FIFTH MEETING

of these stairs, the adventure continued easterly on a path through the trees, ending on a steep hill between the White River and Phillips Lake, adjacent to the remains of an old structure and fountain (10). The adventure continued back to a clearing near the horse trailer (7) where a few questions were asked. Their favorite views were of the water, and again a desire to be on the water was expressed. The path, with steep banks, between the two bodies of water was also a favorite. The trees were also considered to be a nice feature, and when asked their opinion of the smokestack in the distance they didn't like it because it polluted the air. The final highlights of the site visit occurred outside the site when a wild cat or some other animal was seen. The final distance returning to the car was covered walking on the railroad tracks.

SITE PLAN
SIXTH MEETING

The sixth meeting was used to further investigate an idea conceived on 2.21.89. At this time I was considering the characteristics of the play space. The characteristics under consideration were a large volume with high spaces, as found appealing during the first meeting with the slides of the Gothic cathedrals, exterior/interior movement to provide for change and variety, and height, serving as a landmark in the community, providing for cognitive mapping as children approach and experience the site. Prior to this meeting I concluded that a windmill contained these qualities and had begun preliminary design of such a space. Although the children seemed somewhat confused as to the purpose of this idea, good results were produced.

Ben's idea for his windmill took advantage of the rotating blade to create a Ferris wheel for children to enjoy. Ben's interior drawing reintroduces his previously designed stained glass window.
SIXTH MEETING

Sam's design features a swing which is positioned between two towers. The blade is also suspended between these two towers, being supported by a walkway which spans between the towers. The special features of Becky's design are windows and an entry which pop out. The edge which meets the sky is also surrounded with colored lights.
SEVENTH MEETING

Initially, the seventh meeting was an opportunity for the children to discuss my mid-term presentation which occurred on March 24, 1989. For them, this presentation had been an introduction into the "real" world. They were confused and upset about the criticism which I received. In particular, they felt that Sonny's ("the old man with grey hair") comments about playing in the garage with tools, etc. was dumb. Although his comment seemed inappropriate to them, it was useful criticism in the context of my design. At this point my design was focusing, unintentionally, on the shell and image rather than the interior environment. As a result, the direction of this meeting would be used to focus on the interior. The first exercise was used to design a cover for this final report. These covers were a good exercise to capture the image that each envisioned for the day care environment.

Sam's design focused on the features of the site, such as path, trees, water, the sky and birds.
SEVENTH MEETING

Ben's design examined the road that would pass by his windmill, and added text which reflected on the site visit and Becky's complaints of having mud on her shoes.

Nancy's proposed cover was two sided, the front naming the day care center, with a sun and lake below, and the reverse side showing the site and its enclosing wall. Within the site she depicted an outdoor playground and children playing.
SEVENTH MEETING

Becky's cover peered over the perimeter wall, exposing children playing among the trees, flowers, and water underneath a bright yellow sun.

Part 2 of the seventh meeting focused on the interior environment contained with a fixed boundary, although two design proposals spilled beyond the "intended" limits. The shell environment for this phase evolved from an intention to introduce a collective entry into a regular shape, allowing for increased focus on the activities.
Both Becky and Sam produced designs which were confined within the given shell. Both ideas feature elements for a variety of activities, such as sitting, climbing, sliding, and group activities.
Nancy and Ben's designs were similar in that each expanded beyond the limits established beyond the given shell. Each design incorporates a maze type arrangement which provides for surprise, mystery, variety, and challenge.
SEVENTH MEETING

Part 3 of this meeting was used to design specific architectural elements within an environment. The idea to study interior elevations with clay resulted from research which brought Faience Plaques (clay panels depicting Minoan houses from Knossos) to my attention. The results of this exercise clearly indicate the difficulty of conveying an idea of what is desired or a process by which to achieve a result without influencing the work produced.

Minoan examples

Ben  Sam  Nancy  Becky

The interior elevations designed by Sam and Ben reflect the examples shown to them, while the designs by Nancy and Becky are original.
EIGHTH MEETING

The eighth and final meeting was used to conduct an evaluation of the children’s experiences. These evaluations seemed to be completed honestly and their questions and responses are documented on the following pages.

An additional follow-up question to number seven might ask how the play environments should vary between girls and boys.
FINAL EVALUATION
for
ENVIRONMENTS FOR CHILD DEVELOPMENT
THROUGH DAY CARE

What have you learned from this experience?

not much!

