple model application) with schedules and other information as listed below.

A concrete example may be helpful. Edge notched cards are one possible vehicle whose use is widely understood. The complete classification of a picture (Fig. 2) is shown as a typical notched card (Fig. 3). In this case a few words and 20 notches represent: place, famous, complex, man-controlled, relief print, 1500–1800, fine art original, letter **U** (subject: Utopia), innocent, good, optimistic, social, urban, for approval, mythical, letter **G** (origin: Germany), and a **B** artistic rating. These serve to classify a woodcut of More's *Utopia* (Basel edition, 1518) Accession No. 101.

Fig. 2. "View of Utopia." Woodcut in the 1578 Basel Edition of Sir Thomas More's "Utopia."

Non-punches (complements) also supply information: artist unknown (or unimportant), more than three main elements, *not* conflict related (here peaceful), *not* work related definitely (but not leisure related here either), *not* realistic, *not* aggressive, *not* protesting. Any combination of these concepts will produce this card as evidence that this picture possesses each of these features. Likewise these features possess this embodiment, the picture. The example is handwritten copy on the back of a McBee Keysort Card. This provides a cheap way to test an application for a particular collection. (With computer handling, a language such as PL/1 is very well suited to this task because of its bit and character data operations, and its facility in handling arrays of structures.)

The form of the parallel picture file (the pictures that are symbolically represented by the cards) need not be specified here. Such a file could be a file of negatives, master prints, miscellaneous clippings, or in fact any collection that can be numbered and whose members can be located again as necessary. However, it is essential that the file be properly maintained and remain inviolate.

1. *Subject Classifications.* Two Dewey Decimal digits usually (class and division) with third digit optional (section).

2. *Names.* Common names of main subjects or artists' last names. If the artist is known and important, the artist's name should be listed and an additional position punched to indicate that the name punched *is* an artist. Some photographers can be treated as artists if desirable. But for most subjects the names stand for our old friends, the alphabetical subject heads for file folders. We can look for cats under C and Ulysses S. Grant under G. If it is important to do so, we can make a thesaurus–dictionary to regularize usage for those who wish to look in this way for items instead of features. We cannot do any more with this alphabetical file alone than we can with any other such file, but it should make many people more comfortable just to know that it is there. Synonyms may also be punched.

3. *Dates.* These indicate the main *subject* reference, except where date of artistic creation is known and important, in which case it is to be used. By appropriate date ranges, for example: before 1 AD, 1 AD–800, 800–1500, 1500–1800, 1800–1900, 1900–1939, 1939–1960, and after 1960.

4. *Classes of Picturable Entities.* These classes are intended to be almost mutually exclusive and collectively exhaustive for the universe of picturable entities:

Person	Process
Thing	Place
Animal	Relationship
Plant	No definable class

Obviously these terms are to be understood in certain broad senses. "Animal" includes all live creatures except man. "Thing" includes substances as well as objects and constructs. "Process" stands for identifiable complex progressions and makes one moment

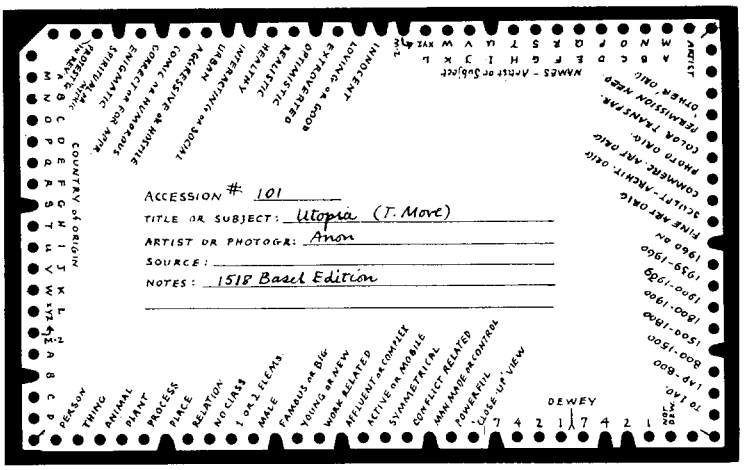

Fig. 3. Edge Punched Card to Describe "View of Utopia" (Fig. 2).

stand for the whole time sequence of the process—as when the subject is "storm" or "assembly line" or "crop dusting." The process itself must be the *main* subject, and more important than anything else in the picture. "Relationship" refers to abstract relationships when they are the main subjects (maps, charts, diagrams, etc.). Examples of "no definable class" are some abstract painting, music notation, perhaps news clippings, etc.

5. *Generic Features.* These apply to almost all classes listed above. Of 84 possibilities (excluding "No definable class") these terms are in significant degree applicable to 75. The complement of each is at the right.

Male	Female
Famous or big	Not famous or not big
Young or new	Not young or not new
Work-related	Not work-related
Affluent or complex	Not affluent or not complex
Active or mobile	Not active or not mobile
Symmetrical	Not symmetrical
Conflict-related	Not conflict-related
Man-made or controlled	Not man-made or controlled
Powerful	Not powerful
"Close-up" view	Not "close-up" view
1 or 2 Main elements in picture	3 or more Main elements

These terms are applied to the *main* subject of the picture. In any pair of terms that occurs in the left column either member of the pair may apply to the subject, but both need not. The terms by which the items are classified (by the person coding the picture) are in the left column. Each feature is coded if it is present in the main subject. If it is not present, it is not coded. Thus, if we want items with the feature "male" we search for "male." But suppose we want items with the feature "female"? It cannot have been coded; *but* we can search for "male" and then take all the items that do *not* respond. Those will be the women—if we have sorted for the "person" class first. If not, we may also get some female "animals" like vixens, or some "things" associated with females.

The terms in the right column are the complements of those in the left column. All that is *not* included on the left *is* included on the right, for each feature. Only the first two terms have simple complements; all the rest must define themselves. The complement of "work-related" is "not work-related." We cannot say that its complement is "leisure-related" because that would leave too many conditions that are in between work and leisure unclassified and irretrievable. This causes something of a lack of discrimination in the complementary list terms. This lack could be remedied by defining many more terms (as in the left column). This might be done in a computer application, but it seems more practical to handle it in this way in order to simplify classification—and live with the lack of discrimination. Greater recall will result, even if less precise and with less work. This compromise, for this model application, seems to work well in practice—especially if the file interrogator keeps in mind some of the common uses for the complementary terms. For example: "not

work-related" is *often* "leisure-related"; "not conflict-related" *can* be "peace-related"; "not powerful" is *sometimes* "weak"; "not close-up" view is sometimes "distant" view, etc.—*but not always,* by any means.

The true complement of "work-related" *must* be "not work-related"—a broad concept with a certain lack of discrimination that could include a lunch counter scene (unless the main subject is the counterman). Is climbing a mountain on vacation "work-related"? This is a typical question, that might be decided in several ways. Descriptive scope notes to generic and special feature lists should be elaborated to meet the felt needs of any particular collection, on the basis of experience: e.g. "Work means related to performing a regular job for pay," or "Use physical definition of work."

In the generic feature list, note that the terms "big," "new," "complex," and "mobile" refer chiefly to things—not persons.

These generic terms are not at all mutually exclusive, and cannot pretend to be collectively exhaustive for classes. Normally they will be sorted *after* one of the first eight classes has been chosen. And the classes will have been stored by the classification selected. The sorting (almost always set intersection) may be carried out in any order and using any features, either present or absent. The use of the absent features (set complementation) needs to be kept in mind when interrogating the file.

6. *Specific Features.* The social studies, the arts, literature and history can be generally served by this list. The pure sciences and the technical subjects will need other lists of specific features. This list *best* fits the arts:

Innocent	Not innocent
Loving or good	Not loving or good
Extroverted	Not extroverted
Optimistic	Not optimistic
Realistic	Not realistic
Healthy or alive	Not healthy or dead
Interacting or social	Not interacting or not social
Urban	Not urban
Aggressive or hostile	Not aggressive or not hostile
Comic or humorous	Not comic or not humorous
Correct or for-approval	Not correct or not for-approval
Enigmatic	Not enigmatic
Spiritual or mythical	Not spiritual or not mythical
Protesting or in revolt	Not protesting or not in revolt

Only one term of any pair in the left column need apply. Classification is on the basis of the left column only. The right column is to aid interrogation. (It may be supplemented by a list of appropriate complement synonyms.) The discrimination problem noted above for generic feature complements applies again here, during interrogation.

It is important to note that thoughtful *subjective* classification by these specific features is to be encouraged. Much of the communication payload of pictures occurs over communication channels that are very difficult to define.

Sorting (again usually set intersection) can be in any order. Usually this specific sort follows the generic sort, but not necessarily. Many strategies will intuitively suggest themselves as the most direct route in particular cases. (Here hand sorting has the advantage over mechanized or computerized search.)

As noted previously, this set of specific features applies to "people-oriented" pictures for the most part. Other sets of features can be elaborated for other subject areas. When the subject area has already been carefully classified, for example biology, such classifications will naturally serve as the basis for a feature code.

7. *Countries of Origin (of pictures).* Alphabetical by name of country—by two letter-groups, for example.

8. *Information about the Picture Represented.* These items, or a similar list, are coded when they apply to the picture:

Fine art original (painting, drawing, etc.)
Sculptural original
Commercial art original (include maps, diagrams, etc.)
Photo original—black and white
Color transparency original
Other type of picture (clippings, etc.)
Permission needed

An optional piece of information about the picture is a subjective artistic rating that can be given by the classifier. People who work with pictures very often like to make subjective judgments of artistic merit, and

sometimes such judgments are helpful even though there is little possibility of any objective standards. At most, however, this will save looking at some of the pictures, or it will encourage the inspection of others.

9. *Man-Readable Information to Appear on the Face of the Card:*

Accession or list number
Title or subject
Artist's or photographer's name
Source of reproducible copy
Notes (Miscellaneous information)

General Suggestions

As noted before, thoughtful subjective classifications are to be encouraged. The pictures must be "read" and interpreted intelligently, but not speculated upon wildly. When translating the visual language into words, by means of which we can discuss, interrogate, relate, and so on, we *must* rely in part upon subjective judgments. This is especially true in the fine arts where much of the effect and communication depend upon the viewer's willingness to project subjective feelings. In assigning specific features it is conservative to err on the side of greater "recall" from the file rather than greater "precision" in selecting—which means freedom to express subjective feelings. Unwanted pictures, or those with the wrong interpretation for the searcher, are rejected on inspection.

One person should be trained and put in responsible charge of the use of the file. Subject to his rules, however, some experience in classification usually prepares a person to interrogate the file, chiefly because in the interrogation of the file one must think of the file categories and make these the terms of the search definition. Learning to paraphrase general vocabulary questions in the file's terms, and learning to evolve search strategies, are not difficult skills. It is mostly common sense. (For example, in searching for the specific features it is hardly necessary to sort for "people" first because the specific features apply almost exclusively to people. We could narrow the search by a generic feature sort either before or after a specific feature sort.) Several alternative search strategies are possible for many ideas; in fact, this can provide a pleasant and often surprising form of browsing.

As mentioned before, the *complements* of the generic and specific lists should be used imaginatively; and when sorting for them it must be remembered to take the cards that do *not* respond.

Care should be exercised to classify items by the search categories. For example: visual representations such as paintings, drawings and photographs almost always represent something else, not themselves. They should be classified by what they *represent.*

An important exception (in this model) is fine art by well known artists that has been alphabetically filed by artist's name, instead of by subject. Categories for the fine arts should be dedicated to the representation of paintings, drawings, etc. *not* to paintings *of* painters, photos *of* photographers, and so on. In this way fine art is recoverable by artist's name, as is so very often necessary.

File maintenance is accomplished in two ways: a periodic check can be made on the consecutively ordered master *picture* file. We hope, for the sake of retrieval, that this file can be inviolate. If numbers are missing and the picture must be presumed lost and irreplaceable, the corresponding cards are removed from the card file and a list of missing numbers kept.

The greatest precautions should be taken to prevent deterioration and losses from the master file. Current usage is so irregular that even the idea of an inviolate master file may sound strange and unlikely to many picture librarians, but without it there can be no standard of maintenance, and no structure to permit retrieval. The master file must be quite *selective,* of course; there are oceans of pictures in the universe of picturable subjects. For most collections the first question will be what to include, or which part of a large collection to classify for retrieval.

A complete rationale for any set of schedules and descriptors for the features of the picture could be quite an undertaking. In trying to embrace, descriptively, whatever can be pictured, a considerable amount of intuition is necessarily operative. Even for the humanities-oriented structure described here, statistical methods for thesaurus and descriptor list generation would not apply because no collection can be assumed to be sufficiently representative of the scope of the system—which is a considerable part of the

universe of the picturable.

Within the limits of given collections, the effectiveness of the system could be carefully tested, but a general test is not possible because the total information content of the collection cannot be measured. A prototype version of this system was set up at Harcourt, Brace & World, Inc., under the direction of the author to index pictures for a series of humanities texts. Statistical analysis of the prototype was not attempted.

Somewhat theoretically, the descriptors can be thought of as a loose approximation to Bertrand Russell's "minimum vocabulary"* of description, in which every part of a given body of knowledge can be expressed by means of words belonging to that "minimum vocabulary," and no word in the vocabulary can be defined in terms of other words in it.

In regard to the choice of a minimum vocabulary, the visual aspect of the descriptive continuum has certain special characteristics that come to our aid. For example, as we have noted, there are only about seven classes of entities that can be pictured at all, as contrasted with the many more classes that can be thought of and written about.

We simplify further by considering each picture, for classification purposes, only in relation to its main subject, and this subject chiefly in relation to the aspect actually pictured. In the case of still pictures, which we consider here exclusively, time shrinks to a fraction of a second usually.

Reasonable Compromise

As with any concept coordinated file a reasonable compromise is sought between adequate *recall* (getting everything that may be relevant) and *precision* (not getting too much irrelevant with the relevant). This compromise is always a somewhat generalized operation, one that cannot designate the specific picture. The last stage is, properly, visual screening of a reasonable number of possibilities.

A natural reaction of some researchers to a filing system such as this may be that it is too complex, and every detail a likely subject for debate. It may be felt that people without library training will be unable to operate such a system. A modest trial soon dispels this feeling, however. Unlike books, pictures are "all on the surface"; and it is possible for persons of average intelligence to classify them with considerable sublety after a short acquaintance with the classification schedules. Of course, the classifications must be done conscientiously or there is no true file; but a few minutes per picture is not excessive for most valuable files or for most classifiers. It is quite unnecessary for those using the system to understand the reasons for its structure, or even the nature of filing by concept coordination. But for whoever does classification, an adequate initial instruction *and continuing spot checking* is essential to maintain the integrity of the file.

Mutual Understanding

The test is whether classifiers and searchers understand each other in practice, and whether the sensitivity and pertinency of the day-to-day performance makes the construction of the file worthwhile, and at reasonable cost.

The system is, in an important respect, fail–safe. For those who wish only to find a picture of Ulysses S. Grant or to see some Gauguin drawings, and have no use for concept coordination, Grant is still under G and so is Gauguin—although Grant will be in the bin for North American history and Gauguin is in the bin for drawings. (Remember that in this model fine art by artists, known and important, is indexed by the artist's name rather than by the subject's name.) Grant can be separated from other G's in American history by sorting for "male" and "war related." And where would Grant be in the typical direct subject heading file? "People–Famous–Dead," perhaps? In a common grave, at that, and with no alphabetic arrangement in that folder.

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* Russell, Bertrand / *Human Knowledge—Its Scope and Limits*. N.Y., Simon and Schuster. p.257.

Evaluation of an Industrial Library

A Simple-minded Technique

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THE necessity for the existence of industrial special libraries has yet to be proven empirically. Librarians are among the most intuitive people in the world. Yet, surprisingly, they have had their arguments listened to with only an occasional jaundiced ear which perceived that all the judgments and axioms "verifying" the values of their good works have been for the most part exercises in airy rhetoric or statements of faith. If librarianship is to proceed to full acceptance as a profession by its intimidating brothers (the physical sciences and mathematics strike one as among the loudest deprecators now), then it would appear that some firmer bases must be constructed for the assessment of whatever it is that libraries and librarians are supposed to do.

The Task

With the exception of non-profit organizations and firms which are eccentric, every industrial environment exists with the essentially sole purpose of increasing its net income. Every facet and subgroup of that environment is charged with the end of assisting the parent organization to increase its profits either directly (by bringing in new work) or indirectly (by aiding those doing the work being paid for, or by helping the research which, hopefully, will become the "paid work" of the future).

The special library in such environments inevitably falls into the "indirect cost" portion of the organization: its primary role is furthering the capability of the "direct cost" workers by providing needed information either before, or during, the awareness of the need for that information. Here, then, is where the situation becomes problematic. Placing the library in the "indirect" part of the organization (for both administrative and budgetary purposes) means not only that the library does *not* obviously enhance the profit stature of the environment. Such emplacement also means (and many persons at management levels quickly and constantly point this out to the library's administration)

The head librarian of the industrial library is constantly kept on his mettle by questions from his superiors, such as: "But what would happen to the organization as a whole if there were no library?"

that the library's financial support must come from the profits of the direct functions of the system. Such a position has twofold import to most managers: 1) the money that supports the library might better be spent on improving or expanding the "direct" parts of the organization, and 2) the overall indirect support costs of the organization (including those of the library) are of such a nature as to be questionable. This is a real major problem in many competitive organizations. The costs of overall administration (corporate, plant, company, etc.) and maintenance are all considered as parts of the total indirect cost (frequently termed "overhead" or "burden"). This cost is almost inevitably added, as a percentage, to the direct costs when proposals are prepared to obtain

new work. Obviously, those organizations which can control their indirect cost so as to keep it at a rate less than their competitors (all things else being essentially equal) are in an enviable position to obtain contracts and additional intracorporate support. The library, therefore, becomes a questionable expense in that it does little that is obviously productive but it also siphons off money that is potentially useful for the purchase of new equipment or facilities or for salaries for new "direct" employees. But, in addition, the library's costs, when added to those of overall administration and services (such as janitorial and secretarial), are seen as impediments to the organization's bargaining position for new work.

The head librarian of the industrial library is constantly kept on his mettle by questions from his superiors, such as: "But what would happen to the organization as a whole if there were no library?" Assuming, as one must, that the question has as its bases the pressures of time and the exigencies of earning greater profits, and that it is not occasioned by either machinations of a Mephistophelian humor or a want of intelligence—either or both of which may sometimes be the case—a ready and substantiated reply may well make a difference in the existence of the library.

