ones that could be implemented now and ones geared for adaptation after the department has undergone an expansion. The paper is divided according to the following categories: furniture, safety, lighting, color, walls, flooring, windows, artistic elements, and space planning. A multitude of techniques are outlined for creating an environment that respects children and their needs for physical movement, comfort, privacy, social interaction, and intellectual and creative stimulation.

Headings:

Children's library services

Furniture

Architecture and building-Children's rooms

Architecture and building-Color, decoration, etc.

Architecture and building-Exhibits and displays

Architecture and building-Evaluation

CURRENT AND PROJECTED INTERIOR DESIGN POSSIBILITIES
FOR THE CHILDREN'S DEPARTMENT OF CHAPEL HILL PUBLIC LIBRARY

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Winston Churchill

Introduction

In 1997, an ad was placed in the *New York Times Book Review* by two men seeking to write a book on the history and influence of children's librarians (Schafer and Morgan, 34). They asked specifically for anecdotes about different aspects of these libraries. The respondents repeatedly spoke of the libraries as a sanctuary and a gateway; "they saw the library as somewhere they were not just children, but legitimate people with real lives, connected to something larger than themselves" (34). The children's areas were often described as magical and special places, where imagination and creativity could freely flourish. There is a huge variety of ways to enhance the freshness, magic, inquiry, and creativity that are all parts of children's lives by manipulating the environment and adding certain kinds of furniture, art, and toys. By exploring the ways to create an extremely versatile, welcoming, and fun space for children, librarians help to ensure that children discover and cultivate a love of learning and reading and also sincerely enjoy coming to the library. These early positive experiences can certainly be seen as critical first steps in the formation of empowered, life-long learners.

Research on this topic is applied to the Children's Department at one branch in particular—the Chapel Hill Public Library. In this paper, I make suggestions about

certain decorations and arrangements that could perhaps be changed or added in order to enhance the appeal as well as functionality of the room and its resources to children as it exists now (see map-Appendix A). Specifically, I outline a multitude of techniques for creating an environment that respects children and their needs for physical movement, comfort, privacy, social interaction, and intellectual and creative stimulation. In addition to toy, art, furniture, and wall and floor covering selection, issues of safety, comfort, color, physical navigation, noise accommodation, child supervision, and lighting are addressed. Chapel Hill Public currently has a space constraint problem, and within the next five to ten years, an expansion is planned. Therefore, interior design ideas that could be implemented after the department has more space are presented as well. Discussion of the current strengths of the department's layout is also included.

The essential materials for building an exciting atmosphere in the library are innovation, imagination, and a willingness to experiment. With cardboard carpentry, puppet theatres, playhouses, reading nooks, and any number of unusual and sturdy creations, this can even be accomplished in children's spaces at a relatively low cost. This does not mean that librarians and library administrators should not lobby aggressively for inflated funding for these matters, however, since there is no doubt that interior design affects the psychological state of humans. Dale Dauten points out that spending large amounts of money to help ensure such healthy states is a good investment, since over the thirty-year life cycle of a building, the initial construction cost amounts to two percent, the operation and maintenance of the structure comes to six percent, and the cost of the people using the building is ninety-two percent. (35).

In the public library spaces set aside for them, children should feel at home and "be able to negotiate the workings of the library as independently as possible. Books and information must invite children and introduce the idea that independent learning can take place with a little energy and creativity" (Sandlian and Walters, 28).

Literature Review

<u>Background and Framework</u>

Environmental psychology is defined as the discipline that is concerned with the interactions and relationships between people and their environments (McAndrews 2). It is grounded upon the idea that it is often impossible to separate the social environment aspect from the physical one. To elaborate, environmental psychology has been identified by its content (the built, natural, and social environments) and by its emphasis on the reactions of individuals (as opposed to large groups or societies) to the environment (McAndrew 2). According to Gale Eaton, in an article about wayfinding in the library, the ideal library building should convey both intellectual and emotional support to its users, due to the many cognitive and affective elements of communication (519). Example of affective information are welcome, reassurance, dignity, and comfort. There are three basic emotional dimensions that mediate between environmental and behavioral diversity that librarians should keep in mind as a framework: arousal-nonarousal, pleasure-displeasure, and dominance-submissiveness (Eaton 520). Increasing and improving access is one way to help patrons feel less submissive and more dominant, for example. Eric Sundstrom in "Environmental Psychology 1989-1994" mentions other theories that have guided research in the field, such as environmental load (dealing with information overload), stress and adaptation, and privacy-regulation (488-9). One way environmental psychology has advanced, according to this article, is in the area of applied orientation, which involves maintaining a "focus on designing settings

that promote occupants' goals" (Sundstrom 512), an area that clearly relates to the effective design of children's spaces. In addition to affecting how well services are provided, library structure, according to Anders Dahlgren, author of *Planning the Small Library Facility,* should be thought of in terms of opportunities offered and limitations imposed (1). The characterization, organization, and design of space foster cognitive development in children when they help them anticipate certain events, objects, and how the people around them will behave (Weinstein and David, 118). In other words, special care should be taken to ensure that the messages imbedded within the design of a space for youngsters do not contradict one another. The picture book area should not contain toys designed for middle schoolers, for example. The literature is in agreement that the environment should be fashioned not only to endorse function, but also to cultivate the children's sensory and aesthetic sensibilities. Specifically, "environments for children under three years must encourage complete movement and exercise of all limbs and all aspects of mobility and be sensorially rich and varied" (119). The degree to which such environments prosper and thrive is usually proportional to the number and variety of types of spaces that can be created within the four walls of the room (122). Areas for at least five types of play experience are essential in any setting welcoming infants and toddlers: gross motor play, structured play (manipulatives, puzzles, toys), quiet play (resting, hiding, reading, etc.), discovery play (such as craft activities), and dramatic play (props suggesting a jungle or castle for example) (129). The five basic attributes to keep in mind when planning activity areas are:

- A physical location
- Visible boundaries

- Work and sitting surfaces

- Materials storage and display

- A mood or personality

(Weinstein, Carol Simon and Thomas G. David, eds. *Spaces for Children: The Built Environment and Child Development,* p.131)

In 1978, *Illinois Libraries* devoted its entire December issue to children's space planning. It covers an extremely wide array of topics, many of which are still applicable today. Articles include details pertaining to the elements of fun as well as functionality when purchasing tables, chairs, shelving, alternate forms of seating, carrels, and storage units. " 'Of Shoes, and Ships, and Ceiling Racks…': New Ideas for Children's Facilities" examines ways to incorporate live animals into the children's room, in addition to many inventive types of furniture, like book shelves in the shape of a ferris wheel that really turns, and chairs in the shape of large baseball mits. Story pits, interior gardens, and murals are discussed as well. The issue features an article on "The Many Uses of Color in Library Rooms Serving Children, " which contains information on how color can be used to create a mood or atmosphere, change an apparent size or shape, in addition to suggesting either unity or diversity. The issue also provides checklists for space considerations and safety concerns. "Sorry About Safety?" highlights certain library areas that commonly get overlooked in terms of receiving proper attention regarding safety maintenance and accident prevention.

Julie Beth Todaro, a children's librarian and author of "Changing Children's Environments," recommends preparing a detailed want list indicating the amount of help and materials needed (i.e., colors needed, height of tables, etc.) before soliciting help

from library officials, parent involvement groups, and other community organizations (907). Several of the articles consider the design aspects of walls, ceilings, floors, and windows as well. The books *Spaces for Children* (Weinstein and David,1987), *Learning Environments for Young Children* (Feinberg et al.,1998), *Furnishing the Library* Interio (Pierce, 1980), and *The Design of the Small Public Library* (Myller, 1966) contain variations and expansions on the same types of information in *Illinois Libraries'* December issue. According to Jane Klasing, author of *Designing and Renovating School Library Media Centers*, another beneficial source, the three main trends affecting existing facility design are changes in technology, changes in usage patterns, and changes in collection size (9).

While these books were helpful for the large amount of detail they contain on safety and furnishings, one should turn to *Determining Your Public Library Future Size* (Brawner, 1996) for specifics on the needs assessment process and the evaluation of proposals. For publicity techniques on communicating change, one should consult *Library Space Planning* (Fraley, 1985). Information on the role of the librarian, the role of the architect, and components of the building program statement can be founds in *Planning the Small Library Facility* (Dahlgren, 1996). A useful addition in *Planning Library Interiors* (Brown, 1995) is a list of ten comprehensive questions to ask furniture suppliers. "Interior Showcase: New Facilities for Children" provides creative and utilitarian ideas such as a crayon-shaped column, a child-height globe, and the use of neon, etched glass in twenty-one different colors. Advice on how to avoid miscommunication between the architects and librarians and on the types and amount of staff involvement in the space planning process is offered in "Best-Laid Plans: A

Consultant's Constructive Advice." There is also cursory information pertaining to furniture (and the importance of using more than just two types of sizes), carpeting, safety, lighting, and sign usage. The American Library Association maintains on the World Wide Web an annotated bibliography of approximately fifteen sources titled "Building Libraries and Library Additions" (http://www.ala.org/library/fact11.html).

