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The library contains a full set of Sea Officers Lists and Navy Lists, beginning in 1673. There is also a set of Steel's Navy List, 1782-1815. The earliest Army List is dated 1740; from 1860 onwards the set is complete. The Air Force List is complete from 1918. Full sets of Admiralty Weekly Orders and Admiralty Fleet Orders, as well as Parliamentary Papers from 1801 onwards and Hansard's Parliamentary Debates, are held.

The large periodicals section includes bound sets of The Mariner's Mirror, the Journal of the Royal United Service Institution, proceedings of learned societies, etc.

Reference books, including the Royal Calendar, Imperial Calendar and Annual Register, are also held, in some cases dating back into the 18th century and in complete sets.

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Many professional degree candidates possess unusual ability to readily recognize and conceptualize significant professional research problems. Others lack this ability. To identify crucial experiential and psychological correlates of problem sensitivity, the author contrasted a problem sensitive group with a relatively insensitive group of professional degree candidates. Results indicated that the problem sensitive individuals were on the average older, had attended more prominent undergraduate institutions, had majored in problem-oriented disciplines, had a higher level of achievement in the social sciences, and were generally described by others as flexible, resourceful, and adaptable individuals. Problem sensitivity might well be used as one professional recruitment criterion.

Library school instructors are confronted time and time again with a common but rather perplexing phenomenon. It is that many professional degree candidates appear to possess some sixth sense that permits them to select, with relative ease, a professional-level research problem suitable for investigation and reporting in the form of a master's project, whereas other professional degree candidates, though intelligent and conscientious, are slow to if not incapable of recognizing or proposing a problem suitable for research investigation.

What accounts for these individual differences in ability to recognize and confront significant research problems? Have all of the theoretical and practical questions of library and information science been answered? This can hardly be answered in the affirmative. A staggering number of pragmatic operational and theoretical questions have yet to be dealt with. Could it be that the abundance of existing professional journal articles leaves some candidates with the feeling that no "original" problems are left to investigate? Perhaps this feeling does exist, but ideas permute more readily than do notes on a music scale, and no intelligent individual would assert that all the music that can be composed has been composed. Numerous problems await investigation. Nor is originality any longer regarded as the foremost criterion to be blindly and stringently applied in the selection of a research problem for investigation.

To attempt to determine why some individuals possess the ability to recognize significant research problems, the author conducted a small-scale investigation, the results of which are reported in this paper. The findings are admittedly based on limited samples and therefore are suggestive rather than definitive. It is hoped that the findings may serve to stimulate thinking about which personality characteristics will be most desired in librarianship and information science in the next few years. The challenges we face will require the recruitment of

Mr. Harmon is Assistant Professor of Library Science at the University of Denver.
imaginative, problem-sensitive individuals who see beyond the clerical function.

**Problem Sensitivity**

Many people have recognized that problem recognition requires considerable thought and effort. Albert Einstein stated, “The formulation of a problem is far more often essential than its solution, which may be merely a matter of mathematical or experimental skill.” Northrup states—

> Again and again investigators have plunged into a subject matter, sending out questionnaires, gathering a tremendous amount of data, even performing experiments, only to come out at the end wondering what it all proves, and realizing after years of industry and effort that the real difficulty has slipped through their fingers. 2

Mackworth, writing on originality, points out the need for professionals who can find problems or raise questions. Those who can find problems, he feels, are scarce, and problem-finding is generally more important and more difficult than problem-solving. "Problem solving is a choice between existing programs or sets of mental rules—whereas problem-finding is the detection of the need for a new program based on a choice between existing and expected future programs." 3 His observations are consistent with the fact that many students—graduate and undergraduate alike—have a difficult time selecting a research problem.

Problem recognition can perhaps be treated within the broader topic of "originality," or under the still broader topic of "creativity."

Creative people have been generally characterized in study after study as possessing considerable autonomy, self-direction, high ego-strength, a liking for abstract thinking, tolerance of cognitive ambiguity, and superior general intelligence—among many other factors. 4 But these characteristics do not necessarily serve to describe problem-finders, because many indexes of creativity are based on problem-solving and productivity instead. Nevertheless, it would be difficult to assert that problem-finding does not involve a creative response of some sort.

What constitutes a problem? Two definitions follow:

An unsettled matter demanding solution or decision and requiring unusually considerable thought or skill for its proper solution or decision. ... a source of considerable difficulty, perplexity or worry. ... a cause of trouble or distress. 5

A situation in which, knowing certain of the elements, it is desired or required that the others be ascertained. 6

Many other definitions emphasize a problem’s thwarting and frustrating effect, or the state of disequilibrium it causes. But these definitions do not seem adequate, in that a person might not have awareness of an existing problem. A man might not know that he has a health, marital, or financial problem; scientists might not realize that they are under the bad influence of an untrue theoretical concept that serves as if it were true. Most definitions of the term “problem” appear to be post hoc. According to these definitions, a problem becomes a "problem" when its impact is felt, not when it develops. This matter is discussed further in the final section.

---

Thirty-three research problem statements were submitted by students in the graduate school of librarianship at the University of Denver as preliminary proposals for their master's degree projects. These research problem statements were assessed by two experienced researchers on a specially constructed "Research Problem Recognition Scale." Resulting numerical scores were assigned to each problem statement. The two scores for each individual were then added together and resulting data were analyzed. The seven highest scoring students and the seven lowest scoring students provided two groups of subjects respectively for further study. The high scorers comprised the "High R" (Recognition) group while the "Low R" group consisted of the seven low scorers.

The school's records contained essential data on each student, including information on age, scholastic achievement, Graduate Record Examination scores, and personality evaluation forms submitted by friends and former employers. These records provided information from which judgments about their problem recognition ability could be made.

The records of the High R group were analyzed to discern what experiential factors and characteristics seemed to underlie and promote the ability to recognize potential research problems. Conversely, records of the Low R groups were examined to discern which characteristics and background factors impeded or did not promote problem recognition ability. Characteristics which suggested sharp differentiation between the two groups, and which were instrumental in forming a High R and a Low R profile were then more systematically investigated.

The problem recognition scale below was developed for use in this study and served as a standard against which to assess the research problem proposals submitted by students. The various criteria listed in the scale should not be regarded as mutually exclusive; there is some obvious overlap between two or more of the criteria. However, each criterion was regarded as sufficiently important to warrant differentiation from other criteria and justify its inclusion in the scale. The main purpose of the scale is to provide a more objective, quantitative standard against which to assess the research problem proposals, and hopefully, to differentiate the more problem-sensitive from the less sensitive individuals.

**RESEARCH PROBLEM RECOGNITION SCALE**

**Problem Conceptualization.** Does the problem statement clearly indicate that all aspects of the problem have been recognized? Is only one small aspect of a larger problem treated, to the neglect of getting at the "core" of the problem? Or conversely, is a large, nebulous, and unanalyzed problem evidenced by superficial description?

Inadequately conceptualized

Well conceptualized

**Theoretical Relevance.** Are theoretical implications of the problem seen? Would the problem, if solved, tie together large amounts of data, bring new insights, or recomposite an area of knowledge? Would a solution serve to guide action and thought? Would an answer to the problem go beyond the limits of verified knowledge, revealing new ideas and relationships? Is the problem related to significant issues?

Low theoretical relevance

High theoretical relevance

**Prognostic-Predictive Value.** Would the problem if solved, help clarify the course of future events or help to reduce uncertainty about the future, thus clarifying alternatives? Would a solution possess heuristic value, guiding and stimulating future research? Would solu-
tion of the problem assist in planning for the future?

No prognostic value  0 1 2 3 4 5 6 7  High prognostic value

**Problem Intensiveness.** Is the problem apparently serious and pressing?

Problem is trivial  0 1 2 3 4 5 6 7  Problem is serious

**Problem Duration.** Has the problem persisted, or is it likely to persist, through an extended time period?

Highly temporary problem  0 1 2 3 4 5 6 7  Highly persistent problem

**Problem Recurrence.** Has the problem recurred frequently or is it likely to recur frequently?

Extremely rare problem  0 1 2 3 4 5 6 7  High frequency of recurrence

**Economic Value.** Would solution of the problem save considerable time, money, or effort, or suggest a better allocation of economic resources?

No economic value  0 1 2 3 4 5 6 7  High economic value

**Unconventionality.** Is the problem novel, or is a novel approach to an old problem proposed? Is the problem an apparently appropriate one in spite of its novelty?

Highly conventional  0 1 2 3 4 5 6 7  Highly novel

A score of 56 points is possible on the scale. However, since each subject was assigned two scores (one by each rater) and these two scores were added, a total score of 112 points was possible.

**RESULTS**

An assessment of the proposed research problems yielded thirty-three scores, ranging from 16 to 101 points out of a possible total of 112 points. The mean was 58.3 and the median 53.2, indicating a positively skewed distribution. The standard deviation was 20.4. An analysis of information about the top seven scorers (High R Group) and the low seven scorers (Low R Group) yielded the following profiles.

**Findings—High R Group**

**Personality Descriptions.** Members of the High R Group were typically described in their evaluation forms as adaptable, inquisitive, intelligent, and adept at human relations. Persons writing evaluations gave lengthy, enthusiastic, and glowing recommendations about each member. The following comments, as separate examples, were recorded:

Personality which is broad in nature, flexible and adaptable to any situation. . . . Neither petty nor narrow, but has a wide range of interests . . . capable of handling difficult situations. . . . Has an inquiring mind and seeks to see the whole picture, the total job. . . . Quick at ascertaining the relative values of the job to be performed . . . a quiet, unassuming sensitive woman who possesses a wealth of knowledge in many fields. . . . Friendly, intelligent, and works well with people.

Well developed, well adjusted, emotionally mature and stable, responsible, adaptable, and resourceful . . . adept at dealing with the public. . . . Well educated, well read . . . witty and resourceful . . . a marvel in her wisdom and insight into human personalities.

Alert, industrious and quick to sort out problems and decide what action to take.

Exceptional person keenly aware of the needs of others. . . . Fine knowledge of the world . . . ambitious, reliable, and constantly seeking information.

Resourceful, energetic, and adaptable . . . high intellectual ability and emotional stability.

Adapts to new situations quickly . . . quick
to learn, intelligently inquisitive, bright, and pleasant in disposition.

Keen intelligence. ... Most perceptive and inquiring mind.

**Academic Background.** The High R's had, for the most part, attended larger universities prior to enrolling at the University of Denver. Educational institutions represented by the High R's included Stanford, Chicago, Baylor, Colorado, and Cornell. Two small and relatively remote state colleges were also represented.

Areas of major academic concentration included international relations, sociology, English, economics, general humanities, history, and chemistry-physics.

**GRE Scores.** Mean scores for High R's on each test follow:

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal</td>
<td>621</td>
</tr>
<tr>
<td>Quantitative</td>
<td>555</td>
</tr>
<tr>
<td>Social Science</td>
<td>588</td>
</tr>
<tr>
<td>Humanities</td>
<td>640</td>
</tr>
<tr>
<td>Natural Science</td>
<td>561</td>
</tr>
</tbody>
</table>

All of these scores are higher than those of the Low R group, and score comparisons are made in the discussion section of this paper.

**Age.** The mean age of the High R's was 33.3 years while the median age was 31 years. The age range for the seven individuals extended from 22 to 47 years.

**Findings—Low R Group**

**Personality Descriptions.** The paucity of description included in the evaluation forms of the Low R group was the most conspicuous and amazing phenomenon encountered by the investigator. For the most part, the Low R's were almost non-descript, as personalities, to those writing recommendations. Recommendations were short and were apparently perfunctory and lacking in enthusiasm or spontaneity. The Low R's might be generally described as "colorless" personalities. The most laudatory comments in their records concerned their characteristics of thoroughness and painstakingly methodical behavior. Excerpts follow:

- Painstaking. ... Hard and thorough worker of utter reliability ... patient.
- A very thorough planner ... a bit too reserved.
- Seldom creative but always thorough. ... Lacks energy and enthusiasm. ... Lacks interest ... not outstanding.
- Not outstanding ... not a leader.

**Academic Backgrounds.** The Low R Group had attended, generally, smaller and less notable state colleges situated throughout the Midwestern states. The only major university represented was Colorado. Undergraduate academic majors included English (in five cases), education, and German.

**GRE Scores.** Mean scores for Low R's on each test follow:

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal</td>
<td>578</td>
</tr>
<tr>
<td>Quantitative</td>
<td>482</td>
</tr>
<tr>
<td>Social Science</td>
<td>498</td>
</tr>
<tr>
<td>Humanities</td>
<td>625</td>
</tr>
<tr>
<td>Natural Science</td>
<td>509</td>
</tr>
</tbody>
</table>

It is notable that these are not low scores, even though they are lower than those of the High R Group. The lowest percentile score (60) was for Social Science.

**Age.** The mean age of the Low R's was 26.5 years and the median age, 24 years. The age range extended from 22 to 45 years.

**DISCUSSION**

To summarize the results of the study, certain differences between the profiles of the Low R and High R Groups are notable:

1. Personality descriptions of High R Group members emphasized their flexibility, resourcefulness, inquisitiveness, and adeptness at human relations. Members of the Low R Group were generally described as methodical, painstaking, and thorough. Beyond this, there
was surprisingly little description of Low R's.

2. Most High R's had majored in problem and research-oriented disciplines, and most had attended larger, better-known universities. Most Low R's had majored in English and most had attended smaller or less selective and less well-known colleges.

3. The Graduate Record Examination scores for both groups were relatively high. However, High R's averaged 90 points higher on Social Sciences scores, 73 points higher on Quantitative scores, 52 points higher on Natural Science scores, 43 points higher on Verbal scores, and only 15 points higher on Humanities scores. High R percentile scores were for Social Sciences, 26 per cent higher; for Quantitative, 20 per cent higher; and for Natural Sciences, 14 per cent higher; for Verbal, 10 per cent higher; and for Humanities, 3 per cent higher.

4. Both the mean and median ages of the High R's were very close to seven years greater than mean and median ages of Low R's. A rank difference correlation of plus 0.545 existed between problem recognition scores and ages, to corroborate the mean and median age differences.

Because of a lack of adequate information about the general backgrounds and experience of members of both groups, few conclusions can be drawn about background factors which differentiated the two groups. It is noteworthy though that High R's generally possessed a more variegated background. Some had been provided with what might be called an "enriched" environment during their childhood. Others had experienced a variety of situations and environments following their adolescence. All had traveled widely within, or outside of, the United States.

Low R's shared such backgrounds in many respects, but apparently to a lesser extent. Two of them had traveled widely and had apparently been reared in "enriched" environments with highly educated parents. Other Low R's came from seemingly more restrictive environments. Without more specific information about the backgrounds of both groups, few conclusions could be drawn about the factors that contribute to problem-recognition ability.

The more concrete data from this limited study suggested that research and professional problem sensitivity are enhanced by education in problem-oriented curricula in institutions where there is a relatively greater emphasis on inquiry than on learning or memorization. Attitudinal contrasts between the two groups lend support to the idea that methodical, painstaking, or thorough approaches do not conduce to problem sensitivity. Differential GRE scores might suggest that problem sensitivity is engendered by experience and attitudes that promote the acquisition and use of social, quantitative, empirical, and verbal skills, in that approximate order of priority.

Age does seem to have some effect on the increased ability to recognize problems. Perhaps one acquires greater discriminatory ability as he gets older and sees more of the world and its contrasts. At any rate, there was a moderate degree of positive correlation (.545) between age and problem recognition in this investigation.

At the beginning of this paper it was pointed out that most definitions of the term "problem" presuppose an awareness of the existence of a problem; a problem's impact is felt. But apparently in research activity an existing and serious problem may not make itself felt. It may simply be there, in some stable, developing, declining, or cyclical form to be detected by a perceptive or problem-sensitive individual. His perceptive powers may, of course, be multiplied by some conceptual tool, such as mathematics, or a physical tool, such as an electron microscope. The mere posses-
sion of tools which enhance perceptive powers does not, however, assure their use for problem-finding. Nor can it be said that a problem-sensitive individual will automatically unearth many problems. Perceptive powers must be put to use to find problems, and this use implies that problem finders are somehow motivated to detect problems.

Findings of this study suggest that the problem-sensitive individuals were motivated to find problems. They had majored in problem-oriented and analytical disciplines. Their acquisition and retention of information was greater. Their higher Social Science, Quantitative, and Verbal scores, for example, possibly gave them the ability to see relationships between things, people, ideas and numbers. The acquisition and retention of this information and these abilities are perhaps motivated by a need to see discrepancy or disorder. Possibly problems possess aesthetic value for problem finders, or else they would not be tempted to focus on problems—the things many people consider to be cognitively ugly.
The Administrative Assistant—Pragmatic Job Description

The library administrative assistant is an officer of an increasing number of university libraries, but there have been few efforts in the past to describe the kinds of duties which he is frequently called upon to do. The author draws upon his many years of experience in such a position. He discusses office management, relations with colleagues both up and down the administrative ladder, fiscal and other business activities, plant, communications, and other problems.

Although historically few academic libraries have been large enough to warrant appointing a full-time administrative assistant, the number of such institutions is rapidly increasing. Very few statements exist, however, of just what constitutes an appropriate list of duties for this position. As with many other positions, these duties are usually the product of the persons and circumstances that have been involved in them. The following pragmatic "job description" was created by one person in one large library system, but the elements of universality it contains will no doubt be obvious to most academic librarians.

One must understand fully the often intricate aims of the institution and the library organization in any given situation before he can work effectively in its daily operation. Once this understanding has been acquired, he will find himself deeply involved in some or all of the following areas of responsibility.

The Administrative Offices

Generally speaking, you, as the administrative assistant, will be responsible for the physical set-up and staffing of the administrative suite or office. The responsibility for the day-to-day operation of the work of this office will be yours. A considerable amount of the library's public image is held in your hands, although this is a responsibility you share with the public service departments. Throughout each day people pour in and out of the administrative offices, frequently their first contact with the library, and the manner in which each person is handled can help to make or deface the library's image. You never know with whom you may be dealing when a stranger walks through the door, and you will be wise to treat each person with courtesy, interest, and intelligence.

You no doubt will be expected to handle visitors from outside the campus; you might even be surprised how many such visitors there are on a major university campus. People from all over the world come to our universities, and each in his own way is here for a very special reason. If you have to plan a library tour for a visitor, make certain you ascertain the reason for his visit, any special areas he wants to see, and introduce him to staff members if there are points about which he would like to have considerable detail.

Mr. Delzell, long a Library Administrative Assistant, is now Personnel Librarian in the University of Illinois.
Always remember, you are his administrative assistant. Here you have a real responsibility, and your appointment to such a position has implications. You have the most direct path to his hearing. What do you tell him? What don't you tell him? You will have to learn with experience those things about which he must be informed and also learn to recognize those things about which he should not be bothered. You have to learn to filter the trivia and involve him only when it is really necessary.

To be able to keep him properly informed, you may need to devote considerable time to your relationships with members of the library staff at all levels. If you are not approachable, in the best sense of the word, you may hear little or nothing. Many people are going to come to you with a great variety of problems they do not feel they want to take to the top man. You will be surprised what you can learn about an organization by keeping your mouth shut and learning to listen intelligently.

To be approachable you also must be available. Odd work schedules for an administrative person in this area will not do. If you are not there the work is not being done or someone is forced to do it for you. Bless our highly competent secretaries! As far as possible, you should be on hand during all hours the offices are open.

If you are handling the work as you should, you often are acting as a buffer and interpreter for the top man. There is an element of danger here. Whether you actually are doing it or not, it will be assumed that you are speaking for him. The average person coming into contact with you understands that you are representing him, so you must remember whose opinions you are expressing.

