

A DRUG REHABILITATION CENTER FOR WOMEN WITH CHILDREN

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A THESIS SUBMITTED TO THE FACULTY OF THE VIRGINIA POLYTECHNIC INSTITUTE
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A DRUG REHABILITATION CENTER FOR WOMEN WITH CHILDREN

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(ABSTRACT)

The design of a drug rehabilitation center for women with children incorporated the treatment theories of therapeutic communities. At the time this center was designed, only two facilities of this type were in use specifically for women. The Washington metropolitan area was in need of such a treatment program for women.

Three architectural concepts were studied which were appropriate for this type of facility: threshold, community and natural light. Threshold became a symbol for change. The development of a small community within was the unifying concept for this project. Natural light was developed as an important element which is a healing medicine for the psychological and mental health of a person.

Society needs to deal with the problem of drugs and the hold they take on people. It is no longer responsible for us to turn our heads from this affliction. Facilities such as the one developed in this thesis will help mothers overcome their addictions, while obtaining some family cohesion. The children that are able to participate with their mothers will hopefully avoid the same mistakes their own mothers made. One day they may grow up to become responsible, contributing parents and citizens.

ACKNOWLEDGEMENTS

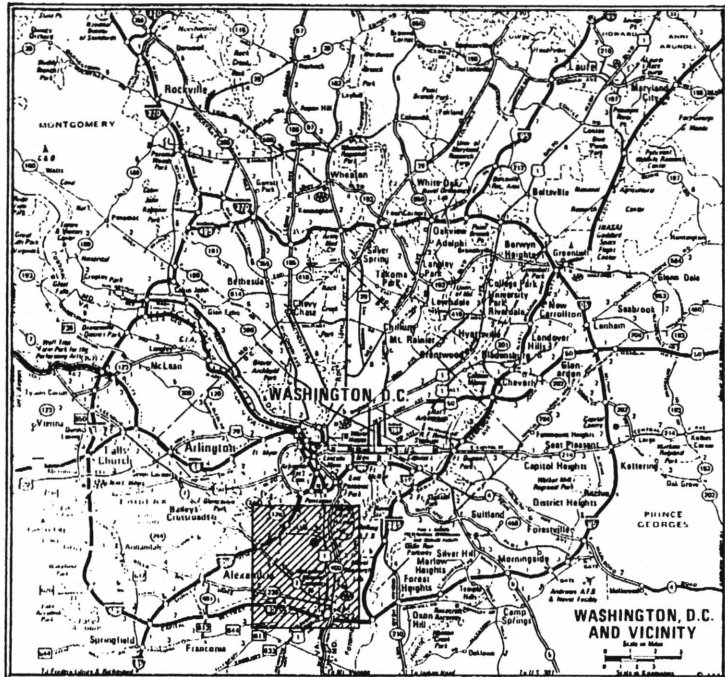
Thanks to Professor and Advisor William Brown who is wise enough to wait to see how things reveal themselves, to Professor Greg Hunt, who is intelligent enough to ask the right questions, and to Professor Craig Heinrichs who is insightful enough to share the vision.

Thank you mom and dad, for you've always been there supporting me in all that I do. You knew when to push and when to let me alone. You are both my true inspiration.

Thanks Kathy, you showed me the light.

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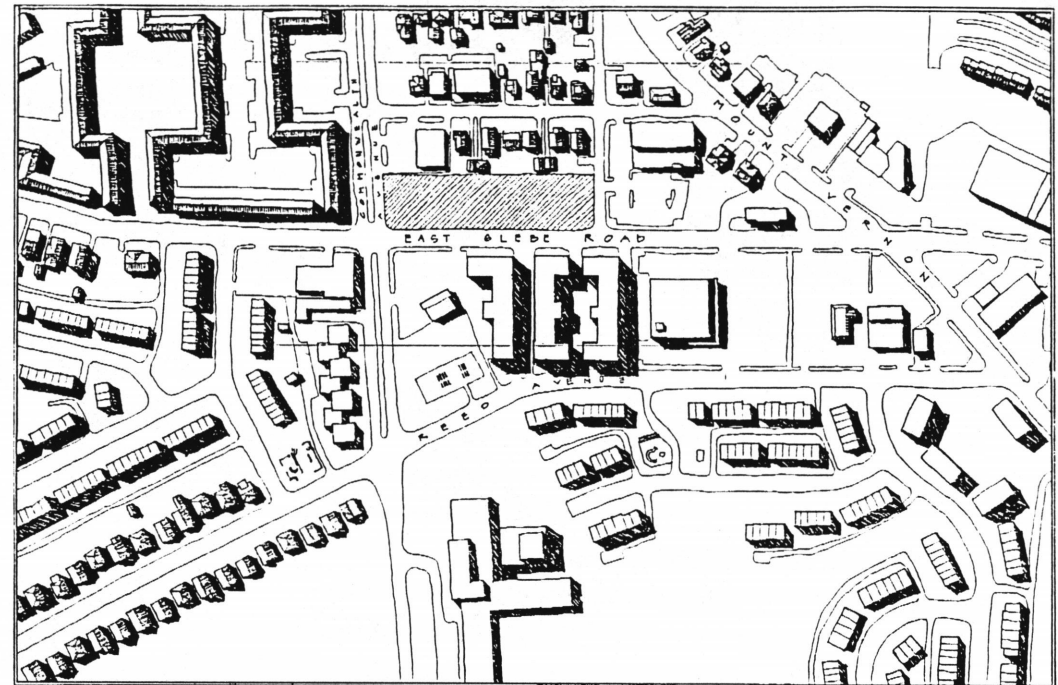
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AREA PLAN