Case Studies

When the Denver Public Library decided to undergo renovation of their children's section, its librarians and administrators resolved to gather input from the users themselves. Planning began by conducting a series of five focus groups discussions throughout the city (Brown 91). The groups included children of diverse ages and ethnic backgrounds from different geographic locations around the city. "The objective of this research was to understand how children currently use the library and to explore their preferences for new technologies and innovative services" (91). This exemplifies one method that Chapel Hill Public could employ prior to any major changes they make in their children's department. For a detailed description of the suggestions the children in the focus groups made, in addition to excellent general guidelines, "A Room of Their Own: Planning the New Denver Children's Library" by P. Sandlian and S. Walters should be consulted. The article also describes what the children's area looked like after many of the study results had been implemented. Focus group discussions are a commonly used market research methodology, involving trained moderators who mold discussions to yield primarily qualitative information (Sandlian and Walters 30). Denver Public was able to do this through a partnership with the Business Department of the

University of Denver. Also, three members of two marketing research organizations

voluntarily lent their expertise in the set-up and performance of the focus-group

technique.

Kalamazoo Public Library recreated its children's room by using foundation

funds to hire two professional artists to transform two of the three pillars within the room.

The first artist opted to paint a mural based on Mother Goose rhymes; the second was

commissioned to create a soft sculpture (she chose Jack and the Beanstalk as the theme).

A competition was held among local artists to determine who would decorate the third

(Amdursky 27). Another artist was hired, with grant money, to transform the room's

windows into stained glass depicting scenes from children's books (27). The entrance and

interior of the Story Room was also drastically changed; children are made to feel as if

they are walking through a castle entrance in Alice's Wonderland (28).

"The Kids' Place: Sacramento PL's Space for Children" describes the renovation

project that took place there in the late 1980's. It is helpful because it details the

problems they ran into and the pros and cons of all the planning decisions made along the

way. In a step-by-step fashion, this particular case-study presents to its readers the

decision making process that involved librarians and architects. There are also tips on

furniture, carpeting, and boundary-setting. The authors, Terry Chekon and Margaret

Miles, state:

> Establishing a common perception of all planning decisions became imperative
> during our lengthy planning process, and we learned the importance of taking
> complete notes in every meeting with architects, interior designers and other
> library staff. We also learned the power of our role in the planning process: as
> principal advocates of children's library service we must express our knowledge,
> and impress it upon all players… (24).

      "Whatever the basic design of a building, with its particular assets and peculiarities, space is a commodity to be utilized in accomplishing the library's service goals" (Todaro 903). According to Peggy Abramo, in "Communicating With Environments," these goals should be to make the children feel comfortable and welcome, to meet their various information needs, to communicate clearly the different activities they may do in a given space, to consider that they are active learners, and inspire them to return (875). In summary, the challenge lies in acquiring a sense of spaciousness where there may be little space, of dividing space into useful areas, and of striving for a sense of simplicity, clarity, and unity while offering a wealth of potential experiences.

Methodology

My interest in interior design and space planning of children's library spaces blossomed during my youth services field experience with the Tampa/Hillsborough County Public Library System (Florida) during the summer of 1999. The majority of the experience centered around visiting approximately fifteen branches and speaking one on one with branch heads and children's librarians. During the visits, I always paid particular attention to how the children's area was arranged, and because I was able to see so many of such areas, comparison of the spaces became a natural extension for me. I built on this foundation by reading extensively books and journal and magazine articles in order to prepare for the Master's Paper composition. I chose to do a case study because of its "real-world" application and also because it gave me the chance to create and contribute some original work to the field. I placed special emphasis on locating articles, books, or chapters that included full color photographs of the interior of children's departments of different libraries. As part of my research preparation, I made two visits to Chapel Hill Public's Children's Department--one to map out the existing space and the other to conduct an interview with the interim head in addition to photographing the various parts of the area. I had the resulting pictures developed into CD-ROM format, in order to make their insertion into my document a smoother process.

The interview portion of my research was critical in my attainment of customized information regarding the layout of the children's department. I knew the person in charge of the area would be able to share certain observations and concerns that could

only be formed after spending a great deal of ongoing time there—an advantage I obviously lacked. For my interview with the interim head (which took place in her office), my Master's Paper advisor and I brainstormed the following guiding questions:

- How well do you feel the space and design serve you now? What works best?

- What parts of the room or collection would you like to make more accessible? Are there new parts you would like to add?

- What kind of crowding problems do you experience, if any? What are the identifying space problems?

- What would you like to see and use in a new spatial arrangement?

Following the interview, which lasted about forty minutes, I canvassed the area, taking copious notes about the features included in the children's section and what appeared to work well in addition to what I thought could be possible areas for re-thinking and improvement. All the notes I made were based on the ideas I had freshly been exposed to in the various books and articles I had read for my research. The interim head suggested I come during lunchtime to photograph the area, as very few children would be present at the time. Any person appearing in one of my pictures would have had to fill out a permission form. The other reason I did not desire people in the photographs is they would have blocked the images of furniture, interior design, and architectural details I was trying to capture. Children and adults were present in the area however, when I penned my observations concerning what appeared to work well and not so well with respect to space allocation, furniture and material selection, artistic elements, and navigation.

Findings

Furniture

      One guiding principle about furniture is that it should be placed in a way that delineates as well as differentiates types of spaces. Boundaries can be established by altering the ceiling level with eaves, canopies, trellises, streamers, or mobiles. A freestanding sculpture of modern "building blocks" was used to form one of the walls in the picture book area at the Sacramento Public Library (Chekon, 23). These wooden boxes are bolted to the floor and "stacked in a configuration suggesting a castle. An additional, smaller structure of the blocks is used for display, and occasionally for climbing by small children" (23). Another good example of fun and functional furniture are bean bag chairs, chairs shaped like kangaroos, frogs, and other animals, and the book shelves at Robert R. Jones Public Library in the shape of a ferris wheel, which really turn (Sinclair, 882).

> The Champaign Public Library has an interesting combination of seating and shelving in one unit. It is a carpeted plywood circle with shelving on the inside and seating on the inside and outside. The opening to the circle is flanked on both sides by 4' high pillars that are carpeted and have flat tops. This has caused problems, however, when children try to stage gymnastic contests on the structure. (Sinclair, 882)

Designers of space for young children advocate the incorporation of platform and level changes so that toddlers in particular can exercise their "insatiable need" for the development of balancing skills through walking, climbing, and crawling (Weinstein and

David, 124). These type of spaces also provide areas for quiet resting and cuddling (124).

According to the research, a children's library space is enhanced when separate sections are clearly identifiable, and the more sections, the better. It is a special feature therefore that Chapel Hill Public (CHP) currently has a separate room (a converted closet), for its Easy Reader collection (see fig. 1).

Figure 1

It is a way of saying that ER users are special and important people, a concept kids respond very favorably to. The three revolving paperback book stands are great for browsing and also for distinguishing this part of the collection from other parts. Platforms, pits, and partial walls can be used to define an activity area (Feinberg, et.al. 32), as can different carpeting patterns. According to P. Sandlian and S. Walters, authors of "A Room of Their Own", "Some reading places should be secluded—tents, tunnels with lights and bookshelves and pillows, dinosaur nests, and eggs 'that kids get into'" (28). Some libraries invest in panel systems

or ceiling-height metal partitions to help them create spaces within a space. These "interior walls" can be relocated with little effort and afford excellent privacy (Pierce, 18).

CHP may want to consider allocating space for carrels when they expand since they tend to be popular options even among younger patrons for individualized study. Carrels, however, "should not have any shelves that will hinder the placement of a computer and a monitor in the unit, or deep sides, or high backs that hinder visual access by staff" (Klasing, 31). Display units, such as glass display cases, would make an attractive addition. One common use of such items in children's spaces is for the presentation of art by youngsters, a feature that was lacking during my visits to CHP, but is important for helping to communicate that children's creativity is valued and to establish a welcoming atmosphere for younger patrons. Jane Klasing advocates purchasing a 60" x 60" audiovisual screen which can be used to project films upon, act as a divider, or provide a background for puppet shows and the like (31). Although space is not available now for a child-height globe and dictionary stand, CHP should consider buying them in the future, as they are frequently recommended items in the research. When they expand, CHP may also want to consider the installation of a sink openly available in the room in order to facilitate clean-ups, since messes accompany youngsters fairly commonly (especially if they are participating in craft activities).

To communicate a welcome for infants and toddlers, a jolly jumper, low suspension bridge, or infant-toddler swing could be hung from a 7-9 feet high beam, which should be installed to span the narrowest dimension of the room (Weinstein and David, 134).

The children's librarians at Sacramento Public persuaded their designers that the stools they were considering buying should be tested on the children from the nearby day care center. This idea of testing prior to purchase is an excellent policy that several sources heavily endorse. In certain libraries throughout the United States, children have enjoyed getting used out of:

- oversized cushions and pillows

- a built-in screen and hidden projector

- stairs

- ladders

- moveable shelving in the shape of a carousel

- a covered wagon serving as a small reading area (or, as one library used, a toy fire engine, with actual windows and seats that can be climbed on)

- carpeted bath tubs

- rocking horses

- built-in swings

- even a whale's mouth that holds ten to twelve children (Sinclair 881-4)!

Another idea CHP could borrow from when it plans its renovation is the papier-mâché "story mushroom" located at the public library in Rapid City. Surrounded by a reading table, the Mushroom creation includes several small stuffed mushrooms that function as chairs (Sinclair, 882).

> In the Fairport Library (IL), there lives an alligator made of six parts—a head, a tail, and four middle sections. This stuffed animal was designed for children to enjoy. Locally made by a craft's person, the expense was low and children's response high. (Cummins, 890).

Some libraries use movable bins on casters, approximately 13 inches high, and often with multiple built-in sections, to hold the picture book overflow (Cummins, 889). Studies of bin use show substantial increases in circulation when books are relocated there from shelves (Rohlf, 31).

