Creating Library Interiors:
Planning and Design Considerations

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The purpose of this article is to provide a checklist of items to consider that relate to the interior design of a public library, although it is not necessarily limited to public libraries. These considerations are intended to help the librarian, in collaboration with the architect and/or interior designer, achieve a library interior design that is highly functional and comfortable for all who use it.

In addition to this checklist, the library planner and interior designer will want to consult two relatively new and/or revised publications: Carol R. Brown's *Planning Library Interiors: The Selection of Furnishings for the 21st Century* (1995), and William W. Sannwald's *Checklist of Library Building Design Considerations* (3rd ed.) (1997). A third publication, a classic work albeit slightly dated, is Aaron and Elaine Cohen's *Designing and Space Planning for Libraries: A Behavioral Guide* (1979).[1] This trilogy is the core of a growing body of literature on library planning and design.

Access

The library's interior should be as barrier-free as possible, beginning at the main entrance. Barrier-free design directly benefits persons with disabilities while simultaneously improving the general usability and safety of the building for the general public (e.g., doors will be easier for everyone to open, and there will be fewer tripping and falling hazards). The building must be compliant with the requirements set forth in the Americans With Disabilities Act (ADA) of 1990 and the *ADA Accessibility Guidelines for Buildings and Facilities*, issued one year later.[2]

It is preferable that a library have only one main public entrance that serves everyone entering the building. Consider using a double-door vestibule to prevent drafts and heat loss and be sure that doors are clearly marked "ENTRANCE" and "EXIT." Consider also using automatic, sliding doors at the main entrance; otherwise be sure that doors are easy to open.

The entrance to the children's area should be very distinctive and inviting to children. If feasible, the children's entrance should be readily visible from the library entrance.

Acoustical Treatment

Efforts should be made to minimize disturbing noises for the benefit of people who are merely browsing through the collection, as well as for those who are staying for longer periods, reading and studying. Sound control can be achieved in part through the types of materials used on walls, ceilings, floors, and windows. It also can be affected by the general layout of various areas, traffic through these areas, and the arrangement of furnishings.

Special attention should be given to certain areas such as restrooms, photocopying areas, conference and meeting rooms, and mechanical equipment rooms. The mechanical equipment rooms should not be located near public service reading areas, conference rooms, or library offices. Also, encourage designers to provide a safer "margin of error" in controlling duct noise in areas where staff and users must talk, where staff must concentrate, or where users must study.

Assignable and Nonassignable Space

Assignable space is space that can be applied directly toward library services (e.g., collection space, children's area, circulation area). Assignable space constitutes the net square footage of the building.

Nonassignable space is the space that can *not* be applied directly toward library services (e.g. corridors, stairwells, elevators, restrooms, mechanical rooms). Generally, nonassignable space will be kept to a minimum, representing 25% to 30% of the total square footage of the building. One should be somewhat suspicious if nonassignable space is significantly less than 25% of the gross square footage.

The combined assignable and nonassignable space constitutes the total or gross square footage of the building.

Building Design (Interior)

Flexibility is the key word in library building design. The library must be as flexible in space use as possible. Like the society it serves, it must be adaptable and adjustable to meet the changing needs of that society. In physical terms this means a modular design with as few permanent walls as is functionally possible. Where walls are required, it is preferable that they, too, be modular and easily removed.

Library book stacks sizes should be taken into consideration when determining the location and size of columns. According to Aaron Cohen's specifications for the Rowan Public Library in Salisbury, columns should be located with multiples of 3'6" between

them (3' for stacks; 4" for end uprights and panels; 2" for irregularities in pouring).[3]

Aaron and Elaine Cohen recommend the square as the ideal shape for space planning. The square is better than other shapes acoustically, allows greater flexibility for spatial arrangements, and enhances visual control. A square design does not reflect sound at odd angles, as is the case in a long rectangular space. From an interior design perspective, the square is ideal since it minimizes distances.[4]

Ceilings

A suspended ceiling is recommended for use throughout most of the library. From an aesthetic standpoint, consider using 2' x 2' acoustical tiles and framework, in a white or off-white color preferably with a reveal.

Because it does not absorb odors, a painted wallboard ceiling is recommended for use in the restrooms and the custodial closets. An epoxy paint should be used.

