Lockefield Gardens Renovation
A THESIS PROPOSAL FOR THE REVITALIZATION
OF AN ABANDONED HOUSING PROJECT

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HISTORY

The Lockefield Garden Apartments were built in the period between 1936-1938 as housing for black families. Originally housing 748 families on 23 acres. The project is located in the Midtown area of Indianapolis. Lockefield was an important part of the black Midtown community until the higher-income families began to move out during the 1960's.

The exodus occurred for a variety of reasons:
1) The deterioration of the plumbing and heating systems.
2) Change to a low-rent housing designation.
3) Civil rights legislation that allowed blacks to move into areas from which they were barred previously.

In 1973 families began to be relocated out of Lockefield Gardens in anticipation of renovation of the project using H.U.D funding. This process of relocation was completed by 1976. However, renovation never occurred, because of a district court ruling prohibiting the construction or renovation of low-income housing until the Indianapolis Public Schools were desegregated. As a result, Lockefield Gardens is presently vacant and deteriorating, (the units have not been boarded up and are open to the elements).

PROBLEM DESCRIPTION

Lockefield Gardens is located about one mile from Monument Circle, and between the Indiana University-Purdue University in Indianapolis (I.U.P.U.I.) campus and the Midtown community (Fig.1). Because of its location, Lockefield Gardens' vitality (or lack of vitality) will have an effect on the environment of downtown Indianapolis. It will also be an important part of the interface (a plane forming a common boundary between two areas) between I.U.P.U.I. and Midtown.
Adjacent Areas

Figure 1
At the present, this interface is very poor due to the lack of identifiable boundaries between I.U.P.U.I. and Midtown (row of trees, wall, change in elevation, line of buildings, etc.). This is the result of the rapid expansion of the University and poor planning. Another problem is scale; the buildings in Midtown are mostly two story, wood frame, single family detached housing, while the University consists of classrooms and hospital buildings, some over ten stories in height. Finally, the interface is poor because there is no shared space where the two groups can come together to participate in an activity (shopping, recreation, classrooms, etc.).

Crime is a significant problem in the area, especially at the interface between the University and Midtown area.

Other issues to be addressed in the project include: The lack of hierarchy of public, semi-public, semi-private, and private spaces between the existing Lockefield Garden Apartments, the lack of off-street parking (presently there are only thirty-six parking spaces, where a demand exists for about 370 more) and the need for sensitivity in relating any new construction with the existing buildings in scale, architectural style, and in use of materials.

**USER DESCRIPTION**

The Lockefield Gardens renovation project will include four groups of users: 1) Elderly 2) I.U.P.U.I. hospital professionals and graduate students. 3) I.U.P.U.I. faculty and staff. 4) I.U.P.U.I. undergraduate students.

Because of conflicts that occur between some social-economic groups (i.e. crime, because of an inability to recognize who belongs\(^1\)), they will be assimilated together in a public and controlled environment.

\(^1\text{Newman, Oscar, Design Guidelines for Creating Defensible Space, 1975, pp.74.}\)
**SENSE OF COMMUNITY**

- The sharing of space, objects, or buildings that are in the territory controlled by the group

- Well-defined territory is important in fostering a sense of community

- Space that encourages the interaction between people and groups of people is important to a sense of community

- The space must be used by members of the group equally

**FOCAL POINT**

**COMMON STREET**
SENSE OF IDENTITY
* The expression of one's environment that distinguishes it from other people's
- Diverse & distinctive elements:
  - Doors & windows, architectural elements, height
  - Building materials, colors, landscaping, pavement, terraces
  - Contrasting spaces & building orientation

DEFENSIBLE SPACE
* Self-help crime prevention by allowing people to claim territory and establish surveillance over it
- Car parked in front of the unit
- Units face play areas
- Minimize # units served by each entry
- As much of the grounds as possible assigned to specific units to be caretaker
- Group units into small clusters
- Similarity of users for screening
- Spaces w/ activities that people can participate in together (sitting, shopping, skating, hanging clothes, etc.)
- Spaces w/ things to watch (people, sporting events, concerts, animals, traffic, etc.)
- Pedestrian spaces
- Spaces that are interesting & that have diversity