In your personal relationships and work with the top man (and they often are very close relationships) you may find yourself a confident, a friend, a sounding board, an amateur psychiatrist, an ear for listening, a professional co-worker, and a sudden sixth at a dinner table. Major administrative officers in any sort of organization have social responsibilities which cannot be overlooked or avoided and some of that responsibility is yours in whatever manner it may need to be expressed. These personal areas will occupy only a small amount of your time but they are very important and, more often than not, they are most pleasant. From time to time you will be asked to assist in his research work. You may find yourself assisting in a study in which an attempt is made to place a financial evaluation on an important research collection, and you may be a member of a major library survey team in another state when the top man is director of a statewide survey. This sort of involvement is stimulating, professional, and exciting.

The Business Angle

You may be deeply involved in the preparation, submission, and control of the over-all library budget. This may involve writing justifications for increases in varying types of library funds; there may be certain allotments for which you will be responsible; the over-all monthly control of the general library budget usually will rest in the administrative offices and you will be involved.

The general administrative office probably will handle all purchasing except for books, serials, and binding. You may need to know how to buy supplies, services, furniture, and equipment of all kinds. This is difficult, especially if you have had no experience in purchasing. More often than not, experience is the only real teacher. I have been grateful for more years than I care to admit that my first acquisitions job was in a library in which acquisitions meant everything from books to library paste.

When you're new at it, don't be afraid of the sales personnel from the library supply houses. Learn to know the repre-
sentatives from the reputable firms; all of them can help you, some more than others, depending on the local situation. The reliable firms are well known in the field, and it will not be difficult for you to get opinions from professional colleagues in your area.

Within the framework of your own purchasing organization there is a lot you can do to ease your purchasing problems. Learn to know the purchasing people and the regulations under which they must operate. This I have learned over the years—you seldom can beat a large system and you will do better to learn to live with it. The better you learn to live with it, the better your chances are of convincing someone that there may be changes necessary from time to time in regulations which are being interpreted too stringently. There are ways to overcome what has been referred to as the “charm of the low bidder.” Learn to know your purchasing people well and cooperate with them as best you can. When you place orders with them, place them correctly, adequately, and with every bit of information you can muster. If you know exactly what you are buying and where it can be obtained, you will save time for them, and they will respect your judgment when they recognize that you know what you are talking about. Be prepared at any time to justify a purchase decision by knowing enough about the product to discuss it intelligently. Handle their paper work with care, be cooperative, and you will find yourself ahead of the game.

Let me mention two publications in passing. First, keep handy the annual buying guide which appears in Library Journal. When you are in doubt about the source of a particular supply or equipment item, this guide frequently will do the trick. Use the list of suppliers in the guide as a request list for current catalogs, and you will find that you have a fine beginning of a collection you will consult daily. If you are involved in a more sophisticated kind of purchasing, a subscription to the Library Technology Reports, the loose-leaf series published by the ALA Library Technology Program, is a must. These reports on studies of equipment, furniture, and supplies are wonderfully put together, the information is reliable, and you will learn to look forward to each issue with considerable anticipation. This publication alone may help you to convince some purchasing agent that the brand you wish to purchase is the best buy for the money.

THE PHYSICAL PLANT

No matter the size of campus or institution in which you are located, there will be a physical plant staff through which you must obtain janitorial services, building upkeep, repairs of all kinds, and other assorted services. As I suggested in purchasing procedures, learn to know the staff of the physical plant and be aware of the procedures under which they work. If there is a large enough plant to have a general routing office, that office will be of considerable importance to you in getting things done when they need to be done. You will be flooded with staff and patron complaints—it’s too hot; it’s too cold; there’s a flood in the third floor restroom; a floor tile is loose in the reference room and someone has just fallen; the door to the supply cabinet is locked and the keys are on the inside; a large section of heavy steel shelving is beginning to sway suspiciously; the telephone in the serials department is not ringing loudly enough to be heard across the room; someone has painted a full-color mural on the wall of the restroom on the second level of the bookstacks; and so on, ad infinitum. You and your staff will have to absorb all of this information, decide what should be done and how rapidly it should be done. From that point on it depends on the manner in which you get the proper information
into the hands of the proper person in
the physical plant. Don't ask for a
carpenter when you need a steelworker;
this will only delay the service and create
other problems. Don't cry wolf unless
you have a real emergency. I have tried
to separate the really important rush
items from the nonrush items, and have
found that physical plant personnel will
respond quickly and efficiently when you
need them most. If you are particularly
impressed with any special services you
receive, write a letter to a supervisor and
compliment the staff. Most people don't
take time to do this, but it is appreciated.
Again, the use of diplomacy is half the
battle.

THE COMMUNICATION LINES

Staff communication. Though I have
mentioned this before, let me remind
you again of the importance of being
available to all of the staff on all levels.
People must have someone to talk to
who will listen, respect confidences, be
understanding, and, relatively speaking,
unbiased. The top man will do this too,
of course, but many people don't feel
like going that far. You also may be able
to express an eye-opening opinion when
a problem gets too involved in crossing
departmental lines. With the over-all
view of the library constantly in the
back of your mind, you may come up
with a fresh viewpoint so often over­
looked by the people most deeply in­
volved with a problem or
conflict. Being
two steps away from a troublesome situa­
tion may make it possible for you to
examine the problem in a very different
light.

Communication across the campus. By
the very nature of your position you
can help to sell the library and its pro­
gram across the campus. How far you
can go depends very much on how much
effort you are willing to expend in this
direction. There are boards and com­
mittees of all kinds in which there is a
real need for participation on the part
of members of the academic community.
You can serve on a faculty-staff social
committee whose major responsibility is
the planning and directing of the Presi­
dent's reception for new faculty and
staff, a major campus event each fall.
There will be people from all across the
campus on this committee and you can
extend your field of vision where the
institution is concerned. You might be a
faculty representative on a university
theater board, a policy-making board
which may exist to function as a guide
to a major university division and ac­
activity. Again, you are spreading your
personal contacts with other members of
the faculty and staff, learning more about
their fields and also indicating to them
that the library feels itself a part of the
academic gathering.

One of the most effective communica­
tion groups I have ever seen was created
on the University of Illinois campus
several years ago, with a nucleus of
people in administrative positions whose
work cut across departmental lines
throughout the institution. Called the
Campus Roundtable, this group meets
once each month for luncheon and a
presentation from some division of the
university. We have heard from the
supervisor of traffic and safety, the di­
rector of the health service, the director
of the bureau of institutional research,
the university labor relations officer, the
director of Krannert art museum, the
university architect, the director of pub­
lic services for the university library, and
many others. Each of these persons pre­
sented the organization and work of the
division he represents and described
plans for the future. At tables for eight,
at any of these meetings, you might find
yourself sitting with a security officer, a
purchasing agent, a food service director,
a radio or television director, a librarian,
a business manager, an associate dean
of women, or an assistant director of
public information. Those who attend
these meetings learn more about each
other and the university than would be possible under any other circumstances. They meet each other face to face, often after talking by telephone at an earlier time, and the impact changes. Never again are they dealing with a stranger—there is a face now to go with the voice. All of this serves to strengthen communications lines in the best way.

Many of the activities potentially available to you on a campus are there because you have academic rank and are accepted as a member of the faculty. If you are accepted as a faculty member, act like one! Most faculty members have campus responsibilities which reach beyond their own little backyards and most of them accept this responsibility graciously. The same will be expected of you. You cannot close your eyes at 5:00 P.M. each day and hope that the institution will go away. There are many ways you can support the university after regular office hours, and you should be willing to do it.

Meanwhile, the telephone is ringing and you may have something surprising awaiting your attention:

The architect has put the offices on the second floor. Can you supervise a division from that vantage point?

The dreaded company sent in the low bid for the $5,000 pamphlet binder order. Convince the purchasing department that this product is inferior and inadequate for library use.

The elevator is stuck between the second and third floors and some woman on the inside is getting hysterical.

Purchasing and Contracting has just thrown out the out-of-print journal contracts. Write a justification for their return.

The budget hearing is scheduled for 8:30 tomorrow morning. Watch out for “you-know-who,” he’s out to whittle down the library’s request by thirty percent.

I just saw —— washing her feet in the lavatory of the women’s room on the first floor.

She did too!

There are few dull moments and in so many ways it is rewarding. You will feel very much like a cog in the endlessly rolling wheel of an educational institution and you can make a greater contribution than you may think now. If you don’t like people, forget it. I like them!
The Restoration of Paper Documents and Manuscripts

This monograph describes what is being done by librarians to preserve and restore books, manuscripts, and archival materials. It discusses the following problems: (1) flattening of folded documents; (2) the methods used by librarians to restore collections damaged by fire and water. Included is a summary of some of the procedures used by the librarians at the Jewish Theological Seminary of America library and in Florence to restore damaged collections. Among the methods discussed are quick freezing and drying in microwave ovens; (3) restoration of documents is discussed with reference to the following procedures: (a) silking; (b) tissue process; (c) washing and bleaching; (d) inlaying, framing and glazing; (e) sprays; (f) lamination and laminating films.

Manuscript and archival material are primary sources of information. As such, they are of inestimable value to researchers in every field. Many of these documents and books, particularly those printed or written on paper manufactured since the introduction of the Fourdrinier paper machine in 1827, have begun to deteriorate. This deterioration is due to the lowering of the quality of paper and other materials used for printing and writing, and to the fact that manuscripts and archival materials have been stored under adverse conditions. Age and use have also contributed to the deterioration of materials. The great increase in the use of manuscripts and archival material has focused the attention of librarians on the problem of preservation and restoration and the need to develop programs in their respective libraries that will attempt to solve this problem.

Preservation and conservation programs should make provisions for:

1. Proper storage conditions that will prevent the deterioration of materials.
2. Prevention of the loss of materials due to destruction by fire, water, insects, and theft.
3. Preservation and restoration of materials.

It is the purpose of this paper to describe briefly what is being done and should be done by libraries pertaining to the preservation and restoration of materials.

"Treatment of the paper stock is usually the first requirement in the repair or reconditioning of manuscripts or old books." It is therefore essential, for the librarian to know what causes the deterioration of paper stock in order that he may develop a program that will curtail it and devise means to repair deteriorated documents. Paper is largely

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made of matted cellulose fibers derived from wood, rags, or other fibrous materials. It is sized with rosin glue or casein in order to prevent the spreading of writing ink. The best grades of paper are made from high quality rags or wood pulp and have a high alpha-cellulose content. Little bleaching or chemical treatment is required in their manufacture. The quality of cellulose used in the manufacture of paper largely determines the strength and durability of paper. The higher the alpha-cellulose content of the paper, the less it will be affected by careless handling and the less it will be affected by exposure to heat, light, dry air, sulphur dioxide fumes, excessive dampness, and dust so frequently present in storage areas.2

"Papers dating from the last half of the nineteenth century generally cause the greatest concern, because it was during this period that the paper-making machine came into widespread use and many inferior fibers were adopted at random to meet the needs of the suddenly increased production and the accelerated demand for paper products."3 These papers, for the most part, have a very low alpha-cellulose content, and their deterioration is greatly accelerated by one or any combination of the aforementioned factors.

As was customary before the close of the nineteenth century, papers were folded and put away in poorly designed containers eventually to be relegated to some attic or equally unsuitable place. Therefore, when an attempt was made to open these papers, they often cracked along the fold lines. Flattening manuscripts thus became a time-consuming step in preservation. It is therefore evident from the above that the quality of the paper, the extent to which manuscripts and documents have been used, and the condition under which they have been stored affect their condition.

Flattening documents usually makes them more easily accessible and easier to preserve. To accomplish this, one can place brittle papers in a humidifying chamber. If papers are exposed to an atmosphere of 90 to 95 per cent humidity, they will become flexible and will not break when unfolded. When these documents are subsequently packed firmly in storage containers, folds will be less evident and to a great extent nonexistent. If the documents are very creased, they can be smoothed in a mangle or with a hand iron or a pile of blotters.4

"In certain cases, documents require special treatment in flattening." Adelaide Minogue advocates that "fragile items such as brittle tracing papers, documents that have been washed or bleached to remove stains, fragments of mildewed, water soaked, or burned documents, and parchments, which do not tolerate ironing, may be more safely handled by spreading out each dampened sheet between blotters and pressing, without heat, until dry."5

Flattening vellum and parchment manuscripts is quite problematic because one must be extremely careful not to allow water to come into direct contact with the sheet. This is particularly true in the case of illuminated manuscripts. After dehumidifying, Lydenberg suggests that single sheets be attached to a frame of wood, slightly larger than the sheets to be treated, with weights fastened to the perimeter of the frame. "The sheet can be so adjusted that there will be an even pull in all directions and the moisture will permit it to be flattened evenly. . . . The drying should be gradual and sometimes (where otherwise mold might develop) it may be well to apply artificial

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3 Ibid., p.348.
5 Ibid., p.43.
heat if the heat can be kept well under control. After all pieces that need it have been flattened the collection should be carefully inspected to determine if any of the materials need treatment, mending, or restoration. This is particularly true of new acquisitions which will not be processed for sometime and if stored in their present condition may cause deterioration of other materials in the collection. Lucile Kane suggests that the following initial steps be taken to clean newly acquired materials:

"Damp sheets are dried between blotters to prevent mold, mildew, and other damage to ink and paper. If the repository has standard fumigating equipment, manuscripts are freed from insects, rodents, and fungi by exposure in tanks. Few small institutions have fumigating chambers. In their absence, it is recommended that the papers be exposed to the vapors of ethylene dichloride and carbon tetrachloride in an airtight box for twenty-four hours and then thoroughly aired."7 Dust and abrasives, such as sand and plaster, and surface dirt that will smear when the papers are placed in storage, must be removed before the papers are disturbed in any way. Minogue states: "Rubbing the records with a cloth or using any suction method may merely spread the dust into the papers or tear them along the edges." This is particularly true of papers dating from the last half of the nineteenth century. She recommends that "streams of air be blown along the exposed edges of the papers."8 Lucile Kane further states that the manuscripts "be placed under a hood that sucks up dust" during this process. She also suggests that materials be cleaned with soft brushes or a paste type wall paper cleaner.9

The latter suggestion is questionable to some authorities, however, because such pastes under certain conditions can foster the growth of mold and mildew.

Other problems that must be considered that are not peculiar to any period or to any type of record are the following:

1. Records damaged as a result of fire and water or insects.
2. Restoration of documents.
3. Storage and shelving. (This topic is beyond the scope of this paper and will not be discussed.)

**RECORDS DAMAGED AS A RESULT OF WATER OR FIRE**

Much can be learned in this regard from the experience of librarians now involved in the restoration of books and manuscripts at the Jewish Theological Seminary in New York and at libraries in Florence.

On April 18, 1966, fire raged in the Jewish Theological Seminary library. The fire "destroyed about seventy thousand volumes. The materials on the two uppermost levels were almost completely consumed . . . materials on the third level from the top were partly burned, partly heavily damaged by water or by the collapsing shelves. A small portion of the materials on the third level was salvaged. The seven lower stacks containing some 150,000 volumes were heavily damaged by water."

Under the leadership of Menahem Schmelczar, the librarian of the seminary, a plan for salvaging the damaged collection was initiated. All books were removed from the stacks and set up in free standing areas in order that the books be exposed to the maximum amount of circulating air. This was done because circulation of air and the rapid removal of excess moisture are the most effective

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6 Lydenberg, op. cit., p.76.
8 Minogue, op. cit., p.348.
9 Kane, op. cit., p.10-11.

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ways known to prevent the development of mold and mildew. Fans and dehumidifiers were used to speed the process of drying. Trays of calcium chloride were placed in all book storage areas to absorb moisture from the air. Temporary shelves were erected in many storage areas in order to increase the area available for drying books. The faculty and library staff selected books considered important or rare for priority treatment.

New methods to dry books were suggested and experimented with. The experiments included quick-freezing, and drying in microwave ovens. "Although both were successful—that is, they did dry books—both the mechanical facilities and skilled personnel to operate them were in short supply. All the appropriate quick-freeze facilities in the East, had they been available, could handle a maximum of 150 books a week—not an encouraging forecast to a library staff faced with a thousand times that number. Proper use of this technique required operators familiar with defrosting rates and temperatures, and these too proved scarce. Similar difficulties were encountered with the microwave ovens, although as many as four of these were used in the early stages of the salvage operation."

The use of thymol chambers was experimented with in order to dry books and to arrest the onset of mold and mildew. The experiment proved to be highly successful. This experiment was discontinued because of the lack of facilities to handle large quantities of books and the fact that the time involved was prohibitive.

Interleaving with paper towels in lieu of blotters, although time consuming, proved to be the most successful method of drying books. This was because of the availability of many volunteers, and of plentiful supplies.

Books that had begun to mildew and mold in spite of preventive measures, were treated with alcohol. Fumigation with formaldehyde was considered but not used to any extent because: (1) the conditions under which formaldehyde can be sprayed are astringent; (2) no fumigator could be found with the proper facilities; and (3) experts in the field indicated that alcohol would do an adequate job.

Many bindings were damaged by water, and others by efforts to dry the leaves and to remove mold and mildew. In other instances, bindings had to be removed because it was found that glue on the spines, when wet, caused the growth of mold and mildew. This necessitated undertaking a massive binding operation of damaged volumes, procedures of which are beyond the scope of this paper. Some of the materials charred by the fire required considerable inlays; others required minor repairs. The library was advised by W. J. Barrow to deacidify and laminate with cellulose acetate film and tissue some of the damaged material. Material of considerable importance that was completely burned through may be photographed on infrared film at a future date.

Similar problems, although on a grander scale, were encountered by conservators sent to Florence by the Committee to Rescue Italian Art (CRIA), on a fact-finding mission on November 14, 1966. "Professor Bates Lowry, chairman of the committee's national executive committee, said that the combination of water, mud, and seeping fuel oil from furnaces and tanks which engulfed buildings, works of art, books, and manuscripts, presented unprecedented problems for conservators." Menahem Schmelczer, one of sixteen conservators sent by the committee on this mission, describes in an unpublished report some of the methods used to treat damaged books. Tem-

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porary shelving was erected and nets spread out between chairs and tables to dry books. Waterlogged books were interleaved. Books were also sent to tobacco-processing plants and drying areas equipped with dehumidifiers, chemicals to absorb moisture, and electric fans. The Florentine synagogue arranged to send untreated books to the Sime factory of electrical appliances. "Books were spread out on little hand trucks and put into electric ovens for drying at a temperature of about 45° centigrade. The doors of these ovens were left a little bit open to allow for the circulation of air. After forty-eight hours the books became almost completely dry. Since most of the books were printed before the nineteenth century, the good quality paper was seemingly not affected by the relatively high temperature. When the books dried, it was easy to separate papers which were previously stuck together because of wetness." Conservators planned to create thymol chambers by placing plastic sheets over shelving areas and heating thymol crystals to the level of evaporation within the chamber. It was hoped that books could be kept within the chamber for two to three days before they were put back on shelves set aside for dry books. This method was found to be effective in the past in combating mildew and in disinfecting books.

When this job is done, these damaged books and manuscripts will have to be restored. This is indeed one of the important steps in preservation.

**Preservation and Restoration**

Several processes are now being used by libraries to preserve weakened and deteriorated documents. The restorer must select the materials to be restored and decide upon the process to be used. He must bear in mind that "nothing should be done that will seriously impair the usefulness of the manuscript or later result in serious damage to it."13 There are three basic requirements which any satisfactory restoration process should meet. They are:

1. **Legibility.** The readability of the restored item should not be reduced appreciably.

2. **Permanency.** In order to insure permanency, the impurities which caused deterioration of the item should be removed or made inert. The materials used to strengthen the sheet should be chemically pure and stable and should be resistant to the harmful action of certain agents present under normal storage conditions and usage. In addition, the process used should not reduce the permanency of the item treated.

3. **Durability.** After restoration, items which will get much use should have both good resistance to tearing and folding endurance. Seldom used items, such as exhibit pieces may have a lower requirement.14

Cost is also a factor to be considered.

The following are the most commonly used processes for the restoration of deteriorated manuscripts and books.