What was the most enjoyable activity?

Every thing

What did you like the least?

?

How has this experience influenced/changed you?

done not a lot

Why do you think that you were selected to participate?

because I am listen and cooperate

What do you believe makes a good/fun environment for kids?

Something to do with learning for all ages.
7. How do you think environments for kids of different ages should be different?

   Kids are divided in school now-a days. I think kids should be divided by their grade level instead of just their age, because some younger kids are in older grades.

8. Would you participate in this group again?
   Yes

9. What would you change or have the group do differently?
   Nothing

10. Would you like to become an architect after this experience?
    Maybe

\[\text{That's The End} \]
FINAL EVALUATION
for
ENvironments for Child Development
Through Day Care

What have you learned from this experience?

How will you use this experience?

What was the most enjoyable activity?

What did you like the least?

Answering these questions

How has this experience influenced/changed you?

It has changed my thoughts from... to... because we listen, communicate.

Why do you think that you were selected to participate?

What do you believe makes a good/fun environment for kids?
7. How do you think environments for kids of different ages should be different?

The older the more complicated activity should be.

8. Would you participate in this group again?

Yes! Yes

9. What would you change or have the group do differently?

Nothing

10. Would you like to become an architect after this experience?

No
FINAL EVALUATION

for

ENvironments FOR Child Development
THROUGH Day Care

What have you learned from this experience?
That if you give a presentation your teachers are bogi on you. Also that it takes a lot of time and patience to do something.

What was the most enjoyable activity?
Wow, in the windmill and the room for the kids are age.

What did you like the least?
Looking at the slides.
(Yuck!)(Gross)(Disgusting, etc.)

How has this experience influenced/changed you?
Only one thing. That professors (teachers, people who make corn are very hard on you. Especially people (I won't mention nan who make nasty comments)).

Why do you think that you were selected to participate?
Mrs. Wickersham just picked us or maybe she thought that we were more nice, enjoyable, etc. People who are fun to work with. Also we can behave and listen.

What do you believe makes a good/fun environment for kids?
A gym with beams, mats, goals, bars, etc. and a arcade, or swimming pool.
7. How do you think environments for kids of different ages should be different? Kids who are older like things that are more complicated and not boring, like finger painting. The activities should be more complicated and more fun.

8. Would you participate in this group again?

Answer: YES!!!

9. What would you change or have the group do differently?

Answer: Nothing except have more time and miss violin. (Violin is only for Nancy and Beady)

10. Would you like to become an architect after this experience?

Answer: Yes: It seems like fun and it would be fun to design.

No: All your professors, teachers, etc. criticize you and it would be hard to put things together. Also, it would take a lot of time.

Thats the end of my questions. Thanks for reading them. Please don't make comments.
FINAL EVALUATION

for

ENVIRONMENTS FOR CHILD DEVELOPMENT THROUGH DAY CARE

What have you learned from this experience? How to work with others.

What was the most enjoyable activity? Going to the site.

What did you like the least? Painting.

How has this experience influenced/changed you? To do stuff on your own.

Why do you think that you were selected to participate? I follow directions.

What do you believe makes a good/fun environment for kids? Playground.
7. How do you think environments for kids of different ages should be different? The older of age should get to do stuff at different levels.

8. Would you participate in this group again? Yes.

9. What would you change or have the group do differently? Nothing.

10. Would you like to become an architect after this experience? Maybe.
DESIGN PROCESS

INTRODUCTION:

As did the research phase, the design phase initially began during a previous quarter in the programming class. Although much effort was put into this extensive document, changes in the design intention and site influences would alter my concept of the day care environment. With preconceived ideas in mind, based on the research from phase one, the design process was once again underway with the site selection.