**Visual Surveillance**

* Control over an area by visual supervision

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**Hierarchy of Spaces**

* Sequence of public, semi-public, semi-private & private spaces

- **Public** - space that is open to anyone, that is not under the control of the resident
- **Semi-public** - space open to anyone, but under the resident's control
- **Semi-private** - space that is restricted to residents' access only
- **Private** - space that is restricted to unit residents' access only
<table>
<thead>
<tr>
<th>USER</th>
<th>AGE</th>
<th>MARITAL STATUS</th>
<th>PERSONS</th>
<th>HOUSEHOLD INCOMES</th>
<th>TYPE OF UNIT PREFERRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELDERLY</td>
<td>60 &amp; older</td>
<td>older couples &amp; singles</td>
<td>1-2</td>
<td>74% below $5,000</td>
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<tr>
<td>PROFESSIONALS &amp;</td>
<td>22-29</td>
<td>young marrieds &amp; singles</td>
<td>1-2</td>
<td>44% below $8,000/yr.</td>
<td>43% townhouse</td>
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<td>GRADUATE STUDENTS</td>
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<td>16% over $18,000/yr.</td>
<td>38% single family</td>
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<tr>
<td>FACULTY &amp; STAFF</td>
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<td>1-4</td>
<td>19% under $8,000/yr.</td>
<td>46% single family</td>
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<td>over 35</td>
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<td>37% townhouse</td>
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<td>25% over $18,000/yr.</td>
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<tr>
<td>UNDERGRADUATE</td>
<td>18-25</td>
<td>single males &amp; females</td>
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<td>35% below $8,000/yr.</td>
<td>36% townhouse</td>
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<td>23% over $18,000/yr.</td>
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<td>USER</td>
<td>NO of BEDROOMS</td>
<td>AMENITIES DESIRED</td>
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<td></td>
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<tr>
<td>ELDERLY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROFESSIONALS &amp;</td>
<td>58%--2BRM</td>
<td>washer/dryer, swimming pool</td>
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<tr>
<td>GRADUATE STUDENTS</td>
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<td></td>
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<tr>
<td></td>
<td>19%--3 or more</td>
<td>tennis courts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14%--1 BRM</td>
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<td>16%--1 BRM</td>
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<td></td>
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<tr>
<td></td>
<td>30%--3 or more</td>
<td>tennis courts</td>
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<td>30%--1 BRM</td>
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<td>15%--3 or more</td>
<td>tennis courts</td>
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</table>

2 Source (except elderly):  *Midtown Market Study*, Hammer, Siller, George Assoc., 1977

Elderly Source: 1977 Census
PLANNING BY RELATED ORGANIZATIONS

The I.U.P.U.I. Planning department is presently considering locating housing for students and professionals in an area bounded by Indiana Avenue, Blake and Michigan Streets. Classrooms and academic buildings may be located south of Michigan Street, and a commercial development is planned for an area just south of Lockefield Gardens. A Parking garage is being built east of the location of the proposed commercial development (figure 2).

The City of Indianapolis has preliminary plans for promoting commercial development along the White River Canal. Also, an office building is being erected at New York Street on Indiana Avenue, which is hoped to provide the initial impetus for a re-vitalization effort for Indiana Avenue (figure 2).

Since 1973 the fate of Lockefield Gardens has been uncertain. The Midtown residents and I.U.P.U.I. administrators have had conflicting ideas about how it should be used. Meanwhile, a number of studies have been done assessing the benefits of rehabilitation versus demolition; most notable of which is the Whitley/Whitley, Inc., study that rates the option of renovating 500 units as the most beneficial.

To date the future of Lockefield Gardens is undecided. I believe as many of the units as possible should be saved for the following reasons:

1) As one of the first public housing projects in the United States, Lockefield Gardens is an important historic site, and it should be preserved as much as possible.

2) The investment of energy and materials in the existing structures is enormous and we cannot afford to waste
them (4.5 million gallons of gasoline are already invested; enough to "have a net advantage over an equivalent new complex for more than 50 years")

3) Lockefield Gardens has been an important part of the Midtown community for years. As such, it would be impossible to replace and to demolish it would be to destroy part of a community.

FUNCTIONS

Total Living Units ———— 570
Rehabilitated Units ———— 550
(50% of 732 existing units are expanded so that 2 units are combined to make one—366 units made into 183 units; 50% of the existing units are unchanged in size—367 units)
Demolished Units ———— 16
Newly Constructed Units ———— 20
Elderly Housing Units ———— 143
(Ground level apartments, unless elevators are used)
Efficiencies ———— 50
1 Bedroom Units ———— 72
2 Bedroom Units ———— 21

One-third (47) of the elderly units will be in the same building. This building will have nursing care and elevators. The remaining two-thirds will be free to live in any apartment, (two-thirds of the elderly are shown to be healthy by survey).