Clocks

Be sure to place electric clocks where they are easy to see throughout the building. Consider using battery operated clocks.

Color

There are four color schemes: colorless, which utilizes white, black, and the natural colors of wood, concrete, and other building materials; monochromatic, which emphasizes variations of only one color; related, which features colors adjacent to one another on the color wheel; and contrasting, which features colors opposite one another on the color wheel.

Bright, dark, and warm colors, including reds, yellows, and oranges, appear to move toward the viewer (i.e., they advance) and make spaces appear smaller. Cool and pale colors, including blues, greens, and purples, appear to move away from the viewer (i.e., they retreat) and make spaces appear larger.[5]

The Cohens recommend white and light colors since they "tend to make spaces appear spacious and cleaner. A white ceiling raises the apparent height of a room. Dark and bright furnishings stand out better against white backgrounds."[6]

Light and medium colors, such as buff, beige, and gray, which the Cohens call "institutional tones," are the easiest to work with and are most practical since they tend to hide dirt. Conversely, dark colors are excellent for walls and ceilings since they tend to conceal flaws on surfaces.[7]

The use of very bright colors next to one another will set up optical vibrations, which are difficult to look at. For example, avoid using brightly colored stripes in carpeting or on large expanses of walls, particularly in study areas where greater concentration is required.[8]

A good rule of thumb for working with colors, according to the Cohens, is, "when in doubt, use fewer colors." Colorful, decorative accents can always be added using carpeting, fabrics, paints, and banners. They strongly advise using "one person to coordinate the color scheme" since "color design by committee rarely turns out well."[9]

The color scheme in the children's area should have child appeal. Even if the walls and floors are subdued, use colorful furnishings and displays.

Control

The interior arrangement of the building should afford as much visual control as possible with minimal staff. Entrances, exits, elevators, stairs, and restrooms should be in easy view of staff workstations. While shelving is often a barrier to visual control, consideration should be given to arrangements that facilitate viewing from service desks and along major traffic corridors. If needed, additional visual control can be provided through the use of surveillance cameras and mirrors.

Control also can be provided through the use of detection systems at strategic locations, such as the main entrance. Try to plan as much as possible of this into the design of the building. Even if the systems cannot be installed at the time of construction, at least install the necessary conduit.

Drinking Fountains

Drinking fountains should be located in the area of the restrooms. Be sure to note the ADA requirements regarding drinking fountains.[10]

Exhibit Space

The library should accommodate a variety of exhibits, including wall-hanging exhibits and freestanding exhibits. Exhibit space also should be provided for the display of posters, announcements, etc.

The use of picture hanging molding is a versatile means of display, particularly the type that permits hanging with wires and"S" hooks or with tacks. Lighted showcase windows located in the area of the main entrance are good for freestanding displays. Vinyl-covered bulletin boards of various sizes provide attractive display spaces.

According to Carol Brown, "display furnishings should be treated as the most dynamic element in the library. They should allow for rearrangement of the materials displayed, as well as possible movement of all or part of the fixture itself." As a beneficial result of this dynamism, "materials that are seldom used may be checked out more frequently if they are both moved to another location and displayed in another manner."[11]

Exhibit Space — Slotwall Display Units

Slotwall (or slatwall) display units can be used to create effective display areas and provide attractive visual breaks among rows of metal shelving. It is available in wall units (standard size: 4' x 8' panels) and freestanding units, which come in a variety of shapes and sizes. The A-frame unit is commonly used. Various types of display shelves can be used with slotwall units. If materials such as books will be displayed, consider outfitting the slotwall with plastic or metal inserts. Slotwall can be used very effectively as end panels.

Floor Coverings

Floors should be carpeted in all public and staff areas, unless specified otherwise. Consideration should be given to the carpet's acoustical performance, wearing performance, colorfastness, texture, fire resistance, non-allergenic qualities, installation, and recommended maintenance. Make certain that the architects/interior designers understand that libraries fall into the "extra-heavy traffic" category, along with schools, airports, hotels/motels, and healthcare facilities.

Serious consideration should be given to using carpet tiles because of the tremendous flexibility they afford. Most importantly, carpet tiles will accommodate under-carpeting cabling for electrical and communication wiring. Also, carpet tiles can be replaced relatively easily; they even can be switched with tiles from other areas of the building where traffic has been minimal. Carpet tiles are now competitively priced with regular carpeting.

