interaction evoked by adjacency

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I would like to sincerely thank Jack Wyman, my thesis faculty, and Tony Costello, my outside critic, for their help and understanding throughout this thesis process.

Also thank you to J. Robert Taylor, who's guidance during Polyark VII helped spark the interest from which this thesis idea was conceived

This book is dedicated to the memory of my father, James Edward Gardner, Architect, whose persistent striving for excellence in most everything he did still motivates me today

Jack Wyman.....Thesis Faculty

Tony Costello...Outside Critic
March through May of 1984, I was privileged to participate in Polyark VII (a European architectural field study, conducted by the College of Architecture and Planning). It was on this trip that I truly began to realize the importance of people in the built environment. While in London, I was exposed to a variety of architecture, ranging from incomprehensible cathedrals, to houses constructed from cardboard boxes. This diverse exposure strengthened my belief that "architecture" is the psychological science of building. The creation of "architecture" in today's society has often times become a dualism, separating our design intentions and products from the people who are to inhabit those environments. It should be the responsibility of the designer to create a space which meets as many of the social, psychological, and physical needs of an individual as possible. Above and beyond all else, the Polyark VII trip opened my eyes to the world around me; to the people and cultures that comprise our societies and occupy our architecture. Without these people, there would be no need for buildings, and no need for architects. Therefore, design should be a response to the needs and desires of the occupant, a response to the psychological requirements of the user, not, as sometimes occurs, an egotistical expression of an architectural whim.
More specifically, while photographing people for an essay entitled, "People In Their Places", I became interested in the social class called "Down and Outs" or homeless. This led to inquiry into the living conditions of this and similar economic groups. Intense exposure to people of a different cultural background than myself influenced my belief in the necessity to create a humane, responsive architecture to satisfy the needs of the group, and the individual, while dealing with the problem of inadequate facilities. This became the spring board from which this thesis emerged.
Integration of different social, age, and economic groups, through controlled interaction, can benefit all parties involved, while addressing the problem of a lack of adequate facilities.
Social design in architecture is a relatively new term. Only within the past 20 years have social scientists begun to directly enter the world of architecture. Until recently, architects have been creating the spaces and environments in which people behave, without the help of social scientists.

The inclusion of a social scientist in the design process, or at least his beliefs, has created a new dimension to architecture. It has allowed us to ask whether the spaces that we, as architects, have been designing are functioning as they should, and if not, why, or how could they be better. In addition to promoting these questions, social scientists are helping us retrieve the answers.

In researching the three different user groups, I found it impossible to know each as a psychologist would. Yet, I feel that through user investigation (case studies, interviews, and literature found in appendix), that I have been able to be very sensitive to the psychological and spatial needs of the user, versus creating purely an architectural solution to a socially and psychologically based problem.

Within the different user groups, key words describe what is trying to be achieved by the participants as well as the architecture. A few expectations
are: independence, self-reliance, personal space, barrier free environments, humane scale, social interaction, natural lighting, color, texture and sensory stimulation, just to name a few. These words instill an image of what a space could be, and even more so when a specific user is considered. All of these are necessary considerations within the design of this three fold facility.

Within all the user groups, stimulation is an important aspect. Because of this, the architecture, and the spaces within, need to create places where meaningful events occur. For each group, the facility must be a place to be, in order to be a success. In day care, the users are brought to the facility by their parent or guardian. Yet, in regarding the elderly and the mission clientele, they must want to come to the facility. Here, their perception of what the facility is, and has to offer to them, is what keeps them coming back. There is a need to create a sense of community within these structures, a unity within the building and within the users.

William Ittelson, Ph.D. stated in his book, *Visual Space Perception*, "The human being, as all living organisms, ceaselessly attempts to create an environment within which to carry out his purpose. In every situation of living, perception-in-operation is a process of prediction in the face of uncertainty for action on the basis of faith".
Mission:

Mission users are not limited to skid row alcoholics, who can not survive in a structured society. They are battered women, abused or runaway children, men and women down on their luck, and yes, also alcoholics attempting to reform.

The image of a mission is normally that of a place of lodging where transient alcoholics spend a night or two, then move on. Some missions operate in this manner, providing mainly a means of temporary shelter with minor counseling, and have little success with reform.