**Silk Process**

The silk process consists of pasting to each side of the document a piece of semi-transparent, coarsely woven silk cloth, often with a flour paste containing acidic alum. The end product will have relatively good visibility, be strong, and have a high resistance to tearing. In time this resistance is lessened because silk is not a stable product. Gradually it begins to discolor and tends to become brittle. The paste used in its application dries out and embrittles the whole sheet. Often too it is attacked by insects and mold.


In addition to the gradual deterioration of silk, the silking process makes no provision for neutralizing and/or eliminating the factors which caused the deterioration. Silking is a slow and expensive process. The skilled labor needed to apply it is difficult to find. For these reasons, silking has ceased to be considered a satisfactory method of permanent restoration, and its use has fallen into disfavor in recent years.\(^1\)

**Tissue Process**

The tissue process is similar to silking. For reasons of economy, thin sheets of tissue made of high grade fibers are used in lieu of silk. This process, too, has limited use, in view of the fact that no provision is made for eliminating the active compounds in the sheet that caused deterioration. The process is slow, and the end product has a low tear resistance.\(^2\)

In conclusion, Barrow's comment should be noted—"While these processes have made possible continued use of many deteriorated documents, in general both processes have a limited life expectancy of twenty to thirty years."\(^3\)

**Mending**

Mending in the strict sense of the word, is not a restorative process and does not add strength to the leaf or volume being repaired. Only papers and manuscripts that have not begun to deteriorate can be mended. Japanese tissue and paste or transparent "mending" tape can be used to repair torn pages or to reinforce leaves. If it becomes necessary to fill out incomplete leaves, the restorer should use paper of the same grade, thickness, and texture as the original leaf. In order for these to match, he has two alternatives. He may either darken the area that was repaired with a solution of tea or coffee to match the original leaf or (and this is more difficult and not preferable) he may bleach the repaired area to match the original sheet if paper of a darker shade is employed to fill out an incomplete leaf. This process should include the reproducing in facsimile of missing words and letters. Perforations can be filled in by means of a paste filler made of paper fluff and paste, or paper pulp.\(^4\)

**Washing and Bleaching**

Documents may be washed, preferably in distilled water, or they may be sponged with water and soap jelly to free them from dust and grime. Washing can, in certain instances, restore some life to brittle and dry papers. Some of the acidity inherent in paper may be removed.\(^5\)

Stains of a more permanent nature—i.e., iodine, mildew, or mold—may be removed by the application of such solvents as benzene, benzole, gasoline, or alcohol. Minogue recommends that "the paper itself should be laid with the stained side down on a white blotter and the solvent be sponged on from the back. . . . As the solvent is applied successively, the paper should be moved to clean portions of the blotter. When repeated sponging leaves no significant residue on the blotter, the paper should be turned over and treated in a similar way as on the stained side. After the solvent has dried, no ironing or other flattening treatment should be required."\(^6\)

Documents are sometimes bleached to remove discoloration stains or to lighten darkened documents in order to increase the legibility of the writing or print of the documents involved. The use of potassium permanganate and potassium metasulphate has given way to bleaching agents which are simpler to use and safer. The foremost bleaching agent in

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\(^{1}\) Ibid., p.260-61; Barrow, op. cit., p.285; Minogue, op. cit., p.351.

\(^{2}\) Hummel, op. cit., p.261; Barrow, op. cit., p.285.

\(^{3}\) Barrow, op cit., p.285.


\(^{5}\) Hummel, op. cit., p.261; Lydenberg, op. cit., p.262.

\(^{6}\) Lydenberg, op. cit., p.67-68. (Includes a list of recommended solvents); See also, Minogue, The Repair and Preservation of Records (Bulletins of the National Archives, Number 5) (Washington: 1943).
use today is Chloramine T. Although it is supposed to be safer than other bleaching agents in use, it is questionable whether it has the same lightening effect. Lydenberg describes its application: "A two percent solution is painted on the surface to be cleaned with a fine flat brush. The treated leaf is placed between blotting paper and boards and pressed in a book press or under weights. The treatment may be repeated after one hour, until a satisfactory appearance is achieved." It has also been found that the use of Chloramine T is effective in removing discoloration due to foxing.  

R. J. Gettens developed a procedure for the use of sodium chlorite as a bleaching agent. Its application is more complex than the application of Chloramine T. The document or leaf to be treated is submerged in a tray containing a 2 per cent solution of sodium chlorite plus five ounces of 40 per cent formaldehyde. It is suggested that the document be submerged for fifteen minutes. The length of submersion is dependent upon the intensity of the staining, and therefore it is conceivable that the document may be submerged for a longer period of time. The document is then rinsed in running water for the same length of time that it was submerged in the solution, and then dried between blotters. Other bleaching agents also being used include oxalic acid, javelle water, and ammonia.

A word of caution is in order here. Chlorine bleaches should be used under very carefully controlled conditions as chlorine can be deleterious to cellulose fibers. Any lowering in the strength of the document—i.e., folding endurance or tear resistance—should be evaluated against the legibility of the writing or the print of the document involved. Minogue states: "Except for oily stains, which may be removed with a dry cleaning solvent, it is best not to tamper with stains or discolorations. The chemicals required, mainly acids and bleaches, will seriously weaken cellulose fibers and destroy the sizing. It is likewise inadvisable to try to restore the legibility of faded iron-gall inks by chemical means, but if faded documents can be photographed by ultraviolet light using fluorescence filter, the print will be considerably more legible than the original. If an examination or reading of the document will suffice, it will be observed that the ink residue will fluoresce and become legible to the eye as well as to the camera." Many deteriorated documents will crumble if an attempt is made to erase surface dirt, even with a soft eraser. Water may damage paper, particularly coated, highly glazed paper. Writing inks, particularly of oak gall origin, may run. Solvents may dissolve printing ink. Bleaching chemicals can weaken paper if they are not thoroughly removed. Therefore the restorer must be certain prior to employing this process, that the method and material he chooses will not further damage the document in question. It is suggested that both the paper and ink be tested to determine whether they will withstand the treatment chosen to restore them. For example, ink can be tested by applying a drop of water to an inconspicuous part of the text. The restorer can tell whether the print or writing ink is likely to come off by touching a blotter on the spot. In sum therefore great emphasis should not be placed on this method as a satisfactory means of restoration for the following reasons—
1. The process is relatively slow since sheets must be treated individually;
2. The appearance of the document may be enhanced by the process but not the strength of the document;
3. Materials and methods employed may, under certain circumstances, cause further deterioration of the materials being restored.

21 Ibid., p.70-71.
22 Ibid., p.71-72.
RESIZING

A common process to strengthen deteriorated papers and improve the coherence of the fibers of the papers is resizing. This process consists of dipping the document into a bath of two to four per cent animal glue, gelatin, starch, or material of similar content. In the light of recent research, one can question the feasibility of this process. Hummel states: "Some recent research has shown, however, that many deteriorated papers have lost their sizing and this has not been the cause of the weakening of most paper. Since too much size will stiffen a sheet and make it less flexible, there is no reason to think that resizing will add much strength to a deteriorated sheet. It is also true that modern wood pulp paper contains noncellulose materials which have no fiber structure. Sizing will have little or no value in trying to bind together components of such paper."24

INLAYING, FRAMING, GLAZING

Inlaying or framing is another means of reinforcing papers. Through this method the margins of a single sheet of paper are extended by framing it with a larger sheet. This method is used particularly in the repair of documents for display purposes or in illustrating books when the restorer wishes to make the inserted illustrations the same size as that of the book into which they are being inserted. Hummel does not think that this is a satisfactory method of restoration because the process is slow and tedious and because framing adds little strength to the sheet. Second, "inlaying may result in the formation of undesirable cockles and a premature breakdown of the original sheet" due to the fact that the rate of expansion and contraction resulting from the change in temperature and humidity is seldom the same in two different papers.25

Glazing is similar to the above process. The document is mounted between sheets of glass bound together at the edges or framed. Glass that absorbs the short wave lengths of light which are deleterious to paper should be used in order to protect the document from light. The document is flattened and subsequently held in place tightly by the pressure between the pieces of glass or the backing of the frame. This process also protects the document from dust.26

PRESERVATION OF MATERIALS IN PLASTIC ENVELOPES

Carolyn Horton recommended this method of preservation to the Jewish Theological Seminary for their "Genizah" manuscripts. In a letter addressed to Miss Kleban of the library she states: "All materials used are of the most permanent nature and the protection which this type of treatment gives is the most complete possible short of sealing them in a vacuum chamber in a fireproof vault. The manuscripts can be examined without being touched directly, typed or written comments or translations can be written on interleaving pages, an index can be written or typed on the front page and the pages can be removed for photography or possible rearrangement in some future age." The specifications suggested were as follows:

"The pages are made of permalife paper which is acid free and designed for permanence.

"The envelopes are made of Lumarith L-822, the gauge thickness being .0075, the optimum thickness for durability. The envelopes are held together with non-rusting aluminum alloy post binders. The binding is constructed of 'Gold Label' binders board, the most durable available in the world and the covering material is of Bancroft Legal Buckram. In tests made by the Lakeside Press

24 Ibid., p.263.
26 Minogue, op. cit., p.28.
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this cloth stood up to accelerated aging tests better than any other available.”

This method as was previously indicated is being used by the Jewish Theological Seminary library and has proved to be quite satisfactory.

**Sprays**

Conservators hoped that sprays consisting of a transparent coating (perhaps a plastic film that would be applied to the surface of the document) would be developed and prove to be economical as well as protective. To date however, “no worth while spray method of restoration has been developed.” Earlier sprays composed of cellulose nitrate are now considered “to be unstable and injurious to paper.” Other sprays “gave a protective coating to the surface of the paper but added little to its physical strength. It has been shown that they sometimes increase the brittleness of the paper. Nor do they remove or neutralize whatever chemical impurities were in the sheet originally and these are left to continue the process of deterioration.”

**Lamination**

Lamination is the modern counterpart of the silking and tissue processes. It is a process by which a sheet of thermoplastic cellulose acetate film is applied by precision-built equipment to each side of a sheet of paper by means of controlled heat and pressure. This method was first used in the mid-1930’s as a means of restoring deteriorated materials. Testing revealed that lamination “protects the sheet from some adverse external influences but it does not add sufficient strength to withstand the normal stresses of flexing and does not provide the resistance to tearing so necessary for normal use. Like the silk and tissue process, it does not neutralize or inactivate the components that cause the papers to become increasingly brittle. Consequently, like the other two, this method has limited value from the standpoint of preservation and use.”

Lamination experiments were also conducted with cellulose containing thermoplastic and pressure-sensitive adhesives. It has been found that this procedure is satisfactory for use on materials of temporary value. It is not satisfactory for use on manuscripts of permanent value, or books, because the film tends to peel off after a few years, leaving the adhesive embedded in the pores of the paper. Moreover, the adhesive sometimes discolors the paper. This material, too, does not provide the resistance to tearing so necessary for normal use.

William Herbert Langwell, the noted British conservator advocates the use of the “Sundex” process, a process similar to the Barrow process. He claims that this process has some advantages over the Barrow process. Semi-transparent paper, glassine, is used in place of the cellulose acetate foil. The components are stuck together with an aqueous adhesive such as carboxymethylcellulose or starch paste subsequently consolidated by pressure between heated surfaces. Langwell claims that the “Sundex” process is safer because the temperature required in bonding together the components is below that of boiling water. Second, delamination is achieved rapidly by soaking in water, without apparent damage to the document. Third, “this method produces a sandwich which is mechanically, and chemically more homogeneous than a ‘Barrow’ sandwich and consequently less liable to unbalanced stresses due to changes in moisture content and temperature of the atmosphere.”

The chief disadvantages of both processes is that no provision is made for

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28 Hummel, op. cit., p.262.
deacidification prior to lamination and that the document in question might be rendered more brittle by the application of heat.

Barrow refined the conventional method of laminating with film only. He added, to each side of the sandwich, strong well-purified tissue, in order to give the laminate added strength and permanence. He suggested that binding margins, composed of tissue or thin paper, be incorporated along the inner margins of restored leaves of books in order to decrease the flexing and wear of restored leaves. Missing portions of leaves and worm holes could be filled in with tissue in order to give an even structural balance to the sheet. Deacidification of the document to be restored was later suggested as a prerequisite to lamination. Two effective methods of deacidification recommended by Barrow are soaking the sheet either in a solution of calcium hydroxide followed by a solution of calcium bicarbonate, or in a solution of magnesium bicarbonate. The end product provides excellent permanence and gives added strength to the document without impairing legibility. Other satisfactory features of this process are:

1. The heat used in the application of laminae kills most micro-organisms;
2. The acidity which is neutralized is not apt to become active again;
3. The restored sheets are not difficult to use or store and can, with the addition of binding margins of tissue or good quality paper, be bound up in volumes;
4. The document or leaf can be delaminated. The experience of libraries points to the fact that this process gives assurance of moderate use of restored documents over a long period of time.33

Langwell suggests the use of inhibitors in conjunction with the Sundex process in order to make provision for deacidification prior to lamination. These inhibitors would be applied to the paper in a similar fashion as those applied in the “Barrow” process except that only one bath would be needed. Inhibitors can be used together with gelatine where an improvement in both chemical and mechanical properties of paper is desirable. He states: “The use of inhibitors is too recent to gauge their effectiveness under practical conditions of archival storage. The process has, however, a sound theoretical and experimental basis and unlike the alkali impregnation, remains effective so long as the inhibitor remains in the paper. Leather has been treated in a similar way for long enough to inspire confidence in its effectiveness and there seems to be no doubt that it will be equally effective for paper.”34

It would be of value at this point to indicate that conservators are making every effort to discover more facts about the composition of deteriorated papers. They are developing new materials for the preservation of materials and are also experimenting with new restorative processes. Langwell, for instance, is experimenting with vapor-phase deacidification (V.P.D.) of books and documents. He has found the performance of cyclohexylamine carbonate (CHC) particularly promising.35 This method may prove to be a solution to the problem of deacidification of documents containing water-soluble inks. Barrow is experimenting with print transfer.36

Foremost among the new laminating

34 Langwell, op. cit., p.24-25.
36 Hummel, op. cit., p.266.
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films being experimented with are the following:

1. **Myla.** This film is flexible and has a “high edge-tear strength.” It is not heat sealable, however, and must be used with an adhesive or combined with other films. The stability of the adhesive used must be taken into consideration if myla is to be used as a laminating film.

2. **Polyethylene.** This film is heat sealable but is difficult to delaminate. It may prove useful for materials that it will never be necessary to delaminate, but not for historical documents.

3. **Myla and Polyethylene.** This combination would produce a film that is flexible, strong, yet heat sealable.

4. **Postlip duplex laminating tissue.** This tissue consists of tissue paper impregnated with polyvinyl acetate and magnesium acetate as an acid acceptor. It was developed by W. H. Langwell with the hope that the film can laminate and deacidify at the same time. Gear states: “... no data have been compiled to show the stability of the polyvinyl acetate and it is questionable whether deacidification by this method is completely effective.”37

Microfilming is not a restorative process. It can conserve the contents of the material but not the physical document which may have importance to the bibliographer or paleographer who is not interested in the contents of the material per se. It should therefore be used as a last resort for conservation purposes.

In conclusion, the conservator who considers his job completed with the restorative process he applies to the document in question, is remiss in his duties. The durability given to the document by the restorative process will come to naught if the librarian does not store the restored documents in suitable storage conditions, i.e., away from contaminated papers and atmosphere, excessive heat, uncontrolled humidity, and harmful light.

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Laos and Library Development

Libraries are not yet viewed by the government of Laos as essential for national development, yet some emerging growth factors may be observed. There have been at least three recent proposals made for Lao library enhancement, but thus far necessary funding has not been forthcoming as a result. Most of the library service presently available in the nation is rendered by foreign agencies. This situation will have to change.

Libraries are not always a good thing. In developing countries, for example, libraries are often unorganized, unused, and poorly staffed and may easily be misinterpreted by the local government as a waste of time and not worthy of further thought or investment. For this reason libraries in developing nations sometimes cripple their own further development. The immediate bibliothecal future of such nations therefore often lies not in the establishment of large libraries (although these will ultimately be needed), but rather in the development of small, useful, well-run collections of books which will stimulate the desire of the populace to want more. When this occurs, the public will demand library development on their own terms for their own resources; i.e., libraries will develop.

In Laos today, a key factor for proper library development is lacking; i.e., the interest and support of the Royal Lao Government. There have been three library programs proposed in the past decade, but no one of them has as yet come to the active attention of the government.

The first, written in 1958 by Tay Keolouangkhot and Thao Kéne was called "National Library and Museum System in Laos." In it the authors pointed out the need for a national library, describing it in the following terms:

It will be a depository of essential cultural values, of original documents, of historical and geographical studies, and it will provide our national archive. The National Library will also serve as a centre of cultural life and scientific research. The lack of such an institution has handicapped serious scholarly research in Laos into artistic, historical and geographical, economic, and literary problems.

The establishment of a National Library for Laos will be a sign of its nationhood and a witness to its independence; and it will proclaim the respect of Laos for moral and intellectual values.

The second proposal, which is currently before UNESCO for approval, is George Chartrand's "UNESCO Report on Library Development in Laos." In addition to stating the need for a depository law, trained librarians, planning, funds, and new facilities, Mr. Chartrand proposed the establishment of a "Bureau des Bibliothèques du Laos" which would be expected to:

1. Publicize the importance of libraries and reading, particularly to school teachers.
2. Plan the organization of school libraries, taking into account the urgent

Mr. Marcus is a library consultant with the Asia Foundation in Laos.
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needs of the less-favored areas of Laos.
4. Receive book gifts from various donors and distribute them intelligently.
5. Organize and centralize all technical services before distributing books.
7. Build a librarian’s library with primary emphasis on bibliographies for children and for other specialized groups of readers.

The third proposal, drafted by a member of the International Voluntary Services, calls for Royal Lao Government approval and sponsorship of a Library Development Team (LDT). The LDT would help organize libraries requesting assistance, create the materials necessary to run these libraries, and set standards for good library practice. Foreign advisors would work with Lao counterparts appointed and paid by the RLG. It is to be hoped that the example set by the LDT would help stimulate the desire to establish a permanent bureau of libraries in the RLG.

In order to evaluate these proposals, it is necessary to know something about the country of Laos and its libraries. If the statistics about Laos are compared with similar figures for Oregon, the meaning of a developing library system will be clear. Both Laos and Oregon have a population of about two million people widely distributed over more than ninety thousand square miles of land. Both have rich timber resources. Laos, however, cannot market its timber or other resources effectively because it is a landlocked country lacking roads.

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railroads or navigable rivers, and because of the current armed conflict between rival native factions. As a result, Laos in 1965 had a national income of $22 million whereas Oregon earned more than $5.3 billion. It is not surprising that Laos spent only $10,588 last year for its national archives, museum, and literary committee, whereas Oregon spent $1,849,660 for the Portland public library alone. The Lao National Archives has a cataloged collection of 840 books of which 55 are circulating annually, whereas the Portland public library has a collection of 896,917 volumes of which 3,504,963 circulated in 1965. The number of readers in Laos is much smaller than the number in Oregon, in part because of educational differences. There were only 7,279 Lao students in the sixth grade last year compared to Oregon’s 37,061, and only 290 Lao students in the twelfth grade compared with 31,127 in Oregon.

It is clear from these general statistics that rapid development of all kinds is needed in Laos. Yet the nation lacks resources, and among its greatest needs is some kind of library service. To see how Laos is helping itself in this respect, let us take a closer look at its libraries.

Laos has nineteen independent libraries and an undetermined number of bookshelves. Ten of the libraries are under Lao jurisdiction; the other nine are run by foreign missions. This paper will focus upon the ten Lao libraries.

Libraries in Laos are small; not a single collection exceeds ten thousand volumes in size. Three different libraries are called the “National Library,” but in fact none of them does the job of a national library. The National Archives does not collect Lao materials and it loans its books out. The National Museum has a large collection of old Pali and Sanskrit books, but it treats them as items without monetary or intellectual value. Thao Kéné has written of the latter, “The building is well suited for a museum, but its plan has none of the desirable features of a library.” The National Library, also called the Rockefeller library, circulates only French books and does not have any material about Laos.