SITE:

Site selection for my study of day care environments was based on several criteria. Primarily, the chosen site, located in Muncie, and known as Phillips Lake, was selected for its specific site features and characteristics which make it an excellent environment for children. The site is situated within a community comprised of approx. 50% residential and 50% small business. This neighborhood is located within an older part of town and is within eight minutes walking distance to the Washington-Carver Elementary School, providing an opportunity to serve Lotz-Key Children. Physical features of the site include water (both on the site and adjacent to the northern perimeter), trees, hills, large open spaces, paths, a large concrete wall along the southern perimeter, existing architectural elements, such as steps, slab foundations, foundation walls, stone retaining walls, junk piles, the stud framing of a shed, and an old house trailer.
Based on initial programming and an intuitive feeling for the site, my organizational scheme originally placed individual environments on the site, one space for each age group (2yrs, 3yrs, 4yrs, 5yrs and a playroom). The placement of these environments was based on the children's desire to view the water, but most importantly, based on the relationship of the play space to an existing concrete slab protruding into the water. The design and location harmonize as one, serving as a cognitive marker for children approaching the site. Psychological investigation of child development and the process of cognitive mapping indicate that landmarks are the most important features used when establishing a relationship between the viewer and the contextual environment. Based on this belief, the appropriate location for the play environment, the most important space for child development, should serve as this landmark. As a result, mental mapping and the idea of paths became increasingly important. Each individual space would be linked to the play environment via a series of passages and chambers, allowing for a variety of experiences. Such a plan of development would also permit the use of various level changes which naturally occur along the perimeter of the lake and facilitate use of the sun for the creation of light and shadow.
ORGANIZATION:

PLAY SPACE

An attempt to answer questions concerning what the play space should be began with investigation of what was revealed during the first meeting of phase two and the idea of creating a landmark. The common elements which resulted from this search was a desire for large volumes, high spaces, and movement, to stimulate and maintain interest in the landmark. The resulting concept was that of a Dutch windmill, which combined these basic characteristics.
SYNTHESIS

Play space and organizational scheme.
SYNTHESIS

Play space and organizational scheme.
GREEN SPACE

At the other end of the path connecting the individual spaces was the greenspace. The idea behind this space was to extend the surrounding site life by creating a greenhouse environment which could be enjoyed year-round.
By this point, a renewed faith, which had been lost earlier by questions concerning safety, began to drive the development of an environment which was assimilated into the site features. Greater emphasis was also placed on developing an environment which the whole family could enjoy. European ideas of day care also began to take shape. A reorganization of the age grouping from individual years to a grouping of 2-7 yrs, and 8-12 yrs occurred. This reorganization also occurred because the original scheme did not seem to support levels of child development. The site scheme also made provisions for an adventure playground. As a result of this new approach the play space was changed from an interior to an exterior environment, developing an outdoor amphitheater recessed into the hillside.
DEVELOPMENT

2-7 yrs

The learning environment for kids between the ages of two and seven became two spaces, one entered by passing through vertical planes while descending down a ramp or by walking down a curved stair adjacent to a textured wall. One of the nice features of this space is a sun screen which is moveable and casts shadows. These sun screens could also be placed on the site to blow in the wind and could also be attached to floating buoys, free to float around the lake. These panels were originally conceived as massive support elements, but a desire for them to do more than just block the sun allowed them to develop further.
DEVELOPMENT

8-12 yrs

The design of the learning environment for children between the ages of 8 and 12 attempts to respond to earlier criticism and the activities which occurred during the seventh meeting of phase two.
CONCLUDING REMARKS

Additional areas which I would have enjoyed investigating were ideas for an island in Phillips Lake and the study of environments by viewing designs in sequence as they might be seen while moving through the environment.

- place images inside and view them through the slots as the cylinder spins.
Research environment - Burns School

Classroom Area

Blackboard
THESIS PROPOSAL
1988-1989
December 2, 1988

Michael Edward Johnson
ARCH 404

College of Architecture and Planning
Ball State University
Muncie, Indiana 47306

Environments for Child Development through Day Care

COMMITTEE MEMBERS:

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OUTSIDE SPECIALIST
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Elementary Education
Burris School System

OUTSIDE CONSULTANT
Francisco J. Mora, AIA
Architect
Ball Corporation

THESIS STATEMENT:

I believe that the architectural thesis should address a problem relevant to society and produce a philosophical and subsequent physical solution. In addition, the thesis should serve as an educational tool which will allow for the exploration of individual ideas and produce personal growth. It is my belief, as supported by behavioral psychologist B. F. Skinner, that human development is directly affected by the contextual environment. Therefore, my architectural thesis will attempt to produce an understanding of environments by focusing on the philosophy of child development through sensory perception and learning through exploration.
Together, these will serve in the search for a connection between environmental perception, memory, and metaphors (a figure of speech in which a term is transferred from the object it ordinarily designates to one it can designate only by implicit comparison or analogy, such as "evening of life" or Mexican domes which represent the sky), for the creation of holistic architecture must involve" meaning".

