Library Security:

An Administrative Overview

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In June 1972, the heavy flooding caused by hurricane Agnes devastated libraries in New York and Pennsylvania. Many books lost from collections there simply cannot be replaced. In Pennsylvania, Kingston's Hoyt Library lost more than 70 percent of its holdings, while the Osterhout Public Library in nearby Wilkes Barre lost just about everything. Mary Barrett, director of the King's College Library, also in Wilkes Barre, estimated the library's losses at well over one million dollars. The once attractive new Wilkes College Library had extremely heavy losses, including all books on its first floor and basement, the graduate studies collection, and most of its periodical holdings. No sooner had the flood waters subsided than its stacks collapsed, due to the condensation of humidity which caused the shelved books to swell. One librarian at the Hummelstown Community Library in the Harrisburg area remarked ruefully that the twenty years of dedicated work that went into building a fine library were cancelled out in twenty hours by the flood.

Such were the feelings after the fire at the Kittrell (North Carolina) College Library, where damage was estimated at $300,000. Fire officials there linked the holocaust with student discontent, but as yet arson has not been conclusively proved.

Catastrophes like fires, the June floods, and the campus riots of a few years back have drawn attention to library security as never before. Buildings can be replaced, but a priceless collection representing years of assiduous and discriminating selection cannot. It appears that at last careful study is being given to this abiding problem in all its uncomfortable aspects. To avert the devastating losses incurred by acts of God — fires, floods, hurricanes, and earthquakes — or to cope with the lesser but more prevalent problems of burglary, book theft, mutilation, vandalism, and threats to the card catalog, the library administrator must be prepared with foresight, imagination, and plain common sense. Even so, after retiring for the night he may find himself wondering — as did Roger Rapoport and Lawrence Kirshbaum in their book on student violence — Is the library burning?

The Building and Equipment

Fire

Of all possible catastrophes, fire probably causes the most devastating losses.

The capital value of a library's collection, including all the work and man-hours that have gone into acquiring it and organizing it for accessibility, often amounts to many millions of dollars. Sound building design and fire-protection engineering can often eliminate the serious threat of fire to the building and its collection. One of the commonest causes of damage to the library, fire originates most frequently in library basements, largely from a combination of poor housekeeping at that level, storage of combustible materials, and the presence of heating and boiler rooms. From there it may quickly spread by updrafts to all parts of the library. Most library fires are started between 9 P.M. and 9 A.M.

In the early 1960's the ALA Library Technology Project sponsored a study by Gage-Babcock and Associates of fire prevention in libraries, and their report, published in 1963, surveyed measures to be taken in design and building. The major suggestions they made were:

1. Segregation of the more hazardous areas such as the heating unit in the building from the rest of the library

2. Elimination of vertical draft conditions as in floor openings in multi-tier stacks, construction of horizontal barriers such as continuous floors, and enclosure of stairways and elevator shafts

3. Construction of fire walls, preferably of concrete block, poured concrete, or brick construction, as well as fire doors and wooden doors with a mineral core or treated wood

4. Use of fire-resistant materials in construction as well as in furnishings

5. Installation of a central-station fire detection and alarm system, with sensors for detecting heat, smoke, or gases from fire

6. Careful supervision of library operations, including control of smoking and good housekeeping practices

7. An effective system of periodic inspection

Librarians have disagreed for a long time about the advantages and hazards of sprinkler systems. Those opposed to the installation of a heat-activated system fear damage from water as much as from fire, and some feel that fog or foam devices are superior to spray nozzles. The system carries a built-in risk, for the malicious vandal or prankster intent on causing trouble may activate it by holding a lighted match to the heat sensor. It was only after lengthy pleading and arguing that administrators of the Wilson Library at UNC-Chapel Hill convinced the state board that sprinkler systems would not be the best choice for the planned extension of the stacks. For the same reason library administrators may also disagree about whether or not to plan for the installation of hose line and stand-pipe water systems. They tend to favor certain other fire extinguishing systems. These include gas, dry chemical, or even a device referred to as a "drop-damper." Portable fire extinguishers have reportedly controlled more than one-third of all reported fires in industrial establishments. As with all extinguishers, they should be inspected annually.