Together, the nineteen libraries contain a total of 63,418 volumes. The ten Lao libraries house 58 per cent of these books, but only account for 25 per cent of the nation’s total book circulation. The other 42 per cent of the books are circulated by the foreign libraries and account for 75 per cent of all circulation. Although the foreign libraries may have set many good examples, most Lao librarians have never visited them, nor indeed have they ever seen a library anywhere. The accompanying Table 1 summarizes data on all libraries in Laos.

At first it may seem strange that only 2.2 per cent of the books in Lao libraries are in the national language, but the Lao has never had a distinguished literary history, there being 134 Lao books in print. If Laos wishes to increase its library resources, it must turn to foreign languages, and the most logical second language is Thai. There is an abundance of Thai publishing, and Thai books have the same religious and cultural elements which are present in Laos; furthermore most people who are literate in Lao can read Thai also.

Lao libraries circulate few books. This presents a major problem because circulation is often the basis upon which a library attempts to justify its existence. To increase book circulation in the schools, library use must be integrated into the school curricula. This is being done at the American School in Vientiane, and its circulation is notably higher than those of other Lao libraries. To increase circulation in general, however, libraries need more books of quality. USIS has circulated almost as many English books as French books, yet many more people understand French because it is the language of instruction from the fourth grade on. Together, the American
School and USIS circulated about 60 per cent of all books in Laos in 1966. In addition to their unbalanced language holdings and their low circulation of books, libraries in Laos are plagued with a host of other problems. They are unorganized, poorly staffed, confused about their function, and lacking funds. Organization is chaotic and unstandardized. Four Lao libraries organize the books on their shelves according to Dewey, one according to its own subject classification, two by accession number, and three with no organization whatsoever. The two libraries with accession arrangements have subject card catalogs, but there are no double entries or cross references. None of the other libraries has a subject catalog, but all libraries in the country can boast of having the ubiquitous and useless accession lists. Card catalogs are about to come into use; the National Archives has purchased two hundred catalog drawers and is now ordering cards.

When Laos decides to organize its libraries, it will have a relatively simple task. The eighth edition of Dewey has already been translated into Thai, and the Ecole Supérieure de Pédagogie has translated the second summary of Dewey into Lao and French. The relative index to Dewey can be used instead of a subject card catalog, since libraries need subject indexing but do not have the staff to use Sears, which is not available in Thai. There needs to be a program to teach the use of Dewey both to the staff and to library patrons. Some basic materials have been developed in Lao, but more are needed. On the use of Dewey, the Americans, French, and British are in agreement since all of their information services now use it. Nothing will really be accomplished, however, until the Lao themselves adopt this system. The Lao will also wish someday to form a library association; this could help standardize the use of Dewey, produce needed materials and guides, and give advice to libraries and help train librarians.

Staffing of libraries is a real problem. Most libraries are run by one person whose main function is to circulate and shelve books. No one has been trained to administer, to do technical services, or to provide reference service in a library. Present library staff time is frequently being wasted upon clerical and secretarial tasks which have nothing to do with the library at all, but which are imposed by their parent organizations.

Lao libraries are often confused about their functions. In schools, the function of a library is usually seen as a textbook dispensary and a study hall; it has not yet come to be viewed as a rich variety of supplementary material which is of potential use in the curriculum. In the National Archives, the function is being confused with that of a public library and a museum; there is no library in Laos which has the archival function of collecting all books in the Lao language and about the nation of Laos, and preserving them by never loaning them out. Lao libraries are still young, but the longer the RLG waits to give them direction, the more firmly entrenched in poor library habits they will be, and the more costly they will be to change.

Libraries, however, do cost money to establish, to maintain, and to develop. Few Lao libraries have budgets, and even more rarely is the budget in the hands of the librarian. The UNESCO surveyor mentioned above prepared in detail a program of library development for Laos which, if approved, would cost the Royal Lao Government a total of $560,000 over the next ten years. It is for the RLG alone to decide whether it can support and profit from library development in Laos.

At the present time, there are several foreign library projects in Laos. U.S. AID, Education Division, has sent an IVS advisor to improve the libraries at the Ecole Supérieure de Pédagogie and
at other teacher training schools. U.S.AID, Rural Development Division, has begun a program of supplying a shelf of books in Lao to the clusters—"clusters" are administrative groupings of villages. An IVS Rural Development volunteer has also started a small public library in Vang Vieng. Both USIS and the Asia Foundation have given some books to libraries requesting them. Such foreign efforts are fine in themselves, but as a stimulus to Lao library development they are of little value because the RLG has not yet supported them. Libraries in Laos are not always a good thing, but they could, as in more fully developed nations, fulfill an important function if they were given professional guidance and governmental support.
“Library automation” is symptomatic of a radically changing civilization in which operationalism is displacing logical thinking. Library operations are being reformulated as systems of process rather than of functions. One of the consequences is that the profession of librarianship is being redefined. The “systems analyst” is taking a permanent place in the library world in a relationship to “the librarian” which is unique.

The Dean of a major library school recently stated privately that the graduate of the school of information science of Georgia Institute of Technology was, in effect, neither fish nor fowl, and really had no clear place in the library profession nor in the library world. At that moment I knew that there were a number of libraries that “would have given their eye teeth” to have had the graduate of such a curriculum on their staffs. More recently, the director of a university library stated to me that the innovations of library automators and systems analysts would prove to be permanently valuable contributions to library science and practice, but that they themselves would pass from the scene as did the efficiency experts and labor-savers of previous decades.

The responses described above, it seems to me, are partially grounded in truth, but on the whole really fail to grasp the radical significance of what is happening to the profession of librarianship. The purpose of this paper is to explore the phenomenon of the impact upon librarianship of the logical positivistic operationalism which is rapidly accelerating its transformation and domination of our advanced industrialized civilization as a whole.

During the last ten years there have been a great many attempts to “automate” library functions in toto, or in part. As a rule these experiments have varied by whatever measures of success are available, from being not practical to catastrophic, for the libraries concerned.

In a few instances, as for example, in the case of the creation of book catalogs for public libraries with widely scattered facilities, or in cases where administrative or business data have been controlled more effectively by the use of machines, the results can be considered successful. In the main, however, what has emerged most significantly from these attempts is the realization that librarians have not had a tradition of reflective thinking about, or conscious theorizing on, the procedures that they have evolved, and that they really do not understand them well enough (in an operational sense, which will be elaborated upon later) to be able to explain their meanings and interrelationships. On the other hand, it has become clear that librarians have conceptualized library functions in reasonable and even logical formulations.

It would seem, then, that the preceding statements are contradictory, for if
library functions are relatively well formulated logically, then one might expect that they should be well understood operationally.

The traditional organization of libraries has been along functional lines. The first and second definitions of the word function, according to Webster’s Seventh New Collegiate Dictionary, are: “1. professional or official position: occupation. 2. the action for which a person or thing is specially fitted or used or for which a thing exists.” The emphasis is on person, and secondly upon special aptitudes, and ultimately on things, presumably including machines. Library functions are those classes of actions which are common to categories of individual persons with recognizably similar interests and capabilities. Functions are abstractions which have been formalized from the observed patterns of the behavior of people.

Acquisitions, cataloging, and reference are functions which have been isolated and logically organized to carry out the social and historical missions of libraries in civilization, and these formulations have, in the main, been quite successful.

The logic and reason of functional organization are the same logic and reason of the Aristotelian tradition, which refer to the limited set of valid operations allowable for manipulating the thought forms of the human mind, which delightfully, occasionally are found to represent the “objective forms” in the world which order the Cosmos. In the context of this paper, an operational definition would be one such as exists within physics, say, for “work” which is operationally defined by a formula relating to the transference of energy when a specific force is applied over a specific distance. Prior to the formulation of this definition, everyone knew perfectly well what “work” was logically, but such a logical notion was useless for discussing steam engines.

In our highly industrialized civilization, as is pointed out by Herbert Marcuse, logic and reason are progressively being supplanted by operationalism which not only invalidates the former as irrelevant, but is making it progressively less possible to think or even talk logically. Operationalism is the validation of only those acts or manipulations of which machines are capable. Machines do not have broadly integrated patterns of special capabilities as humans do; rather, they have very restricted capabilities of highly generalized manipulative patterns. Machines are not functional creatures; they are manipulative and adapted to dealing with repetitive processes of narrow scope which may be common to a number of the traditional functional units, but which may be useful at only a small abstract level of, for example, the cataloging function.

The implications for libraries are clear. If machines are to be used to their fullest potential in library operations, these operations must be reformulated in terms of interrelated processes. The traditional functional formulations, which had been grounded in the concept of human personality, must be displaced by the professional formulations grounded in the concept of machine capabilities. It is obvious then, that if this is done, the very character of the persons to be integrated in such systems must be compatible with them; library administration must become scientific management. This means a redefinition of the concept, “librarian,” to which I will return later in this paper.

At this point it might be well to speculate very briefly upon the radically revolutionary consequences which must follow from the utilization of computers in libraries. When Henry Ford put his automobile on the assembly line, he initiated a process which necessarily was to lead to freeways, the proliferation of private homes in sunny suburbia, gasoline sta-
tions and promotion of the petroleum industry, used-car lots, and many other well-known economic and social phenomena. The limited use of computers in libraries has already shown us that we must have large communications networks, standardized procedures among libraries, new ways of organizing materials, new concepts, new languages (formal, natural, and machine), and new modes of thought which must be operational rather than logical. This radical revolution is generalized in our civilization, and its encroachment into the area of librarianship must be regarded as evidence of its universal pervasiveness into every aspect and corner of civilization, not as a phenomenon unique to libraries.

The structural organization of libraries is no longer to be man-centered; it is to be machine-centered. Logic and reason, which were the ideational forms appropriate to a man-centered organization, must be exchanged for operational definitions and formulations appropriate to the machine-centered organization. Library operations must be reformulated into systems of operationally defined processes. Man must be inserted into such systems where he fits most effectively.

One more point should be considered relative to the "dehumanization" of library operations. In the past, it was the humanizing of library services which was so desirable, particularly in the domain of public services. It was felt, and rightly so in a time when humans were relatively scarce, that personal contact and confrontation and dialogue were to be greatly prized in providing personalized service to the patron. Today it has been demonstrated (probably most effectively by the supermarket) that personalized contact may be "dehumanizing" in effect, particularly in congested urban centers where people are thrown together too much all during the day and night anyway, and where privacy has become the privilege of only the very wealthy. In such areas, including the "mega-versity," it is more humane for the patron to interface with the system in a depersonalized way: signs instead of information clerks, recorded messages and teaching machines instead of overwrought librarians at crowded information desks, computer consoles instead of reference librarians. With the population explosion assured, library service may well have to "dehumanize" in order to become human as well as humane.

Now, to return to the central question as to the implications of this for the library profession. First, since operationalism is rapidly transforming the entire civilization, libraries need to face more squarely the changes in format that are available for the preservation and propagation of information. Second, libraries must be prepared to standardize their processes more uniformly on the one hand, while accepting the practical innovations in uniformity that are being imposed by the same historical processes, on the publishing world and professional societies which disseminate and organize information. Third, libraries need to define their roles in society much more minutely, operationally defining their missions, clientele, appropriate formats, and answers to related questions.

In the main, the realities numerated above are and will be studied and adapted to by men and women who are capable of or accustomed to thinking in terms of large self-consistent systems which consist of necessary processes (which strictly defined philosophically, is nothing more than the definition for reason itself). Operationalism is as reasonable as functionalism provided that it is accepted that the metaphysical ground, or ultimate nature of historical and social reality itself, has changed. Still, operational thought is not necessarily logical thought, and this is the crux of the matter for the profession of librarianship, the rationale for the entrance of the
systems analyst (or information scientist) into the field. Since processes and systems are constantly evolving, changing, re-adjusting, it appears that the systems analyst is not encroaching on an area which has no place for him; on the contrary, he is urgently needed, and late in coming. Neither is he likely to vanish after he has finished his work, because his work will never be finished.

The concept "librarian" is too generic; it is time that the ALA, SLA, MLA, ADI, and other interested organizations form a committee to define operationally the different classes and levels of generalization as well as specialization within the over-all concept, and invent new names (from Greek roots?) which the profession should strictly apply, as the medical profession has done with regard to its specialties. Each specialty should be related to a very definite educational curriculum. Prominent among the specialists included in the field (possibly more generic terms should be used to define what the field really is: Librarianship? Documentation? Information Science?) should be the systems analyst who certainly will be with us, even unto the end of the world.

If it is true that he will be with us, then the question arises as to his probable ultimate role within the organization. If all libraries are to be defined as systems of processes, then it would seem that the systems analyst should have final executive control over the entire operation. Upon second view, however, it is evident that complex, operationally-defined systems are extremely formal systems, and as such, are abstractions within the world historical process which is characterized by untold numbers of interrelating variables. The tight, operationally defined system can tolerate only the slightest variations in any of its subprocesses before it will fail. This means that such a system always presupposes another system outside of itself, and outside of its own system of "logic," which will create and maintain the environment and other conditions necessary for it to function within the historical process. This mediating system is nothing else than the administrative system which obtains and controls power and finance. Power and money, as is well known, are not generally dispensed by machine logic, but by the logic of the practical world, which is another story.

While it is true that the systems analyst will have great authority in the operation and control of the library systems of the future, and while it is very likely true that the librarian of the future will be well versed in mathematics, logic, and epistemology, it does not follow that the competent, resourceful, generalist librarian will necessarily be superseded by "machine-men."
Academic Library Statistics Revisited

Claims are made that the latest (Library Statistics of Colleges and Universities, 1965-66: Institutional Data) report on national academic library statistics contains "great" and "frequent" errors. Numerous examples are given. Excessive use of individual reports which are rendered almost useless by qualifying footnotes and disregard of what was asked for is noted. Since these national figures are used for many significant purposes (such as replies to Congressional inquiries), it is urged that ACRL once more take up the task of compiling them.

In November 1964 CRL published an article concerning academic library statistics which was intended as a one-time study of "certain imperfections and misleading inclusions and omissions that deserve some attention and analysis." The recent publication of Library Statistics of Colleges and Universities, 1965-66: Institutional Data compels a return to what were, in 1964, believed to be strictures which would not need repeating as soon as three years later—particularly in light of the aegis under which this newest study was issued, as "Compiled by the Library Administration Division of the American Library Association."

It appears, however, that whether the federal government or the American Library Association prepares college and university statistics, the pitfalls of these publications are so great and likely errors so frequent that the profession might be better off without any so-called "national" cumulation of figures at all. No lengthy research is necessary to support this point.

The earlier article particularly emphasized the "rather odd figures" given for "volumes" and for "volumes added," especially in relation to expenditures indicated for "books and other library materials." If 1962-63 was considered "rather odd" in this report, then 1965-66 was, to say the least, weird.

Item: a library with 59,000 volumes at the end of 1963-64 reports holding well over 100,000 volumes as of July 1, 1966, despite adding only a few more than 2,500 volumes during 1965-66. This would, of course, mean that during 1964-65 this same library had to have added about 40,000 volumes!

Item: another academic library, with somewhat more than 90,000 volumes as of 1963-64, records nearly 184,000 as of 1965-66.

Item: a third, with slightly more than 350,000 volumes in 1963-64 and "volumes added" that year of a little more than 19,000 suddenly becomes "big-time," with nearly 550,000 volumes in 1965-66, despite the fact that they indicate fewer than 35,000 volumes added in the same year. One must assume that this institution had around 515,000 in 1964-65 having added the prodigious figure of 160,000 (almost 50 per cent!) during the year.

Or do these, and many similar comparative figures, reflect not errors in reporting, but rather (what could be inter-

---

testing) the fact that since 1963-64 there have been substantial changes in the definition of a volume. An examination of definitions, however, indicate that there has been no such change. For 1963-64 a volume is defined as "A physical unit of any printed, typewritten, handwritten, mimeographed or processed work contained in one binding or portfolio, hardbound or paperbound, which has been classified, cataloged, or otherwise prepared for use. The term includes bound periodical volumes and all non-periodical government documents. All forms of microtext are excluded."

In the 1967 report is found the following definition: "Volume. A physical unit of any printed, typewritten, handwritten, mimeographed or processed work contained in one binding or portfolio, or otherwise prepared for use. The term includes bound periodicals [sic] volumes and all non-periodical government documents. All forms of microtext are excluded." This does not look like a very substantial change. Actually, the only difference between the two definitions is the omission of the words "hardbound or paperbound, which has been classified, cataloged. . . ." Thus, there seems to be no evidence of justification for "errors" by change in definition of the disputed term "volume."

Can such variations in reporting be explained in another way? In a preface to the 1967 volume, Theodore Samore says: "The substantial number of incomplete forms necessitated the application of valid editing procedures to retrieve data which would have otherwise been unavailable. Hence, the considerable increase in the number of footnotes, especially those marked 'estimated.'" Since the matter of "estimated" figures is supposedly taken care of by Mr. Samore's explanation, let us look over the actual use of "estimated" figures.

As was pointed out in the 1964 article, the use of rounded-off figures is a fairly clear indication of the use of estimation, rather than actual physical or bibliographical count to determine results. The 1965-66 records show use of "estimated" as a footnote (on the matter of volume count) twenty-three times; yet thirty-five other academic institutions show "000" at the end of their volume figures, without stating that their figures are estimated.

The figures for "number of volumes added during year" present a similar picture. Of the 1,891 institutions which gave "volumes added" figures, only six footnoted their figures as "estimated," yet fifty-eight other college and university libraries used rounded-off figures.

Despite the explicit instructions in the questionnaire which was the basis of this report, no fewer than nine did include some type of microtext as part of the figures reported under "number of volumes at end of year," of whom three included microtexts added under "number of volumes added during year." Although of all government document holdings only non-periodical government documents were to be counted as volumes in this survey, one university library "excludes unbound government documents," one college library "excludes US and UN documents," and one university library "excludes non-periodical government documents." Surely these figures should have been omitted, rather than being counted with an explanatory footnote added, if the totals based on them are supposed to be reliable guides to current trends or situations in academic library resources.

The data concerning microtext holdings in this report are also interesting.
The questionnaire gave this definition of microform: "Microform. This includes the form of any library material which has been photographically reduced in size for storage and reproduction purposes, and which must be read with the help of enlarging instruments. The term is synonymous with microtext and includes microfilm, microcard, and microfiche." Column 10 of Table 1 of the 1965-66 report calls for "number of physical units of microform at end of year." Of the respondents, forty-one gave "estimated" figures; three gave "bibliographical count only" (although physical units were specifically asked for); one gave "volume count only"; one gave "microfilm only" (which probably means that their microform holdings of documents and manuscripts were not reported, but one cannot be sure). And, finally, on this matter, one indicated that it had so many physical units of microform, and so many volumes, but footnoted "data for microform included . . . volumes." It might be asked why this library did not simply subtract one figure from the other and report that total as was asked for, or why the editor did not do it for them?

One must admire the candor of one small church-supported college which reported, "All figures are estimates." Included were such data as the total number of students, the size of the library, the total budget, the number of staff, and even the beginning salary of a library school graduate (fifth year degree without experience). Somehow, however, the mind boggles at any academic librarian "estimating" how many students are registered in his institution or how many individuals are on the library staff.

The earlier study of statistics referred to the "wonderland of academic statistics," and said that "the further one goes . . . , the 'curioser and curiouser' they get." What has been printed in the 1967 report leads one to repeat the comment. When one correlates replies printed under "number of volumes added during year" with the amounts reported as expenditures for "books and other library materials," one runs upon an additional number of unusual figures.

Taking up Table 2, "Operating Expenditures, Personnel, and Beginning Salary . . ." one finds some intriguing footnotes. Under "Wages," for example, twenty-eight give "estimated" figures, four state that their reports exclude "funds from Federal Work-Study Program," six say "student assistants only," and one indicates his figures "include all employees paid on an hourly basis." How this latter differs from other reports on "Wages" (since the questionnaire said, "Amounts (including monetary estimates for contributed services) paid to students and to others paid on an hourly basis are listed under 'wages,'") is difficult to understand.