OBJECTIVES:

Although books are an excellent source of information, I have established an opportunity to work with children of the Burris School System, allowing for first hand experiences and increased creativity. Thus, my preliminary objective to create a working environment which enhances my thesis investigation has been initiated.

My first objective will be to establish a group of components, potentially including, but not limited to such issues as memory, metaphors, perception, light, color, sound, form, mass and voids. Such issues, once established, will be evaluated to determine the characteristics of each and how they positively and negatively affect aspects of environment. These issues will be considered both in terms of indoor and outdoor spaces and related to various types of spaces, such as those found in an exploratorium.

In addition, these issues will be related to the development of motor skills which aid in child development. This phase will attempt to understand the interrelationships of gross and fine motor skills with various developmental levels, interaction between adults and children, awareness of space, shapes, size, distance, and balance, and self-expression, all of which affect self-esteem.

One objective toward understanding these interrelationships
will be further investigation of the adventure playground which attempts to respond to the "free" attitudes of children and the Theory of the Loose Parts which considers the social and recreational aspects of loose elements which may be manipulated within the environment.

A final area currently identified at this time will continue to investigate an earlier established fascination of Burris children (as concluded during investigative research last year) with windows, views, and visual passage.

Space Summary

Facility

2 yrs. old space
(Includes Sleeping Area, Play Area, Restrooms, Coat Storage, Bedding Storage, Kitchenette, Change Table, Toy Storage and Dining area)

<table>
<thead>
<tr>
<th>Users</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>1,108</td>
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</tbody>
</table>

3 yrs. old space
(Includes Sleeping Area, Play Area, Restrooms, Coat Storage, Bedding Storage, Kitchenette, Toy Storage and Dining area)

<table>
<thead>
<tr>
<th>Users</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>1,209</td>
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</tbody>
</table>

4 yrs. old space
(Includes Sleeping Area, Play Area, Restrooms, Coat Storage, Bedding Storage, Kitchenette, Toy Storage and Dining area)

<table>
<thead>
<tr>
<th>Users</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>1,321</td>
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</tbody>
</table>

5 yrs. old space
(Includes Sleeping Area, Play Area, Restrooms, Coat Storage, Bedding Storage, Kitchenette, Toy Storage and Dining area)

<table>
<thead>
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<th>Users</th>
<th>Sq. ft.</th>
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</thead>
<tbody>
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<td>26</td>
<td>1,415</td>
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</tbody>
</table>

School Age space
(Includes desk area, coat storage, and teacher area)

<table>
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<th>Users</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>608</td>
</tr>
</tbody>
</table>

Sub Total

5,625 sq. ft.

Play Area

Interior

School Age children

<table>
<thead>
<tr>
<th>Users</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>1,444</td>
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</tbody>
</table>

Exterior

2 & 3 yrs.

<table>
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<th>Users</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>8,704</td>
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</table>

4 & 5 yrs.

<table>
<thead>
<tr>
<th>Users</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>14,536</td>
</tr>
</tbody>
</table>

School Age

<table>
<thead>
<tr>
<th>Users</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>12,990</td>
</tr>
</tbody>
</table>

Sub Total

37,674 sq. ft.
Administration
(Includes Director's office, Assistant Director's office, Conference, and Secretary)
Sub Total 716 sq. ft.

Support Facilities
(Includes Lobby, Restrooms, Kitchen, Food Storage, Prep. Office, Waste Area, Cart Storage, Loading Dock, Laundry Room, Custodial Closet, General Storage, Lounge and Restrooms, and Medical Care.)
Sub Total 2,953 sq. ft.

TOTAL Building Area 10,774 S.F.
TOTAL Exterior Play Area 36,230 S.F.