Flooding

Water damage from sprinklers, though, pales beside the damage which may result from a major flood. Obviously libraries must be built on high ground in areas subject to regular flooding. During a visit to Lock Haven State College last year I noticed how far removed the campus and library buildings were from the Susquehanna River far below. In sharp contrast, the Ross Public Library is located in the downtown Lock Haven area where the recent floods destroyed 20,000 volumes and took a heavy toll in its Pennsylvania Room.

Care in the choice of a site for the library in flood-prone areas may not entirely avert the threat of water damage, however. Water seepage from roofs, patios, or pipes above stack areas poses problems in building design and collection housing. The Lilly Library at Indiana University contains no horizontal water lines, while all vertical lines are copper enclosed in vertical concrete viaducts which, in the event of leaks, empty into a basement drain. The unfortunate damage to one of the reading rooms at Hofstra University has caused Ellsworth Mason to advise against housing rare books in the first level below the roof. It would be folly, of course, to house them in basements subject to flooding in heavy rains, but that is exactly where some of the most valuable books at Rice University's Fondren Library were when engulfed in flooding rain water in 1966.

Earthquakes

In quake-prone areas, a serious earth tremor brings with it many of the dangers of flood or fire, since broken waterpipes and electrical lines can produce widespread fire and water damage. The February, 1971 quake in southern California, registering 6.7 on the Richter Scale, had its epicenter in the San Fernando Valley, where it dumped 350,000 of the 500,000 volumes in the San Fernando Valley State College library onto the floor and twisted 70 percent of the metal stacks. UCLA reported that floor-bolted shelving had twisted and dumped so many books that the stacks had to be closed for a week.

Since the Stanford University library reported earthquake damage in 1906, California building codes have required better design and construction. Yet the frequent earthquakes in California may force building contractors to take another look at those codes. Areas with frequent incidence of earthquakes, like California, Nevada, and the corner where Missouri, Arkansass, Tennessee, Kentucky, and Illinois meet must give some thought to building design and construction.

Periodically, architects come up with new techniques designed to stop the effects of earthquakes. One of the latest, developed by civil and structural engineer Marc J. Caspe of Belmont, California is called the "isolation technique." It changes the conventional practice of building the foundations and superstructure of a building all in one piece. Caspe's system replaces the usually rigid connection between the two with movable, shock-absorbing devices that essentially divide the building into two distinct parts capable of independent, lateral movement. He suggests using a system of ball bearings for horizontal movement and control rods and springs for shock absorption and control. Thus, foundations can shake, but buildings will not topple. Until such techniques become more common, the planners of buildings in danger areas will want to insist on reinforced concrete and will have to expect an additional five percent in construction costs.

A building carefully constructed to withstand a devastating natural disaster may still be vunerable to losses from burglary. To an expert burglar, a library's electric typewriters, calculators, adding machines, projectors, and the like have much more cash value than books on the open market. The Enoch Pratt Library lost so many typewriters that, for a while, they considered the idea of going back to library hand. Some libraries keep minor operations funds or ready cash from fines, fees, and photocopy receipts under counters and in desk drawers. According to the Ohio Library Directory, that state's 259 public libraries took in almost $4 million over the counter in 1968, which is hardly small change. Where doors and windows and even vaults may not hold back a burglar, the installation of an intrusion alarm may eventually pay for itself.

There are many kinds of "burglar alarms" currently on the market. Some certified alarm systems will automatically lower insurance rates. One type of system has switches connected at doors or windows, and if set off they will activate either lights, alarms, or a signal at the

police station. However, the burglar with electrical savvy can deactivate them. Another type, vibration detectors, can be used to protect certain objects such as safes or filing cabinets. Others include the "capacitance detector" (by which antennae take on electronic charges caused by the presence of an intruder — changing the capacity of the unit and activating an alarm); the photoelectric systems having infrared, ultraviolet, or flickering beams; and sensitive lightmeter systems, set at a given level after closing, and responsive to both a shadow or the glow of a match or flashlight.

Mob Violence

Student violence and mob disruption pose a real threat to library property on a large scale. But during these disruptions library administrators must decide on a compromise between security and accessibility. Requiring identification cards for admission into the library may suffice until violence escalates dangerously. If that happens, administrators and staff should have a plan outlining what to do in case of an attack on the library. The disruption at San Francisco State College caught the library without any kind of policy to cope with the ordeal its staff endured. Such a policy might have included the following:

1. Advance preparation of the building for physical security, fire extinguishers, fire exits, locks, routing; microfilming the catalog and shelf list; closing off book drops which lead deep into the building.