Many street people choose this life over a more structured, binding and responsible one in accepted society. Others have been forced there due to drinking or drug problems, loss of jobs, or at times, minor retardation. It is the people who still wish to reform and re-enter society that this proposed mission is aimed towards. Leonard Krasner stated in his book, Environmental Design and Human Behavior: "When people are surrounded by ugliness, brutality, and meanness, they are not likely to emerge as loving, caring individuals... Most HEROES survive not because of adversity, but in spite of it."
In my thesis, the proposed mission is not based around religious beliefs. It would operate in a similar manner to the Salvation Army, but without religious emphasis. Work therapy would be one means for mission users to earn ones keep, if psychologically and physically capable of doing so, while reestablishing confidence in themselves. Counseling would be offered and a contract signed upon entry (similar to that of Home Sweet Home Mission). The goal would be to create a "Whole Man", inclusive of confidence and skills. Through integration with other people and disciplines, I feel psychological development can be improved. Controlled interaction could then occur, protecting all parties involved.
Senior Center:

The center is for elderly and retired individuals who reside near the area of the facility. According to recent demographic statistics of the City of Indianapolis, the area chosen for the center has a large elderly population. The center can become a place of social interaction for the elderly, with opportunities to participate in the mission and child care facilities. Elderly who express an interest in the child care program, or the mission, may be allowed to assist in either area. This can help evoke a feeling of usefulness and need, while reducing the required staff.

Day Care Center:

The day care center is based on developmental and academic emphasis. Primarily it would provide day care for newborn to age five children, inclusive of kindercare. The clientele would be chiefly children of low income working families, but would not exclude other economic groups. Creation of such a facility is an attempt to meet the need of child care programs, especially governmental supported, within the chosen area of low income families.

For further information, refer to the research on "child care problems", found in the appendix.
The implications of the position taken are that individuals of differing social, age, and sometimes economic groups, can benefit from the wisdom and experience of one another.

The integration of children and elderly has, in many areas, been widely accepted. This is evident through adopt a grandparent or grandchild programs already in affect at day care and senior centers around the country (Yorktown elementary School maintains such a program). Here again, the opportunity for elderly to share their experience, wisdom, and love with children can benefit all parties involved.

Encompassing elderly and the clientele of a mission is also a realistic idea when one considers the opportunity for an exchange of experiences, stories, and skills. It is thought by many counselors that talking to another person, whether it be about your problems, their problems, or something all together different, helps alleviate stress caused by an individuals own circumstances.

The combination of mission clientele with children of a day care center is a very sensitive matter. It would be unrealistic and careless to think that children could be put in direct contact
with mission clientele without intense screening and supervision of both parties. The affect of the possibly unstable mission client on the child could be very devastating, yet, let us not forget the negative affect that children might have on a psychologically troubled mission client. Both of these considerations make it essential that before any direct interaction takes place between mission users and children of the day care center, intense screening take place.

Besides the physical contact of interaction, spaces and facilities can be shared between all parties involved, with scheduling being the key to success.

It is my belief, after researching the individual programs, that this idea of controlled interaction can work and be beneficial enough to justify such a facility. It does not seem extremely pragmatic to attempt to house all three user groups into one building. This solution would result in a "locked door syndrome" in order to separate the three user groups when integration is not desired. Yet it is necessary to allow the proximity to be close enough for a mutual exchange of people and assets. With this in mind, two sites on opposite sides of the street were chosen to allow segregation by a major thorough-fare.

Although it seems necessary to physically separate the mission from the day care and senior center, the later two can be successfully combined into one facility. The senior center and day care can co-exist, sharing some spaces, while providing for private areas unto each user group. Renowned psychologist B.F. Skinner stated in Jerome L. Singer's book, _The Human Personality_, "With age, vision, hearing, and taste fade and the intensity of stimulation is reduced, thus making the elderly bored, discouraged and depressed. The environment must therefore be sharpened and enhanced." With the opportunity to physically or merely visually interact, the elderly can increase their stimulation by being involved with the children of the day care center. This, as stated earlier, is an invaluable learning experience for both the children and the senior citizens.
### Project Program

#### Daycare/Senior Center

<table>
<thead>
<tr>
<th>Spaces</th>
<th>Sq/ft</th>
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<tbody>
<tr>
<td>Lobby/Gallery</td>
<td>1250</td>
</tr>
<tr>
<td>Circulation</td>
<td>20%</td>
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<tr>
<td>Multi-purpose areas</td>
<td>850</td>
</tr>
<tr>
<td>Small Lounges</td>
<td>200</td>
</tr>
<tr>
<td>Play Spaces</td>
<td>950</td>
</tr>
<tr>
<td>Classrooms</td>
<td>4000</td>
</tr>
<tr>
<td>Rest Rooms</td>
<td>270</td>
</tr>
<tr>
<td>Kitchen</td>
<td>225</td>
</tr>
<tr>
<td>Craft Rooms/Shop</td>
<td>1200</td>
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<tr>
<td>HVAC</td>
<td>15%</td>
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<tr>
<td>Office Space</td>
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</tr>
</tbody>
</table>