One of the more unusual presentations in Table 2 comes up where total operating expenditures in dollars are asked for. One institution lists a particular specific amount under "total" and then footnotes it as "estimated." Yet none of the other figures for this institution—salaries, cost of library material, binding, or "other"—are marked "estimated." The total of the four figures given is about 3 per cent above the total given as "estimated!"

Surely the above examples of irresponsible and confused reporting bear out the charges at the beginning of this article. If further evidence is required, one need only look at Table B7 in the 1965-66 report. The figures for the total number of volumes at the end of the year for the academic library reporting say, most ingenuously "(includes microtext)." Yet the questionnaires on which this table is based exclude all forms of

*ALA, op. cit., p. 3.
*Oboler, op. cit., p. 494.
microtext in asking for “number of volumes at end of year,” “number of volumes added during year,” and “number of volumes withdrawn during year.”

The same Table B is footnoted to indicate that all figures for 1966 (that is to say, 1965-66) are “estimated.” The previous comments in this article on the values of estimation should be noted again, especially when one realizes that official statements on the state of American academic libraries now are usually based on this olla podrida of invalid and unreliable statistics. The figures given for “number of periodicals received” are footnoted. “For 1965-66, the figures are for Serials which includes periodicals, annuals, proceedings, transactions, etc.”

Then why even give 1965-66 figures, since they are based on such hollow shells of fact as are indicated throughout this article, obviously incapable of any meaningful comparison with past data?

In sum, the statistics picture for academic libraries in the United States is at least cloudy, if not psychedelic. Perhaps the task should be returned to the Association of College and Research Libraries, which seemed to do a pretty fair job for a great many years, before the computers, the federal government, and the Library Administration Division took over.

In at least one man’s judgment, bad—even misleading—statistics are worse than no statistics at all.
Seating Achievement in Larger University Libraries

A questionnaire was sent to the thirty-six largest university libraries in the country inquiring as to their current ability to seat their students. Thirty-two replied. They indicate that the larger libraries, as well as those in private universities, were generally able to seat larger proportions of their students than were smaller libraries and those in state institutions. Plans indicate that these averages will be considerably improved by the year 1970.

The standards for seating in academic libraries are generally well known. The most familiar of these, developed by the Association of College and Research Libraries, recommends reader stations for at least one-third of the student body in colleges and universities granting the bachelor’s and master’s degrees.

There is a dearth of inclusive and current information, however, with respect to actual percentages of library seating maintained among types of academic institutions, although such information would be extremely helpful for planning purposes. The most recent general statistics available are for 1957 and provide seating ratios derived from reports from institutions in the United States representing 95.7 per cent of the enrollment in higher education. These reports showed average seating percentages for the fall 1957 enrollment to be as indicated in Table 1.¹

It is apparent from these figures that, as of ten years ago, academic libraries in every category fell considerably short, on the average, of meeting generally recognized standards of seating. Whether the over-all average has improved in the last ten years is difficult to determine in the absence of adequate statistical evidence, but the impression of many observers has been that the trend is in the direction of providing reading stations for an increasingly larger proportion of the student population.

Certainly the greatly augmented expenditures on academic library buildings in the last few years would lend strength to that belief. In 1957, for example, only $20,800,000 was spent on new library construction and rehabilitation projects.

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## TABLE 2. Seating Statistics for Larger University Libraries

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* Arranged by size of book collection.

** Central Building.

* 25 square feet currently provided.

* Includes students in Master’s programs.

* 25 per cent standard for doctoral students in areas with high laboratory research demands; 60 per cent standard for doctoral students in areas with low laboratory research demands.

* 10 per cent standard for faculty with high laboratory research demands; 50 per cent standard for faculty with low laboratory research demands.

* Does not take into account student readers from affiliated institutions such as Barnard and Teachers College.

* Does not include off-campus libraries.

* No official standard. Minimum desirable is 25 per cent average. For science students, 15 per cent; for humanities and social science students, 33 per cent.

* No official standard. Minimum desirable is 50 per cent average. For science students, 50 per cent; for graduate students in humanities and social sciences would like to provide 100 per cent for those engaged in writing dissertations, 33 per cent for others.

* No official standard. Modest standard might be 16 per cent in humanities and social sciences, 4 per cent in sciences.

* Includes allowance for aisles.

* Law students and Law Library excluded in all figures.

* No specified standard, but 25 square feet is commonly used in planning.

* Minneapolis and St. Paul campus only.

* In closed one-station carrels.

* Bloomington campus only.

* Estimated.

* For humanities, 30 per cent; for sciences, 33 per cent; for social sciences, 38 per cent.

* For sciences 25-30 per cent; for humanities and social sciences, 45-60 per cent.

* For sciences, 10 per cent; for sciences, 50 per cent; for humanities, 55 per cent.

* Includes Law and Medicine. The Law Library provides seats for 100 per cent of law students and faculty.

The Medical Center Library now being planned will seat 100 per cent of its students and most of the faculty.

* Applies to General Library. More space will be allowed in Medical Center and Law Libraries.
TABLE 2 (Continued)

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<td>100</td>
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* Humanities and social sciences only.
* Washington Square only.
* Ratio expected in 1975 is 35.0.
** Norman campus only.

by all academic institutions. By 1962, the amount spent had risen to $58,700,000. This increased to $79,000,000 spent in 1963 and to $90,000,000 spent in 1964. But the most impressive advances occurred in 1965 and 1966 when expenditures for academic library construction soared to an average of over $288,000,000 per year—almost fourteen times the $20,800,000 expenditures in 1957. It would be logical to assume that allocations of these proportions, representing the significant impact of the Higher Education Facilities Act, should eventually have a favorable effect on library seating achievement in spite of increases in enrollment and the factor of inflation.

In order to determine the extent of library seating currently provided or expected in the near future in larger university libraries, the University of Illinois library recently queried the thirty-six university libraries in the United States with book collections of one million or more volumes. The questions covered not only seating ratios but square-foot allowances per reading station. Since

the column headings in the accompanying tabulation (Table 2) are necessarily brief, the survey questionnaire is given below for purposes of clarification if needed.

**QUESTIONNAIRE**

1. Total number of seats now provided
2. Percentage of student body for which seats are now provided
3. Additional number of seats expected by 1970
4. Percentage of student body for which seats are planned by 1970
5. Percentage figure used as a standard for undergraduate seating
6. Percentage figure used as a standard for graduate seating
7. Percentage figure used as a standard for faculty seating
8. Square feet per reading station allowed for undergraduates
9. Square feet per reading station allowed for graduates
10. Square feet per reading station allowed for faculty

Thirty-two replies were received, and the results are presented in the accompanying tables 2, 3, and 4. These show that the median seating ratio for the university libraries in this survey is somewhat above the average for all university libraries as reported in the fall 1957 figures. However, those libraries with collections of over two million volumes show a markedly higher median. This seems to result chiefly from the preponderance in that group of private university libraries (seven out of eleven) which have attained higher than average seating ratios, while those libraries with holdings of between one and two million volumes are preponderantly libraries of public universities (fifteen out of twenty-one) which show lower than average seating accomplishment.

The lower seating performance of the public university libraries in this survey is undoubtedly related to the substantially greater enrollment increases absorbed by those institutions in the last decade in comparison with enrollment increases in the private universities. Average full-time enrollment of the public universities in this survey is now 23,648 as opposed to 9,421 for the private universities, and the relative increase in the last decade has been 67 per cent for the public universities as opposed to 22 per cent for the private universities. On the other hand, the seating needs of the greater numbers of graduate students, proportionately, in the private universities tend to elevate somewhat the seating ratio of the private university libraries, although this factor would be a minor one in assessing the overall difference in performance between types of libraries.

### TABLE 3. SEATING PERFORMANCE BY TYPE OF LIBRARY

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</thead>
<tbody>
<tr>
<td>Libraries over a million volumes</td>
<td>16.0(^a)</td>
<td>25.0(^b)</td>
<td>6.0-62.0</td>
<td>10.0-73.0</td>
<td>73.8(^g)</td>
</tr>
<tr>
<td>Libraries over two million volumes</td>
<td>25.0(^b)</td>
<td>30.0(^c)</td>
<td>12.3-62.0</td>
<td>15.0-73.0</td>
<td>49.3(^g)</td>
</tr>
<tr>
<td>Libraries between one and two million volumes</td>
<td>15.5(^c)</td>
<td>22.4(^d)</td>
<td>6.0-27.0</td>
<td>10.0-54.0</td>
<td>94.5(^e)</td>
</tr>
<tr>
<td>Private university libraries</td>
<td>27.0(^e)</td>
<td>37.0(^f)</td>
<td>6.0-62.0</td>
<td>27.5-73.0</td>
<td>56.3(^g)</td>
</tr>
<tr>
<td>Public university libraries</td>
<td>14.0(^i)</td>
<td>20.4(^i)</td>
<td>7.0-21.0</td>
<td>10.0-28.5</td>
<td>85.1(^i)</td>
</tr>
</tbody>
</table>

\(^a\) Based on 32 replies from 36 libraries in this category. \(^b\) Based on 18 replies from 24 libraries in this category.
TABLE 4. Seating Standards by Type of Library

<table>
<thead>
<tr>
<th>Libraries over a million volumes</th>
<th>Standard Seating Ratio for Undergraduates</th>
<th>Standard Seating Ratio for Graduates</th>
<th>Standard Seating Ratio for Faculty</th>
<th>Square Foot Allowance for Undergraduates</th>
<th>Square Foot Allowance for Graduates</th>
<th>Square Foot Allowance for Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Libraries over two million volumes</td>
<td>27.0&lt;sup&gt;a&lt;/sup&gt;</td>
<td>40.0&lt;sup&gt;a&lt;/sup&gt;</td>
<td>22.6&lt;sup&gt;b&lt;/sup&gt;</td>
<td>27.2&lt;sup&gt;c&lt;/sup&gt;</td>
<td>30.3&lt;sup&gt;c&lt;/sup&gt;</td>
<td>56&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Libraries between one and two million volumes</td>
<td>28.0&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td>26.5&lt;sup&gt;f&lt;/sup&gt;</td>
<td>41.6&lt;sup&gt;f&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private university libraries</td>
<td>26.5&lt;sup&gt;f&lt;/sup&gt;</td>
<td></td>
<td>34.0&lt;sup&gt;e&lt;/sup&gt;</td>
<td>53.4&lt;sup&gt;g&lt;/sup&gt;</td>
<td></td>
<td></td>
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<tr>
<td>Public universities libraries</td>
<td>24.3&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td>22.6&lt;sup&gt;b&lt;/sup&gt;</td>
<td>56&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Average based on 19 replies from 36 libraries in this category.

<sup>b</sup> Average based on 12 replies from 36 libraries in this category.

<sup>c</sup> Average based on 4 replies from 12 libraries in this category.

libraries included in this survey. Other local factors affecting library seating requirements, such as the nature of the curriculum, quality of the book collection, adequacy of student housing, presence of residence hall libraries, and number of commuting students are all variables which may have a bearing when considering the needs or achievement of individual libraries.

The most optimistic sign arising from this survey is found in the responses to the questions relating to expected increases in seating accommodations and seating ratios by 1970. The great majority of libraries expect to make significant advances in seating performance by 1970, as is illustrated by Table 3. If these expectations are realized the total number of reading stations in the thirty-two libraries surveyed will increase from 97,318 in 1966 to 169,191 in 1970, an increase of 73.8 per cent, and the median seating ratio will rise from 16 per cent to 25 per cent, substantially narrowing the gap between seating achievement and seating standards.

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A Library Looks at Itself

In attempting to evaluate its service The Ohio State University libraries in May 1966 designed a questionnaire to determine: (1) the characteristics of library users; (2) the ways in which users avail themselves of the facilities; (3) the users opinions of the library and its services. The results indicated that: (1) 55 per cent were using the library only for study purposes; (2) this group was more dissatisfied than those seeking service or information; (3) history majors and faculty were the heaviest users followed by students in education, business, political science, and English; (4) the questionnaire is effective for measurement of library-campus relations.

Libraries exist for two fundamental reasons. As repositories of man's recorded knowledge they seek to build representative collections of significant materials and preserve them for future generations. The Folger, Huntington, and Newberry libraries are obvious examples of libraries where these roles of collection building and preservation are dominant. To be sure, libraries of this type are in the minority. The majority of libraries have information dissemination as their predominant function. In this role the libraries' holdings are organized and controlled for maximum availability. For the majority of libraries, effectiveness is not determined entirely by size of the collection but rather by the success with which they are able to provide the user with the information he seeks.

The library fulfills this function best by pursuing a policy of constant self-evaluation in order to keep alert to the changing needs of its users. The usual methods of evaluating performance are by internal criteria. Criteria frequently considered include size and growth of the collection, circulation and reference statistics, new services added, and number of library users served. Appraisal may also be concerned with the speed at which books are procured, processed, and made available to the public. These criteria are satisfactory for comparing library with library and present with past performance, if the library is considered only as a repository. How successful are they in determining whether the library is providing the information its public needs and wants? In this respect, these traditional methods of appraisal are perhaps weak. At best, appraisal by internal criteria measures only indirectly a library's success as an information disseminating unit.

How then is a library to determine the degree of success with which it serves its public? The ultimate authority, the library user, is the most logical source of an answer. Libraries are the constant recipients of compliments, suggestions, and complaints. These unsolicited comments have formed the basis for passive appraisals to which libraries respond haphazardly. There are, however, many dangers in attaching credence to such random observations. In the first place,
A library has no way of knowing whether or not the comments received are representative of all patrons. It may be that the library has heard from a small, but vocal, minority. Also to be considered is the propensity for people to verbalize complaints more frequently than compliments. It is possible that some areas of the library could be overlooked completely because no one happens to comment, while other areas could be so susceptible that they would receive continual and, perhaps, unwarranted attention. Therefore, there is probability that this type of appraisal is not representative, is negatively biased, and is haphazard in areas of coverage. It would seem more logical to seek users' opinions and measure their attitudes in an active and systematic manner.

Ohio State University libraries has attempted to take such an active approach to the measurement of user attitudes. With a system that includes a main library and twenty-two departmental libraries, The Ohio State University libraries have a book collection of over 1,700,000 volumes, and serve a student body of 31,604 and 2,857 faculty. The effectiveness of its service to the campus could not be determined by the sporadic feedback that it received from students and faculty. It was decided, therefore, that it was necessary to develop a method of actively determining library users' opinions. The technique employed to secure meaningful data was an opinion survey.

HOW THE STUDY WAS PERFORMED

The study performed by The Ohio State University libraries was designed to evaluate main library performance from the point of view of its users. Specifically it was designed to gather information about: (1) the nature of individuals who use the library; (2) the ways in which they make use of its facilities; (3) their opinions about the library and its services. A printed questionnaire was designed to be handed out to users as they entered the library with a request that they complete and return it at the guard station before leaving the building. Such an approach, using a questionnaire containing written instructions for its completion, permitted reaching a large proportion of those using the library at a minimum cost.

The questionnaire was designed for ease and economy of tabulation. Closed-end questions, requiring only that the library user check one of a predetermined series of responses, were used for gathering most of the information. Such a format has the advantage of permitting machine tabulation of the data which again minimizes manpower costs. This type of question also has the advantage of requiring a minimum amount of the respondent's time, which probably increases the over-all return of usable questionnaires. An open-ended question which permits the respondent to write a full paragraph if he so wishes was used as the last item on the questionnaire. This was used to probe an area where there was considerable doubt as to the nature of the responses which might be expected. It was hoped that such a format would minimize chances of distorting or concealing important aspects of the information requested. Provision was made, however, for numeric classification of the responses to this question so that machine tabulation techniques might be applied to them.

The first group of questions was aimed at gathering information about the nature of individuals using the library. These questions, all of which were closed-end in format, were designed to determine the respondent's classification (freshman, sophomore, junior, senior, graduate student, faculty member, or other); his major field of study; and the frequency with which he made use of library facilities. Information as to time of day (morning, afternoon or evening)
was also obtained through the use of color-coded questionnaires. The information obtained from these questions was put to a dual use. First, it provided a basis for classifying opinion responses so that certain ideas about which groups would show the most favorable reactions to library services could be tested. Second, it was valuable in itself, since it provided the first organized information about library users.

The second set of questions concerned the use made of library facilities by the respondents. These questions, which were also closed-end in format, determined whether the respondent visited the library in search of some specific information or service or whether he came for general study purposes. They also indicated, for those individuals seeking information or service, where they sought and where they found the information or service.

The final group of questions dealt with the opinions of the respondents about the library and its services. Two closed-end questions permitted respondents who were seeking information or service to rate on a five-point scale ranging from very satisfactory to very unsatisfactory the ease of location of the information or services sought and the helpfulness and courtesy of staff members encountered. A third question, identical in format to the two preceding ones, permitted all respondents, regardless of whether they came to study or in search of information or services, to rate the over-all "satisfactoriness" of their visit to the library. An additional question, for those individuals seeking service or information, asked for the amount of time spent waiting. The final question, which was open-ended in format, permitted respondents to express in their own words what made their visit satisfactory or unsatisfactory.

The questionnaires were passed out to every fifth individual entering the library on a Thursday near the middle of Spring quarter 1966. This rate was determined by the ability of a single individual to hand out and explain briefly the purpose of the questionnaire. No attempt was made to restrict the number of questionnaires to that which would provide only an "adequate sample size." Pre-tests had revealed marked variations in the rate of return and thus, since there were minimal variations in the cost involved, it was considered best to obtain the maximum number of responses. No attempt was made to stratify the sample, since no data existed on which to base the classifications.

A total of 1,230 questionnaires were handed out, of which 687 or 55 per cent were returned in usable form. This was considered an acceptable response, though somewhat lower than that obtained in the pre-tests of the questionnaire. The data obtained was tabulated on an IBM 1620 computer. The program permitted the classification of data along the different dimensions discussed in regard to the "nature of users" questions. It provided frequency distributions as well as means and other parameters.

Preliminary examination of the results revealed two facts which led to a change in the original plans for analysis. First, high correlations were found among the answers to the three questions dealing with ease of obtaining service, courtesy and helpfulness of staff, and over-all satisfactoriness of the visit to the library. This led to the conclusion that the data from the question on ease of service was redundant, and it was therefore not included in the final report. It was also found that, in contrast to pre-test respondents, a relatively small percentage of individuals filled in the figures on waiting time. Therefore these figures were also omitted from the final report.

The analysis of the data and the writing of the final report were performed in the light of several cautions. First it was recognized that the sample taken was, in all probability, somewhat biased. Practical considerations made it impos-
sible to sample from all days of the week and from all weeks in the quarter. Further, follow-up oral questioning of the non-respondents in one of the pre-tests revealed that there was a higher proportion of faculty members among the non-respondents than among the respondents and that the non-respondents were slightly less likely to have a favorable over-all opinion of the library than were the respondents. Taken together, these things led to a decision to make no statistical test of the differences found. It was felt that the presentation of such tests would lend a spurious sense of certainty to the data. The analysis presented in the final report was, therefore, limited to the presentation of the frequency distributions and associated means.

**Who Uses the Library?**

In interpreting the information presented in this and in following sections, the reader should keep one important point in mind. These data concern one library on one university campus. Though there is some evidence available indicating that similar patterns may occur in other libraries, there can be no guarantee that the results obtained in the Ohio State University Study can be generalized to all libraries on all campuses.

When library users were grouped according to university classification, a progressive decline in the absolute number of respondents occurred as one moved up the scale from freshman through sophomore, junior, senior, and graduate student to faculty member. For the most part, this can be seen as a reflection of the decreasing total numbers of individuals in the classifications, since the ratio of the number of respondents to the number of individuals in a class remained relatively constant. To a certain extent, however, it also represented a change in the pattern of use of library facilities. While no consistent pattern was found among the variations in numbers of respondents using the library as a source of information, materials, or services, a progressive decrease in the number of individuals using it for study purposes was uncovered.