It is essential for the children's areas to have spaces that are for quiet, individualized use and spaces for group work and social interaction. A cozy window seat can be created with a low bench or table covered with cushions. Some children's areas either come equipped with or have installed a fireplace or faux fireplace in order to add another element of coziness. The provision of retreat areas such as window seats and platforms facilitate the development of self-concept and personal identity (Weinstein and David, 133). They are also important for rest, observational learning, and preparing children for unfamiliar situations (132).

CHP's Children's Department may also want to consider adding more personal amenities when they expand like a coat rack and/or a drinking fountain. The reference desk and most of the shelves at CHP's Children's Department are child-height, a highly desirable and important feature. A variety of window frame sizes adds pleasing variety

Figure 2

and the low walls (which are shelves on the other side) of the picture book area set it apart as special, while also maintaining an open airy feeling which aids in supervision of the children as well (see fig. 2). Another effective way the department provides variety is by including a small toy center that encourages motor skill development in the picture book area. Evidence has shown that most people like to read and study by windows when they are indoors, so it was wise at CHP to place much of the chairs and tables near the windows (see fig. 3).

Figure 3

The children's department is lucky to have an abundance of window space, but their Story Room currently does not have one, which can contribute to a stifling feeling, particularly when the room starts to reach maximum capacity. The five computer terminals are appropriately spread out so any one patron will never have to walk far to conduct an electronic search. Some posterboard and a table have been used to create a display area, which unfortunately now exists off to the side near the entrance. It is definitely easier to see as one leaves than as one arrives.

Bathrooms in the children's area should have a diaper changing station and a toilet-training potty seat. In the future, CHP could equip its bathroom with tables or troughs that can be oriented to allow an adult to stand at a child's feet. Mobiles overhead would lend distraction and entertainment; mirrors placed along one side of the table enable infants to gaze at their whole bodies (Weinstein and David, 129).

Ideally, children's departments should include listening stations, so parents and children alike can sample cassettes from the AV section. It would be exciting if in the future CHP could plan for fully equipped computer workstations that the children could use, and a video theater as well! Dramatic play equipment or materials such as a puppet stage or flannelboard are examples of fun and welcoming tools CHP may want to allocate space for when they expand. The model children's library space will provide manipulatives to sort, classify, and label (Feinberg, et. al., 41).

A large wall-unit cabinet where items can be housed in various components is one furniture option children's librarians could use for storage. Some furniture pieces are designed to include hidden storage space. A toy chest with padded lids upholstered in bright cheerful fabric serves a dual purpose (seating *and* storage) while acting as a space saver (Draper and Brooks, 103). Currently, there are not many toys available for play at CHP, so this dual purpose toy chest may work very well for their children's department once they are able to enlarge the picture book area. If mobile storage is needed, a storage unit on wheels could be purchased that can be moved wherever the library staff need it. The cabinet could be locked, and each side could contain different materials (Draper and Brooks, 104). William S. Pierce, author of *Furnishing the Library Interior*, suggests extending carpeting to the end panels of shelves as an additional method of noise

reduction (160). *Library Technology Reports* can be consulted for the detailed evaluative

information it provides on furniture, as well as equipment, systems, and supplies useful in

libraries.

Shelving

Seating for individuals and for groups of different sizes should be available in areas

defined by shelving. It is important to remember that shelving should be adjustable to

allow for expansion both upwards and downwards. By leaving out the top shelf,

> the shelving frame defines an exhibit space and also provides future expansion
> space. If space and budget allow, it's nice to have an overabundance of shelving
> in order to display a number of books face out…which encourages circulation of
> some of the less popular books (Cummins, 880).

One negative effect of metal shelving is that free-standing metal bookends are liable to

slide on it; Julie Cummins recommends placing strips of ridged, plastic tape on the

shelves to alleviate the problem. The best kind of book support is the type that is used

with the slotted or two-bar shelf. The support can slide along the shelf as needed; it does

not knife into books as does the butterfuly type, nor scratch shelves as does the lock-on

kind. Additionally, this kind of book support will not fall off or hang loose from the

shelves, and can't be lost as they are very tricky to remove. For convenient and aesthetic

reasons, the most preferred choice among children's librarians for the housing of

periodicals is the slanting metal shelf that lifts up to reveal flat storage of back issues

behind it. This is the device CHP's Children's Department currently has in place, and is

a furniture piece they should keep or even buy more of once they expand. The shelves at

CHP are labeled very clearly and are color coded (picture book shelves are yellow,

nonfiction shelves are red, etc.) which help non-readers in their navigation (see fig. 4).

It should be noted that many librarians purchase snap-on label holders for their shelves.

One librarian, in order to solve some of her shelving problems, uses loose acrylic racks

with twenty centimeter partitions that can be easily moved from one shelf to another

(Piispanen, 13). CHP's Children's Department has also used separate shelves to establish

-fiction titles that have come in. Shelving

labels, called range finders, may stick out so they can be easily seen by a person

approaching the shelves at a right angle to the end of the range (Pierce, 158). If CHP

purchases new shelves after they expand, the may want to consider buying shelves with

handy pull-out reference shelves, which are simply shelves that can be pulled out from

another stationary shelf so that books can be examined on them. They are also helpful to

members of library staff when they instruct patrons in library use (Pierce, 157).

Figure 4

Tables and Chairs

According to Julie Cummins, a children's services consultant, the preschool area should have tables no higher than twenty inches with corresponding chairs about twelve inches to the top of the seat (887). The Pittsford Public Library (IL) has six red, wooden, and square chairs with arms that can be turned onto their sides to become tables. CHP may want to invest in such furniture as children have been observed using them to construct trains, forts, and other imaginative instruments for play (Cummins, 888). Ideally, children's areas will have furniture for children of intermediate ages, with the height of tables and chairs 25 inches and 15 inches respectively. For older readers, chairs should be 18 inches and tables 28 inches (these are also referred to as "study furniture"). If rectangular, these tables can maximize space for chairs. The legs on round tables only allow space for four chairs while rectangular tables allow a minimum of six chairs (Cummins, 888). For younger children, round tables are recommended for safety reasons. If programming space is limited, stackable chairs and folding tables with adjustable heights are an appropriate selection. Chairs without arms are best suited for use in conjunction with study tables (Cummins, 888). An oval table that separates into four individual units contributes practical space utilization as well as adaptability.

Aesthetic qualities are enhanced if the reference desk matches the color or scheme of the room (Chekon, 23). Tabletops that sit on a large central cross are more prone to tipping than the traditional ones built with four legs; therefore, the latter should be purchased for children's areas. Since children's books are often

longer or wider than adult books, tabletops need to be proportionally larger to accommodate the same number of people (Chekon, 23). Traditional wooden "cathedral tables" with benches continue to be an effective way for enticing picture book reading (Cummins, 888). These sloped-top tables, which form a steep angle when placed back-to-back, provide a natural attraction for a child to sit down with a book.

CHP should be commended for offering six different types of seating in its children's department. There are stools at the terminal stations, three adult chairs, child-height chairs, toddler-size chairs, a love seat, and five comfortable stand-alone leg-less cloth covered wire frame chairs that accommodate the very young as well as adults (see fig.s 5 and 6).
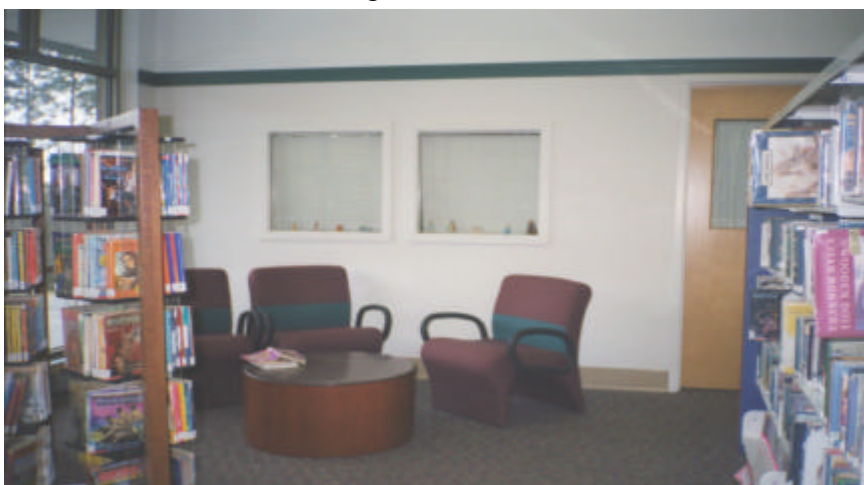

Figure 5

Figure 6

A research design team questioned children directly about the type of chairs they would like to see in the library; in response, they drew oversized reclining chairs in dinosaur and animal shapes (Sandlian, 27). The one chair that is perfectly adapted to library users of any size and age is the comfortable oversized lounge chair. According to Katherine Habley, a children's librarian, "low stools should be standard equipment. They enable small children to reach high places and provide handy low seating for adults and children who don't care to sit on the floor" (900). In the map featuring a redesign of CHP's current children's space, I have placed, as a suggestion, a rocking chair in the back right corner of the room (see Appendix B). It was mentioned several times in the literature that a parent with an infant or a small child needing comforting will really appreciate having this type of chair available to them. Since CHP is currently experiencing space constraint problems, the Redesign Map focuses primarily on reorganizing existing services and furniture, instead of adding many new items.