2. Prior understanding about lines of authority and relationship with school administrators and campus police.

3. Establishment of a staff information network and a secondary communications center.

Moreover, large university libraries can convey, through a newsletter, information about attacks on other research libraries, including protective measures and model plans for defense.

Bomb Threats

The minutes of a recent Association of Research Libraries meeting (June, 1970) contain a multitude of suggestions on what to do in case of threatened student violence. Yet nowhere do the participants touch on the problem of bomb threats. Such threats pose a special problem, since they may merely amount to harassment, but they cannot be ignored without risking death and destruction. In dealing with a telephoned threat, the librarian answering should try to make the caller be as specific as possible. He might also want to ask a deliberately misleading question in order to detect if the caller knows the library, or if the threat merely represents harassment. If the threat seems real, one should try to get as much information from the caller as possible to help later in identifying him, whether by voice, dialect, or background noise. The longer the conversation, the better the chances of tracing the call. Finally, security people or, if possible, specially trained and experienced personnel should evacuate and search the building.

The Collection

Vault Storage

Despite all possible precautions outlined above, quake, fire, flood, breakins, and mob attack continue to take their toll. As a back-up measure, then, some libraries house precious possessions in a safety vault, commonly designed as an integral part of the library's foundation. Usually these vaults hold such treasures as microfilm copies of the card catalog or an alternate card catalog, expensive or rare nonbook gifts from alumni and benefactors, curios of all sorts, and articles of unusual historical value.

The vault in the basement of the Wilson Library at UNC-Chapel Hill houses a mixture of treasures, some of dubious, some

of unquestioned value. It has the honorary doctoral cape given to President Franklin D. Roosevelt, the watch of a mid-nineteenth-century University geology professor — Elisha Mitchell, a complete set of LIBRARY NOTES, a master of the North Carolina union catalog on film, and a few statues. In addition, it holds an unusual collection of some 250 cut glass celery dishes valued at nearly $160,000, given by the late Dr. Jacocks, an alumnus who spent his life in India as a public health officer.

Exit Control

But obviously an entire library cannot fit into a vault. In order to protect the books and materials themselves, the most basic precaution is to minimize exits. Plans for recently constructed university buildings, like the humanities and social sciences research library and library school at the University of Toronto, or the undergraduate library at UNC-Chapel Hill, specify that the front entrance will serve as the principal (and only public) entry. Other than a service entrance, usually at another level and in the rear, any additional exits required for the safety code are designed for emergencies only. But despite large and threatening signs on such emergency exits and the alarms their opening sets off, a few people always use them to walk off with books.

According to Emerson Greenaway, retired director of the Free Library of Philadelphia, prevention of book thefts is one of the urgent problems facing our library today. At many large libraries losses soar into the thousands of dollars yearly in replacement and processing costs, not to mention the time, cost, and effort needed to search for and reorder lost books, the problem of replacing out-of-print titles, and the frustration of readers who want the books they see listed in the card catalog. This inevitable and continual book theft can be minimized and drastically discouraged through administrative policies and exit security control systems.

If books are stolen because the reader

has to compete for a book, the librarian may want to correlate need with number of copies purchased, grant borrowing privileges where none existed before, or adjust the length of the loan period. In some cases scholastic pressure, resulting in high potential use of a collection by persons granted access but denied borrowing privileges, will result in a high rate of loss. If materials in high use tend to stray, the librarian may choose between increasing or decreasing accessibility. Or he may want to mark books more conspicuously as a constant reminder that they are borrowed from the library.

Electronic Theft Detection

However, if the number of "lost" books cannot be reduced, despite a manned exit check, an electronic theft detection system may be necessary. This is the case at the undergraduate library at Chapel Hill. Its Final Program report in 1966 sounded a note of confidence in the building design ("It should be possible for one person with one exit to control the whole building"). But by July, 1972, its annual report had taken on a tone of weary realism. As the annual report for 1971-72 puts it: "annual replacement costs, figured at a conservative $8-$10 per book, and personnel costs for exit control clerks, will be approaching the figure necessary for a one-time purchase of an electric surveillance system."