Since carpeting colors are hard to match, the Cohens suggest using different colors of carpeting in different areas of the library, "especially areas of high traffic." They elaborate that "if the carpeting is different in areas of high traffic, where it is likely to wear out in five to ten years, no one will notice that the carpeting in the rest of the facility has not been removed and replaced."[12]

Ceramic tiles are recommended for

use in restrooms and custodial closets. Traffic mat tiles are recommended for the vestibule.

There should be no thresholds or doorsills throughout the building since they interfere with the movement of book trucks. All furnishings and equipment requiring casters should be specified to be equipped with carpet casters.

Floor Loading Capacity

Generally, libraries require a live load of approximately 150 pounds per square foot for normal usage. The loading capacity should be 300 pounds per square foot live load for microform cabinets and compact shelving. If floors are not constructed with proper live loads, then the shelving, cabinets, and other heavy weights must be spread apart to compensate.[13]

Furniture Arrangement and Size

Aaron and Elaine Cohen's behavioral approach to space planning is centered around the premise that "people space themselves to define personal territories and to minimize eye contact."[14] Unless a work surface is unusually large, it is rare to find more than one person using it. Moreover, people want a sense of security in the study areas they choose. Carrels placed perpendicular to walls are popular with students because they not only provide territorial protection, they also allow visual control of access. The Cohens observed that "chairs positioned with [their] backs to an open walkway are perceived as unprotected and, therefore, often remain empty."[15]

Furniture in the children's area should be of a size appropriate for young children. Generally, two sizes of furniture should be purchased for the children's area: furniture designed for toddlers and preschoolers, and slightly larger furniture for school-age children, up through the sixth grade.

Lighting

In planning a lighting scheme for the library, use a strategy that illuminates spaces for their current purposes, but which can be changed or upgraded if those purposes change. Aim to match the lighting to the various experiences of library use. Avoid taking the easy path and assuming that all spaces can be uniformly lit to a high footcandle standard.

The difficulty in designing lighting systems is in producing comfortable lighting. This effort is influenced by the combination of illumination level, reflection of light, contrast, and glare. A balance of each of these factors is imperative in achieving comfortable lighting.

Modular panel system furniture, shown in this preservation/conservation workstation in the recently expanded Joyner Library at East Carolina University, Greenville, is a good example of flexible task furniture which can accommodate electrical and communications wiring, as well as adjustable worksurfaces, drawer units, shelving, lighting, and a variety of other accessories. Architect: Walters Robbs Callahan & Pierce (Winston-Salem). Photo: Lynette Lundin

In planning for the lighting needs of the building, the architect and/or lighting engineer should seek a suitable combination of natural and artificial lighting to provide uniformly distributed, shadowless, glare-free light. Recommended lighting levels are readily available in various architectural and engineering design standards such as those published by the Illuminating Engineering Society of North America.

Other important considerations in designing a lighting system are energy efficiency and maintenance. It is absolutely necessary that the library have a lighting system that it can afford to operate. The system also should be easy to maintain, keeping the number of different types of lighting fixtures to a minimum and selecting fixtures in which lamp replacement is relatively easy.

"Job specific," or task lighting, is recommended for staff workstations and other areas where specific tasks will be regularly performed, such as public magazine reading and study areas. In such locations the lighting can be focused on the required task surface at the proper intensity. Task lighting often can be accommodated as a component of the furniture.

It is important that task lighting not reflect off equipment screens, such as computer terminals. Task lighting should be fully adjustable and equipped with dimmer controls.[16]

Mechanical Systems

Designing mechanical systems, also referred to as HVAC systems (Heating, Ventilation, Air Conditioning), for libraries requires providing appropriate environmental control of space temperatures and humidity throughout the building. The mechanical system should keep these within the limits that protect the building's contents from environmental extremes, while supplying "creature comfort" for library users and staff.

Objectively, this is easy to target: human comfort is reached at 74 degrees Fahrenheit (plus or minus 2 degrees) at 50% humidity (plus or minus 10 percent); books, paper materials, films and film media are protected within these same limits as well. Rare papers and special collections merit closer scrutiny.