*Shared Spaces Within The Facility:

- Kitchen
- Lobby/Gallery
- Small Lounges
- Circulation
- Meeting Space/Crafts (through Scheduling)

**Mission:**

<table>
<thead>
<tr>
<th>Spaces</th>
<th>Sq/ft</th>
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<td>Soup kitchen Dining</td>
<td>2000</td>
</tr>
<tr>
<td>Kitchen Storage</td>
<td>550</td>
</tr>
<tr>
<td>Retail Shop</td>
<td>450</td>
</tr>
<tr>
<td>Kitchen</td>
<td>1200</td>
</tr>
<tr>
<td>Day Lounges</td>
<td>1250</td>
</tr>
</tbody>
</table>
Mission:

Soup kitchen Dining 2000
Kitchen Storage 550
Retail Shop 450
Kitchen 1200
Day Lounges 1250
Offices/Counselors 975
Lobby 500
Rest Rooms 350
Services (storage) 2700
Circulation 20%
Locker Rooms 800
Staff Apartments
  Women's 750
  Men's 2000
Sleeping Rooms/Dorms
  Women's 2050
  Men's 4000
Exercise/Recreation rooms 1300
Meeting room/Library 600
Merchandise Sorting 900
Shop 1000
HVAC 20%
Laundry 375
Dark Room 300

*Above Listings Which Are Shared Spaces Between The Two Facilities:

Exercise/Recreation room
Kitchen
Retail Shop
Doctor's Office
SITE ANALYSIS AND DEVELOPMENT:

The project site, located six blocks north of Monument Circle in downtown Indianapolis, is in the 700 block of North Illinois Street. Two parcels of land facing each other across Illinois Street were chosen due to program requirements requiring the physical separation of a highly traveled street to segregate the mission from the day care and elderly.

The close proximity of the sites to the city center offers numerous amenities and alluring qualities. One block East is the Public Library, the terminus to the pedestrian mall, spanning four blocks south. The mall is composed of large green spaces, normally non-existent in a central business district (C.B.D.). Although a mile away, construction of the new White River Park, including a new Indianapolis Zoo, will aid in the diversity of activities available. In the downtown Indianapolis area, history, culture and recreation are within close walking distance.

With Indianapolis' long term plan for redevelopment of the Regional Center (borders are I-65 to north, I-65 & I-70 to East, I-70 to the South, and White River to the West) the area adjacent to my project site is targeted for
rehabilitation and new construction. The city's development proposals which affect and/or influence the chosen project site, can be found in the site analysis section of the appendix.

Presently, Downtown Indianapolis maintains three working, short term missions, as well as a large Salvation Army facility. Other than the Salvation Army, located adjacent to the Hoosier Dome (west), the facilities available are not satisfactory in size or staff to handle the demand of "down and outs", and homeless. City centers have always been the gathering area for these people. The density of a downtown allows for a variety of economic and social classes. Here, homeless do not seem so out of place as they would in a suburban area. These are just a few variables that lead to the conclusion that the Regional Center is the most appropriate location for a new mission facility in Indianapolis.

Although capital redevelopment is occurring extensively in the Regional Center of Indianapolis, a majority of the area within it has not yet been rehabilitated. As in many downtowns, most existing housing is low income. It is projected that in this area, 19 to 47 percent of the residents are below poverty level (source: 1980 census). It also maintains an elderly population (55 and older) of between 1777 - 3740 persons per square mile (source: 1980 census). As many as 7 H.U.D (governmental supported housing) elderly housing complexes are located in this area, making it an ideal location for a senior center.

In today's social economic circles, many lower income families, especially single women, who receive welfare, can not afford a day care center, or a babysitter. With partially subsidized costs for child care, it would be economically feasible for single parents to work.

Although the Day Care Center is designed for a mixture of economic groups, a large percentage of its users are projected to be lower income families.

All three of these user groups are in sufficient numbers in the Regional Center to justify it as an ideal location for this culmination of a social service facility, for the City of Indianapolis.
SITE CONTEXT:

The sites themselves are located in the block surrounded by St. Clair St. to the north, Walnut St., to the south, Muskingum St. to the west, and Pierson St. to the east. The sites are located in an area of mixed use. Next to the proposed mission site is an old storefront, which has been poorly renovated, thanks to the 1960's takeover of aluminum siding salesman. Unfortunately, the condition of the existing building is very poor, and its structural stability is questionable. It stands 2/3rds empty, and the remaining portion is utilized for a warehouse.