There is little value in telling hard nosed management that "so-and-so says that because of the library the company saved X dollars, because the library supplied him the results of an experiment he was contemplating performing."

This paper is written in an attempt to answer questions of this sort (and their forms are plentiful, ranging from the naive one above to the hostile: "And just what does the library do to warrant such substantial sums being allocated to it?"). Honesty in replying to this kind of question is not only a professional attribute—it is a definite necessity. It is also of vital importance that all replies and arguments made on behalf of the library be both logical and simple. It seems that the prevailing rules of the game require the head librarian to report to one of two types of person. The first is the non-information-minded administrator whose technical background is negligible and to whom printed materials are suspect as time wasting devices. The second type is the scientist-turned-administrator. Tricks of fate usually engender one type reporting to another with the librarian having to couch his statements in such a way as to offend neither and yet be understood by both. Therefore, simple logical arguments are best.

The opening reply, then, to the question "But what would happen to the organization as a whole if there were no library?" probably should indicate that the immediate effects would undoubtedly be negligible. It is not necessary to point out that most such organizations existed (and probably thrived) long before their libraries were established. It should, however, quickly be pointed out that the long-term effects may well be seriously deleterious because the long term effects are usually insidious. To invert this reasoning, one may say that many of the benefits derived from a library are not easily discerned. This does not mean that the major benefits are not measurable. It just means that quantitative evaluations are not simple. Too many industrial librarians attempt to document the benefits derived by the organization through a good (and well used) library by means of hearsay. There is little value in telling hard nosed management that "so-and-so says that because of the library the company saved X dollars, because the library supplied him with the results of an experiment he was contemplating performing." Nor does the tale of "an X million dollar contract obtained because of information from the library" carry much weight. These kinds of arguments, despite their obvious impressiveness, tempt one to ask not only how many of these species can be documented, but also how many of these kinds of occurrences can the library be expected to cause? Frequently, it is true that but one such situation can create sufficient savings as to offset the actual operating cost of the library for a month, six months, or a year. But, again, the question that springs most readily to mind is: how often can the library be expected to replicate this success? Logically, there is no answer to this question.

The discovery of such valuable needles in the haystack of the world's informational bulge is almost entirely a case of serendipity, since it involves the happy circumstances of meeting a need at any time, as well as what is implicit in finding exactly the right experimental results or the information requisite to obtaining a contract. Serendipity, like the number of angels on the head of the rusty pin, is an unquantifiable and unknowable entity. The unquantifiable and unknowable do not invite confidence in much of anything, especially the wisdom of expending funds. Nor then, does the mere use of circulation frequency since circulation statistics are but a measure of activity and there is no inherent or implicit value in activity per se. Paraphrasing William Katz, "A librarian should be judged on the basis of how *well* he provides service." The criterion of measurement is value received. To the user or to management the direct services to the patron which possess some merit other than the purely mechanical are the ones of importance. This is not meant to denigrate such mechanical services as circulation. Certainly circulation statistics should be kept if only to serve as an indication of the work load and its growth or decline.

Once again, too many of the factors involved in catalog usage, acquisitions, etc. are either greatly variable or unknown and would, in any event, not prove either as useful or impressive as direct patron services. It should be kept in mind that the evaluation of services is essentially a means of answering two problems: *first,* to determine where services require improvement, and *second,* to indicate the value of the library in understandable terms even to those with negative bias towards the library.

The Technique

The primary step in devising a method for proving the necessity for, and evaluation of, library services is the creation of a data base consisting of the usual statistical information librarians are wont to collect, for example, the number of reference questions answered and literature searches performed. It is also imperative that a weighting system be utilized for each individual service (not by type of service but by each instance of service)—these weights to be obtained by means of user feedback. With every n^{th} literature search, reference answer, bibliography or current awareness product the patron is asked to provide the requisite information. Minimally every 10th patron should be queried, maximally every third. A happy medium is every fifth in that a 20% sample is adequate for almost any purpose.

Table 1. Definitions of Weight Factors

Weight Factor	Definition
0	The service rendered was useless either because of non-relevance to the requestor's need or because the turn-around-time was sufficiently great as to remove the service from the realm of real-time.
1	The service received was adequate but could have been provided by the patron himself in the same amount of time.
2	The service given was good and could have been provided by the patron himself in twice the amount of time taken by the library staff.
3	The service obtained was excellent and in all likelihood either could not have been equally well done by the patron irrespective of how long he might spend, or the actual time the patron might spend would be so great that he could not afford the time.

By means of the following simple formula, a fairly good idea of the savings in engineering time accrued by means of the library's services can be obtained:

$$(\text{Weight Factor}) \times (\text{Library's Cost}) = \text{Engineering Time Savings (in \$\$)}$$

Obviously, it is first necessary to determine the mean cost of providing each type of service. If, then, for example, a literature search usually takes twelve working hours and the cost is $11.25 per hour (including overhead), and if, as is often the case, engineering personnel's time costs (including overhead) approximately twice the library personnel's costs, the savings can be com-

puted for a search rated by the patron to have a Weight Factor of 2:

$$2 \times \$135 = \$270$$

Had the search been useless (a Weight Factor of zero) to the patron, the results would have been:

$$0 \times \$135 = \$0$$

If libraries have any value—something about which I am not in the least dubious—then librarians had better start proving it.

Because the libraries of industrial organizations must continually justify their existence for various reasons, it is best to do so in dollar terms which both scientists and management understand. By showing how engineering time is saved (and, of course, the dollars that correspond to that time) the library should, as long as the total organization exhibits financial stability or growth, be able to make somewhat clearer the merits of its services.

Postscript

There is nothing (at least that the author can see) to contraindicate that some such evaluative method should be employed by libraries other than those to be found in industrial environments. For too long the public libraries and academic libraries have been allowed to grow and multiply without any quantitative bases other than vague references to "the population explosion" or formulas such as "ten books for every student." Adult circulation statistics, once a sacred cow, worshipped as long as they increased regularly (the *post hoc* theorem working nicely here: the greater the circulation, the greater the need for growth) have declined in public libraries in recent years. Now the jargonists and apologists say that the real indicator of the necessity for growth is either "a free society in open communion with great minds" or "the need to enlighten the underprivileged." These kinds of emotional rationales only serve to point out a lack of quantitative knowledge. If libraries have any value—something about which I am not in the least dubious—then librarians had better start proving it.

Federal funds as well as local (e.g., Newark) are getting too difficult to come by to allow the inept or the well intentioned to put libraries on that well known path which leads only in one direction.

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Analysis and Revision of Subject Headings for *Applied Science and Technology Index*

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■ Revision of the subject heading list for *Applied Science and Technology Index* involved an updating and review of the headings and all related cross references by a team effort. Resulting terms were keypunched, with computer-printed lists and both magnetic tape and punched cards available as the final product. Method of updating in the future is also described.

A PROJECT to revise and update the subject headings used for a nationally known index of technical periodicals began essentially as an analysis of the subject headings to be consolidated into a manually prepared list. The project ended, however, with the utilization of data processing hardware and software in the preparation, consolidation and final printing of the list as delivered to the publisher who sponsored the project.

In February 1968 The H. W. Wilson Company asked one of the authors (Mount) to serve as head of a project to revise the subject heading authority list for *Applied Science and Technology Index*. The entire list had never been systematically analyzed and updated before, and there was need for modernization and improvement in ways that called for a complete analysis of all headings—not just a piecemeal approach. The *Applied Science and Technology Index* (hereinafter to be referred to as *ASTI*) covers over 200 journals in the fields of engineering and science. The emphasis is probably more on engineering and the physical sciences, with the earth sciences and life sciences of lesser importance. Both cross references and main headings were to be included in the study. A completion date of November 1, 1968 was the goal.

General Plan

After a search for qualified persons to take part, the project head began the project with four other librarians who had appropriate subject backgrounds and library experience for such work. Each was well versed in one or more technical subjects; the background of each participant complemented the areas of the others in the group of five.

Five goals were agreed upon:

- ☐ To choose current, accurate subject headings and to drop outdated terms.
- ☐ To choose different types of subject headings in a consistent manner.

  Inverted terms would normally be used in order to keep different aspects of a common term together in the alphabet; for example, *Airplanes, Jet propelled* and *Airplanes, Military*. An explanatory

word would be added in parentheses to a term which might be confused with another meaning of that term; for example, *Molds (botany)* and *Molds (for casting)*. Whenever feasible the plural form, rather than the singular form, would be used; for example, *Meters* would be used rather than *Meter*, yet the term *Coal* is typical of those terms used only in the singular. All of these types of terms were already in use in *ASTI;* our goal was to see that the choice of style of term to use was as consistent as possible.

☐ To provide for an adequate number of cross references, but where possible to avoid the listing of dozens of related terms (both to save space in the index and to avoid overwhelming the user with too many listings).

One way to avoid the latter problem was to extend the practice already used occasionally in *ASTI* whereby a few terms of related interest are listed, preceded by "e.g.:" to show they are merely *selected* examples, not meant to be all-inclusive or exhaustive in scope. Three such phrases were used; for example, under the term *Meters* one or more of the following phrases might have been used:

See also special subjects related to *Meters*, e.g.: . . .

See also specific types of *Meters*, e.g.: . . .

See subdivision *Meters* under special subjects, e.g.: . . .

(Each of these phrases would be followed by a few appropriate headings.)

☐ To prepare a list of standard, general purpose subheadings as a separate entity.

This would reduce the listing of such common subheadings as *—Design* or *—Analysis* under the thousands of main headings to which they might apply. The only exception would be to list such a common subheading when a reference had to be made to it or from it in the cross-reference structure. For example, if there had been a reference from *Airplanes—Design* to *Computers—Aeronautical applications*, this would have required use of the subheading *—Design* under *Airplanes*.

☐ To eliminate proper nouns (for example, George Washington Bridge), corporate entries and geographical terms (both main headings and subheadings).

There was literally no limit to the possible number of such terms which might be needed from one year to the next. It was recommended that a separate authority file be established by the Wilson Company for such terms.

The plan was to divide up all the subjects covered in the index among the five analysts, depending upon their background and training, and let each proceed independently through his own copies of the latest bound volume of *ASTI* available at the time (1966) as well as through the unbound issues for 1967 and early 1968. Each analyst would prepare handwritten (or hand-printed) 3 × 5 cards, to be reviewed and consolidated by the project head when each completed his portion of the terms. Because no specific headings were assigned, it was known in advance that a certain amount of overlapping of headings would occur. A definite format for the cards was established, to improve uniformity of style. The final product was to be a typewritten authority list, with all main headings and cross references shown.

It was known that the complete authority file at the Wilson Company for this index consisted of over 30,000 cards, but they dated back to the days of *Industrial Arts Index* (*ASTI*'s predecessor). It was felt there was little need to try to include all the terms which had ever been used for these indexes. The emphasis was to be on modern terms—those in current use. It was thus estimated that approximately 12,000 to 15,000 main terms would be involved in the project, with each term to average around two to three subterms (the cross references and subheadings), making a total of over 40,000 terms.

Analysis of Subject Headings

Each analyst proceeded at his own pace, since each had to fit this into his own free time after regular hours of employment. Each term in his subject area was examined and either kept as is, modified or eliminated. Dictionaries, glossaries and other reference tools were used as needed. An asterisk was used to identify new terms (to facilitate their being recognized as such by the project head), and terms to be eliminated were re-

corded on cards but marked "Drop" to make it clear they were not overlooked. When each analyst had completed his set of headings and cross references, they were turned in to the project head for review. This phase of the work was to have been completed by Sept. 1, 1968, but some of it went on for two or three weeks thereafter. The actual preparation of cards was rather tedious and time-consuming, and some analysts used clerical help for this. More than 20 cards per major heading were needed to show all the cross references and subheadings for some of the major terms.

Coordination of Terms

Once the project head had completed his portion, he began to review the work of the other four analysts and to coordinate the cards into one logical system. The inevitable overlapping took a fair amount of time to check, since one analyst might have eliminated a particular term while a second person might have incorporated that term into his set. Differences of style or taste in term construction (such as direct vs. inverted terms) needed to be harmonized.

Manual vs. Machine Methods

It was at this point that serious consideration was first given by the project head to the advisability of changing the original plan for a typewritten list. For one thing, the first page of typing could not be started until the last term had been reviewed, since a term in the "X's" might well involve a term in the "A's", calling for much changing and retyping. Also the possibilities of greater flexibility and reproducibility of the index prepared in machine-readable form began to look very worthwhile. The typed list would have been out of date the minute it was done, and updating would have been very cumbersome. While the possibility of making the final list on typed 3 × 5 cards had been given slight consideration at the start of the project (but dropped because of the extra time needed to type on cards), the virtue of such a record being easier to update in card form had been recognized. A machine-readable form would incorporate ease of updating, ease of reproducing as many sets as were needed for all the *ASTI* indexers, and ease of preparation (at least by comparison with the stringent requirements of having 40,000 items in perfect order before typing could begin). So another search was made, this time for a data service interested in such a project, with a reasonable cost estimate for the work.

Machine Method

In due time one of the authors (Kollin) was brought into the project to design the method of handling the data and to produce useful output records. It was decided to offer The Wilson Company a choice of keypunched cards or magnetic tape (or both) plus a printed list. In order to keep each main heading and its cross references together, one decklet number was assigned to all the items making up each main heading and its cross references and subheadings. This would facilitate sorting and would allow us to reconstruct card location in the event of the "dropped deck" problem. As cards were keypunched, printouts of segments of the list would be made for use in proofreading the work, thus eliminating the need for the extra expense of verifying the cards. In order to further reduce keypunching costs, the first set of cards was not even to be interpreted. All the cards, including corrections, were then to be alphabetized by main term, and a complete printout made, with the new set of cards made as a by-product of that run being interpreted cards. Then previous printouts (partial) were to be used to locate the previously discovered error cards and to see that the corrections called for had in fact been properly made. Then a final printout run would be made, generating a tape as a by-product.

Since The Wilson Company, if the plan were successful, might want to do other indexes, involving many different subject headings, it was proposed that the decklet numbers allow for all the growth one could imagine. Therefore, up to 10 columns on the cards were to be dedicated to this number, using Column 1 for a letter, then a space, then 6 digits, then 2 spaces for insurance for future growth. Just the first 8 columns (with 2 letters and 6 digits) would alone provide for 676 million main subject headings—surely enough for all the various Wilson indexes for years to come. If this did not prove

enough, however, there were still 2 columns left for letters or numbers. They could also be used for other purposes, if desired, such as subject classification of the terms.

In considering the best way to update such a list, especially if the cards were not to be the primary updating tool, it was proposed to give each line of the final printout a distinct number, independent of and in addition to the decklet numbers. This new number, commencing with 100, would increase by 100 for each line. Thus line 1 was number 100, line 4 was 400, line 12 was 1200, etc. Any addition to be made later on in the subject heading list between any of these new numbers could be given an appropriate number in between the 100's by the *ASTI* indexers and simple instructions given to a data center to update the tape, with printouts made for that portion of the printed index. Multiple copies could be made, so that each indexer could have a printed copy of the list on his desk. In like manner, to delete or to modify a term already on the tape, one needed merely to cite its number in giving instructions for deletion from the tape, with new printouts again quite simple to make. Since updating and corrections go on constantly in the authority file of an index of this size, such advantages were felt to be significant. If the file could not be updated easily, it would tend to get out of date, which could not be tolerated if it were to be the master file.

The Wilson Company agreed to this change of plan, so work was begun in late September on the keypunching of those 3 × 5 cards which were ready. As this went on, the project head continued to edit and analyze cards done by the other analysts. Due to the need to double check each cross reference for each term, this phase lasted much longer than anticipated—not until November were the last of the 3 × 5 cards ready for keypunching. Many changes were made, during this period, to terms already keypunched. The computer used was the IBM 360/30, and programs were written in COBOL.

Table 1. Plan of Operation

1. As cards were keypunched (each main term and all its subparts having been assigned one decklet number), each batch of perhaps one week's output of punching was put on magnetic tape and a printout made, to be used for proofreading.

2. When all corrections were made, all the cards were put on a new tape. It was felt that the internal sort order of each decklet (everything under a main term) was fairly acceptable as originally punched, but the main term decklets themselves were completely out of order. To preserve the order in future sorts and manipulations, a unique ascending serial number was assigned to each card image on the tape.

Decklet No.		Serial No.
A 010241	ELECTRIC ACCIDENTS	87562
A 010241	see ELECTRICITY, INJURIES FROM	87563
A 001223	ELASTIC FABRICS	87564
A 001223	X STRETCH FABRICS	87565
A 001223	XX TEXTILE FABRICS	87566
A 001949	AUTOMOTIVE ENGINEERING	87567

3. A new tape was then made, carrying only the main headings, arranged by this unique serial number.

A 010241	ELECTRIC ACCIDENTS	87562
A 001223	ELASTIC FABRICS	87564
A 001949	AUTOMOTIVE ENGINEERING	87567

4. This tape was then sorted by main headings.

Decklet No.		Serial No.
A 001949	AUTOMOTIVE ENGINEERING	87567
A 001223	ELASTIC FABRICS	87564
A 010241	ELECTRIC ACCIDENTS	87562

5. Each record on the resulting main heading tape was then assigned a second unique serial number in addition to the first serial number.

			2nd Serial No.
A 001949	AUTOMOTIVE ENGINEERING	87567	57742
A 001223	ELASTIC FABRICS	87564	57743
A 010241	ELECTRIC ACCIDENTS	87562	57744

6. This tape was then sorted by the first serial number back into the order in which the terms were found in Step No. 2.

A 010241	ELECTRIC ACCIDENTS	87562	57744
A 001223	ELASTIC FABRICS	87564	57743
A 001949	AUTOMOTIVE ENGINEERING	87567	57742

7. This tape was then run against the original tape (containing main and subheadings). Matching on the first serial number, the second serial number was assigned to each card image within a single decklet.

A 010241	ELECTRIC ACCIDENTS	87562	57744
A 010241	see ELECTRICITY, INJURIES FROM	87563	57744
A 001223	ELASTIC FABRICS	87564	57743
A 001223	X STRETCH FABRICS	87565	57743
A 001223	XX TEXTILE FABRICS	87566	57743
A 001949	AUTOMOTIVE ENGINEERING	87567	57742

8. This tape was then sorted by both the second and the first serial number bringing all main terms and subterms into alphabetical sequence.