The nursing care building will have a reception lounge, dining room, and kitchen. Also, each floor will have a lounge and a

laundry. Medical and inpatient care is available from the I.U.P.U.I. Medical Center.

Neighborhood shopping is within 1/4 mile; (food market, bakery shop, drugstore, stationary store, restaurant, barber shop, beauty parlor, laundry and dry cleaning, hard-ware, service station, etc.)

Public Transit Facilities: At least one bus stop every four blocks.

Out and In-Patient Medical Facilities: 1 bed for every 10 residents.

Parks: Neighborhood park, (2 acres/1000 residents)¹

<table>
<thead>
<tr>
<th>Hospital Professionals and Graduate Students: Garden Apartments and New Townhouses</th>
<th>178 Units</th>
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<tbody>
<tr>
<td>1 Bedroom</td>
<td>32 Units</td>
</tr>
<tr>
<td>2 Bedroom</td>
<td>108 Units</td>
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<td>3 Bedroom</td>
<td>38 Units</td>
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<table>
<thead>
<tr>
<th>Faculty and Staff: Garden Apartments and New Townhouses: 178 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bedroom</td>
</tr>
<tr>
<td>2 Bedroom</td>
</tr>
<tr>
<td>3 Bedroom</td>
</tr>
<tr>
<td>4 Bedroom</td>
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</table>

<table>
<thead>
<tr>
<th>Undergraduate students: Townhouse Apartments: 71 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiencies</td>
</tr>
<tr>
<td>1 Bedroom</td>
</tr>
<tr>
<td>2 Bedroom</td>
</tr>
<tr>
<td>3 Bedroom</td>
</tr>
</tbody>
</table>

Resident's Parking (off-street) —— 342 spaces
Visitor's Parking (on-street) —— 48 spaces

Density

Existing ———————————————————— 28.8 units/acre
Proposed ———————————————————— 22 units/acre

Community Building

Multipurpose Room ——— 3,000 sq.ft.
(Social Activities, Game Room, Crafts, Teen Activities)
Kitchen ——— 300 sq. ft.
Storage ——— 165 sq. ft.
Total ——— 3,465 sq. ft.
Service Buildings (Laundry, 8) ——— 280 sq. ft.

Recreation Space

Child-use Space ——— 6,840 sq. ft.
(324 Children x 20 sq. ft./child—Tot Lots)
Mixed-use Space ——— 34,900 sq. ft.
(1396 People x .5 sq. ft./person)
(Tennis courts, volleyball, basketball courts, etc.)
Adult-use Space ——— 105,400 sq. ft.
(1054 Adults x 100 sq. ft./adult)
(Gardens, terraces, laundromats, etc.)

Unit Sizes

Efficiencies

(Non-expanded in townhouses) ——— 603 sq.ft.
(Non-expanded in garden apartments) ——— 532 sq. ft.

One Bedroom (non-expanded garden Apts.) — 509-606 sq. ft.
(Expanded Garden Apts) ——— 775-930 sq. ft.

Two Bedroom
(Non-expanded garden apartments) ——— 608-652 sq. ft.
(Expanded garden Apartments) ——— 1018-1212 sq. ft.
(New Units) ——— 1160 sq. ft.

Three Bedroom (expanded garden apts.) ——— 1328-1381 sq. ft.

Four Bedroom (expanded garden apts.) ——— 2424 sq.ft.
BIBLIOGRAPHY

1) Becker, Franklin D., Design For Living, Center for Urban Development Research, Ithaca, N.Y.


3) McClain, Jan, Housing the Elderly, Canadian Council on Social Development, Ottawa, Ontario.

4) Newman, Oscar, Design Guidelines for Creating Densese Spaces, National Institute of Law Enforcement and H.U.D.


7) "Indiana Avenue, Midtown Neighborhood Plan," Indianapolis Dept. Of Metropolitan Development, Indianapolis, IN., April, 1973

Building Type Analysis
HARMONY HOUSE
40 low-moderate units
Density - 40 units/acre
Location: New Haven, Conn.
Architect: Louis Sauer

HARMONY HOUSE IS AN ATTEMPT TO RESPOND TO THE NEEDS OF THE BEQUESTERS, BY ALLOWING THEM TO SHOW THEIR PREFERENCES IN THE LAYOUT OF THE UNITS (THE LOCATION OF THE LIVING AREA, FOR EXAMPLE) THE PROJECT ALSO MAKES

CONCEPT/PART!