There is one addition besides the rocking chair, and that is a craft area towards the front of the room against the room's boundary on the far right side. I advise using a table low enough so that chairs are not needed (approximately 12-15 inches off the ground) so kids can use it just by sitting on the floor. This saves the expense of purchasing new chairs and the space such chairs would take up also. Once there is more space, an easel could be added to this area as well.

Most of the chairs selected for children should be able to accommodate seating for adults as well. "The arms of children's chairs get in the way of adults; most of the reading chairs in the area should, therefore, be armless" (Brown 98).

It is crucial that children's reading chairs are well-balanced and designed in such

a manner they do not tip over. Choosing these chairs, then, entails seeking a

compromise between a chair that is heavy enough not to tip over and light enough

for children to move (Brown, 98). If reading chairs for children have arms, it is

important to ensure that the arms will fit comfortably under the work surface.

Also, there should be a generous amount of leg room between the chair's seat and

Carol Brown, author of *Planning Library Interiors*, reminds librarians not to

assume that a particularly interesting feature they may have seen in another library's

children's area, such as a multilevel storytime pit, has been used successfully or is

suitable for every library (94). It is best if those responsible for selecting new library

furniture can learn of each product's service history by talking to librarians who have

used the item under similar conditions. She also warns against deciding on furniture

before the final blue prints for building construction are completed due to the need to

coordinate electrical and data distribution in any building that has electrical and data

transmission systems in the furniture (1). One children's services consultant urges

librarians to Scotchguard upholstered or fabric-covered furniture to add protection and

extend the wearability of light colors (Cummins, 890). Since the primary consideration

in selecting upholstery fabric for furniture should be its capability for wear, a heavy

fabric such as a blend of natural and polyester fibers is an excellent investment. This

combination cleans easily and is available in numerous colors. James Draper and James

Brooks advise choosing a heavy weave (such as tweed) in two or three colors—"the

raised weave will wear better than a smooth fabric, and the blend of colors will hide

stains more readily than a solid color" (56). Although it is very easy to clean, vinyl is prone to splitting and cracking with age, and during the summer can be very hot and sticky (Draper and Brooks, 56). Buttons on furniture should be avoided, since they may pop off with age or be plucked off by a child (57). If possible, new furniture should always be ordered installed because that way, "the vendor is responsible not only for making available specified items, but also for seeing that they are properly assembled and installed" (Pierce, 215). If local labor must be used, the librarian should enlist the help of the vendor in sending someone skilled in furniture installation to supervise or instruct the workers (215). Maintenance considerations in selecting furniture include:

- the ability to withstand heavy use over a long period of time

- ease of day-to-day cleaning and upkeep

- ease with which repairs can be made or parts replaced

- the availability of replacement parts

- flexibility of the item with respect to changing its location or use in the future (Brown, 4).

Safety

Leslie Edmonds, a children's librarian, writes in her article "Sorry About Safety?"

One might think that safety is the responsibility of architects, building consultants, contractors, and interior designers, making the task of the librarian merely a matter of choosing between several safe alternatives. This, unfortunately, is not so (869).

Inspectors will not be aware of nor will the building codes take into consideration, the special needs of children, unless they are pointed out by the children's librarian

(Edmonds, 869). If the expansion of CHP's Children's Department will include the implementation of a stairwell, upper as well as lower handrails should be installed as a safety consideration. Any stair openings should not be big enough for children's body parts to become stuck in. According to United States government safety standards, openings of not more than 3 and 3/8 inches can be used (Feinberg, et al., 34). Due to children's proclivity for grabbing and climbing, it is especially important that the furniture located in the children's room be difficult to tip over. Fire extinguishers, of course, should afford quick visual access.

Adequate aisle space between stacks and freestanding furniture is necessary to facilitate the movement of handicapped individuals and loaded book carts. Ideally, three feet are allowed between stacks, and six feet are allowed between tables in traffic areas (four feet if a nontraffic area) (Klasing, 23). It is helpful if librarians are mindful of current and potential traffic problems, so that they may adjust accordingly.

For obvious reasons, heating units and electrical sockets need to be covered or out of reach. In order to restrict access, Jane Klasing recommends limiting the entrance to mechanical rooms and air conditioning equipment to exterior corridors if possible (32). In the creation of separate spaces within the children's section, care must be taken not to obstruct the visual or physical access of adults to their children. Such an arrangement promotes safety since it help adults catch accidents before they happen.

It is important to verify that all windows be secure, durable, and shatter-resistant. Doors should be checked to verify they are not too heavy for children to open and if CHP designs a new story area that includes steps, they must be small enough for children to safely maneuver. Designs need to be placed on any glass room dividers at appropriate

levels to help prevent children as well as adults from walking into them (Edmonds, 869).

If windows in the area bear latches, they should open up away from the building, at a

medium to high level, and have the ability to extend only a few inches in order to

eliminate the possibility of youngsters tumbling through. All signs and warnings should

be clearly visible, and designed to communicate to non-literate as well as literate patrons

(Edmonds, 870). Keeping doors and hallways in and near the children's room free of

blockage is always a good idea. All areas should have adequate lighting; emergency

lighting should be provided in case of power outages. Circuits need periodical checking

to make sure they are not being overloaded. If fuse or circuit boxes are warm or hot to

the touch, this is a sign that the wiring in place is not adequate (Edmonds, 872). Loose

rugs or carpets can be a safety hazard as can doors that snap shut quickly, as children may

get caught in them. Shelves should be tested to make sure they cannot be pulled over.

Toys should also be scrutinized to determine their level of safety; there are several toy

consumer reports on safety that could be consulted. Phones should have fire and police

numbers taped on them, and staff need regular training in basic first aid, fire procedures,

weather disaster procedures, and any written library safety guidelines to ensure a

maximum level of safety for the children's library environment.

<u>Lighting</u>

Lighting is an important element in interior design due to its effects on mood,

safety, and productivity levels. The key to a successful lighting system in a public place

like the children's department of a library where a wide array of activities are performed

is variety. Artificial lighting, which can take the form of track lighting, general-ambient,

task-specific, floor, desk, ceiling, or wall, should be balanced to complement natural

lighting. "Individuals of all ages have a strong preference for natural lighting, agreeing

that daylight improves their moods" (Feinberg, et al., 36). Research within the last five

years suggests that viewing natural scenery activates the parasympathetic nervous system

and has a calming effect (Sundstrom, et al., 500). Currently, CHP's Children's

Department is equipped with a plethora of windows, so there is a great deal of pleasing

natural lighting (see fig.s 3 and 5). The sun's rays, however, speed deterioration of the

books they come into contact with, in addition to causing damage to wood finishes and

any colors on upholstery. This is something the children's department in particular

should be concerned with. If they haven't done so already, they could place certain

transparent films on their windows to act as a filter (Pierce 231). "When windows are

specified, they should be the kind that provide filtration of the deleterious portion of the

spectrum and should be so insulated that energy loss to the outside is greatly reduced"

(Pierce, 231). Purchasing sunscreens or overhangs would also serve to reduce any direct

sunlight.

The children's department's reference desk at CHP receives concentrated

illumination from track lighting, small movable spotlights attached to the ceiling (see fig.

2). Perhaps when they renovate, they could explore the option of using track lighting in a

special display area, since they can bring more attention to the area, but also be adjusted

to provide varying degrees of light to different parts of the display. Some libraries use

track lighting over shelves to dispel the shadows that are often cast down aisles of book

stacks (Fraley and Anderson, 37).

Parabolic lenses are known to reduce glare on computer screens and reading table surfaces. Glare tends to be a problem when prismatic lenses in lighting fixtures are used (Brawer and Beck, 89). During lighting planning, traffic patterns should be taken into consideration. CHP should continue their practice of using uniformly spaced light fixtures with energy efficient bulbs. In the various separate parts of a library, it is important to have security lights installed, which operate when regular lights are turned off or during power outages and are strategically placed to illuminate a clear path. Computer controlled lighting systems can regulate day and night lighting requirements.

Margaret Bush, author of "Space: Factors in Planning and Use," offers the reminder that in some instances, the presence of natural lighting may be simulated with a combination of lighting and plants (900). Reflected-light fixtures placed on walls that "wash" illumination down a wall and up over a ceiling are more effective at imitating the experience in nature of being surrounded by light than overhead fluorescents (Weinstein and David, 123). Since daylight commonly enters a room from the side, it offers directional light that "lends interest to three-dimensional detail;…the varied appearance of shadows and shading can assist infant's depth perception learning" (Feinberg et al., 36).

Another selection for the children's department to consider is buying lights that are imbedded in the shelves themselves. The fixtures are supported by an arc insert located in the top of the uprights on either side of a section of shelving (Brown, 124). The addition of dimming capabilities to CHP's Story Room could enhance the mood of various programs that the children's librarians are tying to create. If the Children's

Department decides to invest in front projection audiovisual equipment, a rearview screen will more than likely be necessary to counteract the effect of the room's ambient lighting.

Full-spectrum lighting more closely approximates daylight than fluorescent lighting, which has been associated with headaches, eyestrain, and increased fatigue and irritability (Feindberg et al., 36). A one year study in 1992 of the effects of elementary school lighting, which may be similar to the lighting in most libraries, found windowless classrooms with fluorescent lighting associated with undesirable biochemical changes not found in classrooms with natural lighting (Sundstrom et al., 495). According to one article, most artificially lighted areas are extremely overlit. When engineers at one facility, for example, were given individual controls to modify their lighting, the average level of light fell to almost half the levels suggested by lighting codes (Dauten, 35).