The study indicated that there was a core, particularly among those respondents using the library for study purposes, of heavy users who made demands on library space and facilities far out of proportion to their numbers. Two-thirds of those completing questionnaires had previously visited the library four or more times during the preceding two weeks. Only 6 per cent of the respondents indicated, in contrast, that this was their only visit to the library during the two-week period.

It is particularly interesting to note that though the proportion of those using the library for study purposes was fairly consistent in the infrequent visitor categories, a marked shift occurred when the group which had made four or more visits was considered. In this group a far larger proportion of the users came for study purposes.

The patterns of utilization of library facilities by respondents enrolled or employed in various departments of the university are some of the most difficult to explain. Though much of the variation can be attributed to differences in relative enrollment, this does not account for all of them. Certain large departments were represented by a relatively small number of respondents, while some small departments appeared in numbers out of proportion to their enrollments. Attempts were made to explain these differences in terms of the availability of departmental libraries, but, though this is doubtless a factor in the differences, it could not account for all of them. Unless these are purely

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1 Results similar in several respects to those obtained in this study were found at the University of Delaware—see Gorham Lane, "Assessing the Undergraduates' Use of the University Library," CRL, XXVII (July 1966), p. 277-81; and at Western Michigan University (personal correspondence to author from Katharine M. Stokes, director of libraries, Western Michigan University).
chance variations, as is always possible, further research will be required to explain them.

How Do They Use Library Facilities?

One of the more surprising results of the study concerned the purposes of the visits made by respondents. Though there were marked variations from class to class and during different portions of the day, almost 55 per cent of those completing questionnaires were in the library for general study purposes, rather than in search of specific information, materials, or services. This represents a radical departure from the information disseminating role of the university library and indicates a need for a reappraisal of the planning of libraries and of study facilities. The provision of study accommodations in other facilities, such as dormitories and student unions, could relieve much pressure for space at a cost far below that of constructing and operating additional library facilities.

Heaviest utilization of library facilities came during the afternoon, followed by morning and evening, respectively. Average hourly use remained relatively constant during the day and dropped off during the evening. Marked shifts occurred among these periods in the pattern of utilization of library facilities. During the afternoon hours there was a disproportionately large increase in the demand for information, materials, and services.

Variations in the patterns of utilization by individuals enrolled in the various departments of the university were also discovered. The results indicated that the history department majors and faculty were the heaviest users of the main library. The next four departments in order of usage were education, business organization, political science, and English. Again, however, no ready explanation was available for these variations and thus the understanding of this aspect of the results will have to await further research.

What Do They Think of the Library?

The interpretation of opinion survey data almost always presents problems. Rarely do absolute guidelines exist against which the obtained results may be judged in terms of “goodness” or “badness.” Rather, the data have meaning only relative to those obtained for other groups or under other conditions. The Ohio State University Study was no exception to this rule and thus the discussion of this data was limited to comparisons of various aspects of the library operation and of different user groups. Nonetheless, it was heartening to the library staff, who were used to the complaint-oriented passive methods of evaluating library-user attitudes, to see the favorable over-all evaluation of the library and its services.

The first opinion question dealt with the respondents’ evaluation of the satisfactoriness of their visit to the library. Two basic patterns were revealed in regard to this question. First of all, those visiting the library for study purposes felt that their visit, on the average, was slightly less satisfactory than did those who came in search of specific information, material, or service. It is again possible that the provision of auxiliary study facilities in dormitories and student unions for undergraduates would diminish this dissatisfaction with library facilities. Second, though undergraduate students in all four classifications rated the satisfactoriness of their visits at about the same average value, graduate students and faculty members, especially those seeking information, materials, or services, were substantially more favorable in their appraisals.

When respondents were classified according to frequency of previous visits, results were somewhat less clear. While a more favorable average response was
obtained from the frequent users who were seeking specific items, no readily explicable trend was apparent among those who were using the library for study purposes. A number of interpretations of the data are possible. The most logical one is that those who visit the library frequently are more familiar with its idiosyncracies and thus more likely to complete their searches of library resources successfully. An alternate explanation of the results cannot be ignored, however. It may be that the exact opposite is true. It is possible that persons who, for one unknown reason or another, tend to view the library and its services favorably also tend to use the library more frequently than do those who view it in an unfavorable light.

Data were also analyzed for the question dealing with the library users' evaluation of the helpfulness and courtesy of the library staff. Responses to this question were obtained only from those individuals seeking information, materials, or services, since it was felt that those individuals coming to the library only for study purposes would rarely have meaningful contact with the library staff. Again the over-all favorableness of the responses was heartening.

When the respondents were grouped by university classification, no consistent pattern was revealed, though it did appear that faculty members considered the service rendered somewhat more satisfactory than did students. Whether this represents variation in the behavior of the library staff members when in contact with faculty members, or a difference in the perception by the faculty respondents, cannot be determined from the results of this study. No consistent patterns were found where responses to this question were classified according to frequency of previous visits.

The open-ended question dealing with sources of the respondents' satisfaction or dissatisfaction generated a surprising number of highly detailed answers. As might be expected, these ranged from the complimentary to the critical and from the constructive to the sarcastic. It was generally possible to associate these comments with particular phases of the library's operations, which permitted the discovery of one of the most interesting results. A strikingly consistent set of differences was found between those comments associated with study facilities and those concerning the information, material, or service processing facilities of the library. While the comments associated with the former dealt almost exclusively with the physical environment (temperature regulation, noise, comfort, etc.), those associated with the latter dealt almost exclusively with the quality and courtesy of the personnel staffing the facilities.

The Impact of the Study

At this writing it is difficult to know the full, long-range impact of the study, since consideration of many of its conclusions is still in progress. It is already apparent, however, that a number of important benefits have accrued to The Ohio State University libraries as a result of the study.

First of all, though the questionnaire will doubtless be refined and improved in any future applications, it has been shown to be an effective tool for the continuing measurement of library-campus relations. Library users are willing and able to provide information about their perceptions of the library and its services. It is possible to design a questionnaire in such a way that the information it provides is specific and consistent enough to permit the identification of particular trouble spots and evaluation of the effectiveness of programs designed to minimize difficulties.

Second, the study provided a body of information about present sources of user satisfaction and dissatisfaction with
library service on which such programs might be based. Faculty and students using different areas of the library responded differently to the questions. Variations were found in the ability of groups with different purposes to obtain satisfactory library service. In some respects the information uncovered merely served to confirm suspicions based on passive methods of evaluation, but in other cases it gave a picture of the library and its services different from that which would be drawn from the usual run of "gripes" and compliments aimed at the library staff.

Third, the study provided the library with data which should be of value in both the long and short-range planning and administration of library and related facilities. This information, particularly that dealing with the use of the library as a general study hall, if confirmed in future studies, could provide the basis for substantial rethinking of the role of the library and that of auxiliary study facilities throughout the university community. The information on variations in usage of library facilities during the day may prove to be an important aid in staffing the various areas and services of the library.

In a broader sense, the data on the nature of library users may have the most far-reaching impact. Certain individuals use the library heavily. Others apparently use it hardly at all. Determination of the reasons for these differences may prove to be the key to understanding where the library is succeeding and where it is failing in its job of disseminating information, and thus provide the basis for making it an even more effective force in the total educational program of the university.
A survey was made of Negro librarians in predominantly Negro colleges in an effort to determine their backgrounds and attitudes toward their profession. More than one-third of the eighty-eight respondents had graduated from Atlanta University's library school. Their previous work experience and their reasons for going into library work are probed, as well as their like or dislike for their work.

The need for trained librarians in a profession where the supply cannot meet the demand, concomitant with the Civil Rights Act, has caused many libraries to cast scouting eyes for prospective Negro librarians. To some employers these also served to present a “show piece” of good faith where federal funds were being sought to gird sagging budgets, and as balm to soothe overzealous liberals.

But to the consternation of the seekers, Negro librarians are in a decided minority. Negroes have been slow to enter this field for several reasons. Most Negro college students find it a financial hardship to pursue even a four-year college program. For them to continue further study in a field notorious for its low pay in lieu of a teaching position or any other endeavor requiring less preparation and offering better salaries would be hardly feasible. Facing hard facts, jobs too often have been limited to Negro librarians, particularly in the South. Positions were available only in segregated school systems and branch libraries located in Negro neighborhoods.

Possibly an important historical factor in there being too few Negro librarians has been the lack of training schools for this purpose. The first effort specifically to train Negroes for library work was initiated in 1905 by the Louisville free public library. “This apprentice class is the first example of any attempt in the South to provide library training for the prospective Negro librarian. That it served a need of the time is evidenced by the fact that other cities, such as Houston and Memphis, sent their Negro branch librarians to Louisville for their professional education.”

It was also distressing that no other school was established for training Negroes until the opening of the Hampton library school through a Carnegie grant in 1925. This school, offering the BSLS degree, trained many pioneer and noted Negro librarians, some of whom later went on to the master’s program. Unfortunately, because of financial difficulties, the school was phased out in June 1939.

Not until 1941 was the Atlanta University school of library science founded by a Carnegie grant. During the same year, a school of library service was established at North Carolina College, but it is not yet accredited by ALA.

Mrs. Shockley is Associate Librarian of Maryland State College in Princess Anne.

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Because of such factors as these, it is obvious that Negroes have been slow to embark into library work because of the above mentioned inequities and problems relating to them.

This survey was conducted to obtain a glimpse of present-day Negro librarians—their backgrounds and attitudes toward a profession now changing with respect to them. Questionnaires were mailed to twenty-five predominantly Negro colleges. The schools were both state and private institutions accredited by their regional accrediting associations, with an enrollment of five hundred or more students, and having a library staff of three or more librarians.

Of these schools, seventeen responded with combined staffs of eighty-eight respondents. Seventy-five of the librarians were female and thirteen were male. The predominance of females can be attributed to the field being looked upon as a "female" occupation and also because there are more Negro women college graduates than men. One of the females in the survey held a PhD degree, while another had a master's degree in English as well as one in library science.

Eighty-three of the respondents had graduate degrees in librarianship with three having BSLS degrees from the Hampton library school. Two were working toward advanced degrees at Atlanta University and Indiana University.

Listed below are the library schools from which degrees were awarded and the number of graduates from the schools:

Atlanta University .............. 24
University of Illinois .......... 8
University of Michigan ......... 8
North Carolina College ........ 7
Western Reserve University ..... 6
Columbia University ............ 6
Syracuse University ............ 5
George Peabody ................ 3
University of Oklahoma ....... 3
Drexel Institute ............... 2
Catholic University ......... 2

Besides 37.34 per cent of the graduates receiving degrees from a predominantly Negro library school, eighty-five of the respondents did their undergraduate work at predominantly Negro colleges. North Carolina College and Central State University had the highest number of graduates in the survey to enter the profession.

It is conjectural that Negroes attend predominantly Negro library schools for the same reasons they did for undergraduate work. It has been difficult for Negroes to get into white graduate schools because of finances, academic requirements, and race. It is also true that some Negroes simply prefer going to predominantly Negro schools. And since most Negro colleges are located in the South, many are already settled there and can earn degrees on a part-time basis.

Graduate study is expensive and time-consuming, and only twenty-five of the respondents entered library school immediately after completion of their undergraduate work. Diverse previous occupations were listed with public school teaching being foremost. Working in a library followed, with other former employment listed as insurance work, college payroll clerk, stenographer, factory work, YWCA worker, bookstore manager, and duty with the armed services (which included one female).

The reasons given for entering the library profession were: (1) interest in books; (2) interest in people; (3) a librarian's influence; (3) dislike of teaching; (4) availability of jobs. Members of
the families of fourteen of the respondents were librarians.

One librarian remembering the dual structure of segregation which has tragically separated Negroes and books stated:

I grew up in a segregated community in which I was denied access to the public library. My reading interests and mental curiosity were never completely satisfied in the meager school library which was available to me during the school term. . . . Therefore, I decided, while still a child, to become a librarian in order to remove barriers between books and me.

The fact that the availability of jobs in the field was least influential is interesting since Negroes are likely to find it difficult to obtain employment in many areas. Apparently Negro librarians are essentially bookmen quietly dedicated to the profession.

Eighty-seven of the librarians liked their work with the one negative response attributed to "long hours and poor pay." The reasons for liking their work included: (1) personal satisfaction; (2) fondness of books and knowledge; (3) opportunity to help others; (4) challenging and interesting; (5) rewarding and informative.

Answers to the question of whether they think there is little discrimination now in hiring practices in predominantly white colleges and universities were:

<table>
<thead>
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<th>YES</th>
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<td>57</td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

As to why they thought there is less discrimination in employment practices, some felt the trend now is toward what a person can contribute rather than race. Also cited were the need for librarians and better trained personal, antidiscrimination laws, and the necessity for "show" Negroes. An indication that white academic circles are hiring more Negro librarians was offered by one librarian from a predominantly Negro college in a North-Central state who noted that there were ten surrounding colleges with Negroes on their staffs. Other librarians had seen more Negro librarians representing predominantly white institutions at professional meetings. Job overtures had been made to one.

A negative response offered: "I have had experience in applying to a predominantly white college where my application was held until an opening was available. Later, many white librarians were hired, some with less experience and training than I." Another surmised that it appeared hiring practices and attitudes were basically unchanged.

Since most Negro college librarians work in predominantly Negro institutions, they were polled as to if they preferred working in a Negro college.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>INDIFFERENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>11</td>
<td>67</td>
</tr>
</tbody>
</table>

Those who would rather work in Negro colleges gave varying reasons. Several felt they would be of more service working with Negro students who need more elementary exposure to the resources of library materials, and that Negro colleges have a greater need for trained and competent people than white colleges which have more resources to draw upon. One gave personal and social reasons.

The respondents who did not prefer working in a predominantly Negro college wanted to feel as "qualified librarians who can work in any situation." Others felt that the contact would broaden their thinking by knowing different people with various cultural backgrounds, and some wanted to have experience in both situations.

The prevailing number of indifferent replies showed an over-all liberal-mindedness in regard to the profession and race as a whole. Such answers as: "The philosophy of the institution and quality are more important to me than the par-
ticular racial make up of the institution."

The giving of services was presented as more important than the place of service or race factors. These too in their indiscriminate attitude believed that people were people, and were indifferent to color, character, or temperament.

The librarians secured their positions in the colleges by (1) forty-one applying directly to the college; (2) twelve through a friend; (3) library school placement by six; (4) twenty-nine not indicating.

To the question of salaries being adequate for librarians in the colleges:

Yes  No  No Answer
6    74    8

The study in essence indicates that Negro librarians are in a minority because of the historical background of a society long operated on a dual pattern of segregation. Negro librarians have been thwarted in this field (as in others) because of the lack of training opportunities and unfair employment practices accompanied by other imparities embedded in a separate-but-equal society.

Negro librarians do not wish to be considered a different breed of people, but want to be thought of as librarians first. They feel confident and are eager to perform in any job situation.

With college libraries housing the free thoughts of man in relation to himself and society, it should be especially true in this environment that all men should be represented. Because of current trends and changing attitudes, Negro librarians are looking forward to broader avenues to occupational achievement and fulfillment than have existed in the past. Books do not know of discrimination—neither should libraries.
Publishing the Association Journal:  

JANUARY 1, 1962—DECEMBER 31, 1966

College & Research Libraries, along with its parent body, ACRL, has grown in the past five years. This period, January 1962 through December 1966, has brought nearly 50 per cent increase in ACRL membership and consequently, in CRL circulation. Figure 1 shows the membership picture as it relates to the number of copies of the journal that are needed.

The actual size of the journal (number of pages) fell off in 1963—partially because changes of editors in May 1962 and again in March 1963 resulted in a dearth of publishable papers—but rose steadily in 1964 and 1965, and sharply in 1966 on account of initiating the ACRL News, a supplement to College & Research Libraries (hereinafter referred to as CRL News). Figure 2 shows the annual number of pages printed.

The editor of CRL has indicated that he is able to obtain enough publishable papers to maintain a bimonthly schedule, and current budget now provides for producing that number of issues annually, plus, since March 1966, CRL News, beginning in March 1966.

CRL has undergone considerable organizational change during the five years covered by this report. The beginning of this period almost exactly corresponds to the incumbancy of the present publications officer, whose first production effort in the position was the March 1962 issue. The editorship was resigned by Maurice Tauber (Columbia University school of library service) effective with the March 1962 issue, and May saw the first issue edited by Richard Harwell (Bowdoin College). Mr. Harwell’s resignation became effective with the January 1963 issue. David Kaser (Joint University Libraries, Nashville) has served as editor since March 1963. John Batsel served as assistant editor for several months; when Mr. Batsel accepted another library position, Dr. Kaser appointed Mrs. Elizabeth Swint as assistant editor.

Effective with the January 1963 issue, CRL was returned to The Ovid Bell Press, Inc. in Fulton, Missouri, for printing, where the journal had been printed by The Ovid Bell Press for four years, 1956-59. The cover design was changed with the change of printers, and this design was modified in 1964. Then, at the St. Louis Conference in 1964, the ACRL Publications Committee authorized a complete redesign. Ward Ritchie of Simon and Ritchie, Los Angeles, was commissioned to redesign and respecify the entire journal—produce a new cover layout, and specify new format, typography, and paper. Production of the newly designed journal was begun with the January 1965 issue, although budget had been established to provide only for the...
Fig. 1. Membership, initial lists, and press runs of CRL.
lower costs of the previous specifications for the first four issues of 1965.

In 1966 the journal became completely scholarly, with removal of news, “official matter,” classified advertising, and extraneous filler material from its pages. This material is now published in CRL News eleven times a year (monthly, combined July/August issue). In addition to the desire to have a truly scholarly publication there were practical reasons for this authorization. (1) News material and official matter published in the bimonthly issues often did not reach the reader for three months or more, since “lead” time for preparation of the journal requires, minimally, six weeks. Lead time for CRL News is about two weeks, and extremely important information may be included in an issue if received two days before press time. (2) Additional issues provide additional opportunity for advertising insertions; and in the less rigid format of the News issues, advertisers may purchase guaranteed or special positions throughout each issue—providing more revenue. (3) Classified advertising appears not only oftener but also sooner; this not only better serves the library-advertisers looking for staff or for positions, but also produces additional revenue for CRL. (4) Increased and still increasing costs of producing the journal made most welcome a less costly way of publishing materials the value of which is likely to be temporary.

CRL News was authorized by the ACRL Board of Directors at Midwinter 1966, for a trial period of six months, to run from March 1966 to August 31, 1966. This trial period was established to provide facts concerning costs and income, distribution problems, and acceptance by membership. The first two items are discussed below. In regard to the third item only a few comments have been unfavorable; most of this few concerned post office handling early in the trial period. On the other hand, there have been numerous written and oral accolades.

The trial period, as authorized, precluded adjusting the subscription rate to include CRL News. When continuation of CRL News was authorized at the New York Conference in July 1966, no authorization for accepting subscriptions was asked for or given. (At Midwinter 1967 in New Orleans, the inclusion of CRL News with subscriptions was authorized and the subscriptions rate was increased to $10 per year, the first increase since 1956 when the $5 rate was approved. Authorization was to be implemented as soon as possible, and the new rate became effective on July 1.)

CRL News is printed on the same “long-life” paper used for the body of the journal issues. Revamping of the News masthead has been suggested, and admittedly the present masthead may leave something to be desired, although the design was established purposely to suggest continuity of CRL News with the journal design of an earlier period of publication. Several immediate changes have been required because of varying interpretations of postal regulations but further changes might well be postponed for a little while.

In 1964 a policy was established of not accepting retroactive subscriptions to the journal. This conforms to the policy of most other divisional publications of ALA that accept subscriptions. More importantly, it already had become
In 1962 when two successive issues of CRL went out of print shortly after publication. The new policy spreads subscription expirations around the calendar, and relieves the bottleneck, to some extent, of thousands of membership and subscription renewals all having to be processed in the same three-month period by the ALA Membership and Subscription Records office. The policy also makes unnecessary expensive back-issue mailings to subscribers.