The Gatlin Gun Club, directly south of the mission site, is also a significant building, although the gabled roof seems out of context in this urban setting. North of the day care/senior center site is a small, brick and block, office building which has been nicely restored. The rest of the structures within the block are of little architectural significance: a block building housing a body shop, a block building housing a transmission repair, and a muffler installation shop.

SITE SEGREGATION:

At the on-set of this thesis, great controversy arose over the integration of all three, diverse, facilities, and user groups, into one multi-faceted structure. This contention, as well as my own beliefs, lead me to contemplate the use of two sites, separated by a major thorough-fare - Illinois Street. Here, physical segregation as instigated by a street, creates a barrier between the day care / senior center, and the clientel of the mission.
project description

exterior relationships

Mission

An east-west relationship is developed on the south side of each building by a pedestrian walkway across Illinois Street at mid-block. Southern exposure allows natural light into the courtyard. In each facility, a small plaza is formed, distant from the traffic flow, creating a partial sound and visual barrier from the street.

In the Mission, the open space is to be mainly utilized as a gathering node for the mission users and elderly from the senior center. The space would not be limited to these people and hopefully would create a more active place for small group activities (brown bag lunches, cards, etc.) to occur within the neighborhood. The integration of neighborhood people, senior citizens, and mission clientele, create an excellent environment for interaction. The exchange of ideas, stories, experiences, and skills can help produce a feeling of usefulness and necessity for all involved. This environment can facilitate multiple forms of interaction with different user groups.

Due to the adjacency of the food kitchen to the plaza, dining could move outside in good weather, and add a more festive atmosphere to the open space.
An arcade surrounds three sides of the plaza, adding pedestrian scale amidst a three story glazed brick building. The arcade provides a small amount of shade within. Trees and awnings within the plaza will create adequate shade for the spring and summertime activities which might take place.

Day Care / Senior Center

The day care / senior center also maintains a south exposure. The plaza created is sunk six foot into the ground. The users are projected to be children of the day care facility. This grade change helps create a natural fence of earth, in conjunction with retaining walls, safeguarding the children from the adjacent busy street.

Covered areas are created by the building cantilever, allowing for an outdoor play space during inclement weather. Some play equipment will be permanent with a mounded play sculpture creating a focal point in the open space. A row of deciduous trees planted to the south provide shade, often necessary on a mid summers afternoon.

At ground level, benches will be situated to allow for viewing of the children. Here, senior citizens will be able to observe the activities of the children, without being directly involved. The trees will also create an awning for them.
the buildings
Day Care/ Senior Center

SCALE:

Scale is important in numerous situations. The neighborhood, the building, and the space relating to the elderly and the children of the day care. Each of these areas requires a different response to scale.

Within the block, the tallest structure is three stories. Differing building types occupy this block, from body shops, to warehousing, to commercial businesses. Due to this context, neither of the proposed buildings stand taller than any existing, and each is well grounded to its site.

Scale is not defined by the building size itself. Windows, doors, color, texture, lighting, and massing all play an important role in one's perception of scale.

Within the context of the day care and senior center, scale becomes a primary concern. Spaces of interaction have to consider the scale needs of the child in conjunction with the needs of adults. Within my proposed day care/senior center, the entrance scale is brought down by the ceiling height. Also, within the children's areas, the ceiling height is lower than within most of the elderly areas, in response to the user's scale.
Natural lighting is utilized whenever possible, in order to create a more open, and less inhibiting space.

Social Interaction:

Within the entrance, interaction will occur consistently. Here, a barrier free environment has been created through the use of ramps for both elderly and children. Besides serving a utilitarian function, the ramps serve as a playful addition to the lobby/gallery space.

Circulation paths throughout the building are designed with small seating and/or gathering nodes. Viewing of the children, or at sometimes direct interaction with them, creates another opportunity for social interaction between user groups. Natural lighting is brought into the circulation spaces, in most cases diffused, allowing the space to open up into the other areas.

The need for social interaction is evident in every persons life. For the elderly, the opportunity to be part of a senior center helps create a sense of community, allowing the center to become an extension of the home. Within this center, elderly have an option of participating with users of the day care center. If they choose not to interact with the children, areas are available where privacy of the senior citizens is maintained, away from the children.