Color

With the incorporation of an effective color scheme, libraries become more pleasant, inviting, and less formalized (Pierce, 238). When CHP's Children's Department elects to renovate and/or expand, they may be tempted to alter the current color scheme of the room. The nature of the surrounding community and of the library building as a whole must be considered when any children's department begins the task of deciding upon a color scheme (Rohlf, 30). Right now, the books, furnishings, and displays of CHP's children's room comprise the basic decoration and set the dominant mood of the space. According to Rolf Myller, author of *The Design of the Small Public Library*, this is the most appropriate technique, as opposed to allowing the colors of the walls and ceilings to garner the most attention, and thus set the tone of the atmosphere

(90). Bright colors on walls and ceilings "create tiresome contrasts, absorb light, and

show imperfections, especially when glossy" (Myller, 90). A white ceiling, like the one

at CHP, is a good choice in libraries because it reflects eighty to ninety percent of the

available light. The sharper the contrast from the white page to the study table surface,

the more arduous is the seeing task (Habley, 893). In general, the contrast between the

walls and ceiling should be kept to a minimum (Draper and Brooks, 43). In choosing

colors for library furniture, it is important to remember that dark-colored surfaces absorb

more light than lighter surfaces.

Color may be used freely on the floors where reflectivity is not a serious issue.

The children's department at CHP wisely employs a multi-colored carpet to add variety

and assist in the concealment of dirt and wear. The primary color in all the chairs there is

a dark cranberry that harmonizes well with the carpet colors. It does not match well,

however, with the lavender surface of the reference desk. Children's spaces need to

incorporate bright and cheerful colors to help set it apart from other library areas and also

to show that it is a place where fun and exciting experiences are appropriate and

encouraged. The children's department at CHP presents its bright colors via shelving and

artwork (such as mobiles and posters).

Painting one wall in an area a bright color can add refreshing zest without being

overpowering (Todaro, 904). A wall painted a unique color could become a designated

display area; that way, the color becomes associated with a specific purpose. In "A

Room of Their Own," it is suggested that a "writing wall" be utilized as one fun way to

bring in color (Sandlian and Walters, 28). Children will be extremely receptive to the

idea of being able to contribute their own art in a permanent way to the design and mood

of their designated space. Another method for emphasizing a particular color theme that CHP's children's department might want to explore is to cover the shelves with appropriately matching colorful shelf paper. Along with its vibrant colors, a stained glass window carries an element of magic and of imagination. CHP could simulate this by securing different colored tissue paper over one or several of its smaller windows. A popular way to add color accents to a room is by outlining windows and doors with a color different (and darker) from the color on the walls. Since CHP does not possess a spacious children's section, they should refrain from applying this technique, as it decreases the apparent size of a room (Draper and Brooks, 42). Another reason they should avoid it is because it may lead to a color overload problem. The room already contains many color accents; the addition of more could cause a distracting and cluttered-feeling environment.

The entrance to the children's section "should be very bold and very colorful, painted a warm and lively color so that it will be exciting and inviting" (Draper and Brooks, 44). Currently, the children's department entrance at CHP lacks these vibrant colors so they may want to consider adding them, perhaps through the placement of some kind of mural or soft sculpture.

If, during the renovation of the children's room, it is determined that new colors need to be added or existing ones changed, James Draper and James Brooks, authors of *Interior Design for Libraries*, advise that the children's librarian visit the local paint store and pick up a few samples (two or three shades of each color chosen), because it is easier to show the interior designer a sample of a color than to try and describe it (49).

Colors can be very influential in suggesting either unity or diversity. For example, the walls of the Story Room at CHP are painted a different color than the rest of the department, which aids in differentiation and communicates that it has a special function. The children's department librarians should keep in mind that color can also be used to alter the apparent size or shape of a room:

> Small children's rooms may be able to appear larger if light, cool colors are used. Conversely, the same room painted with darker, warmer colors will make the room appear smaller…One that is very long and narrow can be made to appear shorter and wider if the end walls are painted with dark colors and the long walls are done in lighter shades (Habley, 892).

Walls

To encourage the creative involvement of floors and walls in the design process, librarians should view them as furniture pieces. Poster board attached to a wall can be used as a bulletin board or display area. Some libraries cover one wall with fabric or colored corkboard to add texture and functionality. The children's area at Columbus Metropolitan Library in Ohio has placed several miniature mantels on a wall for the placement of assorted artistic objects (Quesada and Korab, 302). The end result is much more eye-catching and interesting than the standard tacking up of one-dimensional posters. Providing a wall surface where items like kids' artwork can be mounted, such as through the use of track mounting and the aforementioned corkboard, is highly recommended by most sources discussing the design of children's library spaces. Walls in the children's area should be strong enough to hang bulletin boards on. CHP's Children's Department should try and determine the placement of their wall studs, since studs provide a location for attaching heavy items to a wall. They can be located by

using a magnet to find the nails that fasten the wall to the studs (Fraley, 48). Rochester

Public Library installed a "secret door" in one of the walls in their children's room, a

feature youngsters are continuously delighted by (Sinclair, 885). Behind the door is a

room used for storytelling, but also houses a special doll collection. The walls in

children's areas are ideal for mural designs. A wall at one library contains a jungle scene,

while the walls of the program room at another bear an Alice in Wonderland mural theme

(Amdursky, 28).

Because visual access is so important in children's library spaces due to the need

for adult supervision, glass bricks are used sometimes in the creation of walls (Glick, 33).

Glass brick walls have the added benefit of "maintaining an airy feel" (33). Carpet on

walls or other soft coverings will effectively absorb much of the noise produced by

children. Fabric for walls is less expensive than wallpaper and can be shellacked in order

to brighten the look and also allow for an easy wipe-off-clean surface. Shellac, however,

can only be put on flat fabricked walls; it cannot be used on those that have been built out

(Draper and Brooks, 70). Three types of wallpaper are appropriate for use in the

children's room due to their high level of durability: vinyl, grass cloth, and textured (68).

A vinyl wall covering greatly simplifies maintenance; it is easy to clean and difficult to

deface permanently (Pierce, 234).

> The junction between walls and floor is often a problem area because
> maintenance equipment used on floors is sometimes struck against the wall at this
> level. A vinyl base on an extension of carpet two or three inches up the wall will
> help to avoid such problems (Pierce 234).

High-gloss paint should not be used on walls due to potential glare problems, but is a

suitable choice for restrooms because they tend to be underlit. High-gloss paint is also

very difficult to write on with a pen or pencil. Since wall space for shelving should be a

primary concern, return air vents need positioning high on walls, or installed on the

ceiling (Klasing, 18).

Flooring

It is important to carpet the entire area of the children's department like CHP

does, since it helps to control noise; also, children are much more active than adults and

tend to fall down more. The carpet offers a much softer landing than exposed wood or

tile. Moreover, children are much more likely to sit on the floor; therefore, the carpeting

in the children's room should be softer if possible than the carpeting in the rest of the

library building. One way the children's department at CHP could increase the level of

cushioning on their floor is by adding carpet squares children can move around or area

rugs in certain places. They would probably be most appreciated in the Story Room, the

picture book area, by the periodicals, and in between and beside a few of the book stacks,

where kids like to browse. Area rugs can also be used to cover any worn areas or loose

seams on the carpet. The author of *Interior Design for Libraries* recommend buying

nonskid padding to apply underneath any area rugs the library uses (Draper and Brooks,

87).

It is important to determine if the estimated price given when purchasing carpet

includes the expense of installation and padding. All-wool carpet offers the best

durability, although it tends to be the most expensive. Less costly is all-nylon carpeting,

which wears almost as well. Despite taking to color well, acrylic carpeting has poor soil

resistance. Polypropylene carpeting is durable, cleans easily, and resists staining. On the

other hand, it does not look as attractive as other options and the color range is not as great. The carpet square option is ill-advised since its edges fray over time and lead to unsightly tripping hazards.

Ideally, the carpet weave should be woven into all-hair backing. The next best is hair-and-jute backing, followed by all-jute backing. "These three backings are very strong and somewhat more expensive than those of rubber or synthetics. Synthetic backings just do not hold up well; those of rubber have a tendency to rot and powder" (Draper and Brooks, 85). The appearance of stains and marks on carpet will be diminished with a multicolored tweed because they will blend in better. Multicolored tweed carpeting will also appears to wear more evenly (Draper and Brooks, 85).

Well-designed floor plans allocate plenty of space for the maneuvering of carriages and strollers. Furniture placement will be adversely affected if floor levels lack sufficient load-bearing capabilities and are not smooth and level. Per square foot, library floors should be engineered to bear an average weight of 150 pounds. Often, when walls are constructed on top of carpeting, waves and lumps result if the flooring is not even or if the carpet is not stretched fully and attached securely. This is important to be aware of as it is not an uncommon problem.

> The only way to repair the waves is to cut the carpet and install additional
> tackboards and restretch all of the carpet; molding will usually have to be moved.
> The time and effort factored into each of the repair items will impact the timing of
> space-plan implementation (Fraley, 47).

Using carpet to cover walls actually has several advantages: it is a very effective insulating material, is attractive to children, makes walls safer to fall against, and makes the walls virtually soundproof (Draper and Brooks, 71). Observations of children have

revealed a strong enthusiasm for carpeted floor levels since it establishes a small

climbing area, while offering a welcoming space for sitting and reading a book that is less

structured than the standard table and chair set. Levels such as these have been shown to

encourage greater group social interaction as well. In 1992 , there was a study examining

the effects of a "soft classroom" designed to promote interaction through carpet-covered

bench seating arranged in a semicircle. Results exhibited more voluntary participation

and more student-to-student interaction in the "soft classroom" than in traditional

classrooms of comparable size (Sundstrom et al, 496). If CHP wishes to utilize a floor

covering other than carpet once they enlarge the children's area, tile can be used to create

very lively and colorful patterns and designs.