To make possible for subscribers (and others) completion of annual volumes of the journal, back issues of the journal are available on a sale basis. In 1962 the ACRL Executive Secretary contracted with the ALA Publishing Department to store, invoice, and ship back issue copies as ordered. At that time other storage space for stocks of back issues was absolutely unavailable. The ALA Publishing Department retains 70¢ of the $1.25 per copy price, and ACRL receives 55¢ per copy, furnishes 2nd class envelopes and pays postage in addition to providing back-issue copies. Figure 3 shows income to CRL, and number of copies sold during the past five years. (In July 1967, the ALA Publishing Department began the same service in handling CRL News at $1.00 per copy, returning 30¢ for each copy to CRL.)

In 1962 an existing contract with University Microfilms was extended retroactively, to include microfilming of the first ten volumes of CRL, and continues currently to provide for microfilm and paper copies of journal issues. Beginning in 1967, royalty payments from UMI for 1966 sales have increased from the original 10 per cent to 15 per cent of sales. These payments are credited to CRL sale of extra copies. (CRL News issues will also be made available on microfilm.)

Also in 1962 an agreement was concluded with Kraus Reprint Corporation for reprinting volumes I-XV (1939-1954) of CRL, much of which had long been out of print. In 1966 the agreement was extended to include volumes XVI-XX (1955-1959). In 1967 an agreement was concluded with Kraus for reprinting volumes XXI-XXV (1960-1964). This period includes two 1962 issues which have been out of print since shortly after publication. Kraus has purchased the stock of back issues for the volumes being reprinted. Royalty payments have been credited to CRL reprint account and amount to 10 per cent of sales.

Fig. 3. Back issue copies sold and resulting CRL income.
Reprints produced by CRL are of two types: those made for authors of articles in CRL, and items reprinted for distribution by headquarters—both single-copy-free and multicopy-invoiced orders. Figure 4 shows the number of journal pages reprinted for authors, the number of items, the number of reprint pages, and number of copies produced. Figure 5 shows the same information for “stock” reprints for distribution by headquarters.

Costs of producing reprints for authors—mostly very short press runs—are much
too high but numerous requests for price estimates have not brought any schedule of lower prices. Authors are billed at cost only—still too high a figure. Most reprints for authors are produced by the Xerox Itek process; some, at even higher prices, are made from type by the journal printer.

Beginning late in 1966, mailing of stock reprint items has been assumed by the ALA Central Mailing Service. Orders to be invoiced still come to CRL for preparation of invoices and labels, a small part indeed of the reprint distribution effort. About twenty reprint items are currently available.

Manufacturing costs of the publication during the five-year period are shown in Figure 6, with a comparison of the estimated costs for producing the same news material in the journal for 1966.

Figure 7 shows the annual numbers of copies of the publication distributed in supplemental mailings. Distribution charges are budgeted annually, and comprise the costs of distributing claimed and late-membership copies, warehousing of stocks, sorting and mail handling. Hand wrapping of individual copies

White area of bars, 1966, show cost of News issues over estimated cost of publishing same material in journal issues. See also Fig. 8.
where there are fewer than five to a single post office has been required by postal regulations since January 1965 and costs of this service in regular mailings at the time of publication is also a distribution charge. Labels for regular mailings have been prepared by the Data Processing unit since January 1963. Claimed and late membership fulfillment, warehousing, and sorting and handling has been done by the printer since March 1964, using labels prepared by ALA’s Data Processing unit for late membership copies, and for claimed copies under the supervision of the ACRL Publications Officer. For this mailing service the printer receives 7¢ per copy mailed.

Zoning charges ceased when the contract for printing the periodical was let to The Ovid Bell Press in 1963. A one-time cost occurred in 1965 for conversion of the CRL list to zip-code order by the Data Processing unit as required by postal regulations and sorting and zoning of the regular list is no longer required.

Postage rates for CRL mailings increased by 1/15 in January 1963; 1/16 in 1964, and 1/17 in 1965, a total of 1/5 in three years. Another postal increase is now pending but was not known nor budgeted for 1967/68 in March 1967.

Certain items, such as unforeseen postage increases, tend to unbalance budgets; so does upward revision of paper prices and other production costs after budgets are prepared; heavy requests for free single copies of stock reprint items; an unexpectedly high percentage of increase in number of copies required because of corresponding increases in membership; and in the case of late memberships, increase in distribution costs for mailing late copies; and more stringent postal regulations pertaining to the mailing of all copies. Since CRL does not receive direct funds to produce the membership copies required, but rather is allocated funds—an amount included in the budget request which is prepared when figures are available for less than half of the previous year—a large membership increase such as occurred in 1966 might cause serious dislocation of budget.

Part of this dislocation can be cushioned by an increase in advertising revenue above budgeted amounts. Advertising rate increases, however, must necessarily await establishment over a period of at least six months and require the expenditure of funds for issuing a new rate card at the end of that period; even then the increase does not affect contracts current at the time. An estimated two-thirds of our advertising revenue is from contracts. In 1962 a new, increased advertising rate schedule was issued; in 1965, rates were again increased and specifications altered to conform to the new design specifications of the journal. (In 1967 a new rate schedule including ad insertions in News issues was established but rates were not raised.)

Advertising income for the period of this report is charted in Figure 8 and the number of pages of advertising in Figure 9. The amount of advertising CRL can use is limited by (1) advertiser acceptance—particularly of CRL News, which thus far has been very good; (2) postal regulations—75 per cent of any issue; (3) a stated portion of each journal issue—16 pages for issues of up to 96 pages, and one page of advertising for each four additional pages of text in any issue. Occasionally advertising has exceeded this ratio in order to “make out” an issue; more often fewer advertising pages than the prescribed ratio have been used, when editorial matter scheduled for a larger issue outruns advertising orders.

No advertising promotion list was available in 1962, hence there was no way to try to sell more advertising. By
the end of 1966 a list of approximately six hundred fifty potential advertisers of equipment, services, and publications had been compiled, all of them valid. An advertising promotion in 1962 used a short list; in 1964, a finely screened list was used; and in 1965 a promotion went to an enlarged list. In December 1966 a promotion piece was mailed to the entire, much augmented list. Contracts and single insertion orders from new advertisers reached by the list now total nearly $10,000.

In addition to paid advertising the journal and CRL News carry unpaid "house" advertising for CHOICE (which furnishes its own mechanicals), ALA Publishing Department (which pays its typesetting charges only), Library Technology Program (which furnishes plates), and the ALA Membership Promotion Office. CHOICE reciprocates by using ads for ACRL, and for CRL reprints and subscriptions. ALA Publishing Department has in the past listed our journal issues (which they sell) in their catalog. (Starting in 1967, however,
we are being charged for these listings). The Library Technology Program and Membership Promotion do not reciprocate directly, having no means to do so. In 1966 CRL ran three times the total of such advertising for other units of ALA as had been run in the three previous years.

Five pages of such "house advertising" were included in the five-year index to Vols. XXI-XXV (1960-1964) published in December 1965. The index had not been budgeted but was produced from regular CRL funds. No other advertising was authorized. The five-year index was sent to the membership list then current, as an extra issue; availability to others at $1.00 per copy was announced in July 1965.

At present CRL is indexed in Library Literature and PAIS, abstracted for Library Science Abstracts, and book reviews are indexed in Book Review Index.

In 1964 the annual title page and index for 1963 was published in the January issue, following the practice initiated in 1954 (Vol. XV). In November 1964 the 1964 annual index was published and in the November issue in 1965 the index for that year appeared. In 1966 the annual index was published in the December CRL News. Since subscribers did not receive CRL News the availability of the 1966 TPI, was publicized and it has been furnished on request to subscribers who have asked for it. (The 1967 annual index will be published in the December CRL News issue; subscriptions will at that time include CRL News). Since 1955 Richard Schimmelpfeng has provided indexing of the publication.

In 1962 the CRL list of free and exchange subscriptions included many which were no longer valid. The Publications Officer obtained authorization from the ACRL Executive Secretary to retain a few of these, and started with a fresh list of editor's free copy authorizations from Dr. Kaser. All other such subscriptions were discontinued. Exchange and gift subscriptions since that time have been authorized only by the Editor or the ACRL Executive Secretary. The Headquarters Librarian and the Director of IRO have occasionally requested such authorization. In addition the ALA staff has authorized additional lists, including Executive Board and PEBCO members, and a list of state agencies arranged by the Deputy Executive Director in 1965. (The CRL free and exchange list is constantly changing; it is completely controlled, and frequently updated by the Publications Officer.)

In October of 1966 half-time clerical assistance for the Publications Officer, which had been budgeted for the fiscal year 1966/67, was implemented. Relief of 750 hours of clerical work per year, the Publications Officer became able to initiate and to bring and keep up to date advertising and circulation analyses and records; to enlarge the advertising promotion list; to maintain better inventories; and to furnish more and better information to the ACRL Executive Secretary concerning the publications program.

One such activity is the preparation and maintenance of a directory file of position appointments as reported since January 1966 in the publication, arranged both alphabetically by personal name, and geographically by institution. This just-completed project will be kept current. In addition other routine activities such as fulfilling claims, producing reprints, and invoicing advertising are kept more nearly current.

Production of editorial style sheets to extend, fill lacunae in, or vary the application of the University of Chicago Manual of Style (the established authority) is a current project. In August 1963 the Editor and the Publications Officer prepared a statement of editorial policy for CRL; this statement has been up-
dated to reflect addition of the News issues; and a statement of the Editorial Board for distribution to authors of personnel profiles has been duplicated.

Since May 1962 the Publications Officer has gleaned information and written all of the news copy, has obtained profile copy and written all other personnel copy used in the journal (and now in the News issues); has prepared official matter for publication and has produced copy of required length or brevity on a variety of pertinent subjects for filler or informational items.

Attendance at both Midwinter and Annual Conferences by the Publications Officer was requested by the Publications Committee in 1963, and in the 1964/65 budget travel expenses for such attendance were authorized, chargeable to the CRL budget. Conference attendance is most useful in carrying out the duties of the position; it is a rewarding responsibility, a challenge, and a pleasure.

Although the Publications Officer’s salary is now charged entirely to CRL, until 1965 30 per cent of the position salary was charged to general funds; and 30 per cent of the time continues to be allocated for assisting the ACRL Executive Secretary. This is not on a weekly or monthly basis, but is totaled annually, and amounts to 71½ working days per year.

Examples of tasks performed by the Publications Officer for the Executive Secretary are: assistance in answering correspondence; preparation of biographical information copy for ballots; until 1967, tally of ballots; preparation and updating of a card file of officers of state chapters of ACRL, and/or sections of state associations; preparation of ACRL copy for the ALA Bulletin “Information and Organization Issue,” Bowker Annual, and other directories; production of ACRL grants program applications; and processing of grants applications for yearly programs.
Indian University Libraries

There is a venerable history of academic libraries in India, dating at least from the sixth century. Today’s libraries, however, despite their long history and the substantial body of new theorizing concerning them, are hampered by the absence of book-oriented teaching, adequate budgets, or proper administrative organization and support. An intelligent, informed, and aggressive library profession is probably the nation’s most valuable library asset today.

The purpose of this paper is to present some thoughts, observations, and discussion on the history and the problems of academic libraries in India.

In systematic library technique and methodology, the Indian university library is a product of the twentieth century. The modern concept of the university library and of libraries in general has been elucidated through the writings and speeches of the Indian library genius—S. R. Ranganathan. It would be incorrect to assume, however, that ancient college and university library collections were non-existent, for India has a long literary heritage.

Early History

The University of Taxila in northern India was a flourishing center for learning as early as the sixth century B.C. Students came to Taxila for specialization in the Vedas, Hindu grammar, and philosophy. The university possessed a large collection of manuscripts on these subjects. During the invasions of the fifteenth century the school was ruined and the city destroyed, thus extinguishing the glow from this early center of learning.

The seventh-century Chinese traveler and scholar, I-Tsing, studied for ten years at the University of Nalanda where many Chinese, Japanese, and Korean scholars came to learn. The university possessed a well-equipped, subject-classified library collection housed in three buildings, one of which was nine stories high. Nalanda flourished from the fifth to the late twelfth centuries.

The Buddhist monastery and university at Vikramaila, founded by King Dharampala in the eighth century A.D., had a distinguished collection especially rich in the Hindu religion. This school was patronized by the Indian rulers until the thirteenth century, and at its zenith it had eight thousand monk-scholars using its collection.

From the eleventh through the thirteenth centuries a large number of temple-colleges existed in India. One temple college, Chatikasal in southern India, had a faculty of three Vedic teachers, three Sastras teachers, and a staff of six librarians whose status was about equal to that of the professor of the time.1

Even though it is estimated that during the Muslim conquests (thirteenth to sixteenth centuries) several hundred

thousand manuscripts were lost, some of the conquerors who had destroyed libraries subsequently began to rebuild them. Many important manuscript collections were established during the Moghul times. One of the most important was that of Akbar the Great (1596-1605). Another Moghul ruler and bibliophile was Humayun (1530-1540) whose librarian, Lal Beg, built the imperial library collection at Agra. It was said of Humayun that one evening emerging from his library in an especially thoughtful mood he stumbled and fell to his death.

**HISTORICAL INFLUENCES AND PRESENT PROBLEMS**

Despite evidences of early notable collections, there gradually developed in India a disinterest in libraries that in more recent times produced a condition of terrible neglect.

Though the Jesuits introduced into India (1556) the art of printing by movable type, neither the Moghul rulers nor the independent Maratha chiefs were interested in the printed book. One historian writes that—

a primary deficiency in the culture of the Marathas was their ignorance of the art of printing and their failure to make an effort to learn it. During the period between May 11, 1498, the date on which da Gama discovered India, and 1760, the Portuguese and the Marathas established contacts on many occasions. . . . The fact that in spite of [these contacts] they did not pick up the art of printing detracts greatly from the reputation of the Marathas for their ability to imbibe new ideas.\(^3\)

It must be admitted that while insensitivity to intellectual advance was shown by both Moghul and Maratha rulers, the Portuguese and the Catholic missionaries did little on their part to encourage interest of the Indian people in anything but religion or related topics. An Englishman in 1832 described the contents of the ten thousand volume library of the Augustinian monks at Goa as containing

. . . a few bad editions of classics, but not a complete edition, even of Cicero himself; a great many schoolmen, casuists, and economists, with some jurists; very little history, scarcely any of modern times, except a little Portuguese; about ten volumes of Portuguese and Spanish poetry . . . no politics, [no] political economy, no mechanics, no hydrostatics, no optics, no astronomy, no chemistry, no zoology, no botany, no mineralogy and no book . . . on mathematics . . . .\(^3\)

From the beginning of British influence in India, with the formation of the East India Company in 1601, and up to the mid-eighteenth century, there was slight interest in building college and university libraries. Furthermore, the English gentlemen of that era in India cared little himself for literary or scholarly pursuits. As one journalist commented “It may appear as though the daily life of the Englishman in Bengal was devoid of the civilizing influences of literature. And it has been said that commercial pursuits were not very consistent with literary tastes in Old Calcutta; the jingling of rhymes was discord to the rattling of rupees . . . .”\(^4\)

Not only was no impetus given to the growth of library collections during much of the British period, but the system itself discouraged the development of worthy collections. The average Indian student in his higher education made little or no use of libraries. He mainly studied lecture notes in order to pass all-important examinations that would qualify him for service in the British India offices. An 1882 report evaluating education found “the general reading of students is confined to the books which have some bearing on the subject of ex-


\(^{4}\) Ibid., p. 10-11.
amination."5 This lack of incentive to independent study, in part a legacy of the British administrative system, even today characterizes campus life. Thus many Indian librarians feel today that the university library is frequented much less by the average undergraduate student than it should be.6 The inordinate emphasis upon memorizing lecture notes is shown by a recent study revealing that the average Delhi University student was using about eight books during the academic year.7

Reference to committee and commission reports published over several decades reveals Indian university libraries have long had budgetary problems.8 Now that India is a generation into independence the serious problem of financing university libraries persists—libraries which face ever larger enrollments. In the twenty-year period 1946 to 1965 the University of Delhi student body increased 840 per cent, while the library book collection increased 462 per cent.9 This same university with 29,550 students in 1964-1965 had a book collection of 233,998 and a budget of 402,658 rupees ($53,689).10 Benares Hindu University spent 300,000 rupees ($40,000) in 1962 for books and periodicals.11 The University of Bombay with a total enrollment in 1964-1965 of 54,726 had a budget for books and periodicals of 117,427 rupees ($15,656).12 The University of Mysore library in 1965-1966 spent 50,897 rupees ($6,786) on its collection.13 It should be added that many universities rely heavily on supplementary gifts and grants—often from abroad—to augment their collections. Of the 3,513 books acquired by the University of Mysore library in 1965-1966, 15.8 per cent were gifts, while in 1964-1965 the University of Bombay received 45 per cent of its acquisitions in the form of gifts.14

There is real need for university libraries to develop stronger specialized collections, especially on graduate and research levels. White, in his report on the University of Delhi (1965), concludes that evidence is "overwhelming" that book collections there are substandard and do not meet the educational needs of the university. When teachers of the university were asked whether the collections were strong enough to support their own research and that of their students on a graduate level, over 90 per cent answering the questionnaire thought they were not.15

While some libraries are adequate in certain subject areas, most collections seem thin and superficial, the partial result of imprecisely conceived selection policies. This negative condition might be mitigated by the more extensive utilization of specialized collections on an exchange basis, as has been attempted in the United States. Better communication and cooperation between libraries would further enable institutions to develop in more depth certain areas of local or special interest.

Basic to a properly functioning and growing university library is the neces-

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6 An average Indian university student devotes less than one hour a day to study beyond classroom attendance, while the United States student spends from twenty to thirty hours a week on work outside the classroom, Shri Anand P. Srivastava, "On University Librarianship in India," Development of Libraries in New India, op. cit., p. 239. I was told by the Head Librarian, University of Bombay, that only about 10 per cent of the undergraduate students use the library (interview with Shri D. N. Marshall, Dec. 16, 1966).
7 Carl White, A Survey of the University of Delhi Library (New Delhi: University of Delhi), p. 10-11. It may be recalled that Branscomb's report of 1940 found the average American undergraduate used from 61.7 to 74.6 books a year.
8 Several reports acknowledge the seriousness of budget deficiencies; for example: Report of the University Commission, 1902; Calcutta University Commission Report, 1919; Report of the Hartog Committee of 1929; Wood and Abbott Committee Report 1937; and Universities Commission, 1948-49.
9 White, op. cit., p. 5-6.
10 Ibid.
14 Ibid., p. 8-9; University of Bombay, op. cit., p. 54.
15 White, op. cit., p. 39.
sity to define clearly the powers and the legal position of a library in relation to the governing authority of the university. An example of the occasionally ambiguous position of university libraries in India is Delhi. The University of Delhi "library is not recognized as one of the authorities of the University. Omission from the statutes of any definition of its scope and nature leaves a sort of no-man's-land of uncertainty and lack of order." This produces confusing decentralization in the control of library affairs. Even in the relatively routine matter of book selection it is not always clear at Delhi whether items are the property of the library or of the department requesting them.17

Such, then, is the picture of the average Indian university library: inadequately financed; frequently unbalanced collections; housed except for a few cases under crowded conditions with antiquated facilities; often isolated and unable to tap other collections; and generally understaffed. It is a picture that does not at first glance offer great hope for the future.

Tentative Approaches

One approach to these problems lies with the student himself. Ideally, the Indian student must become aware of what libraries and library services can add to his educational career. Such an awareness by students would certainly generate pressure and impetus toward strengthening university libraries. At present, unfortunately, a self-perpetuating cycle exists whereby the administrator can point to the slight use of libraries in justifying small budgets that in turn hold both collections and services at an undesirable level.

More studies on the reading habits of students would be useful in enabling the librarian better to anticipate and meet the desires and needs of the students. But thus far investigation of the reading habits and requirements of Indian students has not been great. Whereas such studies seem to some observers almost too plentiful in the United States and Britain, in India they are a rarity.