Typical problems with mechanical systems include: noise; hot spots, cold spots, and drafts; humidity; and service/maintenance access (staff concern). The most difficult problem arises from the subjective nature of individual creature comforts. Accord-

ing to the architect William R. Burgin, these are all issues that should be addressed with the architect and/or mechanical engineer when designing the system.[17] Another important consideration is the impact of increasing numbers of computers on the climate in the building.

A mechanical design is considered 100% successful if people do not realize the system exists. In other words, the mechanical system operates invisibly.

Public Address System

A public address system is recommended as a means of announcing information and instructions regarding library activities (e.g., closing). The system should provide for total area as well as for specific room/area broadcast from a central location such as the circulation desk.

Public Copying Machines

Each public service area should have at least one coin-operated copying machine. (See also "Acoustical Treatments.") Directional and identification signage should be planned to guide users to the machines.

Seating (see also Task Seating)

Carol Brown recommends that "it is essential to select a chair that is strong enough to withstand heavy and varied use, especially because it is often expected to last for 20 years or more."[18] The "standard" reading chairs sold by library furniture manufacturers are "available either with or without arms, with a sled or four-legged base, with an upholstered seat and back, or with a wood seat and back." Their construction varies "in the number of stretchers used, the placement of the stretchers, the size of the backrest and other members, and the manner in which the parts are joined."[19]

Brown finds that upholstered furniture adds warmth and color to the environment. She also is insistent that "when selecting a chair with an arm, it is absolutely essential to make sure that the arm will fit easily under the worksurface of any carrel, table, or other piece of furniture with which it might be used." She further warns that "the purchase of stylish arm chairs that do not fit under a table can be an embarrassing and costly error for a librarian or designer."[20]

Planning with the disabled in mind, Brown is concerned that "a person in a wheelchair should be able to pull a chair out of the way easily and quietly. A reading chair or stool should be neither so heavy that it cannot be moved with relative ease, nor so light that it falls over when it is pulled."[21]

Brown notes that since the arms of upholstered chairs, sofas, and other lounge furniture get soiled quickly, the "better choices in areas with heavy public use are chairs with a butcher block panel that serves as an arm, or those with an upholstered side panel that have a wood strip or cap on the top of the arm."[22]

Have vendors supply sample chairs for staff to try out, since there are often several different opinions about how comfortable a particular chair is. For this reason alone, Brown suggests having "several different people, of varying heights and weights, try out a chair."[23]

Brown advises library planners and interior designers to "check with local and state fire marshals to obtain information about any applicable regulations that will affect your choice of upholstery."[24] The Association for Contract Textiles (ACT) promulgates performance guidelines and standards for upholstery in the areas of fire retardancy, colorfastness to wet and dry crocking (rubbing of hands against fabric in wet or dry conditions), colorfastness to light, physical properties such as strength of seams and ability of fabric to resist tearing, and abrasion or damage from wear and rubbing.[25]

Library planners should have available the California Technical Bulletin 133 (CAL 133), which is a full-scale fire test for seating furniture manufactured for use in public buildings, including libraries. This California legislation, put in force on March 1, 1992, is now "a nationally accepted fire safety standard."[26]

Security/Fire/Smoke Detection Systems

Creating a safe environment in a public place requires careful planning. When designing a facility, work with the architect and/or interior designer to assess the security risks of the building—for the staff, the public, and the materials. It will be far easier to deal with design flaws at this juncture than after the building is already constructed.

Heat- and smoke-sensing devices will be required. It is preferable that the system be linked directly to the nearest fire department. The control panel should be located in an area that is always staffed, such as the circulation desk area. Be sure to install heat and smoke detectors in the vicinity of interior book drops.

All secondary exits should be equipped with door alarms that signal when the doors are opened. Consider equipping the door with a delay mechanism that prevents it from opening immediately. An alternative would be to install a camera to videotape a person exiting through the door.

Consider other desirable types of security systems: sprinkler system, theft detection system, surveillance cameras, silent alarms, and motion detector system. Even if a particular system cannot be installed initially, have it designed into the building and install the necessary conduit to facilitate installation at a later time.

Service Desks

Carol Brown suggests that "circulation and reference desks must be designed to support the needs of the staff and users of a particular library."[27] She recommends using a combination of standard desk modules, including shelf units, but also incorporating some customized features.