Windows

        If the addition to the children's department at CHP will include windows, it would

be wise to select ones with operable sashes in case of air conditioning failure. They

should have removable handles or keys that staff can control and use in emergencies

(Pierce, 18). To reduce glare, library windows should be tinted; if the windows take up a

lot of space, a two track drapery system may be used, with one set for light diffusion and

the other for light exclusion. Observation windows should be installed in any commonly

shared walls in the children's area. According to Jane Klasing, only clear, tempered, or

reinforced glass is acceptable for this type of window (20). Nonglare glass may be

purchased as well; it shields staff, patrons, and material from too much light, while

theoretically permitting enough light to enter (Fraley, 49).

Drapes constructed of fabric in a thick weave "warm up" a room in terms of mood and temperature, since they provide good insulation for the windows (Draper and Brooks, 59). A lightweight, cotton fabric with a loose weave contributes more of a light and airy look to a room. Sheer and unlined casement drapes are a good example of these. They too can be pleated on a traverse rod for easy drawing. The light cloth has a lively look, and the loose weave lets in more light. If a lively look is desired without sacrificing the ability to block out light, a light fabric with a tight weave should be purchased. The color and texture of the fabric for draperies "should always be chosen to blend with the other fabrics for the room to maintain that look of unity" (75). Drapes have other uses in addition to helping control the influx of light. Window drapes hung from the ceiling rather than from the top of the window will make a low ceiling seem higher, for instance. If windows appear too narrow, they can be made to look less so by having the drapes made wider than the window. Drapes shrink a little after each time they are dry cleaned; therefore, they should originally be bought at an inch and a half too long (75).

Despite having a lot of windows space, there are no window treatments presently at CHP's Children Department. In addition to drapery as an option, they may also want to consider the installation of blinds, since there are a wide array of types available on the market. Horizontal or vertical, blinds, available in wood, bamboo, plastic, metal, and venetian styles (to name a few), can add both color and life to windows. Although wood blinds are not as effective as others in blocking out light, they are the least expensive (if bought ready-made).

If the children's librarians at CHP are interested in reducing the large amount of window space located in the back by the fiction stacks (see fig.3), they should

contemplate using a valance-type frame to be built around a window. These frames, which can then be painted or covered with paper or fabric, will create the illusion of a smaller window. Many who employ this method go on to hang blinds on the inside of the frame (79). James Draper and James Brooks state: "Another disguise for a very large window with a single pane of glass is to break it up with wooden slats…This treatment will help break up the monotony of the window" (79). CHP has actually already achieved this kind of look in their picture book area, with quite pleasing results (see fig.2). The fourteen miniature windows each have their own little sill as well which can be used for display purposes.

Since they are associated with a cozy or "homey" style, several children's library areas have made stylistically effective use of window shutters as their means for controlling the entrance of natural light. Placed on the inside of the window, shutters are usually seen taking the form of either flat panels or hinged panels that fold up. Window treatments do not necessarily have to be attached to the windows themselves; hinged screens, often covered with fabric, can be placed in front of a bare window for example. They are attractive, yet can easily be folded up and put aside when one is ready to let in daylight again. Even live plants, whether hanging or placed on the sill(s), constitute a legitimate form of window treatment (Draper and Brooks, 80). Currently, plants are absent from the children's area at CHP.

Windows can truly become part of a learning environment when they take the form of the different primary shapes. A triangle window placed near a square one, a circular one, and a rectangular one, for example, will help young children, especially with the aid of accompanying adults, identify and compare these basic geometric elements.

Artistic Elements

"Children's books incorporate art. In order to reflect this, art should be an integral part of the facility" (Sundstrom et al., 501). When CHP has more room available, a display case just for the children's section could be a vehicle for the exhibition of artistic objects. One library used their case to present a collection of delicate yet ornate perfume bottles. Children's artwork or projects that they have done at school or in the library are other common items featured. A baseball card collection or an assortment of fossils could be shown, with books on these topics on display next to them for easy pick-up. Another idea is to transform the interior of the case into a particular habitat—a rainforest, ancient Egypt, or the surface of the moon for example. "Visual displays are a proactive method of sharing information" and spurring interest in a variety of materials and concepts (Habley, 900).

Covering a wall or part of one wall with book covers or construction paper (solid color, checkerboard effect, or stripes) introduces art and color into the environment too. Graphics could be added to a portion of the ceiling, or mobiles could be attached to the ceiling and/or windows. A the time I visited CHP, small colorful paper kites were hanging over the children's reference desk (see fig. 2). It is beneficial to limit this type of artistic element to one space as CHP does, because it effectively highlights one particular area and function within the department. Overuse of mobiles leads to a sense of confusion and disarray. During my research, it was also suggested that posters and/or corkboards be added to the end of shelves or part of the ends of shelves. Several creative and informative posters adorn shelving and partial wall space in CHP's Children's Department known (see fig. 7).

Literary characters can come alive in the eyes of children when life-size sculptures are created to imitate them. There was one at one library based on one of the monsters in Maurice Sendak's *Where the Wild Things Are.* For the purpose of children's spaces in libraries, soft sculpture can generally be defined as quilted wall hanging of animals. I found a picture of a library that had one suspended from the end of every shelf. Stuffed animals, especially those depicting familiar literary characters, are an easy way to contribute a sense of fun to the children's room. At CHP, several are propped intermittently along the shelves in the picture book section. Toys like puzzles, puppets, and board games should be available since they also help communicate the whimsical and playful nature of a children's department, and can be used by many different ages as well.

Figure 7

Artistic elements are especially effective if they can be used to establish a theme for the whole room. One library placed large painted models of different types of houses and buildings on top of all their shelves, so one got the feeling of strolling through a village as one navigated the area. "Collective pretend is also promoted through the

creation of key walk-in thematic places such as boats, trains, or houses whose natural features can be used as private retreats" (Feinberg et al., 32). Storytime or program areas exist as wonderful opportunities to add whimsy and encourage the imagination. One library uses certain artistic elements to transform their story area into a "Rabbit Hole," which is also its official name. At another, the story corner is located by the windows; "when the drapes are pulled shut they form the trunk of the story tree, which is painted on the curtain, creating a pleasant background for storytime" (Sinclair, 881).

Three artistic techniques involving paint that CHP's Children's Department may want to consider are the sponge, brick, and stencil treatments. Paint can be applied to a wall or furniture with a common household sponge for a slightly less traditional look. It can be applied over old paint for a temporary improvement, or it can be used over a freshly painted wall for a finished look (Draper and Brooks, 63). The sponge treatment helps hold cracks together as well as conceal irregularities in the walls. Another special effect that adds some artistic distinction is the brick technique, whose steps for use are exactly the same as the sponge treatment, only a brick is used instead. The brick designs can be arranged in rows so the finished product resembles a brick wall. The stencil treatment is particularly well suited for the children's room. This option offers the greatest versatility and potential for originality. "The illustration chosen must be simple—an animals or a fairy-tale character, for example whose outline is not only easily recognized, but can also be drawn with very few lines" (66). The stencil can be placed to produce a few figures in irregular places, or a set, repeating pattern.

Glass companies have many types of mirrors to choose from, if CHP opts for this decorational route for their walls. The current entrance to CHP's Children's Department

is effective at grabbing attention, but it fails to establish a certain mood or theme, and is absent of color as well. Terry Chekon and Margaret Miles, authors of "The Kids' Place," feel that the entrance to the children's area should introduce a type of theme, by being made to resemble a house of books, a book tree, or a book boat for example (22). The Speedway Public Library (Indiana) conveys their support for art and creativity by having a children's entrance flanked with two columns made to look like giant Crayola crayons.

At the Kalamazoo Public Library (Michigan), grants were secured to hire local artists to decorate the pillars within the children's room and also to transform the windows there into stained glass depicting images from classic children's literature. To illustrate, one pillar was used as the backdrop for a Jack and the Beanstalk soft sculpture. With this design, "the beanstalk twines around the pillar, while the giant's oversized boot comes out of the ceiling, threatening a very small Jack" (Amdursky, 27-8). The entrance to the story room at this library was transformed into the façade of a castle complete with drawbridge and guardian lions. A competition was held for decoration of one of the pillars for several reasons:

- The Kalamazoo area is rich in artistic talent

- It allowed the library to nurture relationships with the Kalamazoo Institute of Art and the art department at the Kalamazoo Public Schools. Each of these provided a judge as well as essential advice on the mechanics of the competition.

- It expanded the perspective of what could be achieved beyond the staff level.

(Amdursky, 28)

James Draper and James Brooks recommend that in such a contest situation, the librarians have the artists submit a miniature of their mural, soft sculpture, etc. to be passed on to the library's designer, who should act a final judge.

Space Planning

This section includes helpful, thought-provoking ideas and principles for the children's librarians at CHP not already covered in the previous sections.