NORTH

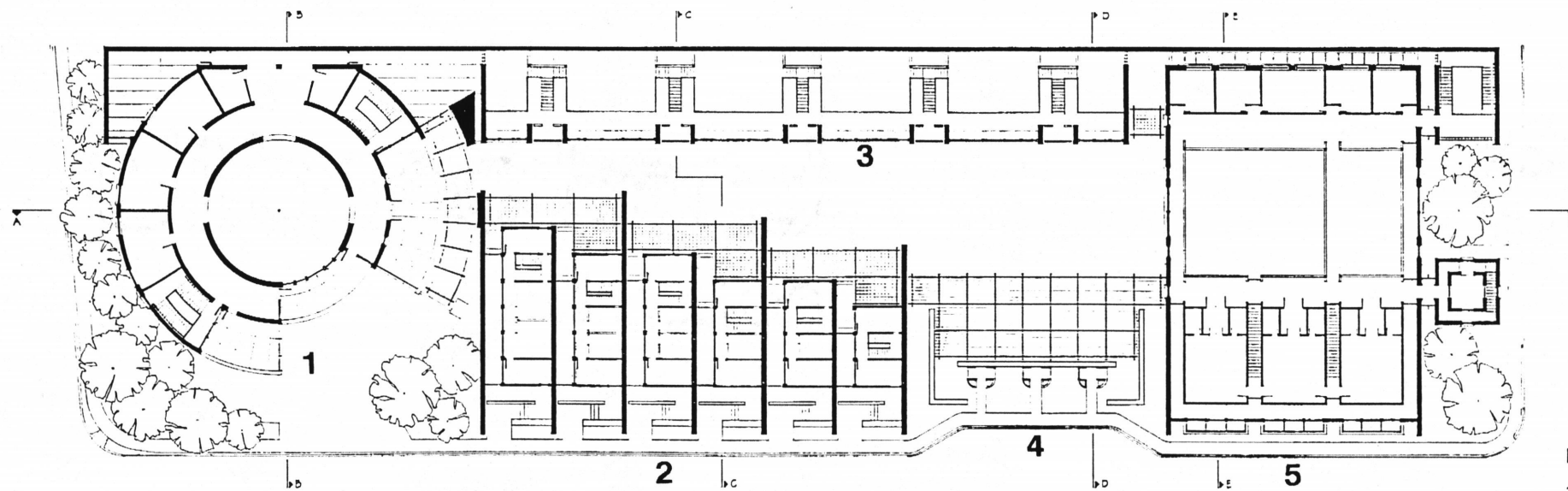


COMMUNITY PLAN



NORTH

1:400



FINAL PLAN

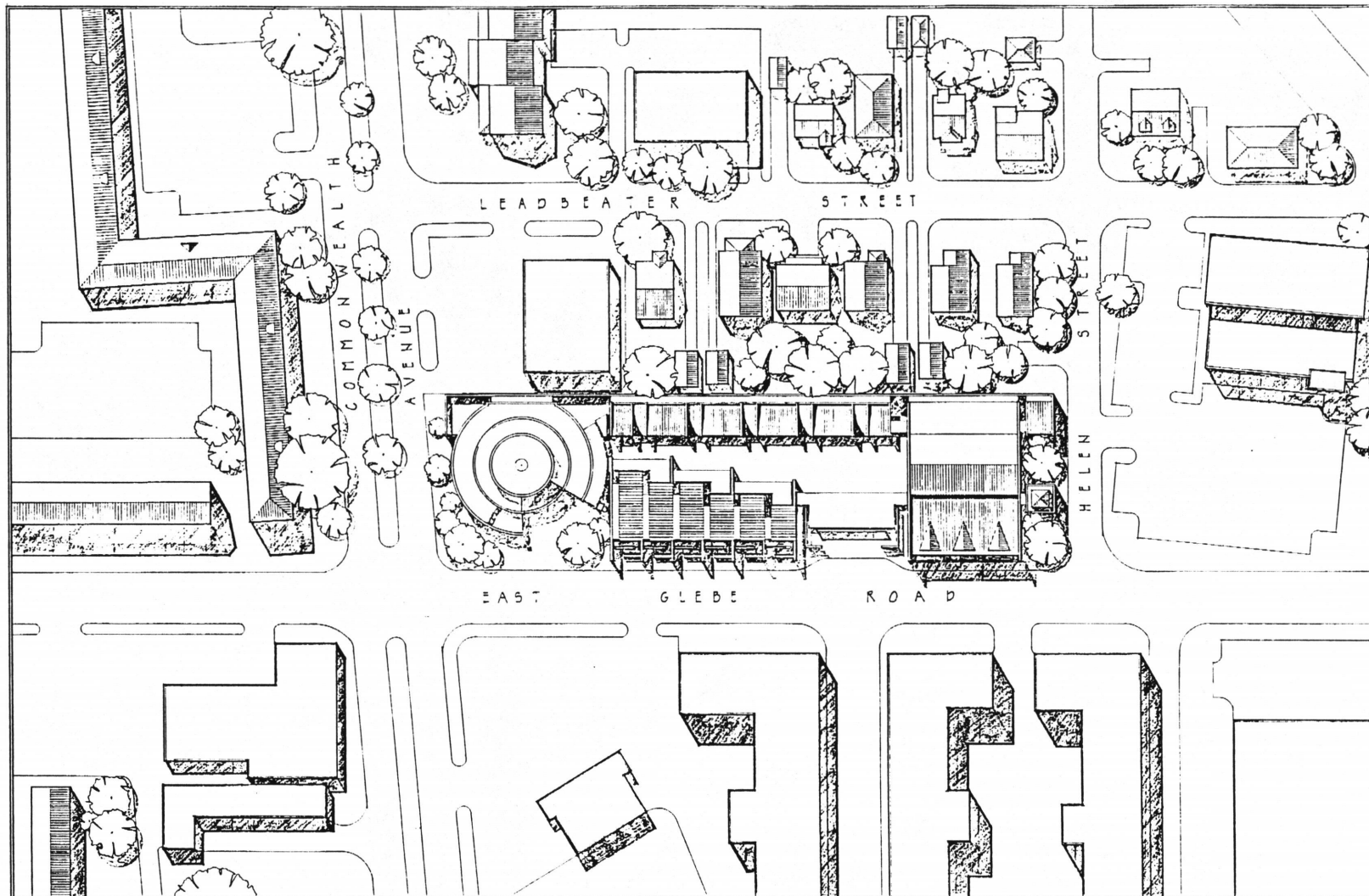


NORTH



KEY

- 1. Admin. Building
- 2. House 3
- 3. Children's House
- 4. Bus Stop
- 5. Community House

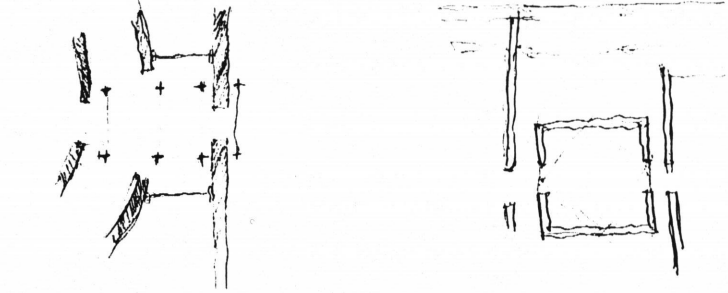
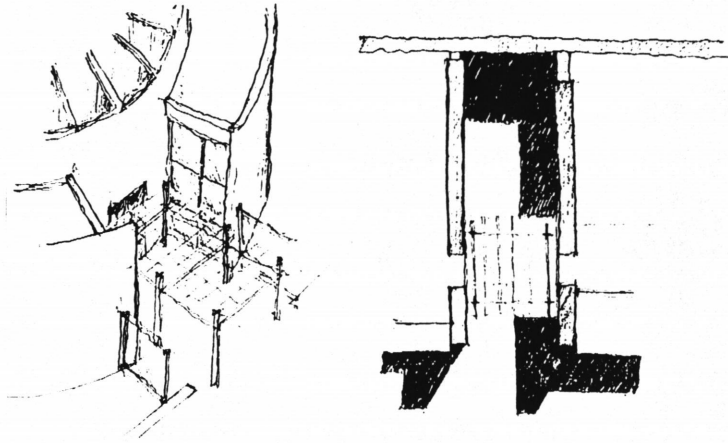


FINAL SITE PLAN

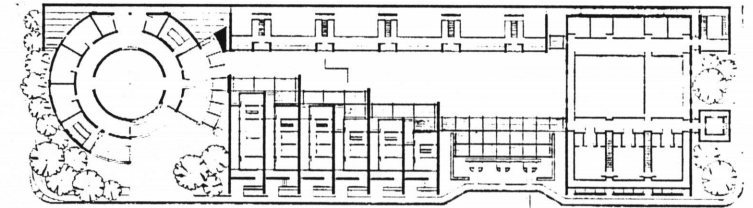
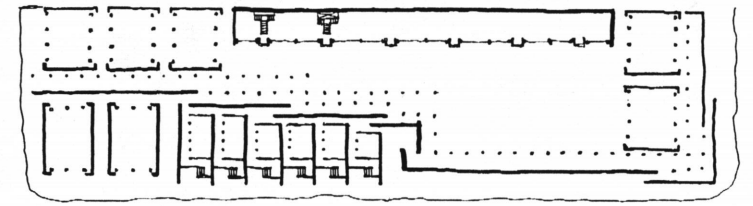
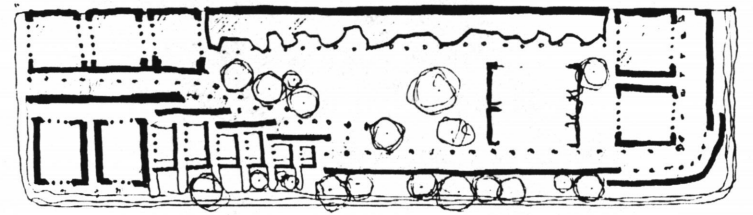
The Drug Rehabilitation Center for Women with children required a carefully chosen site. It was important to select a symbolic location. Del Ray Alexandria is a diverse community that supports the metaphor - change and growth, this is the same metaphor that nurtures the community within the drug rehabilitation facility. I was able to find a site that was near a depressed area. It was visible and accessible to people in need of childcare while residing in a rehabilitative facility. This site is also on the edge of an area that is becoming a middle class community.

The site becomes a threshold from the depressed part of town to the middle class area. The process of rehabilitation is a threshold into a renewed way of life. The site is two blocks from an elementary school, on a bus line, and near playgrounds and grocery stores. This eliminated the need for cars. This site is approximately 450' wide and 115' deep and has streets on 3 of the 4 edges. This challenged me to relate to 2 street corners, one of which is prominent. These limitations and conditions guided me to some strong architectural conclusions. This drug rehabilitation center

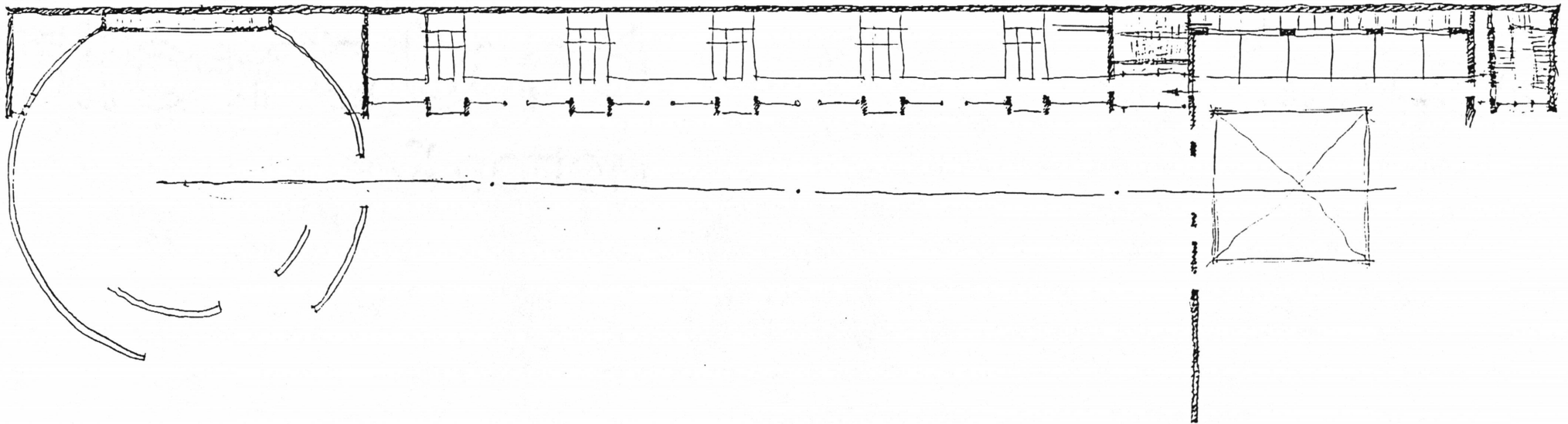
is based on the "therapeutic community" treatment model. One of these programs exists in the D.C. area and it is named Second Genesis. Second Genesis is a coed facility that has locations in Bethesda, Maryland and Alexandria, Virginia. They gave me the opportunity to view the house in Alexandria and talk to one of the residents. After our discussion, I realized that the initial contact with the community within this facility is a critical one which often impacts the individual's decision concerning their commitment to the program.