Librarians plagued by book theft have found electronic theft detection systems an appealing answer to the problem. At least five of these electronic alarm systems are on the market in the United States. Called variously Checkpoint, Knogo, Sensormatic, Sentronic, and Tattle Tape, all use some sort of electronically sensitized lamination in the form of thin strips, bookplates, end papers, or tipped-in pages. These are hidden or placed unobtrusively in the book or library material. Properly checked out, materials bearing these sensitive laminae are processed easily and uneremoniously through a desensitizing check-out machine, which allows them to

pass through an exit detection point without setting off an alarm. The alarm may take the form of a bell, buzzer, flashing light, sign, or automatically locking turnstile or exit door. All of the systems aim primarily to keep honest patrons honest rather than to apprehend determined thieves.

Prices vary for this hardware, but all that have been installed have been worth their price in what is called "cost-avoidance." The systems may be purchased for $6,700 (Tattle Tape) to $12,000 (Sentronic) plus the cost of laminae, which range from $0.11 to $0.19 each. (Libraries need not sensitize every book in the collection.) Most of the systems can be rented by the year. Apparently this has proved to be a small price to pay. Claims have been made that in the more than 100 libraries using Checkpoint, for example, the system has paid for itself. Two branches of the Free Library of Philadelphia reported a drop in thefts from 1.72 percent per year to 0.12 percent. Columbia University's Engineering Library claimed a reduction from 34.4 percent to 5.6 percent per year. Columbia's Burgess-Carpenter Library, Yale University Medical Library, and Pace College Library all showed figures to indicate significant loss reduction. While not completely foolproof, these systems are surely more efficient in safe-guarding the collection than total reliance on a door guard whose attention may be less vigilant. Many a book processed in the electronic systems has returned safely to its place on the shelf to await another reading.

Preventing Mutilation

Exit control, however, can in no way eliminate the danger of mutilation. Some illustrated, rare, and special materials such as manuscripts, maps, and paste-in plates invite theft and mutilation and must be made available only under the watchful eye of the librarian. Such surveillance may be maintained in rare book rooms or in specially constructed glassed-in and secure reading rooms, as at Princeton, Indiana, Harvard, and Yale, to name a few. Un-

fortunately, mutilation such as underlining and marginal notation may be done without removing the book from the stacks, and might go unnoticed for years.

When limited access to materials has proven ineffective, other measures may help prevent mutilation. In the past some librarians have posted threatening warnings to prevent defacement and mutilation, but such measures may create resentment and actually precipitate mutilation as an angry reaction. Some libraries imprint their names with large and conspicuous stamps on the book edges, on the margins and backs of book plates and illustrations, and on maps and documents. Most libraries regularly make displays of mutilated materials as an educational deterrent.

In a few cases such measures can discourage mutilation or even encourage a change of heart, helping clipped or stolen materials to find their way back to the library in due time. William S. Powell, curator of the North Carolina Collection at Chapel Hill, tells how, some ten years ago, he traced a malefactor who had taken clippings from the newspapers in its stacks files. In noticing the theft he discovered a pencil left behind, bearing the name of a business firm listed in a North Carolina phone directory. Matching the family name of an executive at the firm with a name in the UNC student directory, Mr. Powell identified the person he suspected and confronted him with this information. At the time the accusation proved futile in retrieving the missing material. But several years later the now contrite student mailed the pilferred clippings, since incorporated into an elaborate scrapbook-study of his own North Carolina family history, and asked that the library accept it as a gift to make up for the original loss. Despite its semi-happy ending, this story serves to show the futility of a librarian's efforts to prevent mutilation and theft in the first place.

The Card Catalog

The history of library losses and damage shows the card catalog to be

especially vulnerable to attack and vandalism. Its mutilation would result in serious confusion, and its reconstruction card by card would require thousands of tedious and enormously expensive man-hours. Obviously the information contained in this card form should never be exposed, even in part, to the possibility of loss without some kind of safeguard.

As long as the card catalog is "public" it remains vulnerable to damage by cranks, pranksters, vandals, and activist demonstrators. Increasingly the catalog has been singled out as the focus of attack during student violence and mob action on college and university campuses. The frequency of violent student demonstrations that rocked American campuses during the 1968-69 academic year increased in 1970, particularly after the U.S. incursion into Cambodia and the killings at Kent State University in May.

The card catalog has received its share of damage from these demonstrations. Two years ago, for example, 25 catalog drawers were destroyed or damaged at Queens College. Months later vandals struck at the University of Illinois, where they removed 16,000 cards from the catalog. Soon after that N.Y.U.'s Stage Engineering Library lost 30,000 cards to vandals. Sometimes vandals have even poured glue or paint into the card trays.