Brown states that "it is essential in planning for the present needs of the library, to design a desk with built-in flexibility so that the desk can be adapted as library staff, procedures, and equipment, as well as philosophy of service change."[28] One of the most obvious changes to the design of traditional circulation, reference, and other service desks is their ability to accommodate computer technology.

Shelving

High-quality bookstacks will last the lifetime of the library, usually considered to be 20 to 30 years. Wood bookstacks, cantilevered steel shelving, or a steel shelving system with wood end panels are the three most popular choices for libraries. According to Carol Brown, when deciding which of these three to choose for various areas of the library, "one of the three selection factors (function, maintenance, or appearance) is likely to be an overriding consideration."[29]

Steel shelving is very durable, sturdy, made of inert materials, and is less expensive than solid wood shelving, and particularly good for storing heavy equipment and other nonbook materials. Wood shelving gives a more traditional, luxurious look. Make sure that wood construction utilizes solid wood and not particleboard, which tends to warp and sag under the weight of densely shelved books.[30] Also keep in mind that library preservationists are warning us of the potential for acid migration and off-gassing produced by wood shelving.

Signage

One of the most important, yet often neglected, aspects of library interior design is signage. Signage design should take place along with building design, space planning, and furniture selection. The effect of good library planning and design is destroyed by the appearance of hand-lettered signs in many shapes, colors, and styles. This lack of systematic signage detracts from the image and philosophy of service that the library was designed to project.

ADA guidelines apply directly to signage in the library, including "signs that designate permanent rooms and spaces, directional signs, and informational signs." In addition, according to Carol Brown, "accessible elements of the building, such as entrance doors, rest rooms, water fountains, and parking spaces, must display the international symbol of accessibility."[31]

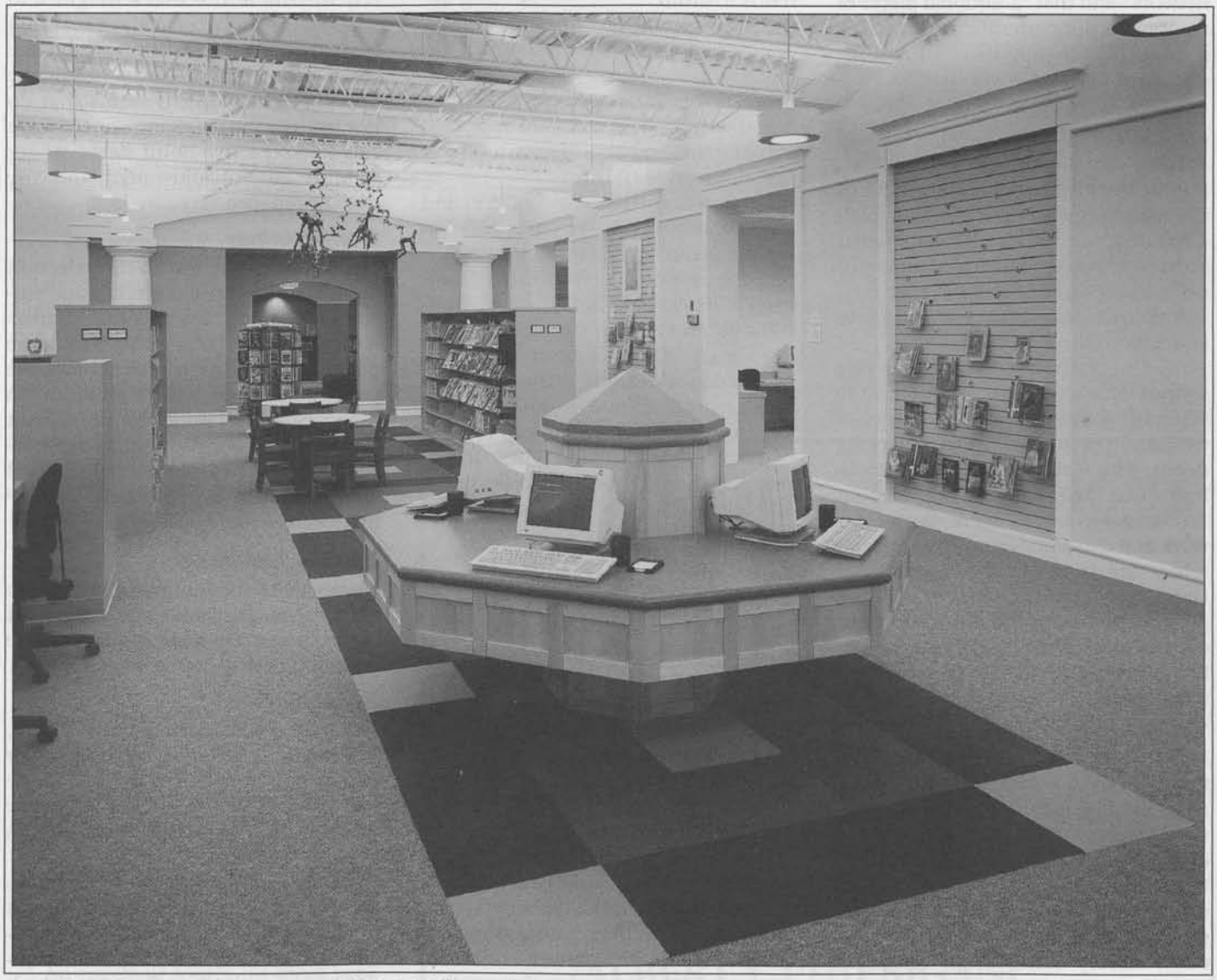
Signs have psychological and behavioral aspects as well, according to the Cohens. "Signs can be wall-hung, ceiling-hung, or freestanding," but "too many signs compete with one another and create a feeling of visual noise."[32] They suggest that "in bright illumination, dark letters against light backgrounds are best. In dim illumination, light letters against dark backgrounds are best."[33] The Cohens further recommend using a combination of uppercase and lowercase letters in informational signs and "beyond three or four words, avoid using only capitals."[34]