SITE

Site selection in Muncie, has been, in part, based on current supply and demand for quality day care within Muncie, showing a demonstrated need. Site location addresses several issues. Primarily the site is an environment which I believe provides wonderful opportunities for the enhancement of child development through it's varied and interesting context. These features include trees, an old quarry site filled with rain water, a river, opportunities to view trains, and hills, which can facilitate views over the river and quarry. In addition, the site is located within a neighborhood/community context which I believe would benefit, based on current need and social standing. Also important is the site's close proximity to (a few blocks) Washington-Carver Elementary School, providing an opportunity to serve "latch-key" children, who might otherwise return to empty homes.
RESEARCH

Analysis

Research on environments up to this time has focused primarily on the behavioral aspects of psychology, suggesting that child development can be enhanced through environment. My research has progressed in three directions, ranging from reading, interviews and visits to day care facilities, and research work with 5th grade students at Burris. Through these various directions, in an attempt to better understand environments, interesting similarities have become apparent, focusing on recreation and socialization, variety of parts which can be manipulated, and the importance and fascination with windows, views, visual passage, and interrelation of forms and spaces. Recent initial research has focused on adventure playgrounds and the Theory of the Loose Parts.

Building Type Study:

The study of similar building types has and will focus primarily on visits to actual facilities and interviews with employees.

Huffer Memorial Children's Center, Inc.: Muncie, IN
United Day Care Center: Muncie, IN
South Madison Community Center: Muncie, IN
design charrette
Delaware County Children's Home: Muncie, IN
Lagoda Children's Home: Lagoda, IN
Indianapolis Children's Museum
return visit planned
Museum of Natural Science and History: Chicago, IL - Children's Workshop - potential visit


Wamberg, Niels. Professional Secretary, Federation of Danish Architects. Interview on Day care in Denmark.

In a spirit similar to that established during the research class I will continue to investigate environments by working with children from the Burris School System. Currently, arrangements have been made to work with the fourth grade class of Mrs. Gail Wickersham. As this begins, investigation will focus on metaphors and the affects of associative memory on the creation of environment. Observation will also continue take place at locally operated day care and learning centers.

FUTURE RESEARCH SOURCES


Other areas of investigation will include the doctoral work of Carole P. Tiernan (focusing on environmental design) and the Danish architectural work of Palle Suenesson and Tobias Faber, both working in the area of day care design. Also, I will conduct a scheduled interview on environments with Belgian architect Vefik Soyeren.
Annex 1

Environments for Child Development through Day Care

John F. Kennedy's famous statement "...ask not what your country can do for you; but what you can do for your country" typifies the responsibility of architects to society. The architect, along with others, must provide leadership and guidance for the design and creation of environments which will provide a positive and beneficial experience for all users. Today, we are at a crossroads, making a transition from an era of virtually no concern for the poor and middle class, to a time when the underprivileged, the homeless, and child welfare and educational concerns are beginning to be addressed by society. As a result, I believe that there has never been a better opportunity than now for the architect to apply his compassion and talent to the steadily growing problem of child care. In 1972, 52% of mothers in the out-of-home work force had school age children. Currently, 72% of employed mothers have infants, toddlers, and preschoolers. In addition, more than 50% of the child care problem involves school-age children. Current estimates predict that five million children are returning to empty homes, thus lacking adult supervision and care (Trotter 34). These problems not only exist in the United States, but also England and various European countries. In specific terms, the solution to the inadequacy of child care services must begin with the development of group day care facilities. It is not enough to solve this problem by solely providing spaces for the "care" of children, or insuring that the bare essentials of food, health, and safety, are met, for these are not the only
realms of human concern. Over the past decade, several people have speculated that the use of public schools would be a potential solution to ease the child care problems that our society faces today, yet this solution fails to recognize the developmental needs of youth. The use of existing structures, such as schools, may be suitable as a short term solution to a staggering problem, but let us not limit our potential for developing an educational system, superior the world over, from the ground up, beginning with a child's earliest and most influential educational environment. To create such a positive learning environment, design considerations must focus on the conceptual qualities and specific design features that will have a significant impact on the physical, emotional, social, and cognitive development of children.

The selection of group care facilities over other alternatives, such as in-home care, family care, school programs, and employment based centers does not attempt to undermine these options or eliminate them from the credible list of options available to parents, but promotes a view which suggest that architecturally designed environments can better serve the psychological needs of developing children. Taken further, this idea suggests that child development can be enhanced through environment, a view held by behavioral psychologists. This theoretical perspective of the behavioral psychologist concludes that all people are born as "blank slates" who are written upon by the environment around them. As seen in one of the masterpieces of cinema, the film Citizen Kane, shows us the legendary "Rosebud", a boy's sled,
which typifies the importance and significance of a child's environment and adolescence. Horobin confirms this when he reports, in reference to routinized facility programs, that "it has been shown that day care can play a much more stimulating and positive role in the users' lives" (20). Horobin continues, expressing belief that the development of programs should consider the lifestyle of the user..." to produce a positive experience that will contribute to the individual's development (20). Although Horobin's ideas reflect a direct relationship between user and daily schedule, this idea must also be directed toward the potential for positive and enriching experiences as related to the built environment. As observed from personal research with children, an especially high need for variety exists. This variety must be present through potential activities and experience, not only to prevent boredom, but most importantly, to advance the development of children. Directly, this must translate into environments which, as Trotter reconfirms, should "...primarily be places for recreation and socialization - the real business of preschoolers" (35).