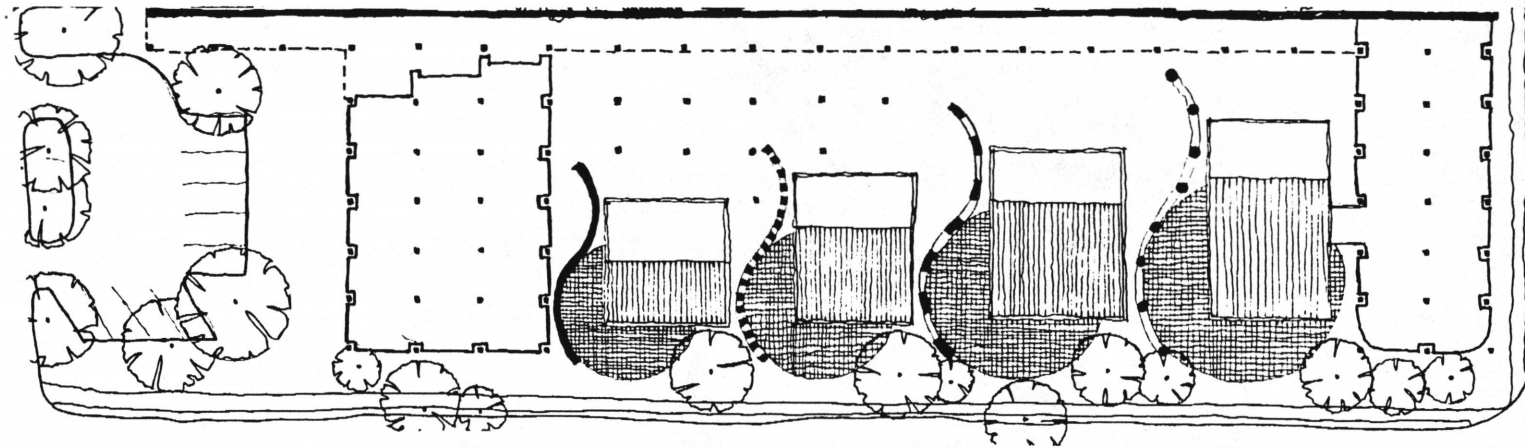
BUILDINGS JOINED BY SPACES



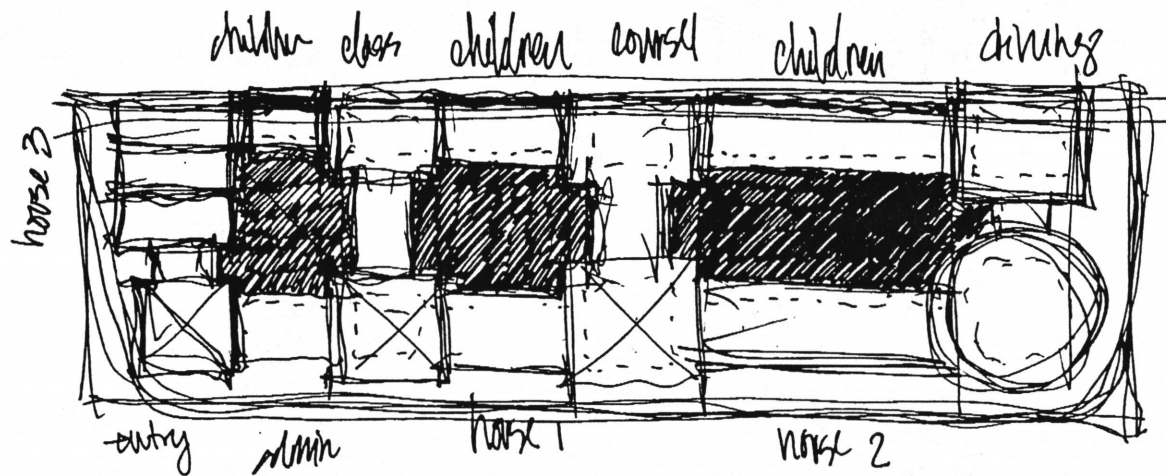
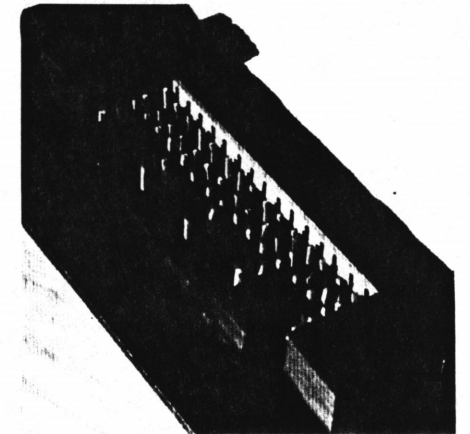
SITE UNIFIED BY A PATH



BUILDINGS ORDERED BY A WALL



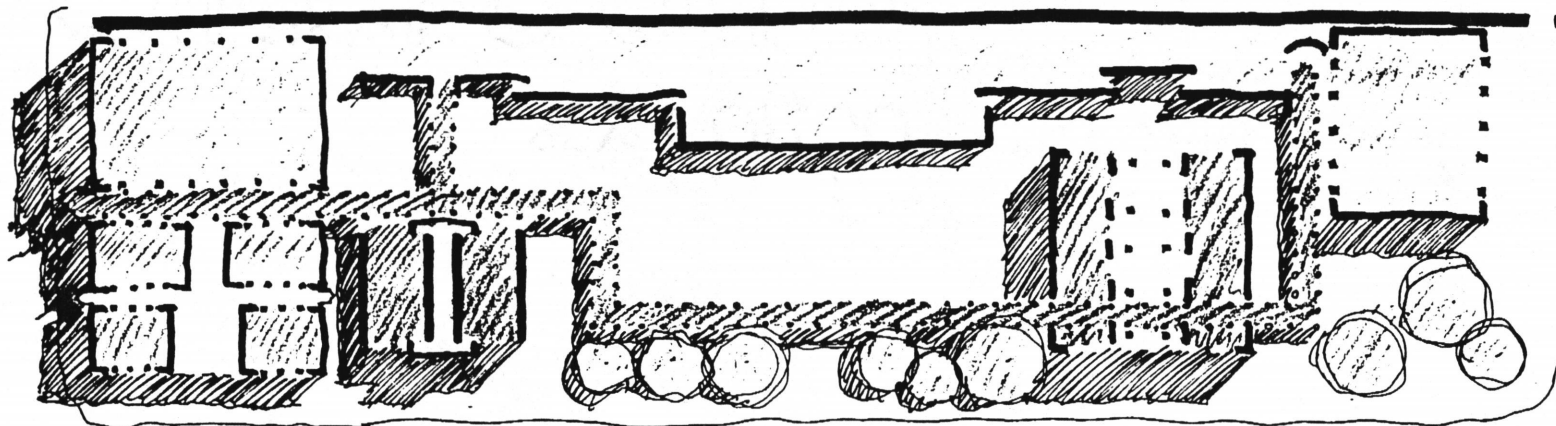
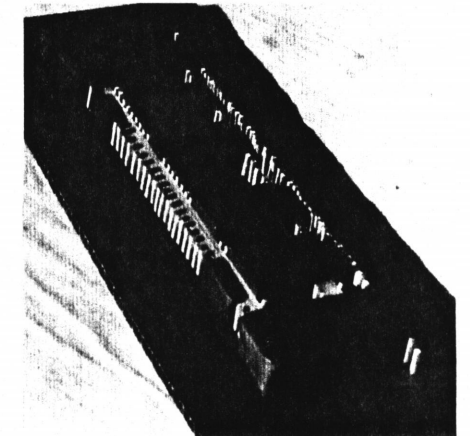
INITIAL CONCEPTS: WALL & THRESHOLD ORDER SITE



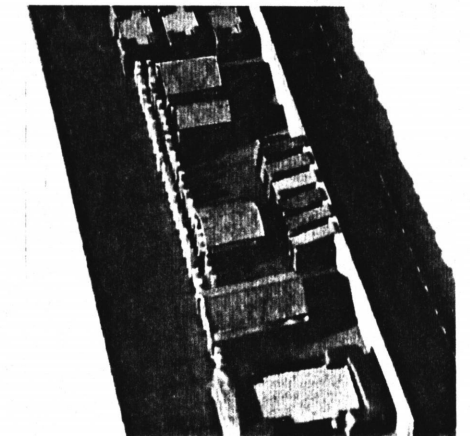
building as a path
 path as a threshold
 threshold as a transition