As part of the expansion plan, CHP's Children's Department could allocate outdoor programming space, such as a terrace. Located in the south, Chapel Hill is able to enjoy many warm, sunny days each year, and the interim head expressed interest in wanting to take advantage of this during our interview. Lafayette Public Library in Indiana has an enclosed patio labeled the "Bird Restaurant," which contains a bird feeder and bird bath. They also enjoy a "Pet Corner," housing birds, hamsters, gerbils, fish, and an aquarium with a crawfish (Sinclair, 883). Another library boasts a rabbit hutch, complete with a live rabbit children are allowed to pet. Perhaps CHP could invest in a telescope; they are very successful at attracting children and could be used to examine birds and any other wild animals in the area for example. The Bensenville Public Library has an aquarium actually built into the regular shelving of its children's room (883). Nichols Library, also in Indiana, has a garden in its children's room.

> A natural window well created the basis for this garden. A glass top encloses the area, thus creating a greenhouse effect. The common and technical names of all the plants are listed so children can easily identify them. (Sinclair, 884).

Some libraries equip their program/storytime rooms to be listening rooms as well. They are designed in such a way that children can wear wireless headphones and listen to

cassettes or CD's being played at the children's library desk. A feature often added to children's rooms are puppet stages. There should be some unfurnished nooks or corners "for personal discovery by those children who need privacy or a 'quiet read'" (Bush, 900). Ideally, aisles between shelves are wide enough for browsers to sit on the floor. This is difficult to achieve now at CHP due to their space constraint problem. Terry Chekon and Margaret Miles, both children's librarians, discovered "the hard way" how essential it is that storage space be located near the work area (24).

In her article "Space: Factors in Planning and Use," Margaret Bush urges librarians to ask themselves how easy it is for children to find their way to the children's department entrance. At CHP, it is almost immediately to the left of the person walking in through the main entrance. Their children's department is provided with an eye-catching structure at its entrance, but is not as effective as it could be because of its height. One has to do a little searching to locate the sign on top of the tall structure that proclaims it is indeed the Children's Department. In fact, according to the interim head, it is not uncommon for people to walk up to the children's reference desk thinking it is the main reference desk.

Bush also advises that the flow of traffic be logical and efficient. CHP's Children's Department seems to have done a very good job at taking this into consideration; for instance, the Easy Reader room is located right next to the picture book space. The only non-efficient feature is the placement of the reference desk at the front of the room. A more centralized location would afford it greater visibility and accessibility, particularly for those patrons browsing the fiction stacks in the back and studying at the tables by the windows. In the redesign map of Appendix B, I have moved

the reference desk to the right and center as one possible solution. Layout and furniture placement are effective to the degree that they help children make accurate predictions about how events, objects, and people around them will behave; this also fosters cognitive development in early minds (Weinstein and David, 118).

Design features that facilitate the cognitive mapping of environments, also known as wayfinding, is one fundamental aspect associated with interior design. "Researchers believe that effective wayfinding may be supported by visual access, and impaired when the density of information in a setting is high" (Eaton, 521). Therefore, a certain amount of discretion should be used when choosing the number of signs to display in an area. The children's department at CHP could probably benefit from the use of signs; examples of appropriate areas there to hang them over are periodicals, the copier, new books, the reference desk, and paperbacks. Footprints glued or painted onto the floor could also serve as a navigation tool. Perhaps CHP could use them now since the children's department receives so many questions pertaining to the location of the young adult collection, which is not housed in the children's department. Since the YA and children's collection are closely related, it would make sense to have signs leading from the children's area to the YA section.

Environmental clarity has been less frequently addressed in the literature; "yet locational and directional questions are a constant tax on the professional energies of reference staff, and the negative emotions most commonly reported by library users are feelings of helplessness, confusion, and disorientation" (Eaton 525). It is important that signs not conflict with any of the clues patrons may pick up that are embedded in the shape of the room, or the placement of furniture for example (Eaton, 521). The growth of

the collection often forces some libraries to decide upon shelving arrangements unintuitive to the average patron. According to "Wayfinding in the Library: Book Searches and Route Uncertainty," the complex layout of shelves, distance, and route complexity hinder searching the most (Eaton, 525). The best directional and locational signs are salient, simple and strategically placed. To increase effectiveness:

- Background clutter should be reduced to a minimum

- Directional signs should have clear, legible contrasts

- Signs communicating a given level of information should be comparable in color and size

- Information on signs should be limited to what is immediately useable

- Ideally, signs should be visible just when needed

(Eaton, 525)

The model library will not make children cross adult areas in order to reach a washroom facility (Myller, 55); CHP's children's department is fortunate, therefore, in that it has its own restroom. To avoid confusion, it will become more important after they expand for the activity areas in the department to possess either permanent or fluid boundaries that signal where each activity physically begins and ends. "Solid boundaries, appropriate for activities using the floor, are created by encircling the space with bookcases, storage units, furniture, or walls" (Weinstein and David, 132). If the new design of CHP's Children's Department includes a platform higher than two feet, the surface underneath should not be neglected; it can be transformed into a crawling and hiding place. The underneath surface of platforms in many children's spaces are decorated with mirrors, mobiles, graphics, and textures (134).

The transactional approach to environmental psychology may provide a helpful framework to librarians involved in the space planning process. Specifically, it treats the physical environment "as a potential context for social interaction that can support, constrain, symbolize, and confer meaning upon various aspects of social relationships" (Sundstrom et al., 490). The research on interior design of children's library spaces repeatedly makes note of the need for spaces that welcome group activity in addition to spaces that can be used for solitary interaction, like the kind between a book and a child. Programming rooms in the children's departments of libraries should have the capacity to divide into two or three smaller spaces; this ensures maximum multiple use of the space—from crafts to additional quiet reading space (Sandlian and Walters, 30). Once they expand, CHP could maybe design areas for a homework center and a parent education center within the children's department. A prominent tenet in the space planning of children's areas is that spaces should be available for different age groups of young people and for various activities and interests. CHP may want to develop a science center for its children's room, following its expansion. Science centers, commonly containing live animals, weights, microscopes, and the space to conduct experiments, offer the following potential advantages:

- They appeal to children's natural curiosity and expose them to an investigatory process.

- "They promote the idea of the 'partnership' that should exist between local schools and the public library in educating young people"

- It serves the children and families affiliated with homeschooling

(Brown, 95)

Conclusion

> Building projects sometimes take on a life of their own. They can be frustrating and time-consuming. Once underway, they can even seem endless. But as anyone can testify who has followed a construction project through to its conclusion, it is also exhilarating. It allows all those involved to fulfill special and critical library service needs with a unique and lasting response. The rewards, like the challenges, are great. (Dahlgren, 26)

The design of children's spaces also gives librarians the opportunity to be extremely creative. They should strive during the process to keep in mind what children desire most in spaces created for them:

- Hidden, private places
- Respect from adults
- Being able to learn by doing
- Comfortable furnishings
- A clear sense of welcome
- Bright colors
- Environments that can change
- A place to have fun!

Hopefully, the information contained in this paper will be helpful as a sharing of ideas and as stimuli for discussion among librarians and administrators, the first crucial step in any redesign project.

> Remodeling can be viewed as a massive undertaking, or as a step-by-step approach to improving overall service and library conditions. If adequate research is done before remodeling is begun, needless mistakes, short-term improvements, and insufficient changes can be avoided (Todaro, 907).

Julie Beth Todaro, author of "Changing Children's Environments," believes that in order to "develop and update the library image," children's librarians must be perpetual

decorators and remodelers of their environments (904). This paper aims to make that process easier through the presentation of an abundance of space planning and interior design ideas, offered via a fresh perspective that applies them to one branch in particular, the Chapel Hill Public Library. Not only can an attractive, dynamic, well-organized, and functional children's library department be a source of enormous pride for the community and institution, it provides fulfilling early experiences for children that nurture and inspire lifelong library use (Brown, 101).

An expansion of this paper would cover the important tangential areas of the needs assessment process, the evaluation of proposals, the building program statement, pricing and payment, the role of the librarian in relation to the role of the architect, the interior design of young adult areas, communication challenges to expect when working with architects and professional interior designers, and publicity techniques used to successfully communicate new and upcoming changes—both to the public and within the institution itself. A fascinating body of literature exists on the concept of child participation in "adult projects" such as the redesign of a public space   *Spaces for Children: The Built Environment and Child Development* provides an excellent overview of this topic. Librarians should be aware, if they are not already, of the *Checklist of Library Building Design Considerations* published by the ALA/Library Administration and Management Association. Carol Brown provides a concise yet thorough list in her book *Planning Library Interiors* of children's librarians' priorities (in random order) with respect to the design of children's rooms. It is reproduced below because it embodies a reliable summary of several of the major themes discussed in this paper.
Children's librarians would like to have spaces that:

- Are separate from adult areas, but are visible and easily accessible

- Attract children to use the library

- Can be controlled by the staff to provide a safe environment for users

- Market library materials and services successfully
- Are designed to support the interactive nature of children's services (staff and users, children and parents, caregivers and children, a young person and other siblings or peers)

- Provide maximum flexibility to allow for changing collections, equipment, displays, arrangement of furnishings, areas of emphasis, and services

(Brown, 93)