The design of the physical environment must meet a number of criteria to produce a well balanced and functionally sound environment. In order to facilitate recreation and socialization, the day care room should be as comfortable as possible for the children who may occupy these spaces for a significant portion of their early childhood years. Research with children has shown that they primarily identify their bedroom or the family room as the best liked space within their
home. In essence, it would be advantageous to create a home-like atmosphere, which produces a familiar environment, possibly through the development of a gallery for the child's family portrait, conveying a sense of security for new children, but not limiting itself to a reproduction of the typical home. Also, within this space should exist the opportunity for children to create or occupy special spaces which allow for isolation and serve as protective environments. As the process of recreation and socializing occurs, the children must also be progressing through stages of learning and development. The research of developmental psychologist Jean Piaget has suggested the developmental process for children occurs at different rates, therefore a comprehensive environment must provide for the physical, emotional, social, and cognitive development of any user. Aase Ericksen, through extensive research into the learning and developmental needs of child play, has concluded that physical play involves both large and fine muscle development, and perceptual-motor development (2-3). The development of the muscles may occur through a variety of structured and non-structured activities which involve coordination. Related activities should vary in the degree of difficulty in order to challenge the capabilities of the users. The emotional aspect of child development involves an individual understanding of joy, terror, anger, and trust. (Ericksen 3). The specifics of emotional development, as with the other aspects of child development, are interrelated. As the complexity and challenges of the physical environment increase the child will develop his emotional
capabiltites, adjusting over time, to the new demands of the built environment. Ericksen's advice for the enhancement of emotional play calls for opportunities which allow children to respect the feelings of others, and focus impulsive energy toward mutual goals (3). Ericksen's concept of social play concludes "...that socialization is the core of the learning process (3). Social play may involve games, group activities, and observation. The physical environment which supports these activities should aid in the development of attitudes which support the best interest of the group through individual interaction with all group members. In addition, an understanding of "group" concerns should be aquired. The final developmental need considered by Ericksen is the concept of cognitive play which involves the mental process of the brain. It is through this aspect of development that children learn to manipulate ideas, leading to creative thinking and problem solving skills (3-4).

Although consideration of the actual play environment is extremely important, it must not be allowed to suppress other, equally important, specific design features of the built environment. Personal research conducted with children at Burris School revealed the reoccurrence of a prevailing theme which included TV's, windows, and views. A related study, conducted through the University of Michigan, has focused on the specific issues of windows as related to child behavior, absenteeism, and learning performance. This study, conducted by the University of Michigan's center for architectural research, was conducted over a three year span, using actual school
environments. Phase one removed the existing windows from the classrooms of one school, leaving the other, test school, intact. Phase two of the study, conducted during the following school year, restored the windows to the classrooms. Phase three again removed the windows, establishing a test environment as found in phase one. Although the study seemed inconclusive, there are indicators of relevance. For example, their study conducted a child survey among two kindergarten classes and grades one through three, asking if they wished for windows in their classroom. The results of the survey indicated that eighty-seven percent of the youngest children, those in kindergarten, preferred having windows (Larson 45). This preference was almost two times greater than that of the first grade class who preferred having windows by a two-thirds majority (Larson 45). The preference for windows continued to decline as the age of the children increased until the preference for windows reached a balance at fifty percent (Larson 45). Support for the presence of windows is again shown, at least for younger children, through the absence rate during the windowless phase. During this period the kindergarten class experienced an increase in absenteeism, while grades one through three saw a reduction in the absence rate (Larson 49). Concluding comments of the University of Michigan study indicated that several professional educators are concerned as to "...whether the elimination of outside distractions is always something to be desired (55), and continued with the thought "...that an exterior happening may frequently produce a fruitful stimulus to edcational