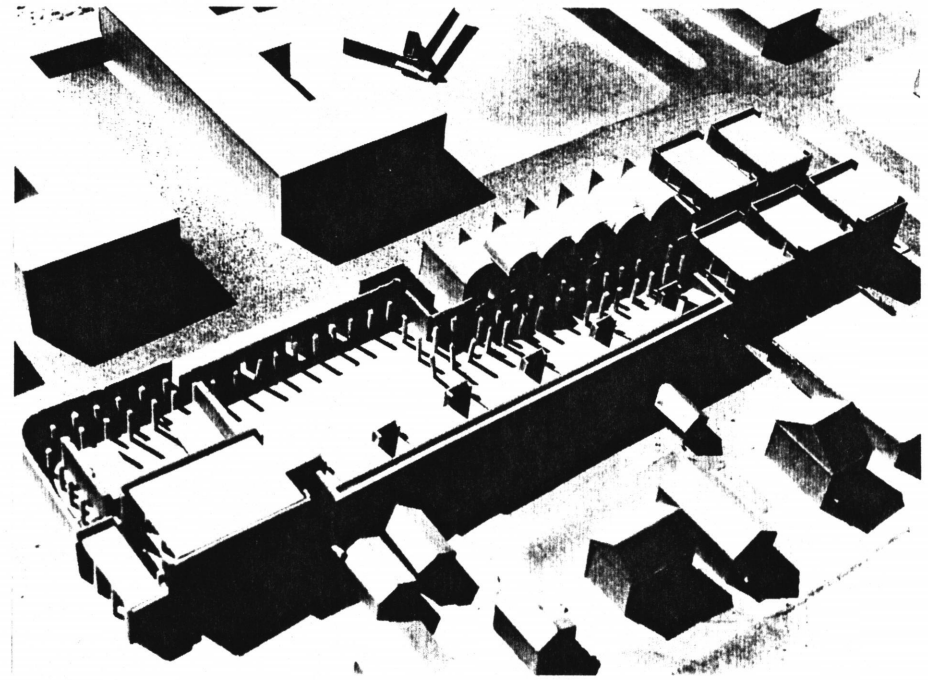
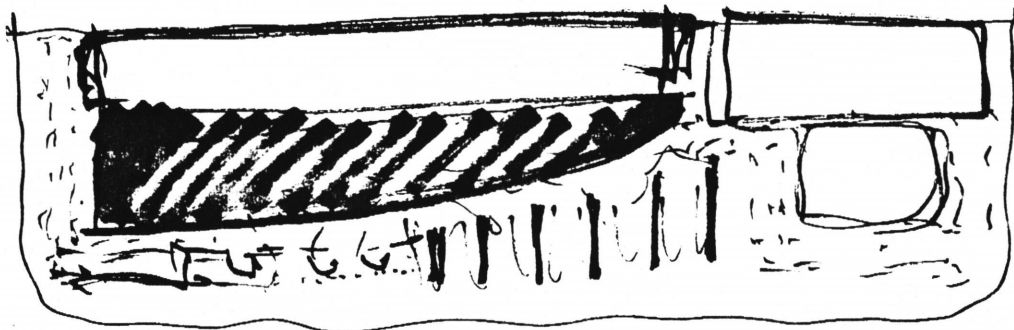
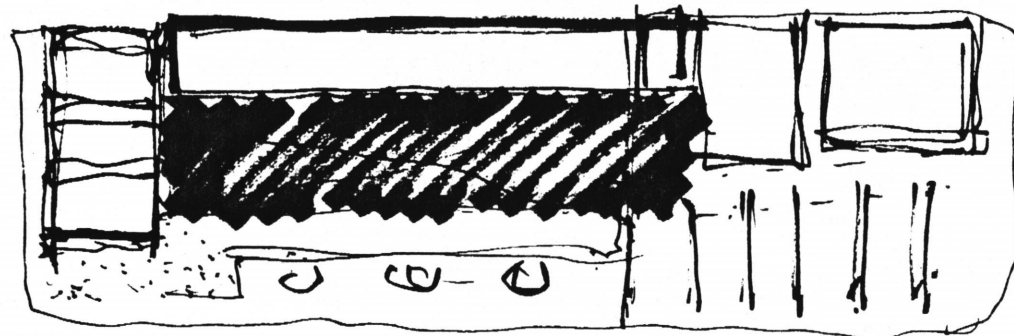
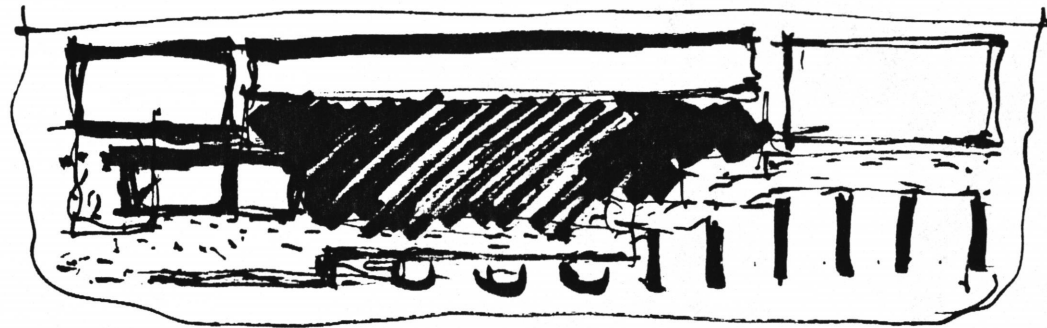
Building as a transition

SITE CLARITY: PATH DEFINITION EVOLVES



PATH STUDY: CIRCULATION IS DELINEATED



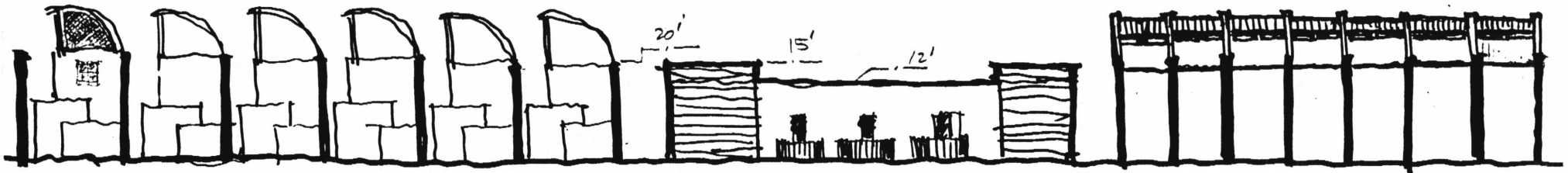
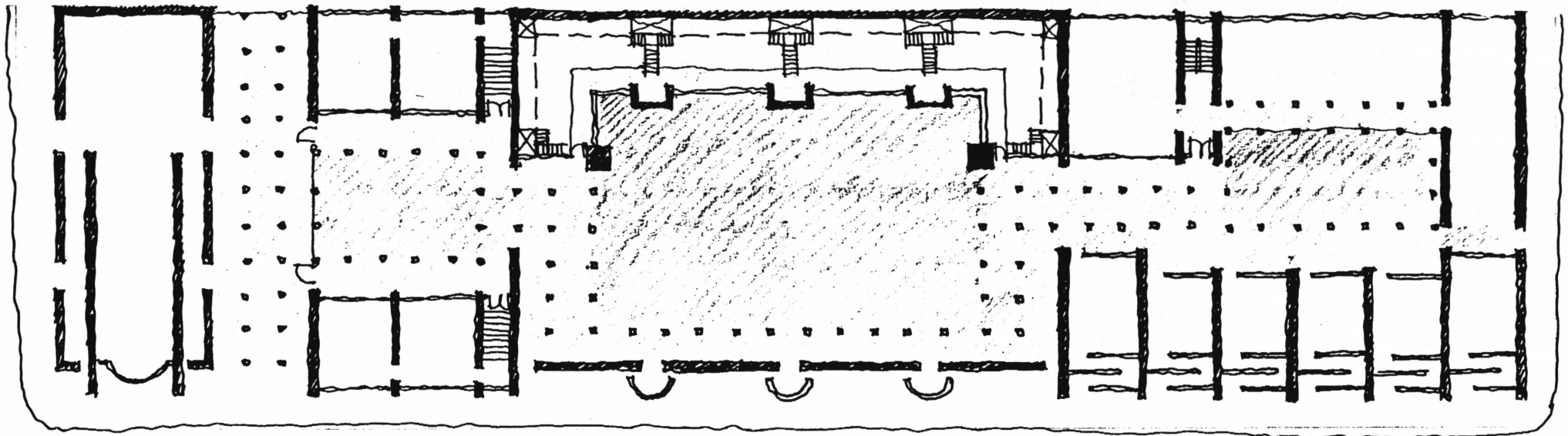


PLAN STUDIES

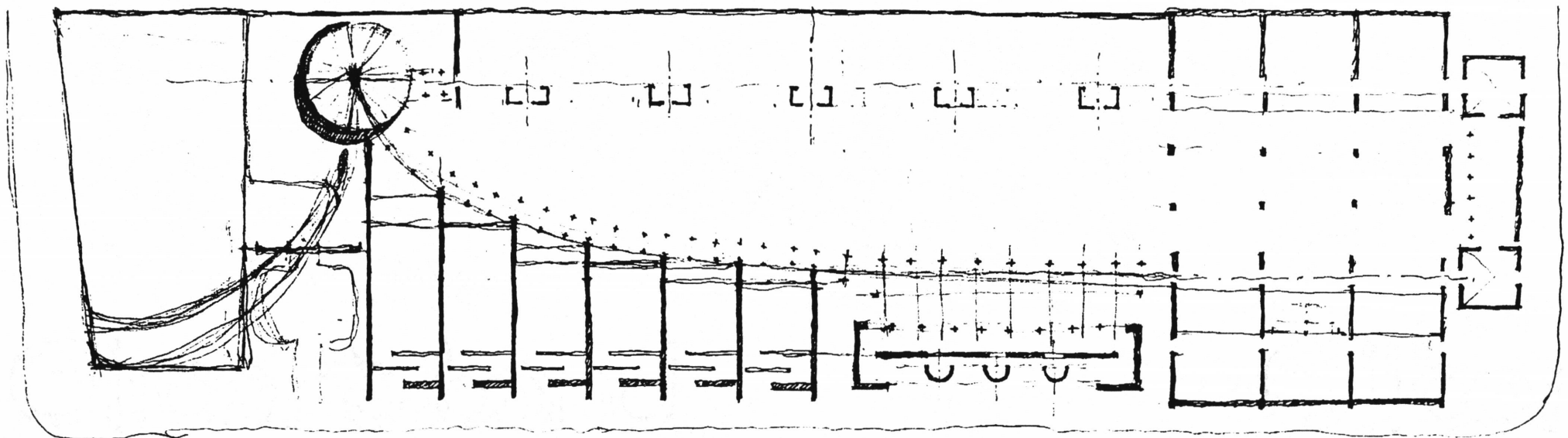
Therapeutic Communities are based on positive peer pressure. Everyone has their own responsibilities. If an individual does not fulfill their responsibilities, the entire group suffers. Cooperation and optimism help the program to run smoothly. If one person is not able to handle their work, it is important that the others pitch in to help finish the job. This builds a trust in people. This trust in turn leads to better relationships. Children are able to share in the healing process of this program because many believe that these kids have already seen the worst in their mothers. These mothers have already been through a detoxification program before admittance

to this program. The basic component in a Therapeutic Community is a unit or a pod. These units or pods become like families. One person becomes the matriarch, or leader. Several units come together to form a community. The community shares common space in the first building known as the group house. Uses for the house include dining, classrooms, recreation rooms and counseling areas. The women of the community are responsible for the maintenance of this building, as well as the cooking and planning of all meals. At the time the mothers live in the community house, the children live in the second building or the children's house. When the

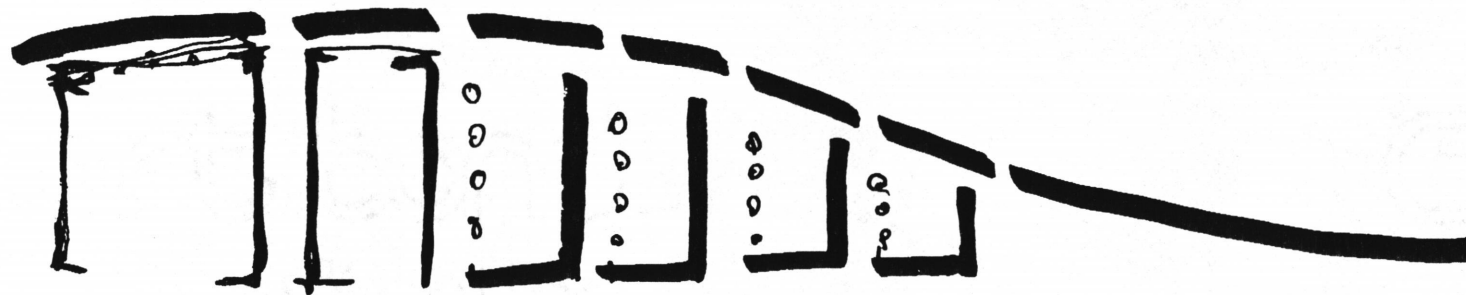
mothers have earned the right to live with their children, they progress to the halfway house, House 3. Upon gaining this right, these women must obtain jobs, and pay rent. These mothers learn about budgeting for their families while gaining greater financial responsibilities. The fourth building on the site is the administration building. The admittance of women to the facility proceeds within this building. This is the building the women are initially exposed to upon entering this complex and treatment program.