A 001949	AUTOMOTIVE ENGINEERING	87567	57742
A 001223	ELASTIC FABRICS	87564	57743
A 001223	X STRETCH FABRICS	87565	57743
A 001223	XX TEXTILE FABRICS	87566	57743
A 010241	ELECTRIC ACCIDENTS	87562	57744
A 010241	see ELECTRICITY, INJURIES FROM	87563	57744

A printout of the tape was made, and a set of interpreted punched cards was also provided at this step. This printout, which we called the semifinal run, was then checked against the partial printouts to see that all corrections and additions called for were made correctly and also to adjust the sorted 49,000 punched cards, removing the bad cards and inserting the corrected one. Sometimes corrections of corrections were needed. The four hierarchies used for the subject headings and subheadings resulted in punched cards which were complicated to the point that a program to do detailed machine sorting at all levels did not seem worth doing, especially for a one-shot need. The semifinal run was ready in December. The hand sorting which was needed was slow and exacting. Once the deck was considered perfect, the final run was made, using four-part paper so as to give the sponsor as many copies as was feasible. The four printouts, the reel of magnetic tape and the punched cards (by now reduced to around 42,000 because of the elimination of cards which had been corrected) were delivered to The Wilson Company in mid-January. Also a list arranged by decklet number, which proved to be useful in refiling a few stray cards which had become separated for one reason or another from their "brothers," was also delivered. A separate (typed) list of some 70 standard subheadings (such as —Design, —Analysis) was also provided. A sample of the semifinal run is shown in Fig. 1. The final run was all upper case.

Conclusion

As is usual in a project of this size, with many untried steps to make, many things would have been done differently if it had been possible to do over. The decision to go to punched cards, had it been made sooner, would probably have dictated—as one of the first steps—the use of keypunchers to go through the bound and unbound issues of *ASTI* and keypunch all main headings and cross references as they went, rather than have analysts write them by hand. Or as an alternative to this, there is a program available whereby the making of a "See also" term for one heading can automatically produce a card for the term to which referred. The same can be done with this program for "See" and "X" terms. This would have eliminated much of the tedious making of cards by hand by the analysts or their clerical assistants. With a set of terms of this size, this would have been no small saving of analysts' time. The cards could then have been hand sorted by subject and divided up among the analysts on the basis of their assigned subjects. This would have eliminated some of the overlapping of work, although a certain amount is inevitable. For example, the person working on metals will overlap with the person working on civil engineering when a term like "steel bridges" comes along. So a certain amount of editing and merging by a final editor was inescapable. Having good copy to work from for a major portion of the keypunching would have eliminated many of the keypunching errors due to the difficulty of reading five or more different forms of hand printing (many were handwritten, to make keypunching even harder to do accurately).

The format used for the data is probably easy to read on the printouts, since it is necessary to show up to four levels of the hierarchy under a given main heading in some cases (although two or three was the average), yet it was not at all easy to keypunch. At times it was necessary to write on each line of the 3 $\times$ 5 cards the number of the column for the keypunchers to start on, rather than burden them with a detailed set of rules to distinguish a subhead from an "XX" term under a main heading, for example.

The timing of the schedule did not allow for as much reflection on questionable terms as might have been desirable. This is a difficult task to do on a very tight schedule, such as we had. As is usually the case in indexing work, there were many arbitrary decisions to make, based on our experience and judgment. For example, how many articles appear to be going under a given main subject heading, such as "Airplanes—Wings," before it is best to make a new heading of "Airplane Wings"? Or, should inverted headings be used to keep like terms together (Airplanes, Military) or should all the military terms be kept together, which would call for "Military Airplanes"? These can be argued indefinitely. The practice already in use in *ASTI*