Since the perception of color is totally dependent on light, a good contrast between the background and the lettering of the sign is important. The Cohens state that a 75% contrast is considered a minimum; otherwise, colors may blend too much. Pay attention to the light reflectivity of the backgrounds of the signs: matte finishes are preferable to glossy.[35]

Study Spaces

Carol Brown recommends that "large computer tables or carrel configurations should include electrical systems and wire management channels similar to those described for service desks. Furniture designed to hold library-owned equipment should have power and data outlets below the work-surface. Items designed to hold user-owned equipment should have power and data outlets conveniently located above the worksurface."[36] She particularly likes round or hexagonal-shaped workstations which "have an advantage in that power and data entry from the building can occur in the center of the furniture where the wiring is not exposed to view."[37]

The use of large double-faced pieces of furniture with several workstations may be out of scale and therefore im-



The Independence Regional Library of the Public Library of Charlotte and Mecklenburg County utilizes a hexagonal-shaped computer workstation which effectively conceals the power and data wiring. Library materials are displayed using slotwall panels. Architect: TBA²Architects (Charlotte) Photo: Ciarlante.

practical for a small space. Carol Brown suggests that "in a small building ... single-sided workstations 30-42 inches deep may be more desirable than double-sided workstations that may be as large as 60-84 inches deep."[38]

For flexibility in space planning Brown recommends that libraries consider purchasing tables or carrels with adjustable-height worksurfaces. Another equally important worksurface consideration involves the use of computers for CD-ROM products and online catalogs. According to Brown, "a PC workstation with monitor and keyboard requires a worksurface that is a minimum of 30 inches deep from front to back."[39] Brown further cautions libraries that are currently using dumb terminals for their online catalogs to "take into consideration the possibility that these smaller terminals may be replaced eventually with larger computer workstations connected to a local area network" and that "additional pieces of equipment not currently used, such as printers, will require space when they are added to a single workstation."[40]

Tables

Carol Brown observes that "the size and number of its members, the construction of the joints, and the strength of the materials used determine a table's durability" and states that all tables must be engineered to withstand vertical loads, resistance to deflection (i.e., stiffness), and resistance to sideways and front-to-back loads.[41]

A library often has more than one style of table to make the interior more interesting and to provide a variety of worksurfaces for patrons with varying needs. The Cohens' research into library user behavior has shown that "rectangular tables seem better for work and concentration, while circular tables are best for conversation."[42] Here, again, the elements of creating personalized space and minimizing eye contact are determining factors in a library user's selection of a table or other work space.