The circulation zones and nodes of the facility create the interaction areas, making these spaces some of the most active and exciting.

Color and Texture:

Color and texture are two important elements in any design project. Especially when dealing with elderly, whose senses have dwindled, and children whose senses are at the peak of their development. Color and texture can heighten an environment tremendously. Color helps open up spaces; create moods of happiness or relaxation; warmth or cold. White texture creates edge definition; heightens spatial contrast; reflects light, therefore enlarging spaces, and also shows directionality and orientation. All of the above stated add to the sensory stimuli of a space, making them more active, and more exciting to be in.

Within the children’s classrooms, bright warm colors should be used to promote extroversion. This dynamic setting invites an outward release of emotions.

Within the senior center multi-purpose rooms, cool colors should be used, creating a passive effect on its surroundings. This promotes better concentration.
Mass, Space and Form:

Within the building itself, the visual and physical opening of the entry lobby into the circulation zone, and then into the public space can help give both children and elderly a clearer understanding of the building. In this manner, the building opens up to the user, inviting them into the public gathering areas, towards more opportunity for interaction with other individuals. In this concept, an individual has the option of actually taking place in the interaction, or only visually observing.

MISSION:

Within the mission, the single user group is the mission clientele. The building itself is divided into public and private areas. The public areas are the dining portion of the soup kitchen, retail shop and mission lobby. Scale is not measured only by the ceiling height, yet is dealt with through open spaces and rooms. In this manner, regardless of the ceiling height (usually 8 feet), a room can feel very open and scaled to human interaction and activity.

Social Interaction:

Within this user group, the need for exposure to people outside their social class is necessary. Through counselors, as well as through controlled interaction with elderly, exposure to different people and social classes can occur. The exercise/recreation room affords one location for interaction between different social groups. The shop and the outdoors spaces are other areas where interaction might occur. With regard to interaction with children, each case would have to be dealt with individually. Interaction takes place among clientele, (men and women separate) in the dining hall, outside in the plaza, in the day lounges, or in the dorms.
Color and Texture:

Color and texture are to be utilized in a similar manner as in the day care/senior center. Addition of either and/or both can enhance spaces.

Specifically, in the dorm rooms, a light color range of cooler colors should be used, to create a more relaxed atmosphere. Due to the users psychological status, warmer, more active colors should be used in the more active rooms (shop, exercise room, dining, day lounges) to attempt to provoke interaction and invite a more extroverted atmosphere.

Mass, Space, and Form:

The building itself, due to its programatic segregation and site constraints, lends itself to vertical organization. A very economical approach to a very straight forward, simple program, resulted in a central corridor along which everything is organized. The exterior form is a function of the interior spatial needs, with an attempt at keeping repetition from breeding boredom.

The exterior form, for the most part, responds well to the interior needs. At the first level, with the dining room, the arcade allows for blocking of direct sun during hot summer months, while allowing direct sun in during cooler times. The arcade also functions as a covered walkway for food transportation part way to the day care/senior center.
DAY CARE / SENIOR CENTER
THROUGH BUILDING SECTION LOOKING EAST

DAY CARE / SENIOR CENTER
EAST ELEVATION
Within the lobby/gallery space, cool colors are utilized to create a calm feeling by those who enter. The ramp's ceiling height open up, expanding into the circulation spine of the facility. Folage is introduced through hanging plants and small trees, adding color and character to the space. The lobby can also become an exhibit space, through the use of portable display units, therefore personalizing the interior with the work of the users.

The ramps and stairs lead into the main circulation spine on both levels. On the upper level, the circulation space also becomes a viewing area to the exterior. It becomes a center of activity within the facility, since a large portion of the center's traffic flows through this space. Warm light colors, in conjunction with a high degree of natural light creates an active, exciting, and moving environment.
Within the children's classroom, the furniture is brought down to a child's size. The room is geared towards its users, children. Windows are lowered in areas that will be used as sitting and playing, to allow for views outside. The room itself can be opened up into other rooms, encompassing larger numbers of children for group activity. Colors are bright and warm, provoking a more open and extroverted atmosphere within the classrooms. Texture is added to the walls, which can be utilized for tactile space, adding another dimension to the sensory stimulation of the children.
The exterior court on the south side of the mission can become a gathering zone for differing social and economic groups within the neighborhood. The building itself is constructed of a one foot by one foot glazed brick, in a dark reddish/brown hue. The trees within the space help soften up the hard edges created by the building, while producing shade in the summer months.
mission courtyard

east elevation of mission

south elevation of mission