Fig. 1. Revised Subject Heading List with Four Hierarchical Levels.

```
0737900 a 000705   computation, approximate
0738000 a 000705     see approximate computation
0738100 a 009322   computer industry
0738200 a 000707   computer lease and rental services
0738300 a 000707     x computers-leasing and renting
0738400 a 013783   computers
0738500 a 013783         see also special subjects related to "computers", e. g.:
0738600 a 013783           accounting-mechanical and electronic aids
0738700 a 013783           automation
0738800 a 013783           automatons (computers)
0738900 a 013783           cybernetics
0739000 a 013783           data processing service centers
0739100 a 013783           differential analyzers
0739200 a 013783           data processing, electronic
0739300 a 013783           information storage and retrieval systems
0739400 a 013783           integrators
0739500 a 013783           magnetic memory devices (computers)
0739600 a 013783           memory devices (computers)
0739700 a 013783           numerical control
0739800 a 013783           translating machines
0739900 a 013783         see also subdivision "computer control" under special
0740000 a 013783                 subjects, e.g.:
0740100 a 013783           cutting machines
0740200 a 013783           lathes
0740300 a 013783           tube bending machines
0740400 a 013783     x calculating devices
0740500 a 013783     x electronic computers
0740600 a 013783     xx automation
0740700 a 013783     xx calculation
0740800 a 013783     xx electronics
0740900 a 013783     xx labor saving devices
0741000 a 013783     xx office appliances
0741100 a 013783     xx mathematical instruments
0741200 a 013783     xx numerical control
0741300 a 013783     -aeronautic applications
0741400 a 013783       xx aeronautic engineering
0741500 a 013783     -analog computers
0741600 a 013783       sa computers-hybrid computers
0741700 a 013783       x analog computers
0741800 a 013783       --components
0741900 a 013783       --design
0742000 a 013783        xx computers-design
0742100 a 013783     -analog - digital converters
0742200 a 013783       x analog - digital converters
0742300 a 013783     -architectural applications
0742400 a 013783     -automobile engineering applications
0742500 a 013783       xx automobile engineering
0742600 a 013783     -bibliographic applications
0742700 a 013783       xx information storage and retrieval systems
0742800 a 013783       xx literature searching
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was a guide, since there was no point in changing their style if we had no strong reason to change such terms. However, almost every inverted term has a reference to it from the direct version, and vice versa, which at least takes care of the users, no matter which they looked up first.

Another problem was that of handling topics of lesser interest involving rather obscure terms, such as the names of botanical specimens, or little known minerals. Here, in keeping the interests of the average reader of *ASTI* in mind, we occasionally referred from the highly specialized term back to a more general term (e.g., Blowflies, See Insects). Again, no matter where the user looked he would find the referral to the term actually used.

It was necessary to hand sort some terms which do not follow normal computer filing order, yet which did not seem to warrant the writing of a special program to handle. This

included terms with commas, parentheses and numbers (such as chemical terms like "2,4-D"). It was decided to let abbreviations such as "FM" file in normal alphabetical order, rather than at the beginning of the "F's," as often done in library filing. Hyphens, in order to be distinguishable from dashes, were preceded by and followed by a space, whereas dashes were always followed by a letter. This may be useful in some future utilization or analysis of the data.

The total time spent on the project, in approximate figures, is in Table 2.

Table 2. Man-Hours Expended

Analysis of terms and recording on 3 × 5 cards by five analysts	850
Review of cards by project head	320
Numbering and filing of 3 × 5 cards	315
Keypunching	175
Proofreading of punched cards and printouts	450
Programming time	5
Computer time	5
Printout time	4
Conference time for project head with participants	75
	2,199

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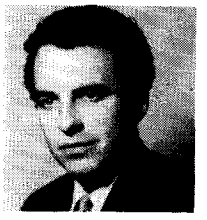

Kollin

Mount

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Public Relations for a "Special" Public

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■ The practice of public relations in the special library makes better service possible, creates a pleasant image of the library as an important asset to the parent organization, and enhances the status of library personnel. To have a good program, a dedicated librarian with a professional attitude must do careful planning and implement the plans with zest.

EVERY special library is a reference library. It exists solely to give information, and in most cases must perform its function efficiently so that it makes money for the parent organization or it will cease to exist. The librarian should be scholarly, should know the special field concerned, and should also know library theory. With such statements generally accepted as true—although not always found in fact—not much has been said about the place of public relations and publicity in the operation of the special library.

A mental image of the special library asserts itself whether the library be that of a petroleum company, an engineering firm, a military service school, a research foundation, a medical school, or something connected with the fine arts. The image is of a hectic, problem-oriented center peopled with scurrying, busy seekers after facts that were needed yesterday. Actually, if the public relations were solid, such conditions should not occur more than three or four times each year in the most demanding of libraries.

Public relations is an art—the art of winning over people so that they like an organization—(in this case a library). People who like a library try to help it. It is as simple as that.

The librarian not only needs to know exactly what work is taking place at the moment in his parent institution, but what is being planned for the future, so that materials can be gathered and a study of important outside contacts can be made *before* the actual need occurs. The thought of including the librarian in planning sessions of a highly critical, perhaps confidential nature does not suggest itself to many executives. Many librarians do not yet have that kind of prestige image. The reason that they do not is mostly their own fault. They have not sold themselves. Librarians should respect their parent institution and be dedicated to it just as its executives are. The librarians should be planners and salesmen because they produce a most important raw material.

To most people in a working organization which has a special library, the library exists as a tool—their tool when they need it, and their librarian is merely an organizer and arranger who fumbles right answers out of the chaos when requested to do so. They are not wrong. This is the way it usually is.

We do not live in that kind of an archaic society anymore. We live in the era of the hard sell. Electronic technology is ours, and the librarian who does not excitedly press this new world to his bosom and go out to conquer it with the sword of public relations

will soon be replaced by an information scientist and a machine which can do all of the tedious work better than he can.

The first step in public relations is, of course, to keep a neat, attractive library which says "Welcome" to all who enter it. Most librarians do well in this respect.

Within the library, a bulletin board or display should keep pertinent daily information before the personnel of the organization. This information may be newspaper clippings or other current records of what is going on in the larger world of competitors and allies. BIG news can be routed to individuals.

Another display should emphasize processes or new ideas from the literature in a quickly assimilated form. To do the latter, the librarian needs to know people well enough to know what they read regularly. If most of them subscribe to one journal and read all of it, then the bulletin board should not use material from it. The librarian, having also read that journal, will know what questions the articles raise, and what interests they arouse. The bulletin board should continue from that point with material taken from more obscure publications (for example, from other countries).

There might even be a special place in the library where individuals may share information, or ideas, or objects of value to them in their work: a table, a wall, a display case, or a conference room.

An Action Center

The purpose, of course, is to make the library a center of action. If it has never been one before, it will take time to change it. New books and periodicals should be in a separate location for a short time after they are received, so that no effort needs to be expended to keep up with the latest. It is tedious to walk all over the library stack area to find new material. Part of the routine in a special library may be to circulate certain periodicals regularly, to send them permanently to a certain area where they are most used, or to xerocopy tables of contents and circulate these. All periodicals cannot be sent, however, so the "teaser" can have its place among the new arrivals in the library; a slip of paper can be attached to the cover of a journal with a notation of an important article to be found within. But keep in mind that the teaser can be dangerous as well as effective.

Judgement Is Vital

Selectivity should build trust in the librarian's judgement as to what is vital to read; if it does not, the damage is greater than if nothing had been done at all. Outstanding articles, those which describe great breakthroughs or tell of research in progress, should be routed, even if the periodical is not a regular traveler. Again, the selection should build confidence in the librarian's judgement.

Although these services are expected of special libraries, they also publicize the library. Another service which can build good will is to talk individually to members of the organization, and through such friendly informal relationships to discover special interests or problems that can be solved by the library. Such interests may be personal and seemingly will have nothing to do with the operation at hand. Most likely the librarian will have to do such projects as homework. Maybe the individual is interested in a good school for his son, the best buy in a television set or washing machine, a good psychiatrist for a member of the family, an out-of-print book—the list could be endless. Another library may have to be used, or the librarian may have only to direct the person to the correct aid to assist him, but the investment of time in caring about people and in helping them personally pays off great dividends in developing pleasant attitudes towards the library and its functions. It also helps the total organization indirectly, because worried people do not work at an optimum level.

If special interests exist—and they almost always do—within the field of operations of the organization, the librarian should be alert to new publications in this special interest field and bring them to the attention of the person whose specialty it is. Sometimes, it is feasible to buy in these areas for the library; if so, a telephone call should be made to the

interested parties as soon as the material arrives. Notes should be made about individual interests and needs, so that future items will not be missed because the librarian has forgotten with the passage of time. A good friend does not forget.

Booklists have a place, too, in the special library as do annotated bibliographies and complete bibliographies. If the librarian has his finger on the pulse of the organization, he knows what would be most helpful and when. He should do it without waiting to be asked.

The Mouth: Open or Shut?

The librarian should willingly attend staff meetings. If he is not asked to attend, he should make known his desire to be asked. Not only should he make brief and interesting reports about the accomplishments of the library at these meetings, but he should also be eager to review articles, books, and the like so thoroughly that they need not be read at all—if this would be helpful. This means that he must develop the ability to be entertaining as well as scholarly. People do not learn much from a boring review. He must also learn to keep his mouth shut when his counsel is not needed.

Publicity is just one of the techniques used to create good public relations. And it can take many forms itself. If the company puts out a newspaper, fillers may be needed. New acquisitions in the library can make excellent fillers if well-written annotations are used. From time to time the newspaper might use articles of interest. Unusual acquisitions make a good story. Human interest stories about the library appeal to everyone, but they should not involve real people without their permission. Book reviews or reviews of articles might be used. A series of articles on the history of the organization or of the special field is a possibility.

The librarian needs to brainstorm. What is interesting about a newly designed fuel pump? Think! New information is exciting in any field. What possibilities does it open up? Since the librarian must compete with television, he must use its method and go for the dramatic. There is nothing more catching than enthusiasm, and library publicity should have it. Even the dullest of things can be interesting if the right touch is used.

Maybe the organization puts out a weekly or a daily bulletin. The librarian can investigate the possibility of using it as a teaching device if people seem to flounder in certain areas of the library. A flyer could be attached to it at regular intervals, and this could include library news, hints on using certain reference aids effectively, and the pros and cons of various methods of attacking problems. On some days, it might just advertise services such as telephone reference.

If use of the library needs to be taught, perhaps the librarian could prepare a teaching film, or slides, or some other kind of visual aid to use with personnel.

The library may be thought of as the organization wife. Instead of clean socks and a fresh shirt, it provides tools in the form of information. If the librarian respects his parent organization as he should, then he will serve the people who make up the organization to the best of his abilities. His best is not too much.

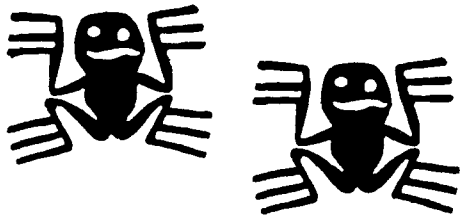
The old saw, "We don't have time for all of that," just doesn't cover the facts. People make time for important things, and public relations *are* important. The statement, "We don't have time," really means, "We're afraid of that—we're more comfortable doing clerical tasks."

A good librarian must keep learning in the special field he has chosen as his own. If his mind is too lazy to keep up with physics, then he should stay away from the special library concerned with physics.

Weak Stomach and Dead End

If he is a special librarian with a company, he should marry the company as its executives do. If he cannot stomach that much devotion to it, he should step aside for a special librarian who can. The library has been a dead-end job in some companies because

it has been staffed by dead-end people. There is no valid reason why this should always be true. A sharp librarian can make as good a vice-president as can a sharp salesman moved up from the ranks, but he must know more than how to classify and arrange information. He needs to be indispensable to the company and to thoroughly understand management, planning, operations research, the company's special field, *and* public relations.



Courting co-workers, that is, seeking them out to help them and to be helped in return, serves two purposes. It is good public relations, but it is also fulfilling the modern concept of what a library really is. No longer a storage place for musty books, the library is alive and pulsing with energy. It has to be, because new knowledge pours into it like water from a giant wave blown up by a hurricane. If the staff doesn't move or respond or react, they will be buried under the debris. And the sad thing is that many of them would never be missed.

Blow Your Mind

Special library public relations does not end at the outermost boundaries of the organization, because it, too, is hard at the task of building good will within the community. Librarians need to be active in civic affairs and to be proud representatives of their parent group. Cooperation with local libraries and with local experts will prove beneficial to both sides. At times, it may be life-saving.

Work in professional associations can also be priceless. It is mind-expanding to talk with others who share a profession, and they often help to smooth out difficulties and problems. They may even have some of the information that is needed by the library. Not only should the special librarian join library associations, but he should also join a professional association in the field that his organization represents, if he qualifies for membership.

The special library needs public relations as much or more than the public library. It should not stop with publicity, but it should use all techniques and all media of communications to get its point across. We have what it takes!

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The Printing Industry

Sources of Information

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■ The technological advances occurring in the printing industry and allied fields, make necessary a knowledge of existing reference sources in this field. Those included in this paper are but a very small part of a forthcoming book: "Printing and Publishing."*

CURRENT technological developments in the printing industry are astonishing. Facsimile transmission, offset for newspaper and commercial printing, with speeds of up to 60,000 newspapers per hour, Xograph in advertising presentations, computer composition, and plastic plates, just to mention a few, are enough to confuse even the most adequately prepared scientist. Today's printing industry is no longer holding onto the traditional concept of duplication of information but rather it is more closely associated with transmission of information.

These new concepts and technological advances in the printing industry and allied fields have produced a proliferation of reports, papers, journals, books, and other media devoted to the presentation of the latest developments. Just as in any other specialized field of endeavor, the printing specialist must read, observe and listen not only to prepare himself to perform his work adequately, but also to keep up with the new developments in his chosen field.

* One of the series of Management Information Guides, published by Gale Research Company.

However, to be familiar with all the publications pertaining to a field of human knowledge in today's technological era is almost a utopian conception. To know the source publications that direct us to specific answers to queries, is a more desirable objective for a librarian.

Areas of interest within the printing industry are as many as the different processes and functions inherent to them, and these processes and equipment are changing and continuously being improved. It seems imperative then that the sources of information pertinent both to everyday questions and future problems be readily available to persons affected by these changes. The ability to locate the appropriate needed information through the right source may be the determinant, at times, of the degrees of success or failure, for a printing concern.

In the largest degree, sources of information are published materials, but colleges and universities offering graphic arts programs, trade unions, associations and research organizations, and printing equipment manufacturers are always helpful and will try their best to solve queries coming to them. Manufacturers are a choice selection for audio-visual materials.

Research Trade Organizations

Some of the most important sources of information for today's printing industry are research trade organizations, sometimes considered to be the pacemakers in some areas of the industry through their research pro-

grams and through their publications. An awareness of their existence and their objectives seems highly important. The majority of them provide information services (at nominal cost and some free for members) through their libraries or information centers:

American Newspaper Publishers Association (ANPA), 750 Third Ave., N.Y. 10017 (Founded 1887).

American Photoengravers Association (APA), 166 W. Van Buren St., Chicago, Ill. 60604 (Founded 1897).

Flexographic Technical Association (FTA), 157 W. 57th St., N.Y. 10019 (Founded 1958).

Graphic Arts Research Center, Rochester Institute of Technology (RIT), Rochester, N.Y. 14614 (Founded 1950 as a unit in the College of Graphic Arts Photography).

Graphic Arts Technical Foundation (GATF), 4615 Forbes Ave., Pittsburgh, Pa. 15213 (Founded 1924).

Gravure Engravers Association (GEA), 166 W. Van Buren St., Chicago, Ill. 60604 (Founded 1962).

Gravure Research, Inc. (GRI), 22 Manhasset Ave., Manorhaven, Port Washington, Long Island, N.Y. 11050 (Founded 1946).

Gravure Technical Association (GTA), 60 E. 42 St., N.Y. 10017 (Founded 1949).

International Association of Electrotypers and Stereotypers (IAES), 758 Leader Building, Cleveland, Ohio 44114 (Founded 1897).

International Center for the Typographic Arts (ICTA), P.O. Box 2438, Grand Central Station, N.Y. 10017 (Founded 1961).

International Typographic Composition Association (ITCA), 2233 Wisconsin Ave. N.W., Washington, D.C. 20007 (Founded 1920).

National Association of Photo-Lithographers (NAPL), 230 W. 41 St., N.Y. 10036 (Founded 1933).

Printing Industries of America (PIA), 20 Chevy Chase Circle N.W., Washington, D.C. 20015 (Founded 1887).

Research Association for the Paper and Board, Printing and Packaging Industries (PIRA), Randalls Road, Leatherhead, Surrey, England (Founded 1930 as Printing, Packaging, and Allied Trades Research Association, PATRA. Merged in 1967 with the British Paper and Board Industry Research Association).

Research and Engineering Council of the Graphic Arts Industry, 1411 K St. N.W., Washington, D.C. 20005 (Founded 1950).

Society of Typographic Arts (STA), 469 E. Ohio St., Chicago, Ill. 60611 (Founded 1927).

Technical Association of the Graphic Arts (TAGA), P.O. Box 3064, Federal Station, Rochester, N.Y. 14614 (Founded 1949).

Bibliographies

Even though the preceding organizations will prove helpful, librarians will not be in a position to call upon them continuously. Published source or reference materials become then the choice tools in securing information about the industry. One of these sources, subject bibliographies, has unfortunately only a few published items of importance for the different facets of printing:

Annotated Bibliography on Electrofax and Related Photoconductive Processes. 2 v. East St.Louis, American Zinc Co., 1966/67.

An exhaustive work to 1965, comprising periodicals' articles, books, and patents in two volumes: v.1, Literature and Book References (1966); v.2, Foreign and Domestic Patents (1967).

Bibliography on Ink Color Standards. TAGA, Rochester, N.Y. *Grafiska Forskningslab. Medd.,* 54: 74–80 (Oct 1965); originally published in *TAGA Proc.* 350–359 (1964), based on the work of the subcommittee on ink color standardization.

The various items included in this listing were gathered from various other bibliographies, personal correspondence, notes, various personal files, and miscellaneous reports.

Electrostatic Printing. Weiner, J. and Roth, L. eds. Appleton, Wisc., Institute of Paper Chemistry. *Its* Bibliographic Ser. no. 212 (1964) Suppl. 1 (1965)

Useful for those engaged in the manufacture of electrostatic printing materials, and in providing sources for an introduction to electrostatic processes for those contemplating their application. Some references have been included by title only.

Paper and Its Relation to Printing. Weiner, J. and Roth, L. eds. Appleton, Wisc., Institute of Paper Chemistry. *Its* Bibliographic Ser. no. 164 (1962)

A survey of the literature (up to 1961) on the relation of paper to printing including references to general articles on the subject, to the conditioning and maturing of paper, to defects of paper that influence its printability, and to some methods of testing paper. Printing inks have been considered only in so far as the articles included deal with the mechanism of drying of the ink and the relation of paper thereto. Many references to testing methods are not included because they have already been collected in other bibliographies. Some papers have been abstracted from the original articles. References from Annual Advertising and Production Yearbooks have not been included. A subject and author index is also included.