Task Furniture

Furnishings for work areas are commonly known as task furniture. Work areas may be furnished with conventional freestanding furniture, such as desks, credenzas, and lateral or vertical files, with furniture that is part of an office panel system (system furniture) or with a combination of both. As with other library furnishings, function, maintenance, and appearance also are considerations in the selection of furnishings for work areas. An important additional consideration in the selection of task furniture is flexibility.[42]

To determine what is needed in the work area, an audit or less formal assessment should be conducted. According to Carol Brown, the design of work areas and selection of furnishings for them should be based on a clear understanding of "personnel, space, work flow, and equipment needed for the tasks to be performed in the work area now; possible growth and changes needed in the size of the staff, space, equipment, and tasks to be performed in the future; and special needs of the staff now and in the future."[44]

Decision makers in the furniture selection process need to be aware of ergonomic issues and any state and local regulations that apply to task furnishings. It also would be helpful to have some familiarity with the standards for office/task furnishings established by the American National Standards Institute.

Some specific task furniture considerations, discussed by Carol Brown, include worksurface size and heights appropriate for the tasks being performed and the equipment being used; storage components and ease of access; proper and adjustable lighting; safe, convenient power and data distribution and wire management systems; and adequate acoustical treatment and display capabilities. As with other furniture, it also should be attractive, comfortable, and easy to maintain.[45]

The overall workstation should be of an adequate size to facilitate movement from one task to another and have an arrangement that facilitates efficient work performance. The workstation also should have built-in flexibility and adjustability to allow for changes in personnel, tasks, and equipment.[46]

Task Seating

Seating for work areas is generally termed task seating or task chairs. Task chairs are used at staff workstations, and increasingly, at public workstations, such as public computer stations and microfilm reading stations.

Carol Brown notes that "experts on ergonomics in the workplace agree that the selection of properly designed task chairs is vital to ensuring safe conditions in the office environment."[47] The selection of a task chair depends on various factors, such as the types of tasks to be performed (reading, conferencing, intensive computer activity, reference work, etc.), "the kinds of equipment that will be used, the length of time that is spent on any one task, the length of time a person will remain seated in the chair, and whether or not the chair will be used primarily by a single individual or will be used in shared work space by several different people."[48]

Task chairs are classified as having *active* or *passive* ergonomic design. Active ergonomic chairs utilize several levers and knobs to make a wide range of adjustments, whereas passive ergonomic chairs are essentially self-adjusting.[49]

According to Carol Brown, "task chairs selected for the library should meet ANSI/HFS (American National Standards Institute/Human Factors Society) standard 100-1988, or revisions of the standard as they are made in the future."[50] Other attributes of quality task chairs recommended by Brown include a backrest that allows for proper back support, distribution of the user's weight, and correct curvature of the spine; a design and contour that properly distribute the user's weight and support the body correctly; a seat that is shaped and angled to position the spine properly and to distribute the user's weight correctly; arms that do not impede the user's movement from side to side; a five-point steel base for stability; ease of adjustment; and ease of maintenance.[51]

Wall Coverings

The guiding criterion in the selection of all wall covering materials and finishes is the need for minimal maintenance. Wall surfaces either should be painted with a high grade, washable paint or covered with a medium- to high-grade vinyl wallcovering. If paint is used in restrooms and high traffic areas, it should be an epoxy paint. Vinyl wall covering is especially recommended for staff work areas.

Window Treatments

Drapes and/or blinds may be used for an aesthetic purpose and/or as a means of controlling noise and/or light. If noise control is desired, drapes are preferable.

Wiring Systems

The key consideration with wiring, whether retrofitting an old building or designing a new one, is to provide the greatest flexibility possible so that new functions can be incorporated easily as they are needed.

The distribution of wiring throughout a building can be accomplished in a variety of ways, including a traditional conduit system; a system of under-carpet cabling, or flat wire, which can be used only with carpet tiles; a raised floor system; runways or race-

ways through false ceilings, walls, baseboard, and/or under the floor; and wireless systems, such as radio frequency and infrared. The best solution to future wiring needs is to design redundant systems into the building.

Summary

Here you have in a handy format the wisdom of expert library planners and designers. Lest you feel daunted by the amount and variety of information that must be dealt with during the planning process, remember that all of their recommendations are the result of trial and error and cumulative experience.