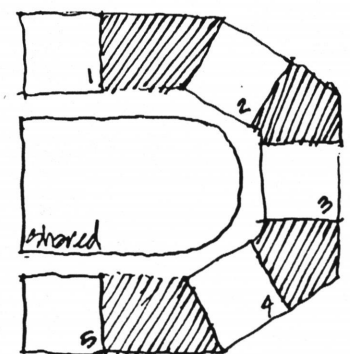
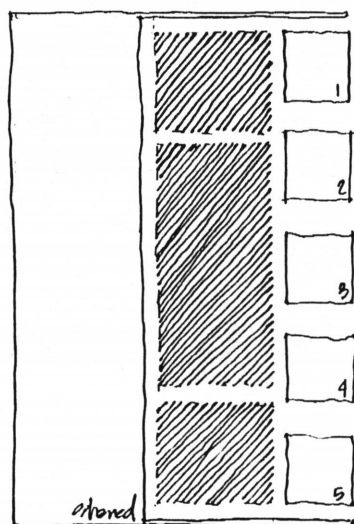
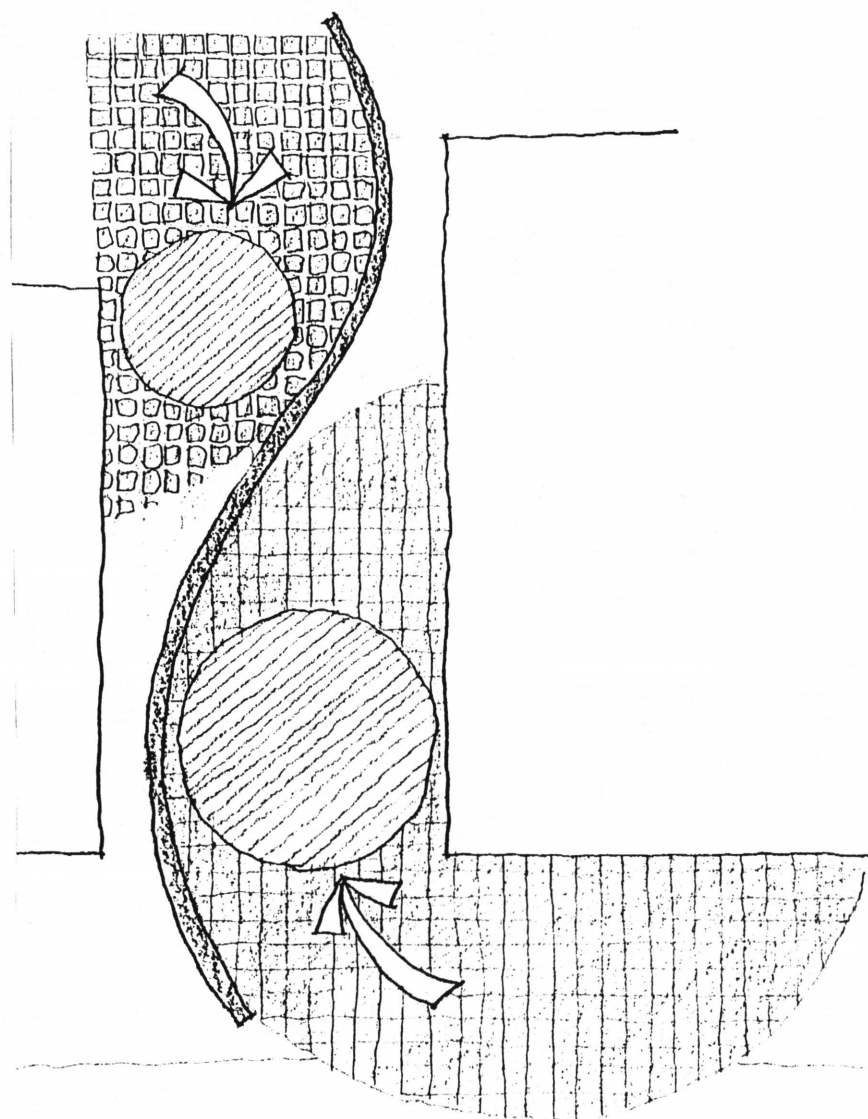
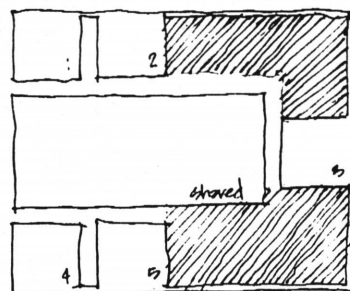
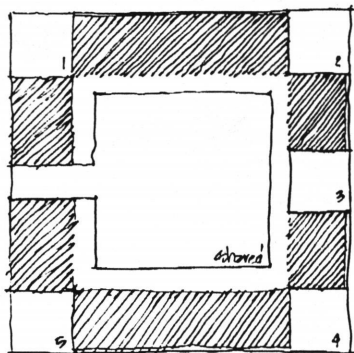
RELATIVE ELEVATION STUDY



PLAN DEVELOPMENT

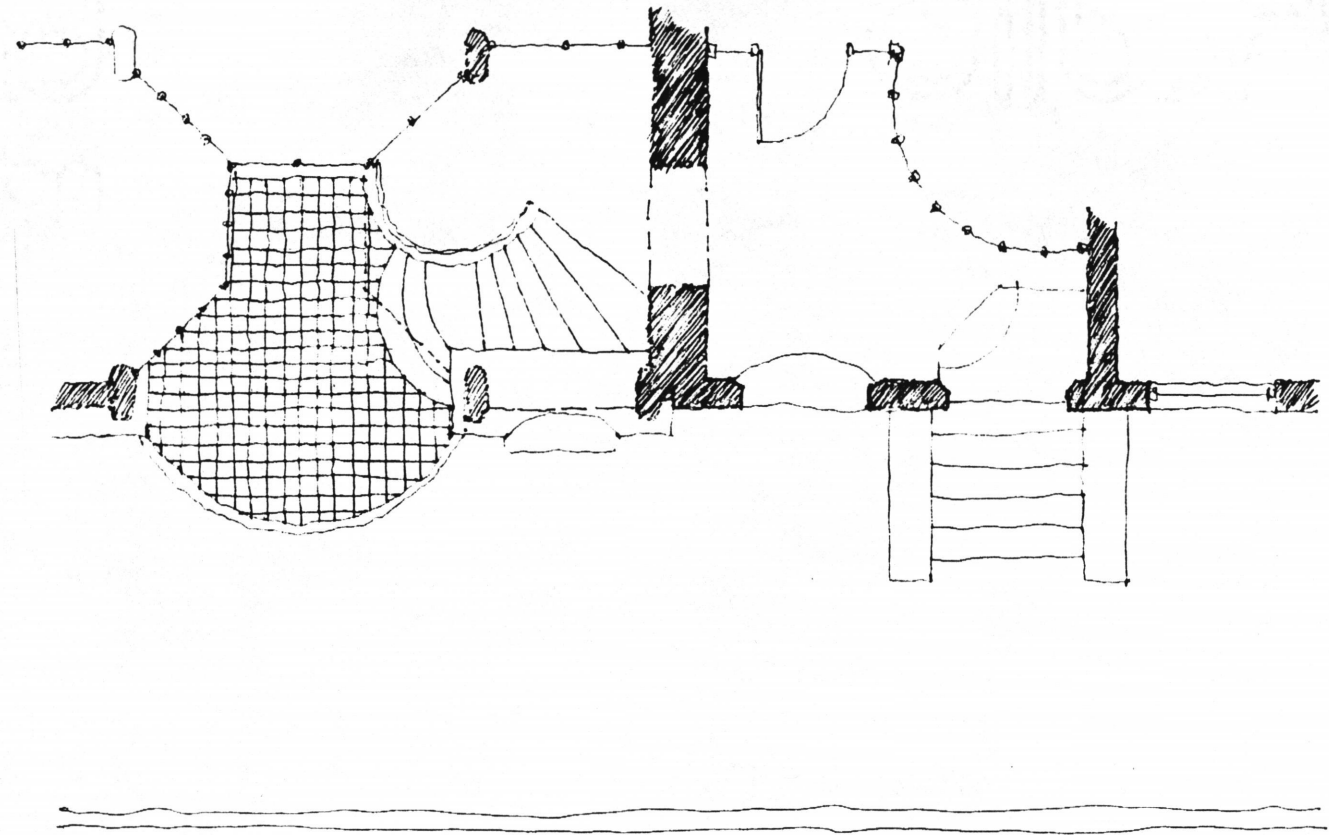


PATH



COMMUNITY

THRESHOLD



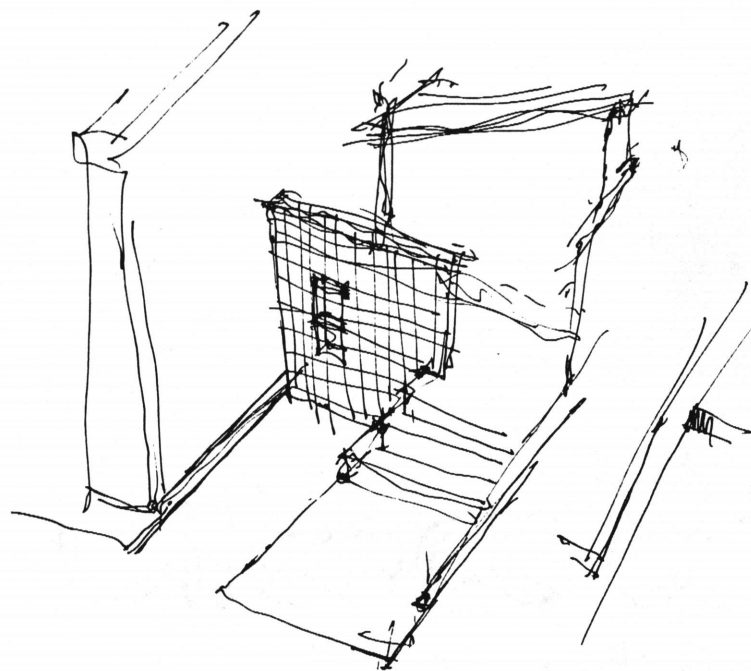
“Places remembered and places anticipated dovetail into the temporal span of the present”. - Aldo Van Eyck