These units form a series of boxes, like eyeflats with alternate box at different levels.

CORRELATION/CIRCULATION

SITE: The site is located at the corner of a city block. On the perimeter the units form an landscaped courtyard, parks, and around the courtyard.

UNITS: The units interlock and there are three types of units. At the first type the entry is the living area and directly off the entry there are three bedrooms on the second level and one of the third. The second type is entered from the ground level into a living-dining area with one bedroom on the same level. The third type has a living-dining area however the two bedroom types 2 and 3 are from both the first and second levels.
STRUCTURE
Block frame with concrete block exterior. The back area is 12 feet and the textured cedar plywood.

UNIQUE FEATURES
This project creates a key feature of the unit is in the center of the unit's dwelling. It sets the unit's unique exterior. Each unit is made of different materials. In relation to the public and private spaces, the units have public areas, except the playground.

FACADES
The units project an image of a series of living units by size and variation. However, the entries, roofline, and windows give the units a sterile quality.
Church Street South

400 low-moderate/309 Elderly Units
Location: New Haven, Conn., C.B.D. area
Architect: Charles Moore
Commercial Businesses: A supermarket, a laundromat, a Head Start center and small offices

Concept/Part I

The form of the buildings are rectangular with added out balconies and entryways. A wall and object part I.

Correlation/Circulation

Site: A pedestrian street runs through the center of the site and secondary pedestrian streets connecting this with public open spaces. The public spaces are enclosed by housing. Also, a major street bisects the site and a pedestrian proposed to cross it.

Units: There are three and four level units. The three level units have three bedrooms, one on the first level and two on the second floor. The first level units share an entry with one of the second floor units, and the odd unit shares access with the odd exit units. The four level units are the same as the three level units except access to the units is gained from the second level and two bedrooms.
And parking is added to the first level, allowing the units to have direct access to the ground. The three-level units have separate parking.

**Structure**

The walls were designed to be load-bearing cast concrete, because cost-conscious blocks were used. A regular 16" module is used.

**Unique Features**

Pedestrian street with road and sidewalk, identity markers, and full identity. The units are lined with features. The lights are lined with trees. They are bricks colored and the paving gives identity.

**Facades**

The units are flat and strong. Elements above the entry also the greenery and brick are separated. All the express colors are chartreuse and green. The material for living the place work and the colors fun. It is a place to have.

The goal of the church street south project was to make connections with important depth. This was achieved with a pedestrian street.
PARK-DANFORTH HOME FOR THE ELDERLY

88 ELDERLY UNITS
LOCATION - PORTLAND, ME.
ARCHITECT - BRUCE PORTER ARNEILL
NO COMMERCIAL

THE GOAL OF THE PARK-DANFORTH HOME WAS TO ADD 88 UNITS TO A PREEXISTING BUILDING, THE EXISTING CHARACTER.

CONCEPT/DESCRIPTION
THE PROJECT WAS THE FORM OF A SERIES OF WINGS AT EACH CORNER TO LEAVE THE OLD BUILDINGS IN PLACE. BOTH THE NEW AND OLD BUILDINGS ARE WALKS AND THE HEIGHTS ARE THE SAME.

CORRELATION/CIRCULATION

STRUCTURE
BRICK BEARING WALLS ARE USED WITH CONCRETE SLAB FLOORS. THIS SYSTEM ALLOWS THE FLOOR LINES TO BE THE SAME AS THE OLD BUILDING.
The building relates well to a much smaller, older building and creates a nice interface between the two, and creates nice outdoor spaces.

Facade

The new building relates with the old in height inside by having one more floor. The windows are also the same size (including the sashes of the old building) and the old brick is matched. The cut-out, because of the new building, make it appear lighter and helps break up the mass. The only support building is most visible. A place for living also appears inviting.
Site Analysis
Total Area
1,004,153 sq. ft.
23 acres

Parking Area
123,420 sq. ft.

Floor Area
882,442 sq. ft.
TOTAL HEATING DEGREE DAYS — 6110 (17-78)
TOTAL COOLING DEGREE DAYS — 1300 (78)
PREVALENT WIND DIRECTION — SW *EXCEPTION OF JE, FE, MR - N, WNW
Design
DESIGN

A primary design consideration for the Lockefield Gardens project was that it should become a vital part of an integrated urban pattern, and contribute to the revitalization of the area. Therefore, I tried to locate the predominant urban patterns in the area and bring them together into a unified design.