Photographic Literature. Boni, A. ed. N.Y., R. R. Bowker Co. and Morgan & Morgan, 1963.

A guide to general and specialized literature covering all fields of photography. More than 12,000 basic books, journals, magazines, articles, and technical papers are listed under more than 1,200 subject headings including such topics as photographic processes, techniques, theory, chemistry, physics, apparatus, materials, and applications, industry, history, biography, aesthetics.

Runnability of Printing Papers. Weiner, J. and Roth, L. eds. Appleton, Wisc., Institute of Paper Chemistry. *Its* Bibliographic Ser. no. 215 (1965)

A literature survey of a continuous importance because of the increased use of paper in roll form in web presses. Runnability, as interpreted by this bibliography, covers all the characteristics of the paper which contribute to the ease, efficiency, and convenience of using the paper in the printing process. It includes the subject literature and patents up to Nov 1963.

A Selected Bibliography of the Graphic Arts. Gerber, J., comp. Pittsburgh, Pa., Graphic Arts Technical Foundation, Inc., 1967.

A selected listing of books and articles representing primarily books from 1950 to 1966 and articles from 1964 to 1966 in the major areas of study in the graphic arts spectrum. The entries have been arranged alphabetically by author, books preceding articles, within the major groupings established in GATF's Graphic Arts Abstracts monthly series.

Abstracts & Indexes

Abstracts and Index Journals, including classified listings of articles and abstracts from current periodicals are proven tools from which tailored bibliographies may be compiled to suit specific needs. The following sources are pertinent in this area:

Abstracts of Photographic Science and Engineering Literature. (Monthly. N.Y., Society of Photographic Scientists & Engineers)

Articles and patents, from throughout the world, are abstracted by specialists, not only on developments in photographic science and technology, but also on the latest advances in applications and apparatus. Key descriptive words or terms precede each abstract.

Bibliography of Papermaking and U.S. Patents. (Annual. N.Y., TAPPI).

Indexes the literature on pulp and paper manufacture and related subjects, including printing in relation to paper, published during the year in an alphabetical subject grouping. U.S. patents selected from the *Official Gazette* are included in the second part of the Bibliography, arranged according to the classification of the U.S. Patent Office, and foreign patents are listed in numerical order in succeeding sections. A patent index.

Graphic Arts Abstracts. (Monthly. Pittsburgh, Pa., GATF).

Abstracts of "important current articles" are compiled from over 350 publications and arranged in 24 subject categories. Patents and books are also abstracted. No index, annual or cumulative is issued.

Graphic Arts Index. (Monthly included in *Graphic Arts Progress.* Rochester, N.Y., RIT).

A subject index of articles in the graphic arts included in 10 subject divisions with sub-divisions. Citations are numbered sequentially starting with the Jan issue to the Dec issue of each year. An author index refers to the number of the citation; no subject index, annual or cumulative is issued.

Printing Abstracts. (Monthly. Surrey, England, PIRA).

A digest of articles appearing in the world's printing trade press and related literature. It covers technical and scientific matters only, and even in this field is restricted in certain directions. Such matters as type faces, design and layout, costing and trade conditions, apprenticeship training, technical education etc. are not covered. The abstracts are included in 31 subject categories. An index to the abstracts is published annually.

Definitions & Terminology

Basic subject information, definitions, and terminology, or the jargon of the profession are areas that offer many sources, and for the printing industry they present continuing changes and additions, a direct product of its rapidly changing technology. Terms and expressions such as OCR (Optical Character Recognition), computer typesetting, electronic printing, facsimile transmission, are part of today's jargon and definitions are much needed to obtain a basic understanding of them. These are provided by topical dictionaries and encyclopedias, in the English language, and also dictionaries of the terminology with equivalents in other languages. Some of the sources in this area are:

Bilingual Dictionary of the Graphic Arts. Rodriquez, C. and Humphrey, G. A. eds. N.Y., G. A. Humphrey, 1966.

Contains more than 15,000 technical terms covering all major printing processes and related fields. In addition to the translation of terms, a great many definitions have been included in the English-Spanish Part. Emphasis is on the Spanish speaking trade.

Dictionary of the Printing and Allied Industries. In four languages, English, French, German, and Dutch. Wijnekus, F. J. M. ed. Amsterdam, Elsevier, 1967.

The result of years of systematic collection and preparation. It includes thousands of terms and expressions not found in some other dictionaries. In addition to the basic tables, the appendix covers information in the four languages on type body names, type design classification, paper size names, recommendations for proof correction, names and addresses of non-profit trade organizations of the world. Bibliography.

Berry, W. Turner and Johnson, A. F. / *Encyclopedia of Type Faces.* London, Sir Isaac Pitman & Sons, Ltd., 1953.

Examples of about 750 of the prominent type styles used in the Western world, organized by basic styles and further subdivided by substyles. With each listing is the name of the designer and the date of design. Specific peculiarities of each style are described. Also included is a directory of European and American type foundries.

The Focal Encyclopedia of Photography. Mannheim, L. A., et al. eds. N.Y., The Focal Press, 1965.

Photography and its related technologies are covered in ample detail. A useful reader's aid is the synopsis of subject divisions in which major articles are linked in their contextual sequence. A comprehensive, easy to read, scientific, and practical information source.

Glossary of Automated Typesetting and Related Computer Terms. Los Angeles, Composition Information Services, 1966.

Typesetting automation is engaging principles of electronics, optics, photography, computerization, data transmission, and other similar concepts. The glossary lists alphabetically the terms in use in contemporary typographics, including also fundamental expressions. Covered are subject areas which include tape operation, photo-composition, hot metal progress, computer and data transmission systems, OCR, and typesetting via cathode ray tube.

Glaister, G. A. / *Glossary of the Book.* London, Allen & Unwin, 1960; published in the U.S. by World, Cleveland, Ohio, as *Encyclopedia of the Book,* 1960.

An encyclopedic dictionary written primarily from the British point of view but international in coverage. In some 2,600 definitions alphabetically arranged, it explains the terms used in papermaking, printing, book-binding and the book trade. While most entries are short, such basic items as block-making, bookbinding, color printing, letters, forms and style, lithography, Monotype, papermaking, and photogravure receive fuller treatment.

Stevenson, G. A. / *Graphic Arts Encyclopedia.* N.Y., McGraw-Hill, 1968.

It has aimed successfully through text and illustrations "to consolidate in one volume all the most useful techniques, processes, concepts, and methods required in the graphic arts professions." Especially helpful on basic information.

Harper's Dictionary of the Graphic Arts. Allen, E. W., ed. N.Y., Harper and Row, 1963.

More than 6,500 basic terms used in the graphic arts industries with definitions and explanations, including descriptions of methods and processes, uses and purposes of tools.

Pocket Encyclopedia of Paper & Graphic Arts Terms. Kaukauna, Wisc., Thomas Printing & Publishing Company, 1965. 122 p.

Includes terminology in the paper and paper mills field, graphic arts terms, paper converting, and ink fields.

Beer, P. / *Vocabulary of the Press.* German, French, English. Frankfurt am Main, Polygraph Verlag GmbH, 1950.

Intended mainly for the members of the newspaper printing industry and for translators. It contains

numerous items which will rarely be found in any other dictionary. Some terms had to be given an explanatory form owing to the absence of equivalent words in the languages included.

Equipment & Supplies

And then, where to buy and what is available for printing requirements becomes a most important area. Purchasing supplies or new equipment cannot be done by rule of thumb! To review the market and to be able to have, if possible, in one listing the suppliers of interest to begin shaping and order, seems highly desirable. These activities may be performed efficiently and on a survey manner with the aid of some general manufacturing directories such as Connover-Mast, MacRae Blue Book, Thomas Register, and of course, more specific printing directories.

The Paper Catalog (Semi-Annually. Oradell, N.J., Walden, Sons & Mott, Inc.)

Published in six geographical sections and includes a price section; a merchants' section arranged alphabetically by name of concern and presenting a list of paper grades carried by each; a proprietary brands section, giving a complete list of proprietary brands with stock sizes, weights, colors and finishes; and a watermarks and brands sections, alphabetically by watermarks and brands with information on grades, and firms and dealers who carry stocks.

The Paper Yearbook (Annual. Duluth, Minn., Ojibway Press, Inc.)

A standard guide to paper and paper products for everyone seeking general information about the paper industry and for paper users in search of sources of supply. Includes information about printing papers, listings of manufacturers and manufacturer's data, and other useful data in the form of charts and tables.

Printing and Allied Trades Directory. (Annual. London, Benn Bros. Ltd.).

The Printers' Section contains an alphabetical list of 7,600 companies, followed by a geographical index. The Manufacturers and Suppliers Section contains the names of firms whose products and services are shown under more than 1,000 headings in the Classified Buyer's Guide. A list of U.K. agents and distributors for overseas manufacturers of printing machinery is an added feature. Other sections include trade names of manufacturers, trade organizations, colleges and schools of printing and graphic arts, and miscellaneous information.

Printing Purchasing Manual. (Annual. Oradell, N.J., Printing Magazine/National Lithographer).

Besides the Buyers' Guide Section, listing services, equipment, and supplies for printers and lithographers under a Product/Subject Classification, it includes also listings and tables on Graphic Arts Organizations (national & local); Mill Brands of Paper; Wage Scales in Leading Cities; and a Display Advertising Index.

Printing Production's Where to Buy Guide. (Annually in Dec issue. Cleveland, Printing Production).

Listings of products and manufacturers classified in 8 sections: *1)* Composing room, *2)* Platemaking, *3)* Paper, printing stock, *4)* Paper cutting and handling, *5)* Pressroom, *6)* Bindery, *7)* Mailing, shipping, and *8)* Miscellaneous. Also a trade name index and a listing of manufacturers, suppliers and dealers, and a section on printing press specifications is also included.

Specification Manual of Printing Machinery and Equipment. (Annual. London, British Printer).

A comprehensive buyer's guide on available equipment in all phases of the printing industry. Contents include all types of printing machines and accessories, composing machines and equipment, bindery machines and equipment, specialized machines, an index of manufacturers and machines, and a manufacturer-supplier directory.

General Sources

A bibliography on printing, would of course, include many more books than we are able to discuss here, on the many facets of this $16 billion industry. Unfortunately, there is neither the space, nor is there the intent to discuss them all. However, two books not considered "reference" are a must in this presentation, because their scope and treatment qualify them amply as general source books on printing:

Pocket Pal. N.Y., International Paper Company, 1966. 189p.

A fundamental graphic arts design text for printers in layman's language. It presents a brief history of printing and paper; describes and discusses the different printing processes, composition, photoengraving and duplicate plates, printing inks, imposition, binding, and paper. Excellent illustrations and tables.

Strauss, V. / *The Printing Industry: An introduction to its many branches, processes, and products.* Washington, D.C., PIA, Inc. in association with R. R. Bowker Co., 1967. 816p.

A comprehensive up-to-date work on all phases of the printing industry, organized by functions. Among the subjects covered are composition, full color reproduction, graphic arts photography, image carriers, presses, presswork, paper, ink, binding and art, and copy preparation. Printing processes explained include letterpress, offset, gravure, screen process, and many others. Book manufacturing, magazine and newspaper production, and package printing are also extensively discussed.

Trade Journals

As has been stated before, the 20th century printing industry is by no means static; on the contrary, its progress is exhilarating and such pace is reported weekly, monthly, bi-monthly, quarterly, and yearly in the trade journals. A selected list of trade journals must include:

American Ink Maker (monthly) 254 W. 31 St., N.Y. 10001. ($3.00)
Book Production Industry (monthly) 201 E. 42 St., N.Y. 10017. ($10.00)
British Printer (monthly) 30 Old Burlington St., London, W 1, England. ($10.00)
Editor and Publisher (weekly) 850 Third Ave., N.Y. 10022. ($6.50)
Flexography, Printing and Converting (monthly) 61 Hilton Ave., Garden City, N.Y. 11530. ($6.00)
Graphic Arts Monthly (monthly) 7373 N. Lincoln Ave., Chicago, Ill. 60646. ($7.00)
Graphic Arts Progress (monthly) 65 Plymouth Ave. S., Rochester, N.Y. 14608. ($10.00)
Graphic Communications Weekly (weekly) 1605 N. Cahuenga Blvd., Los Angeles, Calif. 90028. ($50.00)
Graphic Science (monthly) 9 Maiden Lane, N.Y. 10038. ($16.00)
Gravure (monthly) 61 Hilton Ave., Garden City, N.Y. 11530. ($6.00)
Gravure Technical Association Bulletin (monthly) 60 E. 42 St., N.Y. 10017. (Membership)
Inland Printer/American Lithographer (monthly) 300 W. Adams St., Chicago, Ill. 60606. ($5.00)
Kodak Bulletin for the Graphic Arts (irr.) Eastman Kodak Co., Rochester, N.Y. 14650. (Free)
Modern Lithography (monthly) 4 Second Ave., Denville, N.J. 07834. ($4.00)
Newspaper Techniques (quarterly) 1, Witte Singel, Leyden, Holland. ($9.75)
Photoengravers Bulletin (monthly) 116 W. Van Buren St., Chicago, Illinois 60604. ($5.00)
Printing and Publishing (quarterly) U. S. Govt. Printing Office, Washington, D.C. 20402. ($1.00)
Printing Impressions (monthly) 134 N.13 St., Philadelphia, Pa. 19107. ($7.00)
Printing Magazine/National Lithographer (monthly) 466 Kinderkamack Rd., Oradell, N.J. 07649. ($5.00)
Printing Plates (monthly) 758 Leader Building, Cleveland, Ohio 44113. ($10.00)
Printing Production (monthly) 1213 W.3 St., Cleveland, Ohio. ($5.00)
Printing Trades Journal (monthly) Bouviere House, Fleet St., London E.C. 4, England. (60s)

Received for review Jun 20, 1969. Accepted Sep 12, 1969.

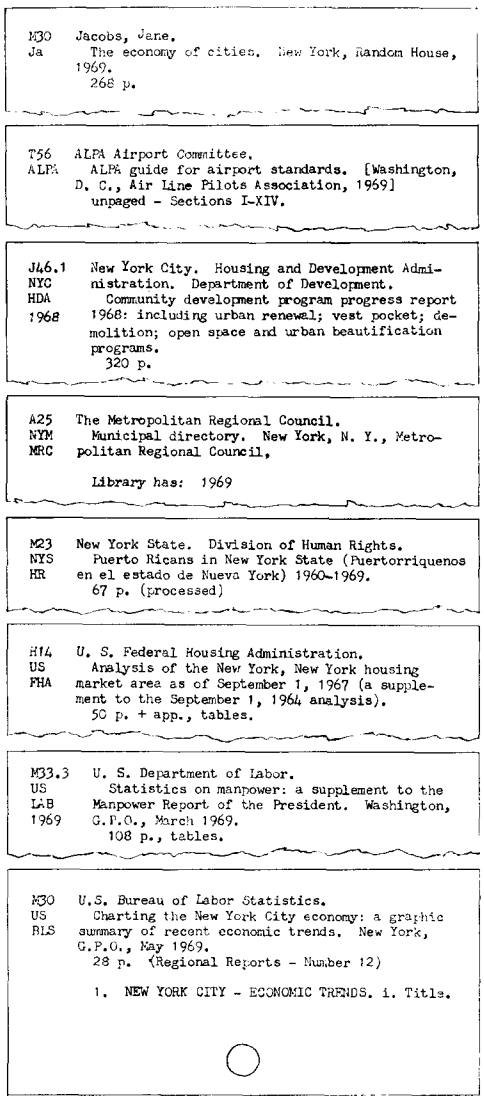
Mr. Cuitino, *until recently manager, Information Services, The Goss Company, a division of Miehle-Goss-Dexter, Inc., Chicago, Illinois, now heads his own consulting firm that also provides packaged library and information services to industry. He has just returned from South America, where he served as Temporary Consultant for the Regional Office of the World Health Organization in their Regional Library of Medicine, Sao Paulo, Brazil.*

This Works For Us

"Cuttering" the Corporate Entry

Mrs. Grace Levy

Interdepartmental Planning and Housing Library,
Department of City Planning, New York 10007



M30 Ja
Jacobs, Jane.
The economy of cities. New York, Random House, 1969.
268 p.

T56 ALPA
ALPA Airport Committee.
ALPA guide for airport standards. [Washington, D. C., Air Line Pilots Association, 1969]
unpaged - Sections I-XIV.

J46.1 NYC HDA 1968
New York City. Housing and Development Administration. Department of Development.
Community development program progress report 1968: including urban renewal; vest pocket; demolition; open space and urban beautification programs.
320 p.

A25 NYM MRC
The Metropolitan Regional Council.
Municipal directory. New York, N. Y., Metropolitan Regional Council,

Library has: 1969

M23 NYS HR
New York State. Division of Human Rights.
Puerto Ricans in New York State (Puertorriquenos en el estado de Nueva York) 1960-1969.
67 p. (processed)

H14 US FHA
U. S. Federal Housing Administration.
Analysis of the New York, New York housing market area as of September 1, 1967 (a supplement to the September 1, 1964 analysis).
50 p. + app., tables.

M33.3 US LAB 1969
U. S. Department of Labor.
Statistics on manpower: a supplement to the Manpower Report of the President. Washington, G.P.O., March 1969.
108 p., tables.

M30 US BLS
U.S. Bureau of Labor Statistics.
Charting the New York City economy: a graphic summary of recent economic trends. New York, G.P.O., May 1969.
28 p. (Regional Reports - Number 12)

1. NEW YORK CITY - ECONOMIC TRENDS. i. Title.

Our library, as do many libraries, acquires an array of government publications from federal, regional, state and local agencies, as well as many publications from quasi-public and private organizations. This library has its own alphabetico-numeric classification scheme. In addition, a geographic notation is used and frequently a chronological notation. The combined notation provides a useful key to a variegated collection. Recently I have extended the geographic notation to denote federal and regional publications: US for federal and NYM for New York Metropolitan Region. This extension establishes a place in the collection for two sizable categories. Previously federal publications were noted only by a "cuttered" U, and metropolitan regional materials had no special notation.

This library is an integral part of a New York City department: the Department of City Planning. We therefore maintain a discrete notation for New York City materials (published by local agencies and organizations). Materials about New York City by other than local agencies and organizations are traced by subject headings preceded by NEW YORK CITY.

We are all familiar with "cuttering" the personal author entry. Over the past year I have wrestled with the problem of what to do about the corporate author. There has been such a proliferation of publications that the "bodies" tend to get mixed up or lost on the shelf. "Cuttering" the corporate author appears to offer a rational solution to providing these corporate entities with an individualized identity which makes it possible to

group them by corporate author. I have therefore adopted the practice of using an upper case notation for this purpose composed of the initials of the agency, association, or organization, for example, American Institute of Architects (AIA); U.S. Bureau of Labor Statistics (BLS). Excepted from this practice is the corporate author whose name begins with the forename or initial of a personal name (see ALA Rule No. 144 in *ALA Cataloging Rules for Author and Title Entry,* 2d ed. 1949). It has been necessary, of course, to follow some guidelines:

1) Use the ALA cataloging rules for corporate entry.
2) Use official directories to establish and maintain an authority list (e.g., U.S. Government Organization Manual; City of New York Official Directory).
3) Be consistent.

Although the methodology employed in cataloging for our moderately sized library (approximately 9,000 items) may appear to be complicated, the results are worthwhile. The information conveyed by the 4-part notation facilitates both the storage and retrieval of any one of a multitude of books, reports, studies or other publications of extremely varying sizes and bindings. We all know what cataloging nightmares those spineless or spiralled items present in both storage and retrieval.

A proposed shelf arrangement designed to integrate the entire collection treats the classification as the base component. Personal authors and private corporate authors are arranged in alphabetical order. All works bearing a geographic notation and/or geographic notation plus corporate author follow also in alphabetic order. Chronology is considered in ascending order within all categories where it is specially noted. The following illustration, using one classification selected from the scheme used by the Interdepartmental Planning and Housing Library, will serve to show the possible range. (T10 is assigned to the category of general works on transportation.)

T10	T10	T10	T10	T10	T10	T10
Cu	HRB	Cal	NYC	NYC	US	US
		SanF	TA	TBTA	DOT	DOT
					1968	1969

For the uninitiated the Cutter notations are further explained:

Cu	Personal author
HRB	Highway Research Board
NYC/TA	New York City. Transportation Authority.
NYC/TBTA	New York City. Triborough Bridge and Tunnel Authority.
US/DOT	United States. Department of Transportation

Received for review Jul 8, 1969. Accepted for publication Sep 1, 1969. Mrs. Levy *is senior librarian, Interdepartmental Planning and Housing Library, New York City Department of City Planning.*

Simple Reserve System

Roger P. Bristol

Engineering Library, University of Virginia, Charlottesville, Virginia 22901

THE reserve-book system in use at the University of Virginia Engineering Library is so simple to set up and operate that describing it may be of help to small college libraries, or to small departmental libraries of universities. It is best adapted to collections of 150–2,000 volumes. Below 150 volumes any purely manual control is adequate. Above 2,000 volumes the manual portions in the system should probably be superseded by machine procedures, preferably close to the library.

As each reserve list is received from a faculty member, the list is inserted chronologically in a spring-back binder and serially numbered. A list arranged alphabetically by faculty members serves as a table of contents for the binder.

Books are located from the list, and each is marked, regardless of call number or author, with a strip of tape bearing a serial number having no relation to the serial number of the faculty reserve list itself. Volumes and copies may or may not be consecutively numbered. If a book has to be called in from a borrower or ordered from a publisher, its number is assigned when it appears in the library.

A keypunch (an IBM 026 in our case) is the only equipment which must be close to the library. (The other equipment we use is an 083 sorter and a 407 accounting machine.) Books going on reserve must have punched cards made at once, and additional cards to be signed by borrowers must be reproducible immediately when needed.

The indexes provided are products of the punched card made for each volume: they are entitled respectively Author, Faculty, and Reserve number. The single punched card is duplicated five times. One card is sent to the faculty member as evidence that the book is on reserve; one is held in a box in reserve number sequence; and the remaining cards are kept with the book.

The "shelf list box" of punched cards is carried (generally by a willing student assistant) to the nearest sorter and printer. Successive sorts and printouts are made by author (cols. 1–4), faculty member (cols. 50–55), and reserve number (cols. 73–76). The final sort returns the punched cards to shelf list order. It would be possible to produce indexes by course and by title, but this has not appeared necessary for us. Printouts and the "shelf list box" are brought back to the library, and the printouts are put into appropriately marked binders.

The books stand on the reserve shelves arranged solely by an arbitrary numbering, with no apparent logical order, whether by author, title, call number, size, color, or faculty member. Many students pore over the shelves trying to figure out the system within the system; engineering people like to solve puzzles. But since there really is *no* system within the system, almost invariably someone has to point out to them the binders that contain the the indexes.

Charging out a book is easy. The borrower signs his name anywhere on one of the punched cards in the book, leaves it at the circulation desk, and takes the book for two hours—longer if no one is waiting for it. Books are also charged out overnight. It would be possible to arrange the borrowers' cards by reserve number (or other logical sequence), but in our set up we have not quite had to do that.