Place a copy of this checklist in your planning notebook along with other helpful articles and illustrations you find in your research. Add your own personal experiences and insights as they occur while meeting the challenge of creating library interiors. Most importantly, share your findings with future library planners and interior designers.

References

[1] Carol R. Brown, *Planning Library Interiors: The Selection of Furnishings for the 21st Century* (Phoenix, AZ: Oryx Press, 1995), a revised edition of her *Selecting Library Furniture: A Guide for Librarians, Designers, and Architects* (1989); William W. Sannwald, *Checklist of Library Building Design Considerations* (Chicago: American Library Association, Architecture of Public Libraries Committee, LAMA Buildings and Equipment Section, 1997); and Aaron and Elaine Cohen, *Designing and Space Planning for Libraries: A Behavioral Guide* (New York: Bowker, 1979).

[2] Americans with Disabilities Act (ADA) of 1990, Public Law 101-336; and *ADA Accessibility Guidelines for Buildings and Facilities*, published in *Federal Register* 56, no. 144 (Friday, July 26, 1991): 35605-91.

[3] Aaron Cohen, "General Design Guidelines," *Rowan Public Library Building Program*, 1985. Unpublished.

[4] Cohen and Cohen, 65.

[5] Ibid., 194-6.

[6] Ibid., 193.

[7] Ibid.

[8] Ibid., 192-3.

[9] Ibid., 196.

[10] *ADA Accessibility Guidelines*.

[11] Brown, 121.

[12] Cohen and Cohen, 192-3.

[13] Cohen, *Rowan Public Library Building Program*.

[14] Cohen and Cohen, 20.

[15] Ibid., 21-2.

[16] An excellent source for more basic information on library lighting is *Library Lighting: A Primer*, developed in 1996 by Meyer, Scherer & Rockcastle, Ltd., an architectural and interior design firm located in Minneapolis, Minnesota. Single copies of the publication are available for the cost of postage. Copies can be ordered via e-mail (scher001@maroon.tc.umn.edu). Indicate *lighting primer* in the subject line.

[17] William R. Burgin, "Those Who Use Should Choose: Library Design Decision Making," *North Carolina Libraries* 49 (Fall 1991): 125.

[18] Brown, 60.

[19] Ibid., 67.

[20] Ibid.

[21] Ibid., 68.

[22] Ibid.

[23] Ibid.

[24] Ibid., 71; *California Technical Bulletin* 133, *A Fire Test for Seating, Furniture in Public Buildings, Questions and Answers* (Sacramento, CA: California State Department of Consumer Affairs, Bureau of Home Furnishings and Thermal Insulation, 1992).

[25] Brown, 70.

[26] Ibid., 71.

[27] Brown, 59.

[28] Ibid.

[29] Ibid., 34.

[30] Ibid., 35.

[31] Ibid., 117.

[32] Cohen and Cohen, 204.

[33] Ibid., 199.

[34] Ibid., 207.

[35] Ibid., 210.

[36] Brown, 84.

[37] Ibid., 85-6.

[38] Ibid., 86.

[39] Ibid., 87.

[40] Ibid.

[41] Ibid., 73.

[42] Cohen and Cohen, 23.

[43] Brown, 103.

[44] Ibid., 104-105.

[45] Ibid., 106.

[46] Ibid.

[47] Ibid., 111.

[48] Ibid.

[49] Ibid., 113.

[50] Ibid.

[51] Ibid., 113-14.

Dear Editor Bradburn:

I found the viewpoints expressed on technology in your "Point: CounterPoint" section of the Winter, 1996 issue to be thought-provoking. During my library school days, "electronic index" was an alien term. I recognize the obvious fact that technology is an integral part of our society today and that it has a beneficial role to play in library service at all educational levels. At the same time I am not sure that its place should be a prominent one as Jerry Thrasher argues. Any present-day librarian would be naive to advocate a return to the card catalog; yet librarians must admit that the computer is not an instrument for solving problems in the library — public, school, or academic. The goal of all librarians should be to achieve a delicate balance between traditional librarianship; i.e., printed sources, and technology. Admittedly, that is not an easy task, but it is one which should constantly engage our attention.

Sincerely,

Al Stewart, Retired Academic Librarian