THRESHOLD

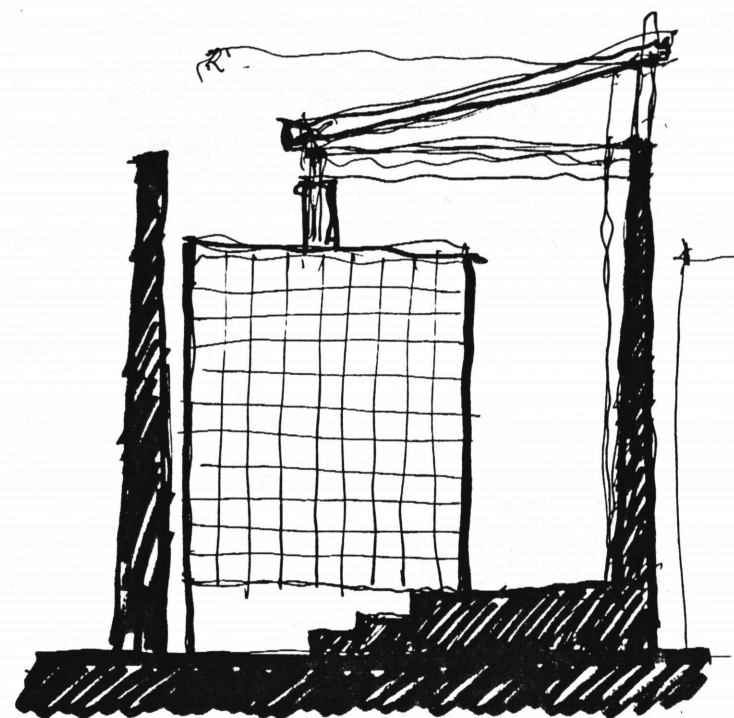
“Places remembered and places anticipated dovetail into the temporal span of the present.” This quotation by Aldo Van Eyck represents in my estimation, the essence of the architectural concept threshold. This topic is explored and Van Eyck’s talent for expressing this idea is shown in the threshold for his house for unwed mothers. There is a complex weaving of space that makes a threshold by allowing many discoveries through time. Architecture goes beyond the three dimensions into the fourth dimension of time. Each step one takes leads to a different view, material, light or texture. This complexity allows one to feel the architecture with the senses.

The experience begins with the texture of the pavement extending into a public walk. Architecture moves beyond building limits; a practice Frank Lloyd Wright often used. A person has to break the plane of walls after which this person becomes part of the realm of threshold. There is a series of steps to climb, but once at entry level the experience is just beginning. Van Eyck creates a place for us to turn and allows us to see where we have been. This is the dovetailed experience. After this return to the past, one passes through an architectural element, beginning the physical contact with the architecture. Once again we are offered a view of the past before we

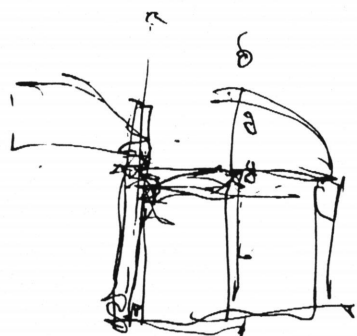
actually take the turn and go through the door to the future. It becomes a complex series of architectural events that eases one into the building. It was this attention to the architectural experience that I hoped to achieve in my explorations.