Two weeks of vandalism took its toll at the main library of Stanford University early in 1971, resulting in catalog damage which amounted to nearly $15,000. At least 11,000 cards were removed from the card catalog, half of them torn, stained with ink, or otherwise defaced, many scattered about with written slogans such as "5000 cards a day." The dissidents hoped these tactics would force the library to rehire a dismissed employee who had helped disrupt a speech by Henry Cabot Lodge. Protesting Lodge's big business associations, they had picked the subjects: "Business," "Corporation," "Currency," "Economics," "Industry," and "Henry Cabot Lodge."

Precautions are expensive, requiring time and money on a continuing basis, since the catalog is a dynamic, changing

record. The University of Washington, for example, microfilmed the entire contents of its catalog in twenty days at a total cost of $2,930. Costs of microfilming additions may be about $7 a month. In times of trouble, the advantage of precautions outweigh the possible cost of replacement. A reliable method is to microfilm the entire catalog at intervals of five years, the most recent complete film to be supplemented by a catalog of main entry cards to be kept up to date with the principal catalog, the supplement to be discarded at the time of the next complete filming. This might even include filming the serials records.

The catalog may be microfilmed either by rotary camera, a less expensive method, or by planetary camera, which would allow later reproduction of usable card copy directly. The first might cost as low as ⅛ cent per card, or six to eight cards for one cent, and the second reproduction, no more than $0.02 per card.

The production of book-form catalogs rates as another popular catalog security measure. If produced from microfilm, the cost would not be much more than that of reconstructing four to five drawers of the card catalog. Furthermore, the availability of book-form catalogs would allow closing or restricting access to the card catalog during attack or mob invasion.

Still another protection measure has come into practice recently, but only the very large or the special library has used it. Catalog information may be stored by computer in cans, and these may be used to reconstitute a complete catalog in card or book form more effectively than any other method. Of course no matter how much the librarian chooses to record or film it, the catalog may be tampered with by the most unobstrusive user. I have been told, for example, how in one large university library a core of graduate students in one of the social sciences for a while secretly but systematically refiled all of the cards under certain subjects into a form they found more useful.

The administrator should not forget the tremendous value of the shelf list, which

can serve as a valuable inventory of a collection destroyed, damaged, or in danger. For this reason it may also merit microfilming. Its accuracy and safety may insure replacement of valuable collections lost in fires or destroyed in any way.

Contingency planning for disaster could do much to alleviate the magnitude of problems once they have occurred. Besides providing for prevention, perhaps the administrator should plan for salvage and restoration of materials if disaster strikes. Preplanning will not guarantee immunity from damage by fire and flood and bomb, but it will reduce the probability of damage. It is also very likely that such planning will reduce the amount of damaged material as well as the cost of insurance premiums.

Insurance

Having adequate insurance on the library's collection and equipment constitutes the first and last measure a librarian can take to provide for library security and maintenance. A commercial insurance company may furnish comprehensive protection (usually excluding the building itself). Or the state may take care of a university library by setting aside, over the years, a general reserve fund for insurance coverage, as is the case at UNC-Chapel Hill. The library that is thus "self-insured" must inform the appropriate authority of changes in the value of the collection as investment and purchases continue.

The 1963 ALA-sponsored Gage-Babcock study of library protection and insurance offered a model insurance policy for libraries. Since then the Insurance for Libraries Committee of the ALA and the Insurance Service Association of America, an independent group of insurance agents, have helped to persuade a number of insurance organizations to adopt forms on this model policy.

The library director has the responsibility to take basic precautions and make basic estimates of value before agreeing

to coverage. When he has done this, insurance underwriters will ask the librarian to make his own appraisal of the collection's value and will usually agree to an average cost per unit for each class of materials represented. They will also inspect the building and will expect that all possible safeguards have been made before offering coverage. Otherwise insurance policies may not cover all labor costs involved in replacing the collection or reconstructing the card file.

Thus, all the suggestions in this paper point up one reality for the administrator. Perhaps no mobs will attack, no fires ravage, no flood waters inundate, no earthquakes rend, or no bombs blow up the library — but planning for these catastrophes as thoroughly as the budget permits will at least have one positive effect: the lowest insurance costs possible.

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