This proved to be an involved and difficult task. The existing patterns were disassociated and it became apparent that a more intensive urban design study was needed for the area. As a result I chose to only deal with the immediate context of my site and leave the urban design of the remaining area unresolved.

One of the issues I addressed in dealing with the site context was to develop pedestrian circulation patterning that integrate the Lockefield site with surrounding areas. Especially, patterns from the east side of the site, (Midtown and the area where student housing is proposed) to the west side (the I.U.P.U.I. campus and medical center) are needed.

Another issue was to establish patterns of ownership around the perimeter of the site, an important part of the defensible space philosophy.

Some of the solutions I looked at included demolishing buildings and developing various combinations of vehicular and pedestrian thoroughfares, across the site, in a number of different places. I also considered a street for buses and pedestrians with a bus stop and shelter on the site.

I looked at a number of ways of locating new townhouses between the existing buildings at the perimeter of the site to establish ownership. None of these showed much promise because of a lack of adequate space. To resolve the problem I decided to propose the construction of new townhouses along the east and west streets that border the site. This will free up much land for possible
patterns along the perimeter of the site and creates a context that is compatible with Lockefield Gardens.

Pedestrian circulation across the site was accomplished by the development of public circulation spaces across the site.

I feel that the design at the site plan scale is most critical to the success of the project. As a result, I concentrated on that scale of design.

The issues of defensible space, a sense of community, visual surveillance, hierarchy of spaces, and a sense of identity, are all important in making Lockefield Gardens a comfortable place to live, and all are missing, in some degree, in the existing site plan.

There were two basic kinds of circulation patterns that I examined in developing a site design. The first was to use the central mall as a kind of interior street. The thinking was to use the street as an activity generator. The other circulation pattern restricts the central mall to pedestrian traffic and disperses vehicular access to the outer edges of the site.

The second pattern with dispersed vehicular access seems more appropriate for Lockefield Gardens because it enhances pedestrian circulation across the site while the interior street pattern tends to restrict it.

There is virtually no hierarchy of spaces in Lockefield Gardens as it exists. The buildings are in a repetitive pattern across the site with all the entries on the south side, and the spaces between the buildings are ambiguous in their use and lack territoriality.

In order to develop a spatial hierarchy, I planned for the space between some of the buildings to be used as semi-public spaces and
others to be used as semi-private spaces. To allow all of the buildings to be entered from the semi-public spaces some north side entries are needed.

Boundary markers are needed to enclose and to define the edge of the spaces. The semi-public spaces require less strong boundary markers than do the semi-private spaces. So, while trees can be used to define the edge of a semi-public space, a wall or building is needed for a semi-private space.

I located new buildings on the site because I felt that that kind of a strong boundary marker was needed on at least one side of the semi-private space to enclose it. Also, I felt it was important to establish ownership on the end of the semi-private space.

I investigated a number of ways of using new buildings to enclose space on the site, and decided to use a design that divides the central mall into smaller spaces, that I feel create a greater sense of community. This is because the spaces are enclosed by clusters of apartments that are brought together into a unified pattern, while reinforcing the existing axis of the central mall that runs the length of the site. The design also strengthens the pedestrian circulation patterns that cross the site.

Off-street parking is located in the semi-public spaces between the buildings it services. This allows residents to have easy access to their cars and promotes visual surveillance.

The site is zoned into three areas: 1) The north part of the site is to be occupied by elderly people and older married couples without children. 2) The center of the site will have families with children located there. 3) The south part of the site will have single people and younger married couples without children. In this way I feel I can make a stronger connection with
the most likely group to have formerly lived in Midtown) nearest to it. Similarly, I feel I can make a stronger connection with the University by locating the group most likely to be students nearest to the academic buildings on campus. Also, the middle of the site has the best outside spaces and is exposed to less traffic than are the ends of the site, making it the best location for families with children.

A community building with inside recreation is located at the center of the site and service buildings with laundry are located in each cluster (the aggregate of apartments around a semi-private space).

Also, each cluster encloses a space that can be used as a tot-lot for families with children, or for outdoor recreational use. The spaces adjacent to the building are used as private gardens by the occupants of the first story apartments.
Final Drawings