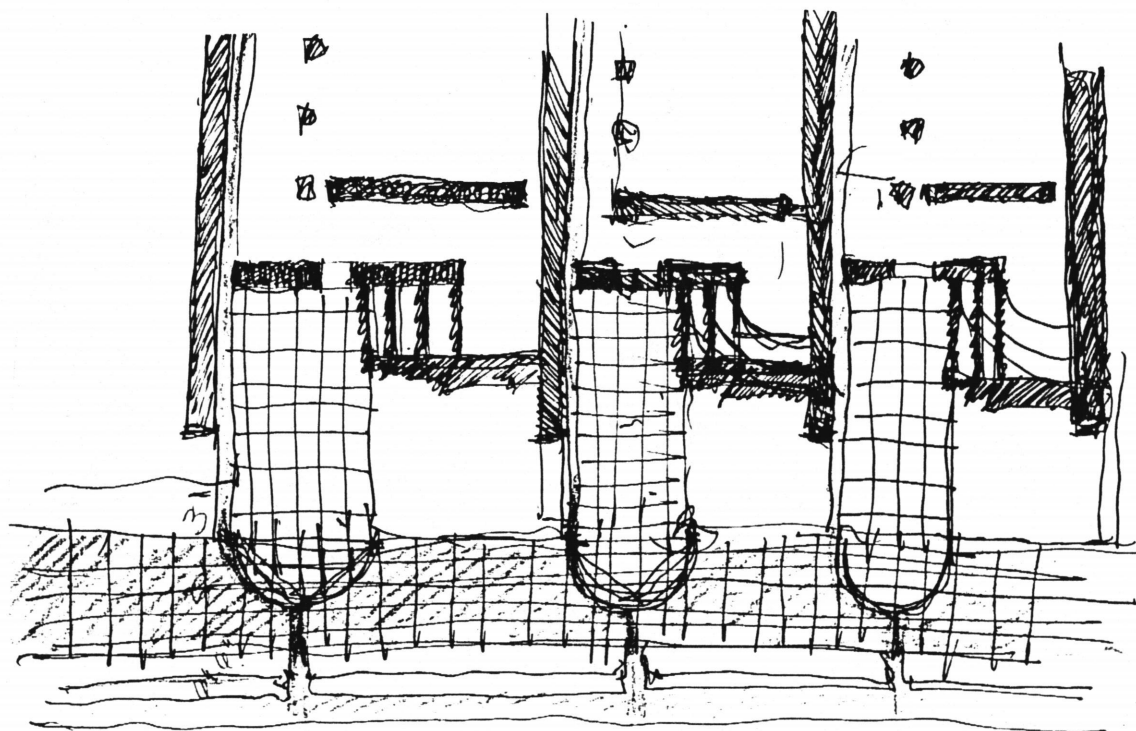
AXONOMETRIC STUDY



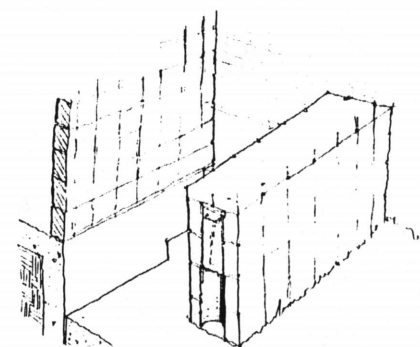
ELEVATION STUDY



ELEVATION SKETCH

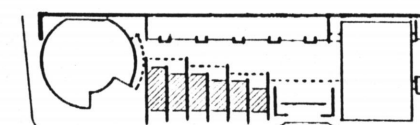


PLAN STUDY

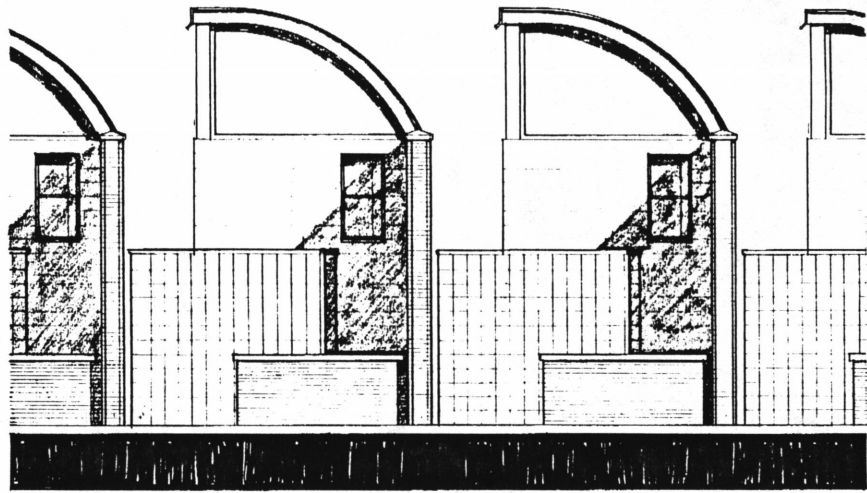


DETAIL SKETCH

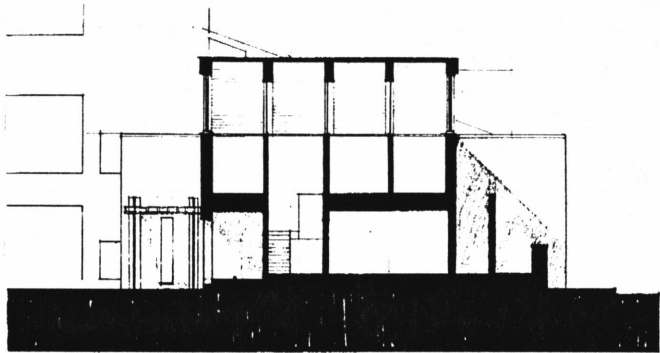
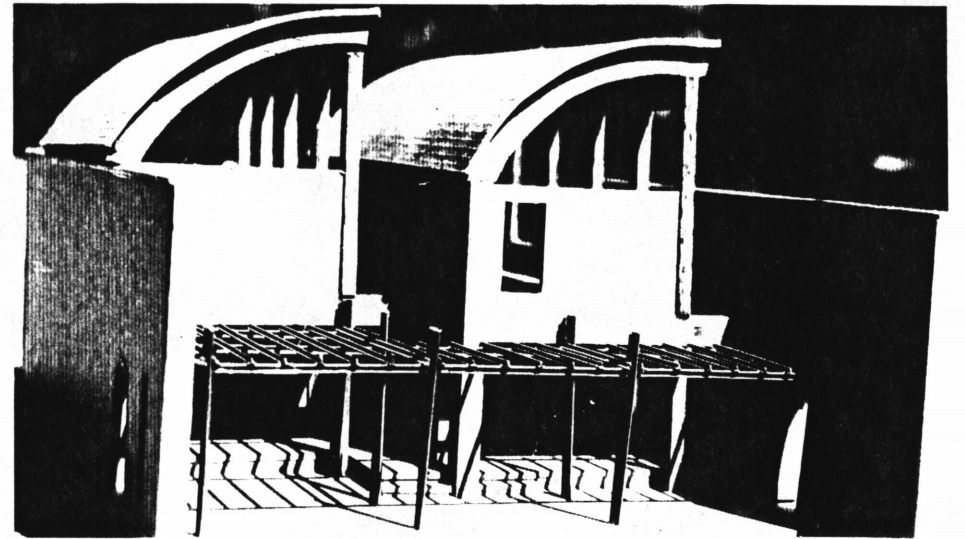
HOUSE 3



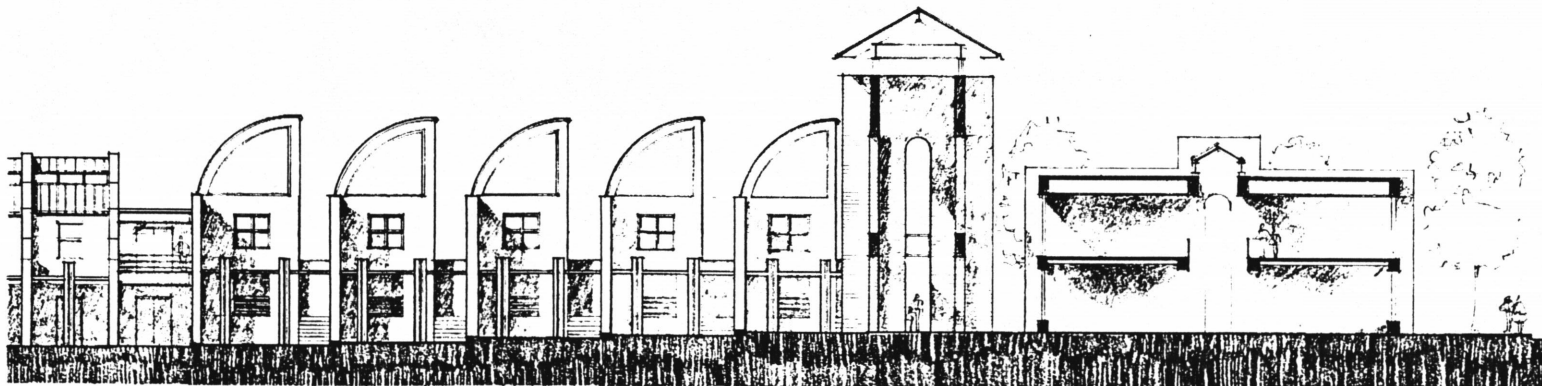
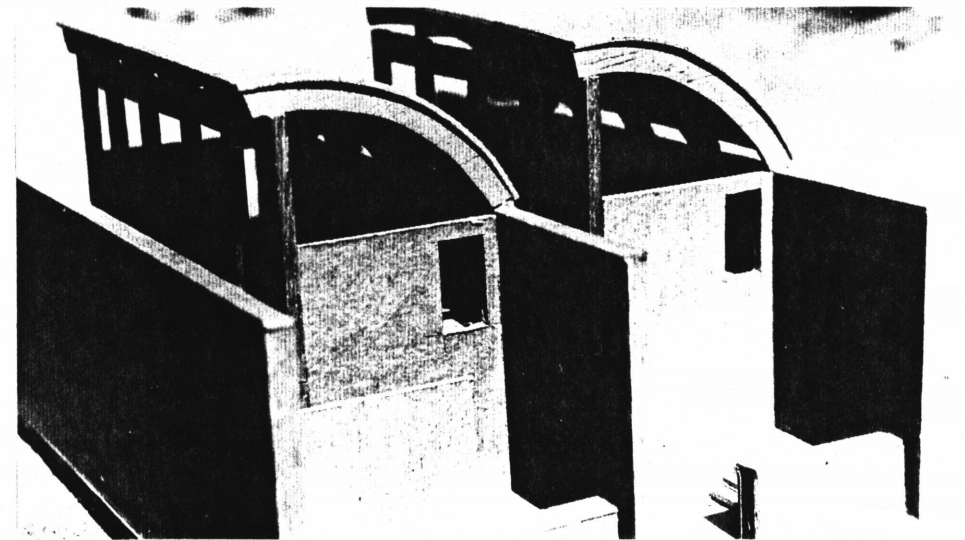
KEY PLAN