Helpful also would be greater effort to strengthen channels between the departments of the university and the library. The use of available funds would be enhanced by a closer relationship between instructional needs and library resources. Too often instructors do not really know what is in the library, with the result that students are expected to become familiar with materials that are unavailable.20 There are also occasions when existing library resources are insufficiently utilized by instructors. The responsibility for this condition rests not entirely with the library, though as a central agency it is logical that the library should take initiative in remediating any lack of fruitful communication.

It is easy to conclude that more money for library collections and facilities would furnish the entire solution to existing problems. To a large degree lack of funds is the source of most inadequacies, yet librarians familiar with the situation in India recognize that the demand elsewhere in society for available money is so great that it will doubtless be some time before library budgets can or will receive a high priority.21 Short of larger

16 Ibid., p. 61.
17 Ibid.
18 One exception is the modern library facility at the University of Mysore.

19 Srivastava says that between 1881 and 1957 there were about 3,600 such studies in the United States and Great Britain. Op. cit., p. 240.
20 A course syllabus at the University of Delhi listed the literary works of fifty-two authors, with but 37 per cent of these volumes in the library. White, op. cit., p. 41.
21 There has been some increase in budgets over the years. Of the total budget for university education in the First Five Year Plan the purchase and binding of books and periodicals accounted for 1.7 per cent of the budget. In the Second Plan it accounted for 2.8 per cent; and in the Third Plan, for about 5 per cent. R. Kalia, "Libraries in the Fourth Five Year Plan," Indian Library Association Bulletin, I (January-March 1965), 8.
budgets, the sensible approach seems to be more concentration on fuller and better utilization of existing collections; promotion of greater student use of libraries; and closer administration-faculty-library relations. Even the most worthy collections and adequate budgets are of little value unless there is realization of the important role libraries can and should play in the life of a modern university.

Fortunately the library profession in India is intelligent, imaginative, and of high attainment. It is probably the greatest single asset of the Indian library movement at present, since while working under trying conditions it is nonetheless building better libraries for the country. The men and women within it realize the importance of their role in contributing to the development of a new dynamic India, while preserving for future generations the heritage of this ancient land.
KEITH E. MIXTER

A Visit to Some Music Libraries in Eastern Europe

The author relates a kind of travelog of his visits to music libraries in Yugoslavia, Rumania, and Hungary. He describes collections, organization, staffing patterns, physical plants, gives brief historical notes, and general impressions from his tour. The trip was made in preparation for a projected “Guide to European Music Libraries and Collections.”

IN PURSUIT of materials and information for a “Guide to European Music Libraries and Collections,” most of the summer of 1966 was spent in Europe visiting national libraries.¹ My schedule called for me to be in eastern Europe in September. Since Dragan Plamenac’s excellent report of 1961² covered Poland, East Germany, and Czechoslovakia, I planned to concentrate on Yugoslavia, Rumania, and Hungary.

Proceeding south and east from Basel, Switzerland, my home base, my first stop was Belgrade. Here my attention was first directed to the Narodna Biblioteka, which is housed in an old and inadequate building (on the Knez Mihailova, 56). The National Library was badly damaged during the war, and there are plans to build a new structure to house the collections. The music holdings are very small. Apparently collecting in this area, particularly in musicology, is being left to the Muzikoloski Institut of the Srpska Akademija Nauka (Musicological Institute of the Serbian Academy of Sciences, Knez Mihailova, 35). Even here, however, the holdings are modest, numbering about one hundred journals, 2,682 books, 1,822 pieces of music, and about six hundred records. As in most Slavic countries, much attention is given to folk music. The Institute serves the university, as well as other scholarly musical interests in Belgrade. One gets the impression that support for libraries in this city is not strong, but that personnel are working very hard to make do with what they have.

My last library visit in the capital was paid to the Muzicka Akademija (the Conservatory, Ulitza Marsala Tita, 50). Efficiency and organization were more in evidence here than in any other library in Belgrade. The collection numbers about thirty thousand volumes and is designed, of course, to support the musical activities of the Conservatory. It appears that much of the instruction in music history and theory here, as well as at the sister institution in Bucharest, is carried on through the use of mimeographed texts written by the teachers themselves; these texts are found in the libraries in multiple copies. The present card catalog for music is handwritten, but new typed cards are in preparation. The use of the Cyrillic alphabet is a hindrance, for since most of the performance music is published in the West, two catalogs are

¹ The author wishes to express his appreciation to the Ohio State University for a grant in support of research and travel for the “Guide.” The present article is drawn from the lecture “European Musicology and Music Libraries, Summer 1966,” delivered at the State University of New York at Buffalo, November 2, 1966.


Mr. Mixter is Associate Professor of Music History and Literature in Ohio State University.
necessary, one in the Latin and one in the Cyrillic alphabets.

An overnight train journey brought me into Bucharest about seven in the morning. Following a frustrating wait for a hotel room in the central government tourist office, I deposited my luggage and embarked upon a quest for music libraries. Public transportation is minimal in this city; indeed, one sees considerably fewer vehicles in general than in the West, and many of these are military. The reception accorded me in the libraries was most cordial. My first visit was to the Biblioteca Centrală de Stat (str. Ion Ghica, 4). One of the librarians at this national library, Mr. Samuel Katz, proved to be very knowledgeable in musical affairs, for he is a graduate of the Conservatory and had served for many years as a conductor. While talking about the library, he strongly emphasized its mission of service to the people. In the music division this is exemplified by periodic music appreciation hours, consisting of a discussion of the composer’s life and works and the playing of selected compositions. The music room is equipped with several earphone listening posts (although in the actual lectures speakers are used) and a record and tape library. Mr. Katz was most helpful in providing information about important collections outside Bucharest.

At the Biblioteca Centrală Universitară (Onesta, 1) a student of architecture, who could speak French rather well, gave freely of his time in showing me the library and its collections and in introducing me to responsible authorities. The music holdings of the university library are small, although both here and in the Conservatory library a proud acquisition, for obvious reasons, is a facsimile edition of George Enescu’s opera Oedipe.

The Conservatorul “Ciprian Porumbescu” (Str. Stirbei Vodă, Nr. 33) is named after the distinguished Rumanian composer of the second half of the nineteenth century, a pupil of Bruckner in Vienna. Porumbescu is perhaps unique in the annals of music history, for the name of the place of death of this composer and political martyr has been changed to “Ciprian Porumbescu”!

At the time of my visit, the Conservatory was undergoing considerable renovation, and work was being hastened to meet the opening of classes. Young women were conspicuous among the workers engaged in this task. The library is a closed collection, and the volumes are shelved by size in four categories. This seems to be a favored arrangement in closed collections in Europe. As in the national library, the works of Lenin and other Communist leaders are prominent. I was told that ordering is done through a central agency, and that while European publications can be readily acquired, those from the United States are difficult, if not impossible, to obtain. The library enjoys the services of a translator who apparently translates foreign language publications into Rumanian for the students. The card catalogs consist of one for books, by author, and one for music, both systematic and by composer. The catalog of compositions by Rumanian composers is being abandoned. The holdings number 560 periodicals, 11,400 books, 44,000 volumes of music, and 300 manuscripts. The Conservatory emphasizes opera production, and toward this end has studios for stage design and photography which are professionally staffed.

Before departing from Bucharest I paid a visit to the Biblioteca Academiei (Calea Victoriei, 125). The academy possesses about twenty-five thousand printed scores and six thousand eight hundred musical manuscripts. Where the national libraries are assuming more and more the function of “people’s libraries,” as in Belgrade and Bucharest, the academy li-
libraries are being made responsible for scholarly collecting. A word of warning to those who might expect to work in libraries in Rumania: special collections and those responsible for them are accessible for the most part only in the morning!

An overnight train, leaving at midnight, brought me into Budapest in the early afternoon. Because of the weekend I was able to visit just one library, the music division of the Orszagos Széchenyi Könyvtár (Pollack Mihály-tér 10, actually in Pest). Although it is possible to trace the spirit of the national Széchenyi library back to the famous Biblioteca Corvina of the fifteenth-century King Mátvás, the real foundation of this institution is the endowment of Count Ferenc Széchenyi, who, from 1802 to 1807, gave twelve thousand items from his private collection to the national library. For many years the museum and library were united, but they have now been separate since 1949. The character of the library today is guided by the principle that it should act as a collector of Hungarian books, and this is accomplished mainly by deposit laws. The library also functions as library administrator for the nation. The collections are presently very inadequately housed, but the personnel are looking forward to a magnificent new situation in the old Royal Palace overlooking the Danube on the Buda side.

Although music material in the strict sense has been collected since about 1900, the music division was first established in 1929. It is headed by Jenö Vécsey, who was very ably represented during his illness at the time of my visit by István Kecskeméti. The basic material falls into three parts: manuscripts, prints, and recordings. Books and peripheral material are in the main collection of the national library. The division itself is strong in Renaissance and Baroque music, especially in the Bartfa collection, and in the Vienna classics. The latter area boasts not only many autograph Haydn scores, but also strength in such composers as Gregorius Joseph Werner, Michael Haydn, Johann Georg Albrechtsberger, Karl Ditters von Dittersdorf, and Franz Xaver Süssmayr. Of particular importance is the famous Esterházy Archive. Although nineteenth-century composers such as Schubert and Schumann are represented in both manuscript and first edition, local association is more typical of nineteenth- and twentieth-century figures such Liszt, Ference Erkel (the composer of the Hungarian national anthem), Bartók, Kódaly, and Dohnányi. The old printed catalog of manuscript music is supplemented by continuations on cards. There are also card catalogs for the reference library, books on music, prints, the Esterházy collection, Hungarian text incipits, series, and records, as well as a quick reference catalog for the principal composers. Several publication series and selected recordings are emanating from the national library music collection, including "Musica Rinata" and "Serate d'opere di Esterháza." In spite of inadequate housing I received the impression that there is strong support for the library.

The train journey from Budapest to Vienna, from which point I was to continue my tour, was a rather short one. By making it, one recovers some of the cultural rapport which existed between these two metropolitan centers before World War II and which is so strongly in evidence in our musical heritage.

The ultimate purpose of the Monteith Library Program of which the pilot project is here reported by the project director, is to "stimulate and guide students in developing sophisticated understanding of the library and increasing competence in its use."

In no area of academic librarianship could a solid piece of pioneering research be more valuable than in the instruction of students in the use of the library. Here the argument of instruction versus information thrives and even the advocates of instruction are frequently weary, frustrated, and dissatisfied with the state of the art. One suspects that the difficulty of finding a suitable situation for a thoroughgoing experimental study has been a prime stumbling block to the development of a respectable body of research. Only a relatively small, experimental college like Monteith stressing general, liberal education and committed to developing in the student a growing responsibility for his own education would probably have been hospitable to library instructional coordination on such an unprecedented scale as the Monteith Library Program.

The project called for participation of the project staff in the planning of college courses and cooperation with the faculty in devising assignments which would involve extensive and meaningful student use of library resources. One specific objective of the pilot project was an appraisal of the structure set up to achieve this new library instructional relationship. The chapter reporting the analysis of social structure in the Monteith Library Project and the revision of the organizational structure which took place after a period of testing is of first significance for future research and of particular interest to college librarians who may feel that the revised structure would be in essence transferable to projects set up in more conservative situations.

Other specific objectives of the pilot project were an exploration of new methods of relating the library to the instructional program and a preliminary assessment of the effectiveness of these methods. Dr. Knapp records the experimentation of the first year in which fourteen curriculum-related library assignments were carried through and an intensive study made of a small random sample of students who had been exposed to the initial program. The understanding acquired through these efforts in planning library assignments, reinforced by the result of the small sample study, led to assignments in the following year which represented a new approach. This approach is reflected in a model program of instruction in the use of the library which is unprecedented.

The outstanding concept of the model program is the framework for college instruction in the use of the library which centers on the intellectual processes involved in retrieval of information and ideas from a highly complex system embracing both library organization and the networks of scholarly communication. For teaching purposes the library is viewed as a system of "ways."

While the model program is designed specifically for the Monteith curriculum it is adaptable to other undergraduate liberal arts programs.

The pilot project is intended to serve as the basis for a plan for the second phase of the Monteith Library Program "if and when funds become available." One hopes prompt support will be forthcoming.—Helen M. Brown, Wellesley College.


Peter Duignan, director of African Studies at the Hoover Institution on War, Revolution, and Peace has performed a useful service by bringing together these descriptions of American resources for African
Studies, many of which had previously appeared in the pages of the *African Studies Bulletin*, an organ of the African Studies Association. While acknowledged incomplete, it is a start in the right direction, and, hopefully, we may look for a near-complete record in the future. Gathered largely by responses to questionnaires, the *Handbook* describes the African resources of 95 library and manuscript collections, 180 church and missionary libraries and archives, 95 art and ethnographic collections, and 4 business archives. Entries range from a laconic line-and-a-half to a very extensive description (40 pages) of the holdings of the National Archives compiled by Morris Rieger, director of the National African Guide Project, which will appear later as a separate monograph, and by E. J. Algoa of the National Archives of Nigeria. Americans—particularly those new to African Studies—will be surprised at the extent of American involvement in Africa prior to the Civil War. There is a very extensive index which will be a big help to reference and interlibrary loan libraries.

A correction needs to be made. On page 125 the *Handbook* states “Stanford University is a member of the Association for Research Libraries which maintains the Center for Research Libraries (formerly the Midwest Interlibrary Center at Chicago.)” Not so! The Center is, and has been all along, a private corporation maintained by a number of important libraries. It has cooperated with the ARL in many important collecting projects and recently all ARL members were urged to become members of the Center.

Interestingly enough this typographically pleasing volume was printed in Hong Kong by the Cathay Press.—David Jolly, Northwestern University.


Harry C. Campbell has performed yeoman’s service for the profession in compiling such a substantial body of information concerning a number of metropolitan public library systems throughout the world. He has also identified and described many attendant problems. As chief librarian of the Toronto public library, one of the most progressive on the North American continent, the author is in an enviable position to treat this subject authoritatively. He has not only first hand experience in a metropolitan public library system; he has traveled extensively to observe many of the specific situations he has included in his book and to discuss them with those responsible for their planning and implementation. Because one of the major problems facing the profession in general and public library administrators in particular at this period in library history relates to metropolitan and suburban problems, it is especially helpful to have this information so well organized and presented. The metropolitan problem is widespread and involves jurisdictional, economic, political, administrative, and sociological factors. All have been discussed in this treatise.

Mr. Campbell makes it clear that there are a wide variety of organizational patterns and structures which have evolved through the years. The early chapters describe them and the role and function of public library systems in the metropolitan areas, as well as background information. The remainder of the book is devoted to a description of library planning in nineteen metropolitan areas and to the future of metropolitan library planning. The relationship to public library systems of state, national, academic, and school libraries is placed in proper perspective. Growing concern on the part of responsible librarians everywhere as to patterns of use of libraries is apparent. We must know more about how people use books and information if we are to develop effective libraries. Mention is made concerning the need to extend the system concept of library organization to academic and school libraries in urban areas. As one studies the metropolitan problem this fact becomes increasingly obvious.

It is encouraging to see more in print about the interdependence of the various types of libraries, and emphasis being placed on the fact that there is not a great difference between large public library systems and academic, business, and research libraries, with respect to their collections. While each library serves a particular func-
tion, Mr. Campbell points out that intelligent planning dictates the establishment of meaningful relationships among them. Each library comprises a segment of the total resources of a community or metropolitan area and they should be available to all serious users on some kind of mutually agreeable basis. In several instances, the large public library in a metropolitan area is a specialized research collection as well as a source for popular recreational reading. At the other end of the scale, we see the need to reach the large segment of the population that does not use a library at all. Special approaches developed by many large public libraries, such as those in New York City and Los Angeles, need evaluation and further experimentation since this phenomenon is apparently to be with us for some time.

The book will be of interest to government officials, educators, planners, librarians and others concerned with metropolitan problems.

If there is any critical comment on the presentation, it may have to do with the fact that not enough emphasis has been placed on the role of the states (governmental units between national and local levels) and national governments with respect to metropolitan library planning. For example, the description of the Eastern Massachusetts Regional Public Library System makes no mention of the guiding and directing role of the Massachusetts Board of Library Commissioners and the Bureau of Library Extension in implementing the state-supported plan for regional library service. States are and should be expected to participate financially and in planning to find solutions to metropolitan library problems. Federal and national governments must contribute further toward the staggering costs of municipal services, including libraries. Lasting solutions to the problem lie in the successful cooperative efforts of municipal, metropolitan, state, and national authorities.

Mr. Campbell has paved the way with this information to further study of the situations and problems he describes so well. Let's hope that he and other authorities continue to investigate and report to the profession.—John A. Humphry, New York State Education Department.

**Printing, Selling and Reading 1450-1550.**


This book is an important example of the complex and vital relationship which can exist between bibliographical scholarship and the social and intellectual history of a period. Dr. Hirsch, who is associate librarian at the University of Pennsylvania, is to be admired for his labors and applauded for this contribution to our knowledge and understanding of social and intellectual developments not only during the first one hundred years of the mass-produced book but also of much of the subsequent history of printing, publishing, bookselling, and the problems of literacy.

Dr. Hirsch's own introductory note to his book is the best indication of the scope of his work and of what he has successfully completed: "The first chapter deals in general terms with elements which connect or separate the manuscript produced in single copies and the mass-produced printed book; it provides a background for all that follows. In the second chapter the invention of printing, the background and the personality of printers, and a number of related problems are discussed. Chapters III-V deal with the economics of printing, publishing and selling. The sixth chapter is devoted to legal and political implications, while the two final chapters try to solve some of the questions which might tell us for what groups of readers texts were produced in different parts of Europe, and for what purpose."

The reader of Printing, Selling and Reading 1450-1550 will quickly learn from Dr. Hirsch's survey of the problems which followed in the wake of the invention of printing that, as he puts it, "most of the blessings and the curses of printing and literacy have their roots in this early period." All of its conclusions are of interest, but it is particularly in its statements concerning the spread of literacy as a result of the printed book that this work merits close attention. Unlike the earlier and well-known point of view as expressed by Arno Schirokauer, whose essay "Der Anteil des Buchdrucks an der Bildung des Gemeindeutsch" is often referred to, that "new lay readers belonged very frequently to the economically favored classes," Dr.
Hirsch claims that: "Almost all classes of readers were affected by the new method of producing texts; it was the new reader, the person who belonged to groups which were formerly very largely without access to books, who benefited the most. As long as books were produced singly and were with few exceptions very expensive, 'Everyman' had little opportunity to read and to own a book. Without the printed book literacy would also have spread, but at a much slower rate. It was the new reader who assured the ultimate success of printing; mass production needed the expanding market. It was the new reader who tipped the scale in religious and socio-political controversies of the XVIth century; he provided the popular support, and he was understandably the target of most of the propaganda . . . the majority of new readers was recruited among children who formerly did not go to school, among women, and among the 'economically less favored' classes."

Printing, Selling and Reading 1450-1550 is an encyclopedic work, rich and useful. If this valuable book has a fault, it is that it reads like an encyclopedia, with the additional apparatus of bibliographical and historical scholarship—footnoted and documented fact piled upon footnoted and documented fact. Since the book is intended for the general reader as well as the specialist, one also misses a listing of at least the more important of those numerous yet essential bibliographical tools which describe the books of the first century of printing and contemporary history and about which Dr. Hirsch displays an enviable familiarity. But these are relatively minor flaws in a work of great magnitude and accomplishment.—J. M. Edelstein, University of California, Los Angeles.
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Prepared by Richard Schimmelpfeng

ABBREVIATIONS

Standard abbreviations for names of organizations, ALA, ACRL, LC, etc., are alphabetized as if spelled out. Other abbreviations:

- appt.
- cat(s)
- coll.
- ed.
- L(s), ln(s)
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- ref.
- s (before page numbers)
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- appointment
- catalog(s)
- college
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