When the book is returned, the signed punched card is pulled and tossed—not away, but into a pamphlet box. At semester's end these cards are run through the sorter according to faculty member, and printed

out. The results are informative, for they show what reserve books actually were used and how often. Many books circulate less than three times, and some not at all, a fact which should be of interest to the instructor. On the other hand, those that circulate heavily deserve the purchase of another copy.

As usual with any man-machine interface, man fails oftener and in more ways, but when the machine fails, it fails more disastrously. With the unsophisticated equipment used for our system, machine trouble has been slight. Sorts and printouts are not on a demanding schedule; even at the start of a semester, when we try to produce new indexes whenever we add 10–12 books, a wait of another day or two is handicapping but not fatal. Machine slippage due to mispunching and misfiling has never been more than annoying.

Human errors are less subject to correction. Books disappear from our open shelves without being signed for. Books are not returned on time, with consequent fines and frustrations for all. But this is normal human slippage, inherent in all open-shelf reserve systems and avoidable only by closed reserves and constant staff supervision. Such human shortcomings are in no way attributable to the changed system, but perhaps they become more obvious.

Putting books on reserve and taking them off has become less complicated and faster; once a book is in hand, the time for getting it on reserve is seldom over ten minutes, and for getting it off seldom over fifteen seconds. Hence we feel that our simple and inexpensive mechanized operation has been successful.

Received for review May 26, 1969. Revised manuscript accepted for publication Aug 16, 1969. Mr. Bristol *is at the Engineering Library of the University of Virginia's School of Engineering & Applied Science, Charlottesville, Virginia.*

sla news

CHAPTERS & DIVISIONS

Baltimore—On Oct 14 the Chapter met in Washington, D.C. at the U.S. Book Exchange. The executive director of USBE, Alice D. Ball, described the operations of USBE before the Chapter visited the physical facilities of the exchange.

On Nov 12 the Chapter met in Catonsville, Md. to hear a description of "Library Trends and Prospects in Maryland" by members of the Maryland Division of Library Extension.

On Jan 15, 1970 Baltimore Chapter will visit the new library of the Towson State College and will hear an informal discussion on "Planning Library Buildings."

"How a Newspaper Goes to Press" will hold the attention of the Chapter on Feb 10, 1970 at the Sunpapers Building, Baltimore.

Baltimore's Sinai Hospital is the location of the Mar 17, 1970 meeting with a tour of the Rehabilitation Building and a visit to

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Special Membership Meeting
Jan 30, 1970

A NOTICE of a Special Membership Meeting called by the Board of Directors has been mailed to the voting members of the Association. The purpose of the meeting is to amend the "Statement of Objectives" in the Association's Certificate of Incorporation. The existing statement dates from SLA's original Charter issued in 1928:

> "Said corporation is constituted for the purpose of promoting the collection, organization and dissemination of information, developing usefulness and efficiency of special libraries and other research organizations, and encouraging the professional welfare of its members."

The wording of this statement, especially the phrase, "encouraging the professional welfare of its members," has resulted in an Internal Revenue Service classification of SLA along with trade associations, chambers of commerce, real estate boards, etc. As a result we are considered by IRS to be a business league. Other nonprofit associations, similar to SLA, are recognized as educational.

The Board of Directors initiated the steps necessary to revise the "Statement of Objectives" in SLA's Charter during an Executive Session of the Board on May 31, 1969. The new statement reads:

> 1. (a) To provide an association of individuals and organizations having a professional, scientific or technical interest in library and information science, especially as these are applied in the recording, retrieval and dissemination of knowledge and information in areas such as the physical, biological, technical and social sciences and the humanities.
>
> (b) To advance and improve the communication, dissemination and use of such information and knowledge within the meaning of Section 501(c)(3) of the Internal Revenue Code of 1954.

The laws of the State of New York require approval of such a change at a Membership Meeting. The Association's legal counsel has advised that such approval should be obtained at the earliest possible time when more than a quorum of the membership will have gathered.

To move as expeditiously as possible in this matter, the Board decided to call a Special Membership Meeting instead of waiting for the June 1970 Annual Business Meeting. Therefore, the Board has called the meeting at 1:00 p.m. on Jan 30, 1970 to coincide with the meeting of the Advisory Council and Board at the Regency Hyatt House in Atlanta (Jan 29-31, 1970). Members of the Council in attendance will provide both the necessary quorum and will also provide for representation from all Chapters and Divisions.

the Nurses Library. The Chapter's annual business meeting is scheduled for Apr 15.

Boston—A joint meeting of SLA's Boston Chapter and the ASIS New England Chapter was held on Dec 9 at the NASA Electronic Research Center, Cambridge, Mass. A dinner at the MIT Faculty Club provided an intermission between the afternoon demonstration of NASA's on-line retrieval system and the evening's talk by Liam Kelly of Inforonics on "Impact of MARC II on Smaller Libraries."

Jan 12, 1970 is the date of a meeting at the Simmons College School of Library Science. "Trends in Continuing Education for Librarians" is the topic for a panel discussion.

Illinois—On Nov 12 "Information Science Programs and Research at Illinois Institute of Technology Research Institute" was the topic of a joint afternoon meeting of SLA's Illinois Chapter, the ASIS Chicago Chapter, and the Chemical Literature Group of the ACS Chicago Section.

The Chapter's annual holiday party with punch, appetizers and gifts was scheduled for Dec 11. A joint meeting of the Illinois Chapter and the Chicago Library Club is scheduled at Chicago's Furniture Club on Jan 15, 1970.

Minnesota—"Interlibrary Cooperation & Information Networks: A Panel Discussion" will occupy the Chapter at its Jan 14, 1970 meeting in St. Paul.

"Urban Problems: A Panel Discussion" is scheduled for Feb 15, 1970 in Minneapolis.

New Jersey—"Expo-70: In the Age of New Communications Systems" was the Nov 12 topic of the director of the New York Regional Office of Japan's Expo-70 . . . in Saddle Brook, N.J.

New York's Biological Sciences & Social Science Groups—A joint meeting on Oct 9 at the Mills College of Education heard Lionel Tiger, author of *Men in Groups.*

New York's Documentation Group—The seminar on "Current Applications of Mechanization in Documentation" was scheduled for Dec 11–12 at the Graduate Center of The City University of New York.

New York's Technical Sciences Group—On Dec 3 Walter Sullivan, the *New York Times* Science Editor, discussed "Adventures in Science Reporting." The Chapter's Biological Sciences Group and the Newspaper and News Group also met with the Technical Sciences Group.

Pittsburgh—On Nov 20 the Chapter met at Duquesne University and heard a description of "Duquesne's Undergraduate Program for Library Training."

The annual Christmas meeting of the Chapter on Dec 10 was a dinner-theatre party at the Pittsburgh Playhouse.

Princeton–Trenton—On Nov 20, Joseph Potterfield, sociologist turned librarian via sociomedical research, spoke on "Why I Wouldn't Hire a Librarian for the Carter-Wallace Laboratories Library."

South Atlantic—On Nov 18 the Chapter met at the library of the National Communicable Disease Center; the subject of the panel discussion was "Is SLA Over-Structured?"

Southern California—The Chapter's annual scholarship event and Christmas party was held on Dec 5. A joint meeting with the California Library Association's Southern District is scheduled for Jan 21, 1970.

On Mar 24 the Chapter will visit the Southwest Museum.

Toronto—On Nov 13 the Chapter met at George Brown College. The Christmas meeting on Dec 4 featured a tour of the new buildings of the Consumers' Gas Company.

A joint meeting of the Toronto Chapter and the Upstate New York Chapter took place at Welland, Ontario on Oct 25. The Chapters toured the campus of Niagara College of Applied Arts and Technology. They heard Gordon Wright describe the development of a technical information and library service for education and industry in the County of Hertfordshire (England).

Upstate New York—A joint meeting of the Chapter was held on Nov 14 with the ASIS Upstate New York Chapter. A round table discussion considered "The Team Approach to Meet User Information Needs."

Wine 'Em, Dine 'Em, & Work 'Em

A Dictionary Weekend

William H. Farrington
President, Rio Grande Chapter, SLA

AMY VANDERBILT, Perle Mesta and other party givers of renown can move over to the back seat now. We've got one in New Mexico who beats them all, including the late Elsa Maxwell. And who, you ask, is this paragon of party purveyors? Our own Lois Godfrey, that's who. The world lost a great hosteler when she decided to become a librarian. But this is a story where talents in librarianship and in party organizing were combined!

Lois is the one who organized and ramrodded the now famous "Dictionary Weekend" in Los Alamos on Aug 22–24. It was she who marshalled the troops and called the shots—if you will excuse a mixed metaphor—for what may well be a unique editorial experiment. But I'm getting ahead of myself. Let us begin at the beginning.

In 1962 SLA published the Rio Grande Chapter's *Dictionary of Report Series Codes* (Helen F. Redman and Lois E. Godfrey, eds. Compiled by the Report Series Dictionary Committee, Rio Grande Chapter. N.Y., SLA, 1962. $12.75; now o.p.). Soon after publication* it became apparent that a second edition would be needed in the near future but that future never got any nearer. For those unfamiliar with the *Dictionary* it should be explained that it provides a single source of bibliographic identification by report series codes assigned by the issuing organizations (federal agencies and government contractors).

In 1968 the Chapter hired clerical help to assist with the updating but the project was not entirely satisfactory. Helen Redman and Lois Godfrey ruefully admitted that they could see no way to finish the second edition without some knowledgeable helpers. So, there we sat with a partially updated second edition, a lot of money already spent and a long road ahead.

"Why not," said Lois, "have a lot of members up for the weekend; fill them with food, drink and entertainment at night; and work the pants off of them during the day?"

Chapter President at Work. In New Mexico—they elect you to such a position???

A Presidential Opinion

She called the Chapter president for his opinion. "I'll drink to that," was his presidential reply.

And so, in the words of Sue Mainord, the "Wine 'Em and Dine 'Em" editorial technique was born. Chapter members were notified of the project, and 13 were selected to participate on a first-come, first-served basis.

The Chapter provided lodging in Los Alamos for the out-of-towners on Friday, Saturday and Sunday. Lunch was a group affair each day with the Chapter picking up the tab. Each participant was allotted up to five dollars for dinner and up to five dollars for evening entertainment on Friday and Saturday. Morning coffee and rolls and afternoon tea and cookies were provided by three Los Alamos members and friends: Ann Beyer, Jennie Boring and Carol Malmberg.

On Friday night most of the group had dinner together at the Palace in Santa Fe and attended a performance of the Santa Fe Theatre Company (two one-act plays: *The Lesson* by Ionesco and *Swan Song* by Chekhov). On Saturday night about eight of them were fortunate enough to see the final performance of *Tosca* at the Santa Fe Opera (since mentioned as one of the finest performances of *Tosca* ever seen), while the rest had a riproaring time at Tiffany's Saloon in Cerrillos. Oh, yes, there was swimming before lunch at the Barranca Mesa pool. ▶

* 1500 copies have been sold by the Association, and the Rio Grande Chapter has received about $3,600 in royalties from SLA.

What Did All This Accomplish?

From 8 a.m. to 5 p.m. for three days the group worked.* And how they worked! Indexes were checked and cross-checked. IBM cards were interfiled† and the old files revised according to the new rules. This was called idiot work and for some reason was given to the Chapter president. His psychiatrist reports that he is now doing well and is almost over his paranoia. Lois Godfrey's basement playroom became one vast assembly line, and the 13 *special* special librarians plugged away at what on the surface appeared to be clerical tasks, but were in reality rather complicated jobs.

We learned a lot during the weekend. First, we learned that we were not going to finish in three days—and we didn't. But, we made a dent in the mass and hope to do more work later. We also learned that the idea is a good one and our members can be used to good advantage in such projects. The money expended on food and entertainment would have bought very little clerical help and certainly not of the quality and quantity we had. The cost to the Chapter was about $300 for some 300 man-hours of professional effort.‡

The stalwarts who gave up a precious weekend to sit inside and go slowly blind poring over pages of printouts were: Marti Bogdan, Calla Ann Crepin, Bill Farrington, Art Freed, Lois Godfrey, Marge Johnson, Jack Key, Mary King, Sue Mainord, Helen Redman, Gladys Rowe, Eleanor Standring, and Virginia Winsor. Others in the Chapter volunteered their services but there wasn't room to fit them in.

Behind-the-scenes helpers included Ann Beyer, Friday lunch-bringer and card table-and-typewriter-gatherer-and-mover-extraordinaire, and Gretchen Schuch and Carol Malmberg, who provided us with ice cubes and iced tea and the insulated cups we used for tea and coffee. Janet Godfrey, editor-in-training, saw to the warm doughnuts and coffee cake each morning and cookies in the afternoon, in addition to helping with checking *Nuclear Science Abstracts.* Marge Johnson stayed overtime on Sunday to help with straightening up. The 38 drawers of IBM cards remain in the Godfreys' basement, waiting to be taken to the next meeting, where everyone can help with the grand refiling project necessitated by a *change in filing rules.*

A Daring Experiment with Results

Everyone connected with this experiment can take pride in the achievement. We did not accomplish all we set out to do, but the groundwork was laid and we have a better idea of where we are going. Perhaps it will start a new trend in Chapter programs—The Wine 'Em, Dine 'Em and Work 'Em Weekend.

Bill Farrington *is head of the Southwest and Rarebook Collection at the New Mexico State Library, Santa Fe. It has been reported that he gave a series of farewell theatrical performances during the 1969 Santa Fe Fiesta Melodrama.*

* Yes—but—that swimming pool before lunch? —ED.

† By hand???—ASST. ED.

‡ Don't report this in the 1970 Salary Survey! —ASST. TO THE ASST. ED.

A Lunch Break. Marti Bogdan, standing; seated (clockwise) Mary King, Bill Farrington, Eleanor Standring, Helen Redman, Lois Godfrey, Sue Mainord and Art Freed.

MEMBERS IN THE NEWS

Nancy Ann Brown . . . from Canadian Meteorological Service, University of Toronto to librarian of the Douglas Library at Queen's University at Kingston, Ontario.

Carl F. Cannon, Jr., . . . elected chairman of the Virginia Library Association's Special Libraries Section.

Ciel M. Carter . . . from manager of the information center at the Association for Computing Machinery, N.Y. to executive secretary of ACM.

Paul Di Mauro, editor of the *Publishing Division Bulletin,* has been appointed librarian of the Encyclopaedia Britannica's Ultramicrofiche Library of American Civilization.

William Fisher spoke on the history of the laying of the first and second Trans-Atlantic cables to the Hamilton Square (N.J.) Chapter of the International Rotary Clubs.

Gilles Frappier . . . from Canadair Limited, Montreal to Directeur des Bibliothèques scientifiques, Université de Montréal, Québec.

George H. Ginader participated in a panel discussion of the 1969 Conference of the Association of Records Executives & Administrators (AREA); other panelists included representatives of AMA, ARMA, and the Society for the Advancement of Management.

Mrs. Oda Bali Hansen . . . from American Express Investment Management Company to librarian at the San Francisco home office of Fireman's Fund American Insurance Companies.

Paul Howard, executive secretary of the Federal Library Committee since 1966, will retire on Feb 6, 1970. Mr. Howard had been librarian of the U.S. Department of the Interior for 17 years, and had been director of ALA's Washington Office from 1945 to 1949. His successor as executive secretary of FLC will be Frank Kurt Cylke, who has been branch chief in the USOE Library and Information Sciences Research Program.

Donna Ivy . . . from Canadian General Electric to librarian, Consumers' Gas Company, Toronto.

Chester M. Lewis has been named to a new position, Director of Archives of *The New York Times;* he will also head a related program of oral history. Mr. Lewis was formerly chief librarian of *The Times;* in 1955/56 he was President of SLA. He is also a director of the Microfilming Corporation of America, a *Times* subsidiary.

H. Robert Malinowsky . . . from Science and Engineering Libraries to Assistant Director for Science and Engineering at the University of Kansas, Lawrence, Kans. He has recently been elected president of the Geoscience Information Society for 1970.

John H. Moriarty, Director of Libraries and the Audio Visual Center, Purdue University . . . honored at a recognition dinner on Dec 4 upon his approaching retirement after 25 years of service to Purdue. Mr. Moriarty has been a member of SLA since 1924; he served as president of the Indiana Chapter in 1947/48.

G. Richard Myers . . . from DASA Information & Analysis Center, General Electric Company, Santa Barbara to reference librarian at General Dynamics, Convair Division Library, San Diego.

Carlos Nelson . . . to head of Acquisitions Department, Drexel Institute of Technology Libraries from Alcan Jamaica Ltd.

Glendon T. Odell . . . from Cities Service Research & Development Co., Cranbury, N.J. to Princeton University as Assistant University Librarian for Science and Technology.

Mary Wilhelmina Oliver . . . to professor of library science at the University of North Carolina at Chapel Hill; she continues as law librarian and professor of law on this joint appointment.

Jean Orpwood, president-elect of the Toronto Chapter, is now periodicals librarian for the Legislative Library for the Province of Ontario.

Dr. Donald E. Rady . . . to associate professor at the Graduate Library School, University of Rhode Island, Kingston, R.I.

Valentine Schmidt, librarian of the Ringling Museum of Art, Sarasota, Fla., organized an exhibit of 16th, 17th and 18th century books with major emphasis on the Baroque period. The exhibition

was in the new wing galleries of the museum during November.

Rose Vormelker spoke on "Responsibility of the Public Library to Serve Commerce and Industry" at the Milwaukee Public Library's inservice training seminar on Nov 12; Miss Vormelker is assistant professor of library science at Kent State University.

Dr. Paul Wasserman has tendered his resignation as dean of the School of Library and Information Services, University of Maryland, effective with the end of the 1969/70 academic year, in order to resume full-time teaching as a professor in the school.

Elizabeth Watson . . . from the Legislative Library, Toronto to the Ontario Department of Social and Family Services Library.

Robert L. Martin, chief of the technical library at the U.S. Army Natick Laboratories, Natick, Mass., retired on Oct 31 after 25 years of government service. **Eugene G. Beary** has been appointed acting chief.

Jane Wilson . . . appointed administrative assistant to the director of the Library of Medical Sciences, University of Illinois Medical Center, Chicago; she recently returned from a six-month visit to South America. **Lorraine Ciboch,** formerly librarian for Bell and Howell Co., Chicago, joined the staff of the Library of Medical Sciences in Mar 1969 as automation librarian.

Kathryn S. Forrest . . . from head librarian of the Bio-Agricultural Library to Assistant University Librarian for the Sciences at the University of California, Riverside. **Elizabeth H. Weeks** . . . from the Smithsonian Astrophysical Observatory, Cambridge, Mass. to the Monographs Department of the Riverside campus library.

Jackson Cohen . . . to science librarian of the Pratt Institute Library, Brooklyn, from the Science and Industry Department of the Public Library of Cincinnati and Hamilton County. **Mrs. Nancy Hanssen** . . . promoted to head of Pratt's Library Science library.

Discussion leaders at the Military Librarians Workshop at the Naval War College, Newport, R.I. were: **Mrs. Cleo S. Cason** (Redstone Arsenal, Ala.), **Catherine R. Hetrick** (AFOSR, Washington, D.C.), **Steven Jaffe** (Naval Applied Science Laboratory, Brooklyn), **Mrs. Carolyn J. Kruse** (Naval Weapons Center, China Lake, Calif.), **Robert B. Lane** (Air University Library, Maxwell AFB, Ala.), **A. Elizabeth Schwartz** (Army Library Program, Washington, D.C.), and **Egon A. Weiss** (U.S. Military Academy, West Point).

The Hospital Librarians Section of the Association of Western Hospitals has elected **Mrs. Brigitta M. Vadasz** (Children's Hospital, San Francisco) as secretary of the section, **Mrs. Elizabeth T. Hinkle** (University of Arizona Medical Library, Tucson) as a liaison officer, and **Sherry Terzian** (Neuropsychiatric Institute of the State of California at UCLA) as a member of the advisory board.

In Memoriam

George H. Goodwin, librarian of the American Museum of Natural History, N.Y. . . . in Sep 1969. An SLA member since 1961.

Wanda Mae Johnson, director of the U.S. Department of Commerce Library, Washington, D.C. . . . on Sep 8, 1969 after a short illness. She had been chief librarian, U.S. Office of Price Administration; assistant librarian, U.S. Treasury Department; loan assistant of the U.S. Agricultural Economics Library; and loan assistant of the National Agricultural Library. An SLA member since 1944.

Richard S. Ladd . . . on Oct 3, 1969 of a heart attack in St. Johnsbury, Vermont. Mr. Ladd, a distinguished reference librarian and carto-bibliographer, had retired from the Library of Congress on Feb 20, 1969 after more than 44 years of federal library service. An SLA member since 1954.

Sophia Josephine Lammers . . . on May 22, 1969 in Des Moines, Washington. Miss Lammers retired from the Joseph Schaffner Library of Commerce, Northwestern University in 1941; she had joined the staff there in 1928. A Vice President of SLA in 1932/33.

Lucy A. Schotter (Mrs. Raymond J.) . . . on Sep 6, 1969 in Palatine, Illinois. She had been librarian for the Middle West Service Company, Chicago for the past 19 years. An SLA member since 1956.

vistas

HAVE YOU HEARD ?

News from LC

The Geography and Map Division of LC has moved to a rental building at 845 S. Pickett St., Alexandria, Va. The relocation was necessary because of the accelerated growth of the library's collections and the delays in the construction of LC's projected James Madison Memorial Building.

New hours have been announced by LC beginning Nov 17. Most of the business offices will observe an 8:00 a.m.–4:30 p.m. schedule. The Main Reading Room will be open 8:30 a.m.–9:30 p.m. Monday through Friday; 8:30 a.m.–5:00 p.m. Saturday; and 1–5 p.m. Sunday and holidays. Readers are advised to call LC's Information Office about new schedules: 202/ST3-0400, ext. 605.

National Agricultural Library Moves

NAL has moved into its new building on the grounds of the Agricultural Research Center, Beltsville, Md. The building faces U.S. 1 at Beltway Exit 27 North. The library's collection of 1.3 million volumes is now housed in the upper nine stories of a 15 story tower. A teletypewriter with answerback code has been installed to improve services to out-of-town patrons.

Baker Street Irregulars

The Sub-Librarian Scion Society of the Baker Street Irregulars meets at the ALA Conferences. Librarians, who are disciples of Sherlock Holmes but who are unable to attend ALA meetings, have proposed an alternate solution. Readers who are interested in the exploits of Sherlock Holmes will meet informally during SLA's Detroit Conference to discuss the formation of such a group within SLA. Contact: Jeremiah Post, curator of the Map Collection, Free Library of Philadelphia, Logan Square, Philadelphia 19103; 215/MU6-5397.