CHP's Children's Department was an invaluable case study opportunity because I came to understand how the area incorporates many features very well, considering their insufficient space situation. Based on my research, I was also able to brainstorm new features that could be changed or added to the department as it exists now. It was also exciting knowing my work may play a role for them in the future as the librarians and interior designers create a new space plan for the renovation that is to take place within the next five to ten years.
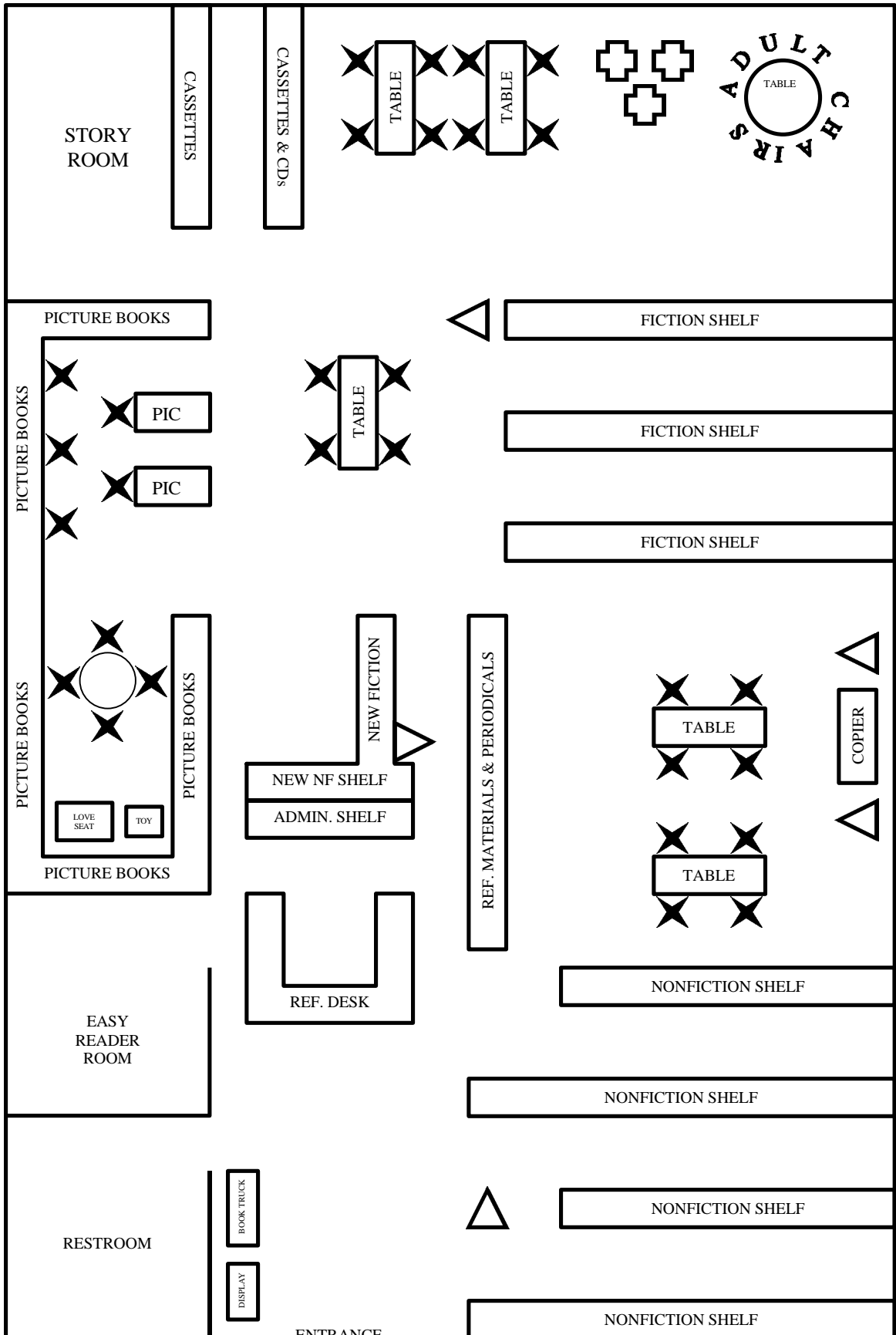
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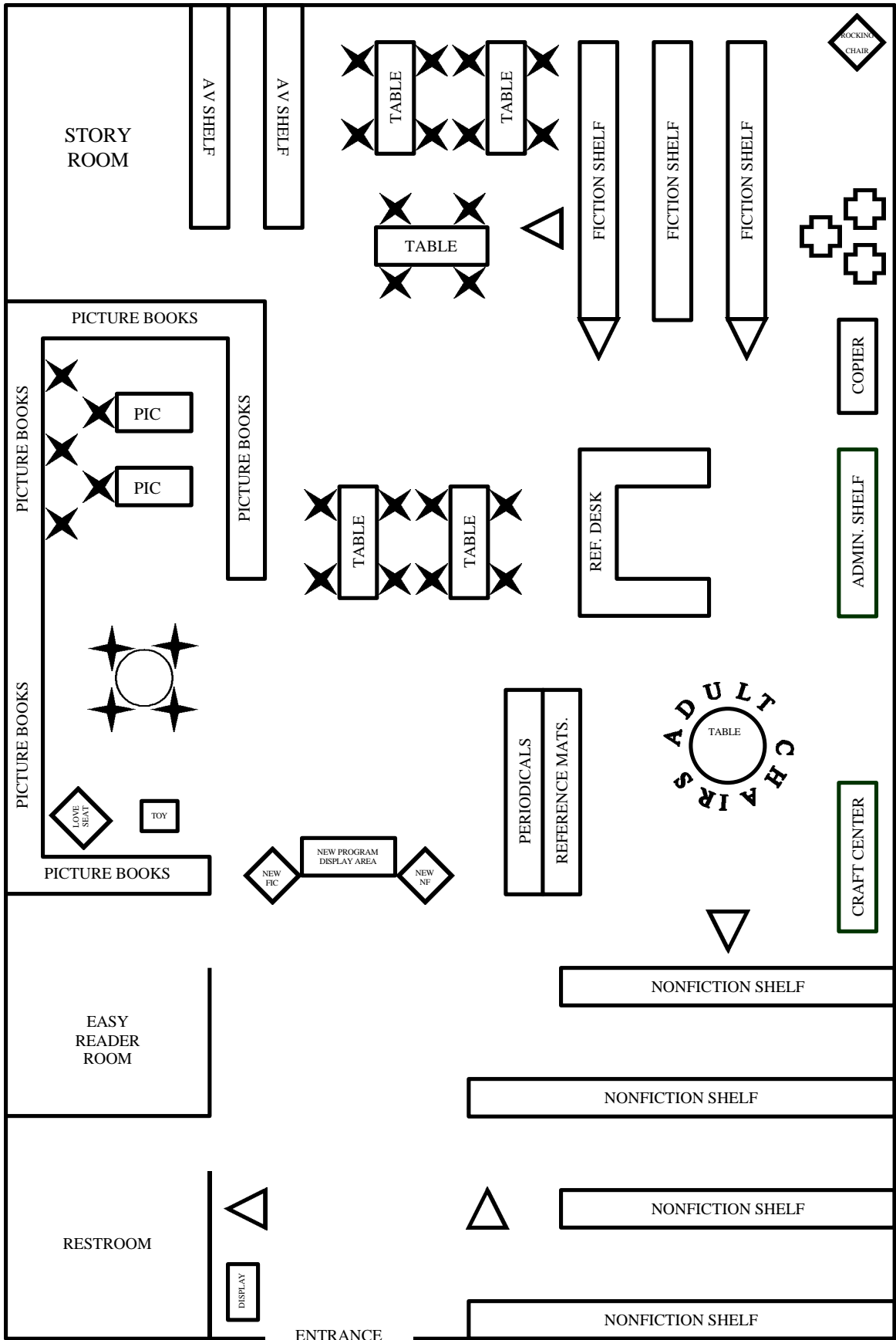Fraley, Ruth A. and Carol Lee Anderson. Library Space Planning. New York: Neal-Schuman Publishers, Inc. 1985.

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KEY: ✚ = TURNING PAPERBACK RACKS   ◁ = COMPUTER TERMINAL   ✖ = CHILD'S CHAIR

STORY ROOM

CASSETTES

CASSETTES & CDs

TABLE   TABLE

ADULT CHAIRS

TABLE

PICTURE BOOKS

PICTURE BOOKS

PIC

PIC

TABLE

FICTION SHELF

FICTION SHELF

FICTION SHELF

PICTURE BOOKS

PICTURE BOOKS

PICTURE BOOKS

LOVE SEAT   TOY

NEW FICTION

NEW NF SHELF

ADMIN. SHELF

REF. MATERIALS & PERIODICALS

COPIER

TABLE

TABLE

REF. DESK

EASY READER ROOM

NONFICTION SHELF

NONFICTION SHELF

RESTROOM

BOOK TRUCK

DISPLAY

NONFICTION SHELF

ENTRANCE

NONFICTION SHELF

Appendix A: Chapel Hill Public – Now

KEY: = TURNING PAPERBACK RACKS ◁ = COMPUTER TERMINAL ✖ = CHILD'S CHAIR

STORY ROOM

AV SHELF

AV SHELF

TABLE

TABLE

TABLE

FICTION SHELF

FICTION SHELF

FICTION SHELF

ROCKING CHAIR

COPIER

ADMIN. SHELF

PICTURE BOOKS

PICTURE BOOKS

PICTURE BOOKS

PICTURE BOOKS

PICTURE BOOKS

PIC

PIC

TABLE

TABLE

REF. DESK

TOY

LOVE SEAT

NEW PROGRAM DISPLAY AREA

NEW FIC

NEW NF

PERIODICALS

REFERENCE MATS.

ADULT CHAIRS

TABLE

CRAFT CENTER

NONFICTION SHELF

EASY READER ROOM

NONFICTION SHELF

NONFICTION SHELF

RESTROOM

DISPLAY

NONFICTION SHELF

ENTRANCE

Appendix B: Chapel Hill Public – Suggested Redesign