Council of National Library Associations

The 1968/69 officers of CNLA have been re-elected to serve in 1969/70. Chairman of the Council is Mrs. Helen Brown Schmidt (executive secretary, Medical Libraries Association); vice chairman, Dr. Frank E. McKenna (editor, *Special Libraries*); and secretary-treasurer, Mrs. Mary C. Hatch (coordinator, N.Y. Public Library, Central Circulation Branch).

Trustees of CNLA are Alice D. Ball (executive director, USBE); Margaret Kinney (librarian, VA Hospital, Bronx, N.Y.); Rev. James J. Kortendick (head, Dept. of Library Science, Catholic University of America); and Roger H. McDonough (director, N.J. State Library).

The semi-annual meeting of CNLA on Dec 5, 1969 in N.Y. was attended by 24 representatives of the 11 constituent associations. SLA's representatives to CNLA are Robert W. Gibson, Jr. and George H. Ginader.

ASIDIC

The Association of Scientific Information Dissemination Centers has been formed by a group of information centers representing universities, not-for-profit and industrial organizations. Two grades of membership, Full and Associate, are available. Scientific Information Dissemination Centers whose operations are computer-based, that process data bases from two or more suppliers, and that search a minimum of 100 user interest profiles are eligible for Full membership. Contact the chairman of the Organizing Committee: Eugene S. Schwartz, IIT Research Institute, 10 W. 35th St., Chicago 60616.

Theatre Library Association

Nominations for the 1969 George Freedley Memorial Award are invited; the

award plaque will be presented in Spring 1970. The award honors a work in the field of theatre published in the U.S. Nominations must be in the hands of the jury by Jan 15, 1970. Jury chairman is Prof. Robert H. Ball, 11 N. Washington St., Port Washington, N.Y. 11051.

CASLIS

The Canadian Association of Special Libraries and Information Services has grown from the Research and Special Libraries Section of CLA. CASLIS retains its place under the umbrella of the parent CLA. The name change and constitution, adopted at CLA's meeting in Jun 1969, constitute a further step in becoming the spokesman for Canadian special librarians in national affairs. CASLIS President Elaine R. Harrington (Dept. of Consumer and Corporate Affairs, 219 Laurier Ave.W., Ottawa 4) has indicated the CASLIS desire to continue liaison through SLA's Montreal and Toronto Chapters and by cooperation on all levels.

New CAIS Journal

The Canadian Association of Information Science has announced that the first issue of its new quarterly publication, *Information Science in Canada,* will appear in Jan 1970. Subscriptions are $3.00 to CAIS members, and $5.00 to non-members. Publisher's address: Pendragon House, 71 Bathurst St., Toronto.

Geoscience Information Society

GIS begins its 5th year as an independent nonprofit professional society with more than 200 members. The society's basic objective is to promote information exchange in the geosciences through its members (earth scientists, librarians, documentalists, editors and other information specialists). Membership is open to any person who is working at the professional level in the area of the geosciences and who is interested in the purpose of the society. Personal dues are $10; institutional dues are $25. Request application forms from: Marjorie W. Wheeler, Secretary GIS, 5775 Viking Dr., Beaumont, Texas 77706.

The Fourth Annual Convention of the Geoscience Information Society was held on Nov 10–12, 1969 in Atlantic City in conjunction with the meetings of the Geological Society of America.

Volume 1 (1969) of the *Proceedings of the Geoscience Information Society* has been published. The volume presents papers presented during the society's first meeting (1966 in San Francisco) and second meeting (1967 in New Orleans). Send orders and checks for $2.00 to: Geoscience Information Society, c/o American Geological Institute, 2201 M St.NW, Washington, D.C. 20037.

ALA Bulletin: New Name and Format

The Dec 1969 issue (v.63, no.11) will be the last issue of the *ALA Bulletin.* Like the *Bulletin,* the new publication, *American Libraries,* will be the official organ of the American Library Association. Gerald R. Shields continues as editor.

AFIPS JCC Proceedings in Microform

All proceedings of the SJCC and FJCC from Spring 1951 through Fall 1969 are available on microfilm and/or microfiche. Complete films for v.1–35 (1951–69) are available at $150; fiche of v.31–35 are available at $10 per volume. Address orders to: AFIPS, 210 Summit Ave., Montvale, N.J. 07645.

Architectural Micro Images in Color

The first elements of the new IDAC system (Instant Data Access Control) are being distributed to more than 1,000 architectural firms. Color images have outstanding fidelity as well as textural and dimensional effects due to a special process, called SpectraScan. Write: National Design Center, 415 E. 53rd St., N.Y. 10022.

NMA's Journal of Micrographics

The National Microfilm Association has restyled and renamed its quarterly publication. The journal's name was changed "indicating a broader scope of interest among the profession." The *Journal of Micrographics* is free to members of NMA as a part of their membership dues. Address inquiries to: NMA, P.O. Box 386, Annapolis, Md. 21404.

A recent survey conducted by NMA indicates that a "film explosion" is in the making as a result of efforts to control the paperwork

explosion created by increasing demands for data from computers. More than 1,000 COM (Computer-Output-Microfilm) recorders will be in operation by the end of 1970 as compared to about 300 COM's in use at this time. By 1975 forecasts predict 6,000 to 12,000 COM recorders in operation.

Ultrafiche Libraries

National Cash Register Company has announced comprehensive collections of general reference material on PCMI ultrafiche; the material includes that which is largely out of print and mostly out of copyright. Five initial packages cover: American Civilization, Science and Technology, Social Sciences, Humanities and Literature, and Government Publications. Additional packages will cover Law, Medicine, Religion, Physics and Chemistry. Cost of the service is about $400 a month including the ultrafiche reader. Contact: NCR, Dayton, Ohio 45409.

Preservation Proceedings

"Deterioration and Preservation of Library Materials" was the topic of the 34th Annual Conference of the Graduate Library School, University of Chicago on Aug 4–6, 1969. The full proceedings will be published in the Jan 1970 issue of *Library Quarterly*. Hard bound copies will be available later from the University of Chicago Press.

Students on Michigan Curriculum Committee

Dr. Russell E. Bidlack, dean of the University of Michigan's newly designated School of Library Science, has appointed a Student/Faculty Curriculum Committee. Two candidates for the master's degree and two doctoral students were designated as well as four faculty members. Professor Rose Vainstein is the committee chairman for 1969/70.

Biomedical Communication Research

The Organization Theory Program in the Department of Industrial Engineering and Management Sciences, Northwestern University has announced support for three predoctoral trainees. The trainees will engage in research on biomedical communication methods and processes. Support for each trainee is $2,400 for the academic year (plus allowance for dependents); support can be continued for 3–4 years. Contact: Prof. Albert H. Rubenstein, IE/MS Dept., Room 2744, Technological Institute, Northwestern University, Evanston, Illinois.

Library Assistantships

The University of Florida Libraries offer a number of graduate assistantships for the academic year 1970/71. These are primarily for practicing professional librarians interested in study leading to a master's or doctoral degree in a subject field other than library science. Stipends for a nine-month work-study period are $2,574; 15 hours of library duty per week are required. Request forms from: Director of Libraries, University of Florida, Gainesville 32601. Formal applications must be submitted by Feb 15, 1970.

Interdisciplinary Management Training

The School of Library Science and the School of Public Administration, USC are developing a new program, "Health-Sciences Information Systems Management Training." A grant of $246,000 has been received from the National Library of Medicine. The cooperative program leads to a two-year Master's degree in either Library Science or Public Administration with a minor in the alternate field. Request applications for the 1970 Fall Term from: Dean, School of Library Science, University of Southern California, University Park, Los Angeles 90007.

Extension Course in Abstracting

The UCLA Library School will offer a new course, *Practical Abstracting,* during the 1970 Winter Quarter. The class will meet on six successive Saturdays (Jan 17–Feb 21) from 10 a.m. to 3 p.m. The course fee is $60. Professor Robert L. Collison is the instructor in charge; other instructors are Harold Borko, Louise Darling, and Mrs. Johanna Tallman. Apply to: Graduate School of Library Service, University of California, Los Angeles 90024.

Expo 70 Library Tour

A tour which includes Expo 70 in Osaka, Japan and major Japanese cities, cultural centers, and libraries is scheduled for

Jun 24–Jul 14, 1970. The tour will be conducted by Thomas R. Buckman and Theodore F. Welch of the Northwestern University Library and Allen B. Veaner of the Stanford University Libraries. For further information write to: Thomas R. Buckman, 624 Noyes St., Evanston, Illinois 60201.

Rare Irish Books

Persons interested in catalogs of "Rare Books of Irish Interest" are invited to write to John Feehan, Rare Books and Antiques, 109 Marlborough Rd., Donnybrook, Dublin, Ireland.

Canadian Union List

The third edition of the *Union List of Scientific Serials in Canadian Libraries* (as of May 1969) is now available. More than 40,000 titles and 208 reporting libraries are included. Price: $30 hard bound. Orders to: National Science Library, National Research Council of Canada, Ottawa 7, Canada.

Evaluation of IBM System/3

A preliminary evaluation of the new small scale system, the IBM System/3, is in the latest supplement to *Auerbach Standard EDP Reports*. For further information contact: Auerbach Info, Inc., 121 N. Broad St., Philadelphia 19107.

Computer-Based Reference Services

A compilation of machine-readable data bases in science and technology has been compiled by ALA's Reference Services Division. For each agency there are listed the characteristics of the data base, the equipment configuration, and the file use. Price: $1.50 prepaid, and $2.50 if billed. Orders to: ALA Reference Services Division, 50 E. Huron St., Chicago 60611.

Philsom Documentation

The Washington University School of Medicine Library's computer programs have been rewritten for the IBM 360/50. PHILSOM (Periodical Holdings in the Library of the School of Medicine) was originally designed for the IBM 1401. Copies of the revised documentation are available at cost, $7.50 per copy. Address orders to: Washington University, School of Medicine Library, 4580 Scott Ave., St. Louis, Mo. 63110.

International Standardization

IFLA International Manual no. 4, *International Standardization of Library Statistics,* was published in Dec 1968. Price: $7 (incldg. postage). Send checks payable to IFLA to: IFLA Committee on Statistics, c/o F. W. Torrington, Room 419, Sanctuary Buildings, Gt. Smith St., London SW 1.

Serials at University of Rochester

The two-volume *Union List of Serials —Education, Science, Medicine—in the Libraries of the University of Rochester* (as of Oct 15, 1968) are available at $10 per set. Orders to: University of Rochester Library, Information Systems Office, River Campus Station, Rochester, N.Y. 14627.

Los Angeles Public Library

Los Angeles City Librarian Harold Louis Hamill and his chief assistant, Katherine Laich, have resigned to join the faculty of the School of Library Science, University of Southern California in Feb 1970. On Aug 13, 1969 the L.A. Library Commission had voted to remove all copies of *Evergreen Review* from the open shelves for three months "to protect them from theft and mutilation." A city councilman had asked the commission to order removal of the Jun 1968 issue of the magazine because a woman constituent had complained of "a very dirty story."

SLA's Southern California Chapter adopted a resolution for delivery to the Los Angeles City Library Commission to protest the abridgement of the right of free and unrestricted access to the open shelves of the public library.

COMING EVENTS

Dec 18–20. Computer and Information Science (COINS-69), Third International Symposium . . . at the Americana Hotel, Bal Harbour, Fla. Contact: W. R. D. Nickelson, Dept. of Electrical Engineering, Univ. of Florida, Gainesville 32601.

Jan 18–20, 1970. Drug Information for the Medical Profession, a symposium coordinated by the Drug Information Association . . . at the Marriott Twin Bridges Motor Hotel, Washington, D.C. For information: Paul De Haen, Paul De Haen, Inc., 11 W. 42nd St., N.Y. 10036.

Jan 26–28. Technological Change in Printing and Publishing, an institute of the American University . . . at the Hospitality House Motor Inn, Jefferson Davis Highway, Arlington, Va. For information: Lowell H. Hattery, Center for Technology and Administration, McKinley Bldg., The American University, Washington, D.C. 20016.

Jan 19–24. ALA, Midwinter Meeting, Chicago.

Jan 29–31. SLA, Board of Directors and Advisory Council, Regency Hyatt House, Atlanta, Georgia.

Mar 1–4. Conference on Historical and Bibliographical Methods in Library Research . . . at the Champaign-Urbana campus of the University of Illinois. Write: Conference Supervisor, 116 Illini Hall, Champaign, Illinois 61820.

Apr 12–18. National Library Week. Two themes for 1970: "Reading Is for Everybody" and "Read–Look–Listen in Your Library." For promotion aids, write: NLW, One Park Ave., N.Y. 10016.

Apr 20. Hospital Librarians Section, Association of Western Hospitals . . . in San Francisco.

Apr 28–May 1. National Microfilm Association . . . at the Hilton Hotel and Sheraton Palace, San Francisco. Theme: "Infographics." For information: NMA, P.O. Box 386, Annapolis, Md. 21404.

May 5–7. SJCC (*Spring Joint Computer* Conference) . . . at Convention Hall, Atlantic City, N.J. Theme: "The Computer: Gathering Force of the Seventies." General chairman: Harry L. Cooke, David Sarnoff Research Center, RCA, Princeton, N.J.

A Fatal Injury in a Compact Stack Installation

A FATAL accident was reported in the Oct 1968 issue of the *Information Bulletin* of the Verwaltungsberufgenossenschaft.* The incident is reported to have happened as follows.

The installation consists of 35 stack ranges which can be closed against one another. For considerations of safety, the installation is accessible from only one side. On this side there are a number of structural columns about 30 ft. apart. The stacks are opened and closed by operation of a key.

The victim had opened the aisle for the twelfth range; thus 23 ranges had been moved. The entry to this aisle was narrow because of the structural column at the twelfth range. After using the material in the stacks, the person activated the mechanism by means of the key at the twelfth range. After the stacks had begun to move, she remembered that she had forgotten something and again went into the aisle without turning off the mechanism. She apparently believed that she would have time to leave the aisle before the stacks had completely closed. She appar-

* Reported in *Mitteilungsblatt Verband der Bibliotheken des Landes Nordrhein-Westfalen* n.s. 19:(no.2) 145–46 (Apr 1969); originally published in *Der Unfallruf* (Oct 1968) by Verwaltungsberufgenossenschaft, Uberseering 8, 2 Hamburg 39, Germany.

ently had not noticed that the aisle was blocked by the column soon after the stacks had begun to move. The moving ranges pressed her against the column so that she was so severely injured that she died as a result of the accident. Apparently, she panicked on realizing her dangerous position and did not attempt to deactivate the mechanism.

If a sense of false security is to be avoided, it is necessary that adequate free space be allowed around such movable stack installations. Libraries and bookstores with movable compact stacks should determine whether architectural features (columns, pedestals, protruding walls, etc.) are sources of hazards. A working report is available free from the Verwaltungsberufgenossenschaft. Its title is "Machine Driven Stacks or Cabinets."

Information Hang-Ups

Some Suggestions for DDC and the Clearinghouse

Ruth S. Smith

DURING the summer of 1969, a group of the "top 200" users of the Defense Documentation Center (DDC) from the area of Greater Washington, D.C. met in a series of informal and unofficial meetings to discuss mutual problems encountered in dealing with the suppliers of report literature, notably DDC and the Clearinghouse for Federal Scientific and Technical Information (CFSTI).

Three exploratory meetings, a user survey, and studies by work committees resulted in a report: *Information Hang-Ups; Problems Encountered by Users of the Technical Information Services Offered by DDC and CFSTI, with Recommendations for the Future* (published by IDA, Arlington, Va., for the Committee of DDC Users in the Greater Washington, D.C. Area, Sep 1969).

A "confrontation" was subsequently arranged with the directors of the two services.

Background

On Jul 1, 1968 the Defense Documentation Center changed its previous policy of providing copies of reports free of charge to the defense community. DDC instituted a $3 charge for hard copy (paper) while continuing to supply microfiche copy free of charge. An added step was put into the procurement of classified documents when payment had to be made to the CFSTI before documents would be supplied by DDC, because the Clearinghouse already was in the business of collecting money. However, this appeared to be a cumbersome and time-consuming step in the procedure.

In our experience at IDA we found that microfiche copies were received quite quickly, within one or two weeks from the date of order, while hard copies took much longer, sometimes four to six weeks, to come in.

We felt the pressure toward a greater use of microforms for many reasons. Our vault was filled almost to capacity and we needed space. The research staff had expressed real concern that older documents (especially those impossible to replace or difficult to obtain in the first place) would be destroyed to make room for newer documents coming in. The acquisition of microfiche appeared to be not only practical but quite desirable from the library's point of view.

Since documents in microform also have an impact on the way the research man does his work, an *ad hoc* committee of research staff members was brought together to study the use of documents in microform and to gauge user acceptance. This committee concluded that the library (because of space problems) certainly should have microfiche for file, but they, the users, still preferred hard copy. Further, they wanted the hard copy quickly.

Microfiche readers were brought in for the review and evaluation by the research staff. The availability of microfiche printers for in-house use was investigated. A proposal was

Mrs. Smith *is head librarian at the Institute for Defense Analyses, Arlington, Virginia. The conclusions and suggestions presented in this article are offered by the author and her associates and do not necessarily represent the views of the companies or government agencies by which they are employed.*

made to our management recommending equipment and internal procedures which would allow us to obtain microfiche copy whenever it was available and be able to print hard copy in-house on demand.

In the meantime, we began to order microfiche for the users who would use it (two readers already were available in one of the divisions), and we paid the $3 for hard copy for those readers who would not use fiche. Also, we began to order microform to replace hard copy of documents already in file.

Before long, the problems of bookkeeping and billing, slow receipt of hard copy, frustrations with rush orders, and others added to the newer problems of marking, processing, filing and transmitting security classified microforms.

In Jun 1969, my assistant and I attended the SLA Conference in Montreal. Over dinner and in casual conversations, we heard expressions of discontent from more than one user of DDC, which led us to believe our problems certainly were not unique.

Early in June, I sent a letter to 31 facilities in the area of Greater Washington, D.C. (stretching the point to include Dahlgren, Virginia and Baltimore, Maryland) who were listed, at the time the charge was imposed, among the "Top 200 Users of DDC Technical Report Service." The purpose stated in the letter was to attend "an exploratory meeting to discuss sources of information, especially the problems that we have encountered in the past year, ways that we have coped with these problems, the resultant impact on our own information systems, and possible recommendations or action that could be taken as a group to apply pressure to improve the system." The date chosen was prior to the FIT/DDC Users' Conference to be held at the Florida Institute of Technology, Melbourne, Florida on Jul 2–3, 1969.

Response was prompt and interested as 27 of the 31 facilities indicated a desire to participate. Some were interested in the results, although they could not send a representative; and 21 facilities actually took part. Forty-five representatives eventually attended one or more of three exploratory meetings.

Exploratory Meetings

Aware that unstructured meetings easily fall apart unless there is some specific goal in mind, and with the help of our own library staff, I prepared a draft questionnaire designed to "define mutual problems and needs, pinpoint problem areas, assemble statistics and recommend action." The questionnaire was distributed at the first meeting to initiate discussion and to accumulate facts about individual information operations.

The first meeting was held on Jun 24, 1969 at IDA. We aired complaints, discussed problems, and decided that as a group of users we could, and should, provide feedback to DDC and CFSTI.

Several users stated that they had converted to microform in part and were printing hard copy of individual pages or entire short documents. Several said they had received microfiche documents with sheets improperly assembled, duplicate sheets, missing sheets, or, on occasion, erratic combinations of sheets. Others had difficulty with marking microforms, particularly when the security classification was to be downgraded. One said he had no microform in his collection and did not intend to acquire any.

Someone suggested that one master index to all government publications would be of more value than the smaller indexes now available. All agreed that the index to CFSTI's *U.S. Government Research and Development Reports (USGRDR)* was most difficult to use.

Several reported that the CFSTI deposit account statements were confusing and often in error. Most objected to the $3 charge for hard copy and felt somehow that they were paying twice for the documents. For example, if a user produces a document and sends it to DDC, he must pay $3 to obtain a hard copy for his own use. The payment procedure created problems and costs in bookkeeping, processing, and response time.

Closing the field offices of DDC created inconvenience for the users. Difficulties were experienced with "urgent" request service, either in getting no response or an apparently rude reply. Discussion indicated that expedite service can be arranged best on a personal basis through known individuals. In other words, the established DDC setup for urgent service is sometimes so unresponsive that users find ways to bypass it.

Bill Plant of the Naval Air Systems Command's Technical Library Division reminded the group that it would do no good merely to "beat DDC over the head," and we determined to maintain a positive approach. The draft questionnaire was accepted as an immediate means of assembling facts in regard to our own operations which could be used to back up recommendations: the group would meet again after the findings had been tabulated.

Mrs. Ruth R. McCullough of Westinghouse Defense and Space Center's Technical Information Center indicated she was planning to

attend the Florida Users' Conference the following week. She was commissioned to speak for the group while there and report back at the next meeting.

The second users' meeting was held on Jul 24, 1969 at IDA. Data from the questionnaires had been received from 18 facilities. (Some apologized, explaining that they were told by their managements they could not complete the form because this was not an "official" request for information.) Don Eising of IBM's Federal Systems Center summarized the results, some of which follow:

Mutual Problems and Needs. Of eight stated problems no single one stood out as the most important; all were fairly equally distributed.

Impact of Jul 1, 1968, Decision on Ordering. The majority ordered the format their users requested and, in most cases, the $3 charge did not reduce the number of documents ordered.

Present Equipment in Use. The Filmac 400 reader/printer is the most common type used. There is a wide difference in the number of portable readers in each facility. One reported no microform equipment at all.

Rating of Quality of Copies from DDC and CFSTI. The range was wide. Government agencies appeared to be more satisfied with quality than government contractors. (Two responded, "No, we're not satisfied. It is just one of the lesser evils and we have learned to live with it.")

User Acceptance of Microforms. There still seems to be no love lost on microforms from the point of view of the user. Research staff must be convinced—but management must be convinced first. Westinghouse has created a special microform reading room with carpeting, soft blue lights and attractive decor to encourage user acceptance of microforms.

Mrs. McCullough reported on the Florida DDC Users' Conference. After listening to discussions of reestablishing field office facilities, ordering documents and urgent requests, the Clearinghouse as money collector, etc., she came away with the conviction that our group certainly is the micro-image of DDC users all over the country. Specific complaints, she said, accompanied by constructive suggestions will have the best chance of getting action.

With this in mind, we appointed committees to consider areas of general concern and to produce positive suggestions for group consideration at the next meeting.

The third meeting was held on Aug 19, 1969. The committee reports were discussed and amended to reflect the views of the majority. The chairmen of the individual committees were to work with me to assemble and edit our final product, the report already mentioned in this paper. The Foreword of the report summarizes how and why the meetings were initiated. The recommendations made in the report are summarized as follows, together with a listing of committee members:

1) Abstract Bulletins and Indexes. Standardize CFSTI's *U. S. Government Research and Development Reports (USGRDR)* and DDC's *Technical Abstract Bulletin (TAB)*, preferably following the format and editorial policy of the latter. [Lorna Moore (Chairman), TRW Systems; Regina Nellor, IDA; Mae Preston, TRW Systems; and Frank Reilly, Dept. of Transportation, Coast Guard]

2) Standardization of SDI Categories. Coordinate subject categories used in DDC's *Group Announcement Bulletin (GAB)*, CFSTI's *Clearinghouse Announcements in Science and Technology (CAST)*, and NASA's *SCANTOPICS* so a field of interest profile for selective dissemination of information (SDI) can be developed from one selection of terms. [Cathryn C. Lyon (Chairman), Naval Weapons Lab; and Kay Campbell, Control Data Corp.]

3) Field Office Viewing Facilities. Re-establish a DDC Field Office, or equivalent viewing facilities, in the area of Greater Washington, D.C. where users can scan documents. [Ruth R. McCullough, Westinghouse Defense and Space Center]

4) Acquisition Procedures. Provide user-orientation with fuller instructions; re-design DDC Form 1 to provide multiple copies and the use of window envelopes; and identify more clearly items included in CFSTI billings. [Kay Campbell (Chairman), CDC; Paula Strain, Booz-Allen Applied Research, Inc.; and Lucille Achauer, Naval Ship Systems Command.]

5) DDC Users' Survey. Eliminate CFSTI as a middleman between the user and DDC; improve expedite service for urgently required documents from DDC; provide free hard copies; and reduce the number of limited documents by reviewing and changing policy on limitations. [Donald C. Eising (Chairman), IBM Corporation; Dorothy B. Lear, CDC; Joanne Lappin, Naval Ship Research & Development Center; and Walter Templeman, Goddard Space Flight Center.]

•

I delivered copies of the reports to Dr. Robert Stegmaier, Jr., Administrator of DDC, and

Mr. Hugh Sauter, Director of CFSTI, and invited both to meet with the users' group.

Thirty-eight people attended the meeting held at IDA on Sep 23. Both administrators brought their deputies with them. A few visitors who were not a part of the users' group asked if they might attend and did. Col. Currie S. Downie, Director of the Office of Scientific and Technical Information, Office of Aerospace Research, was invited as a result of COSATI's timely plea for user feedback. ("COSATI Asks . . . Do You Get Real Benefits from Government Information?" *Defense Documentation Center Digest*, no. 38, p.2, Aug 4, 1969.) No other attempt was made to broaden participation beyond the original group.

Interchange at the meeting was vigorous. Both administrators took care to point out that this group did not represent the majority of users of their services (with the obvious implication that other users are satisfied with their products). Sauter said CFSTI has over 100,000 different customers buying over 2,000,000 documents a year, and that the *USGRDR* index goes to over 9,000 subscribers. Stegmaier pointed out that the people who prepared the "Information Hang-Ups" report were selected from Washington area organizations and did not necessarily reflect the views of users in other geographical areas.

Both talked of the multiplicity of services their users expect of them and indirectly alluded to the constraints of budgeting imposed by the Department of Defense directive that information analysis centers become self-supporting.* In other words, if the recommendations are going to cost money, forget it.

Discussion during the two-hour meeting then centered, with surprisingly few veering away from the topic, on the five recommendations which concluded our 32-page report.

Abstract Bulletins and Indexes. Sauter thanked the user group for suggesting improvements in *USGRDR*. Stegmaier said he was going to be the "Devil's Advocate" and pointed out that both *TAB* and *USGRDR* were designated to serve as announcement bulletins to technical users rather than retrospective search tools for librarians. (Why, then, issue annual cumulations?)

Sauter said it is possible that the *USGRDR* has changed so it now is being used as a retrospective searching tool. He hopes to discover its current use in a series of seminar meetings to be held with users around the country. These meetings will attempt to get input on the redesign of CFSTI's announcement and searching tools. At the end of the meeting Stegmaier observed that we could look forward to improvements in the indexes.

Standardization of SDI Categories. Stegmaier stated that *GAB, CAST* and *SCANTOPICS* were not intended to be fast announcement services, and were issued simultaneously with the bulletins. He commented that selective dissemination of information (SDI) is a misnomer for automatic distribution, and that *GAB* was intended only as an experimental program. The latter came as a surprise, especially to Miss Cathryn Lyon, librarian of the Naval Weapons Laboratory at Dahlgren, Virginia, whose coordination of the categories was the basis of the current awareness program developed at NWL and discussed in the report. Stegmaier added that DDC is the only one who uses the COSATI fields and groups, although they were developed to be used as a standard.

Field Office Viewing Facility. The regional field offices, where DDC documents formerly were available for reader examination, were used almost exclusively by searchers from within 15 miles of the office, Stegmaier said, and they were closed when it was found they served such a small percentage of the clientele. He intimated that it was not altogether impossible to see a document before ordering it if the need were exceptional. (An appeal to him personally once provided such service.) He pointed out that CFSTI does have a reading room which Sauter verified but admitted it was not very well publicized—this was news to many present. Re-establishment of DDC field offices is very unlikely.

Acquisition Procedures. Gregory Abdian, Deputy Administrator of DDC, said that steps already were being taken to improve Form 55, and that other changes can be expected. One of the user suggestions was that contract monitors, especially new ones, be given better orientation and information about their role in approving the release of documents to contractors. This is to be included in future brief-

* This is a trend. Beginning Jul 1, 1969, the Navy's Chemical Propulsion Information Agency at the Applied Physics Laboratory, Johns Hopkins University, Silver Spring, Md., instituted a service charge for documents; and the Atomic Energy Commission discontinued free distribution of microfiche copies of AEC scientific and technical reports because "Congress has made a substantial cut in our technical information budget for the fiscal year beginning July 1, 1969." The Science Information Exchange of the Smithsonian Institution, funded through the National Science Foundation, instituted a charge "to retrieve the cost of processing a request" on Dec 9, 1968, for non-federal agencies and on Jul 1, 1969, for government agencies as well.

ings given military officers. Another suggestion was to identify more clearly items billed, but no attempt was made to defend the current CFSTI billing procedures.

DDC Users' Survey. The concept of CFSTI as "middleman" was questioned by the administrators since many documents are supplied directly from CFSTI. CFSTI becomes a middleman when orders for classified documents that cost money must be sent first to CFSTI for payment and then to DDC for processing. Stegmaier said that operational costs and delays would be the same whether DDC or CFSTI handled the billing-record keeping of user charges and that the present system is based on a decision made "on a higher level" to let CFSTI handle it as long as they were in the business anyway. In any event, he said, delay in the receipt of classified documents due to payment being made to CFSTI is seldom more than one day or two days at the most. Users indicated this could be a critical delay. He added that the real delay is not in the centers but in the postal service. Dr. Stegmaier noted in passing that in the report the users who responded to the questionnaire estimate their 1969–70 requirements for documents will almost double that of 1967–68.

Both Sauter and Stegmaier assured the group they did have mechanisms set up to handle really urgent requests. They admitted that staff courtesy in accepting "expedite" requests might possibly not be all it should be, but they do make efforts to improve it. They supplied us with specific names to call for such service, but requested cooperation in not asking that everything be given rush service.

In conclusion, Stegmaier said he thought the group ought to take another look at the recommendations and consider them in relation to other suppliers of report literature. "Aim your guns," he said, "at AEC, NASA, and possibly GPO. Why should DDC alone sponsor reading rooms?" Abdian drove the suggestion further by adding, "Hammer the government for fewer access points of information."

Stegmaier voiced a hope for the future: that his agency would receive an abstract or clean final draft of a report while it was in preparation so that DDC could inquire who wants it, and then make both primary and secondary distribution of the report when the final report is issued.

At this point, it began to look as though in spite of challenges and defenses that we all do have the same ultimate goal—a better flow of information to the scientific and technical community.

Great Expectations

In summary, the user group was led to expect the following:

1) Revisions in the abstract bulletins and indexes.

2) Changes in DDC order forms.

3) Briefings of contract monitors in regard to releasing documents to contractors.

4) Improvements in the "rush" service provided.

Conclusion with Sample Reactions

Was the purpose of the meetings achieved? I believe it was. IDA already has reaped benefits from better acquaintance with other users (who also are producers) and these secondary distributors of report literature.

National Agricultural Library's Isabelle Trams wrote, "Dr. Monge and I thought the meeting on Information Hang-Ups was most interesting. . . . I hope NAL will have an opportunity to participate in further cooperative efforts toward a more efficient Technical Report distribution system."

Federal Library Committee's Paul Howard asked for a review of the meeting for publication in the *Federal Library Record.*

Naval Research Laboratory's LaVera Morgan said the report was introduced and discussed at the recent Military Librarians' Workshop in Newport, Rhode Island, and asked for permission to reproduce portions of it in their proceedings.

COSATI's Col. Downie sent in a copy of a questionnaire "that was made up some time ago and never used" and suggested that we change the name of the group to broaden its scope. "Perhaps, a Committee of Scientific and Technical Information Users in the Greater Washington, D.C. Area would be more appropriate—fight the bigger battle!"

Department of Transportation's Gerald Erickson said, "To me the chief result was the establishment of lines of communication, and dialogue, with DDC and CFSTI. This was a very noteworthy achievement. . . ."

Booz-Allen's Paula Strain reported, "Whether the constructive dialogue between user and maker of information services that had been hoped for in calling the meeting actually was achieved will be shown only by the events of the next few months."

The consensus of the users was "let's wait and see." The next meeting of the users' group is scheduled for Jan 22, 1970. This is a relatively short time to wait, but we'll see.

PUBS

RECORDS STORAGE

Commercial and Industrial Records Storage. Robert L. Collison. Tuckahoe, N.Y., John De Graff, 1969. 183p. $10.

SERIALS

Jewish Life Index 1946-1965/5707-5725. Micha Falk Oppenheim, ed. N.Y., Union of Orthodox Jewish Congregations of America, 1968. 100p. pap. $3.

Latin American Economic & Social Serials. Committee on Latin America. Hamden, Conn., Archon Bks., 1969. 189p. $7.

Ulrich's International Periodicals Directory, 3d Suppl. N.Y., R. R. Bowker Co., 1969. xiii, 225p. pap. $7.95, U.S. & Canada; $8.75, elsewhere.

Union List of Methodist Serials, 2d checking ed. in cooperation with the Methodist Librarians' Fellowship and the Association of Methodist Historical Societies. John David Batsel, comp. Evanston, Ill., 1968. 156p. pap. $10, applicable toward purchase of final ed. (2121 Sheridan Rd., Evanston, Ill. 60201)

STATISTICS

The International Standardization of Library Statistics; a Progress Report. K. L. Mallaber, Torben Nielsen and F. W. Torrington,. eds. London, Internl. Fed. of Libr. Assoc., 1968. 216p. pap. $7. *Its* Intl. Manual no. 4; IFLA/FIAB/ISO. (Orders to Oceana Publ., Dobbs Ferry, N.Y.)

Standardization for Documentation. Bernard Houghton, ed. Hamden, Conn., Archon Bks., 1969. 93p. $4.

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Contributions are solicited from both members and non-members. All papers submitted are considered for publication. Papers are accepted with the understanding that they have not been published, submitted, or accepted for publication elsewhere. *Special Libraries* employs a reviewing procedure in which manuscripts are sent to three reviewers for comment. When all comments have been received, authors will be notified of acceptance, rejection or need for revision of their manuscripts. The review procedure will usually require a minimum of six weeks.

Types of Contributions. Three types of *original* contributions are considered for publication: full-length articles, brief reports or communications, and letters to the editor. New monographs and significant report publications are considered for critical review. Annotations of the periodical literature as well as annotations of new monographs and reports are published—especially those with particular pertinence for special libraries and information centers.

Editing. Manuscripts are edited primarily to improve the effectiveness of communication between the author and his readers. The most important goal is to eliminate ambiguities. In addition, improved sentence structure often permits the readers to absorb salient ideas more readily. If extensive editing is indicated by reviewers, with consequent possibility of altered meanings, manuscripts are returned to the author for correction and approval before type is set. Authors are free to make additional changes at this stage.

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Manuscripts

Organize your material carefully, putting the significance of your paper or a statement of the problem first, and supporting details and arguments second. Make sure that the significance of your paper will be apparent to readers outside your immediate field of interest. Avoid overly specialized jargon. Readers will skip a paper which they do not understand.

For each proposed paper, one original and three copies (in English only) should be mailed to the Editor, *Special Libraries,* 235 Park Avenue South, New York 10003. The manuscript should be mailed *flat* in an envelope of suitable size. Graphic materials should be submitted with appropriate cardboard backing or other stiffening materials.

Style. Follow a good general style manual. The University of Chicago Press *Manual of Style,* the style manual of the American Institute of Physics, and the *Style Manual for Biological Journals* (published by the American Institute of Biological Sciences), among others, are appropriate.

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Acknowledgments. Credits for financial support, for materials and technical assistance or advice may be cited in a section headed "Acknowledgments," which should appear at the end of the text. General use of footnotes in the text should be avoided.

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Figures should be lettered in black India ink. Charts drawn in India ink should be so executed throughout, with no typewritten material included. Letters and numbers appearing in figures should be distinct and large enough so that no character will be less than 2 mm high after reduction. A line 0.4 mm wide reproduces satisfactorily when reduced by one-half. Graphs, charts, and photographs should be given consecutive figure numbers as they will appear in the text. Figure numbers and legends should not appear as part of the figure, but should be typed double spaced on a separate sheet of paper. Each figure should be marked *lightly* on the back with the figure number, author's name, complete address, and shortened title of the paper.

For figures, the originals with three clearly legible reproductions (to be sent to reviewers) should accompany the manuscript. In the case of photographs, four glossy prints are required, preferably 8 × 10 inches.

References and Notes. Number all references to the literature and notes in a single sequence in the order in which they are cited in the text. Cite all references and notes but do not insert reference numbers in titles or abstracts.

Accuracy and adequacy of the references are the responsibility of the author. Therefore, literature cited should be checked carefully with the original publications. References to personal letters, abstracts of oral reports, and other unedited material may be included.

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Smith, John, Jones, B. H. and Doe, Richard. Special Librarianship in Action. *Special Libraries,* 59 (no. 10): 1214-21 (Dec 1968)

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Brown, Abel. *Information at Work.* N.Y., Abracadabra Press, 1909. 248p.

Full-Length Articles

Articles may range in length from about 1,000 words to a maximum of 5,000 words (up to 20 typed double spaced manuscript pages). Provide a title of one or two lines of up to 35 characters plus spaces per line.

Insert subheads at appropriate places in the text, averaging about one subhead for each two or three manuscript pages. Keep the subheads short (up to 35 characters plus spaces). Do not use more than one degree or level of subheads in an article. Provide a summary at the end of the article.

Write a brief author note, and include position title and address. In the author note, include information concerning meetings, symposia, etc. where the paper may have been presented orally. Also submit recent glossy black-and-white photographs of the authors.

Brief Communications

Short reports or communications will usually be less than 1,000 words in length (up to 4 typed double spaced manuscript pages). List the authors on the last page of the text in the form of a signature and include a simple mailing address.

SPECIAL LIBRARIES ASSOCIATION
A RÉSUMÉ

SPECIAL Libraries Association is an international organization whose members are professional librarians and information experts. Special libraries serve industry, business, research, educational and technical institutions, government, special departments of public and university libraries, newspapers, museums, and all organizations requiring or providing specialized information.

Objectives

To encourage and promote the utilization of knowledge through the collection, organization, and dissemination of information;

To develop the usefulness and efficiency of special libraries and information centers;

To stimulate research in the field of information services;

To promote high professional standards;

To facilitate communications among its members; and

To cooperate with organizations that have similar or allied interests.

Activities and Services

- Publications—Source books, bibliographies, monographs, and directories. The Association publishes four periodicals: *Special Libraries, Scientific Meetings, Technical Book Review Index,* and *Translations Register-Index.* A publications price list is available.
- Consultation Service—Advice on establishing, reorganizing, and operating special libraries and information services offered to all types of organizations. Up to one day's courtesy consultation. A list of Professional Consultants, who are available on a fee basis, is maintained.
- Placement Service—Helps employers find suitable library personnel and assists members in locating new positions. Both may register with Chapter Employment Chairmen or the Placement Service at Association Headquarters.
- Scholarships—Scholarships are awarded each year to qualified men and women for graduate study at a recognized school of library or information science.

Conferences

Annual Conferences include sessions of general professional interest, programs of special subject interests, discussion of new equipment and technology. Division program and business meetings, tours to outstanding special libraries and information centers, and an extensive exhibit area. A list of future Conferences is on page 4.

Organization

Organized geographically into 37 Chapters, which elect officers, publish bulletins, hold significant program meetings during the year, and initiate special projects. All members are affiliated with the Chapter nearest their homes or places of employment. Subject Groups are organized in some Chapters.

Alabama
Baltimore
Boston
Cincinnati
Cleveland
Colorado
Connecticut Valley
Dayton
Florida
Greater St. Louis
Heart of America
Illinois
Indiana
Louisiana
Michigan
Minnesota
Montreal
New Jersey
New York
North Carolina
Oklahoma
Pacific Northwest
Philadelphia
Pittsburgh
Princeton-Trenton
Rio Grande
San Diego
San Francisco Bay Region
South Atlantic
Southern Appalachian
Southern California
Texas
Toronto
Upstate New York
Virginia
Washington, D. C.
Wisconsin

Also organized into 23 Divisions, two with Section sub-units, representing broad subject fields or types of library activity. Each elects officers, publishes a bulletin, conducts professional programs during the Association's Conferences, and carries out projects such as publications or workshops. All except Student and Sustaining members may affiliate with Divisions of their choice.

Advertising & Marketing
Aerospace
Biological Sciences
Business and Finance
Chemistry
Documentation
Engineering
Geography and Map
Insurance
Metals/Materials
Military Librarians
Museum
Natural Resources
Newspaper
Nuclear Science
Petroleum
Pharmaceutical
Picture
Public Utilities
Publishing
Science-Technology
Paper and Textiles
Social Science
Planning, Building and Housing
Social Welfare
Transportation

ERRATA

Jan 1969	p.28, col. 1, before [Eq. 2]	See p.102 for correction
Feb 1969	p.109, lines 19-20	Delete: (now the South Atlantic Chapter)
	p.113, line 18	Add: **Jean Deuss** will continue as Treasurer, and **Herbert S. White** will serve as Past President
Mar 1969	p.171, col. 2, line 34	Change **Voight** to **Voigt**
Apr 1969	p.248, col. 2	Text to accompany photo of Ruth A. Longhenry appears on p.302 (May/Jun)
Jul/Aug 1969	p.405, col. 2, line 13	Florence Bradley is *not* deceased. Delete: (*d.* 1968)
Sep 1969	p.489, col. 1	Statistics Committee report was inadvertently omitted. See p.612 (Nov)

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