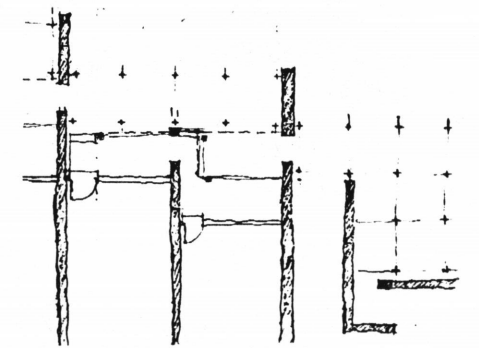
FINAL ELEVATION



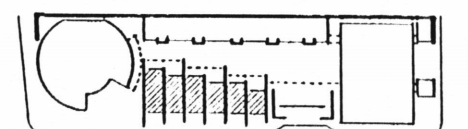
FINAL SECTION



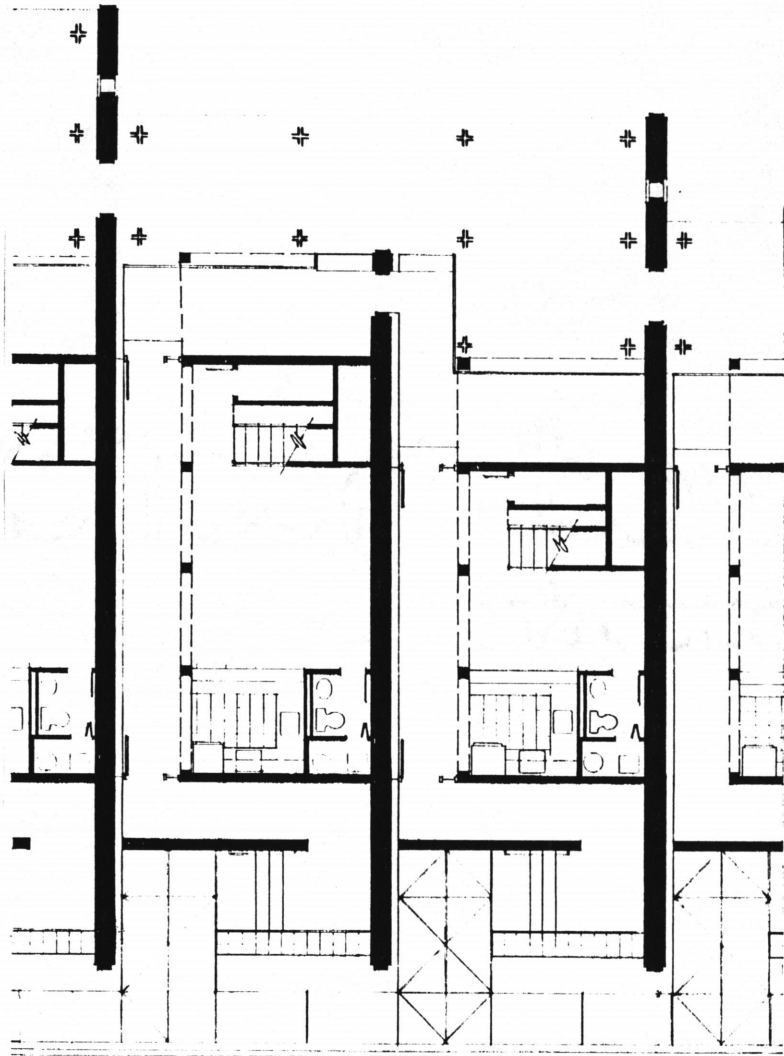
DEVELOPMENTAL SITE SECTION



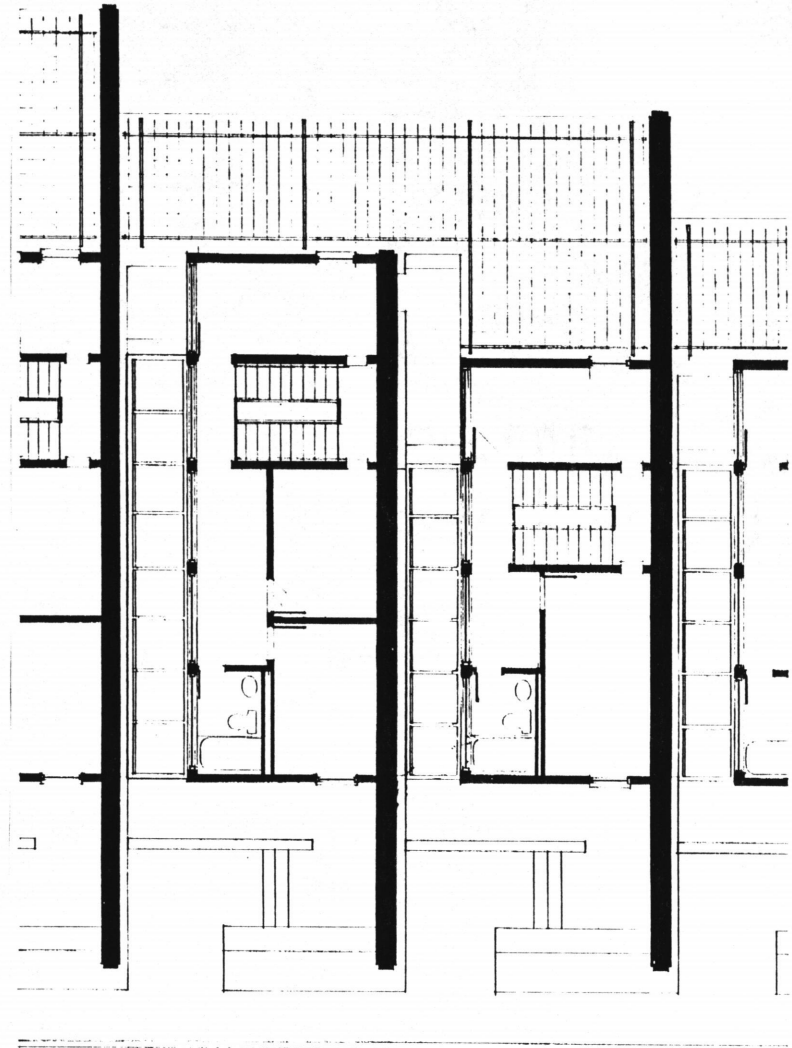
STUDY @ PATH/PORCH



KEY PLAN



FINAL LOWER LEVEL PLAN

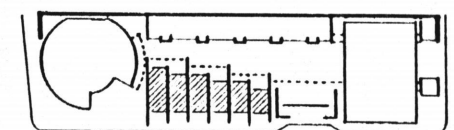


FINAL UPPER LEVEL PLAN

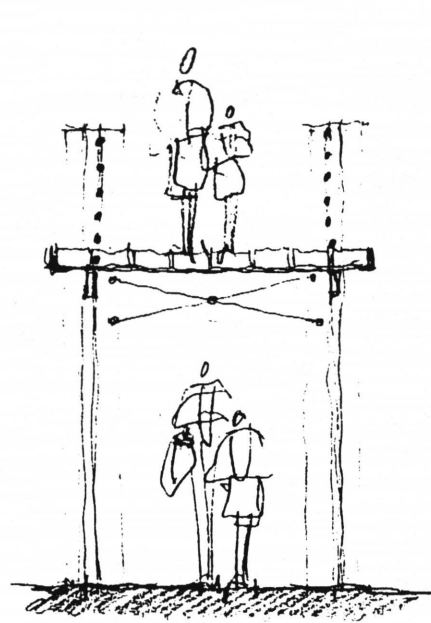
House 3 is essentially a half way house for the mothers. House 3 is the final step leading to a sober life, but it was the starting point for me. House 3 has to accomplish several things. The house must relate to the street since these women are working full time in the outside world and the children attend the elementary school two blocks away. Furthermore, the house must relate to the facility, by facing inward. These women are primarily drug rehabilitation residents, and all their extracurricular activities take place in the complex. These mothers are still part of the program, sharing 2 to 3 meals a week at the community house and attend private

and group counseling sessions. They remain members of their family unit. Lastly, these houses had to vary in size depending on the number of children in the family. My initial study of house 3 was a study of threshold through exploring the concepts of Aldo Van Eyck. The final design shows a change in the pavement pattern that indicates the individual thresholds. A series of spaces between walls unfolds slowly to lead one to the building. As time unfolds, one transforms slowly from the realm of the public way to the private home. The back porch is the buffer zone from the inner community's walk to the family's private area. As this community's path leads one

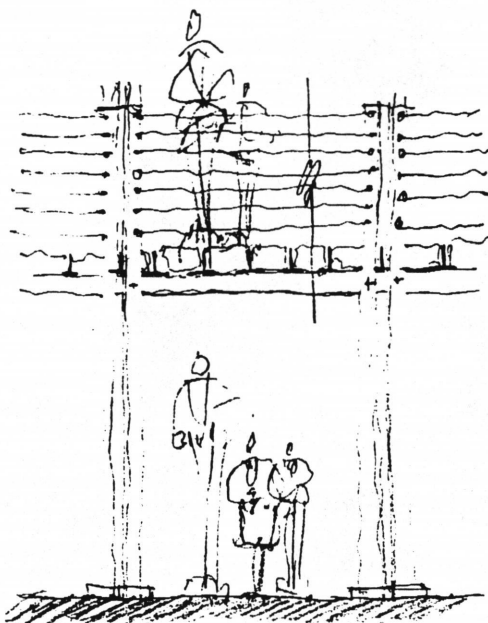
through and by these houses, one may visualize the potential for healing. This brings on a new sense of hope.



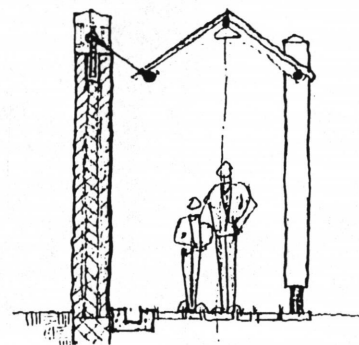
KEY PLAN



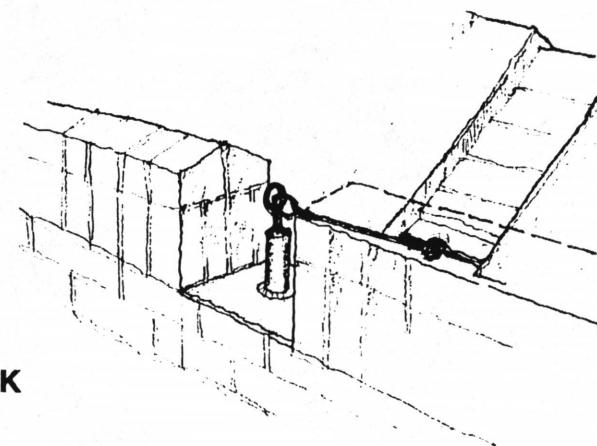
SECTION SKETCH



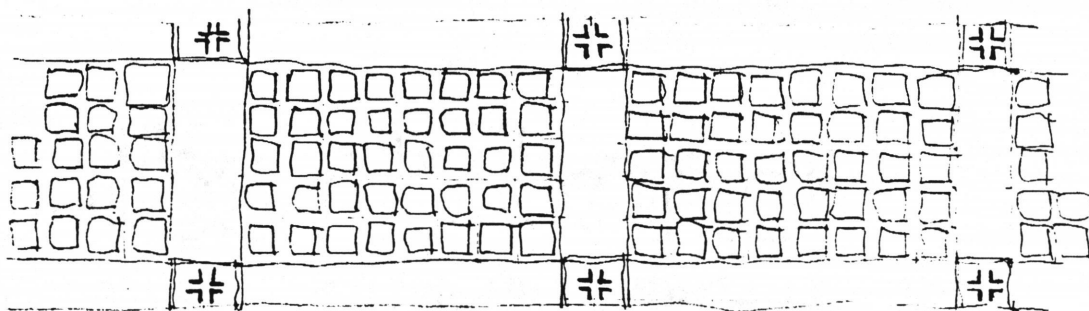
ELEVATION SKETCH



SECTION THROUGH WALK



DETAIL STUDY

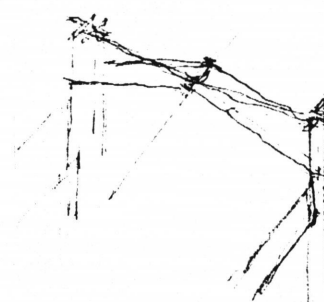


PLAN SKETCH

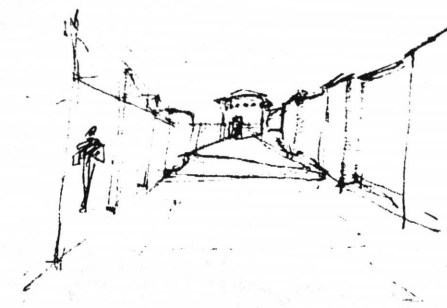
PATH

The path for the site was the most difficult portion to develop. The architecture for this element lies in the details. This path needed a strong statement. It is the tie that unifies this site into a community, and one building. Natural light and materials played a strong role in the development of this structure. Glass blocks suspend in space, giving shelter from rain while illuminating a pattern onto the pavement below. This illumination created a texture on the smooth surface. This texture through light becomes the path that leads one through the facility. The

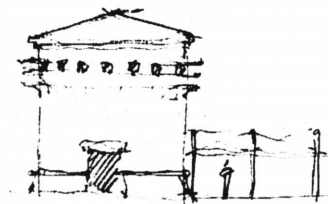
Glass blocks suspend by steel T's that span between steel tubes. This structural system relates to the concepts of De Stijl. Structural members pass by one another, instead of butting into one another. The connections are bolted. The columns are created with 4 steel angles. The angles are equally spaced apart, allowing the steel tubes above to pass through the negative space. This path became a vehicle for the design of the joints between all the buildings and became the unifying element for this site.



DETAIL SKETCH



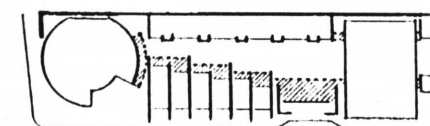
PERSPECTIVE SKETCH



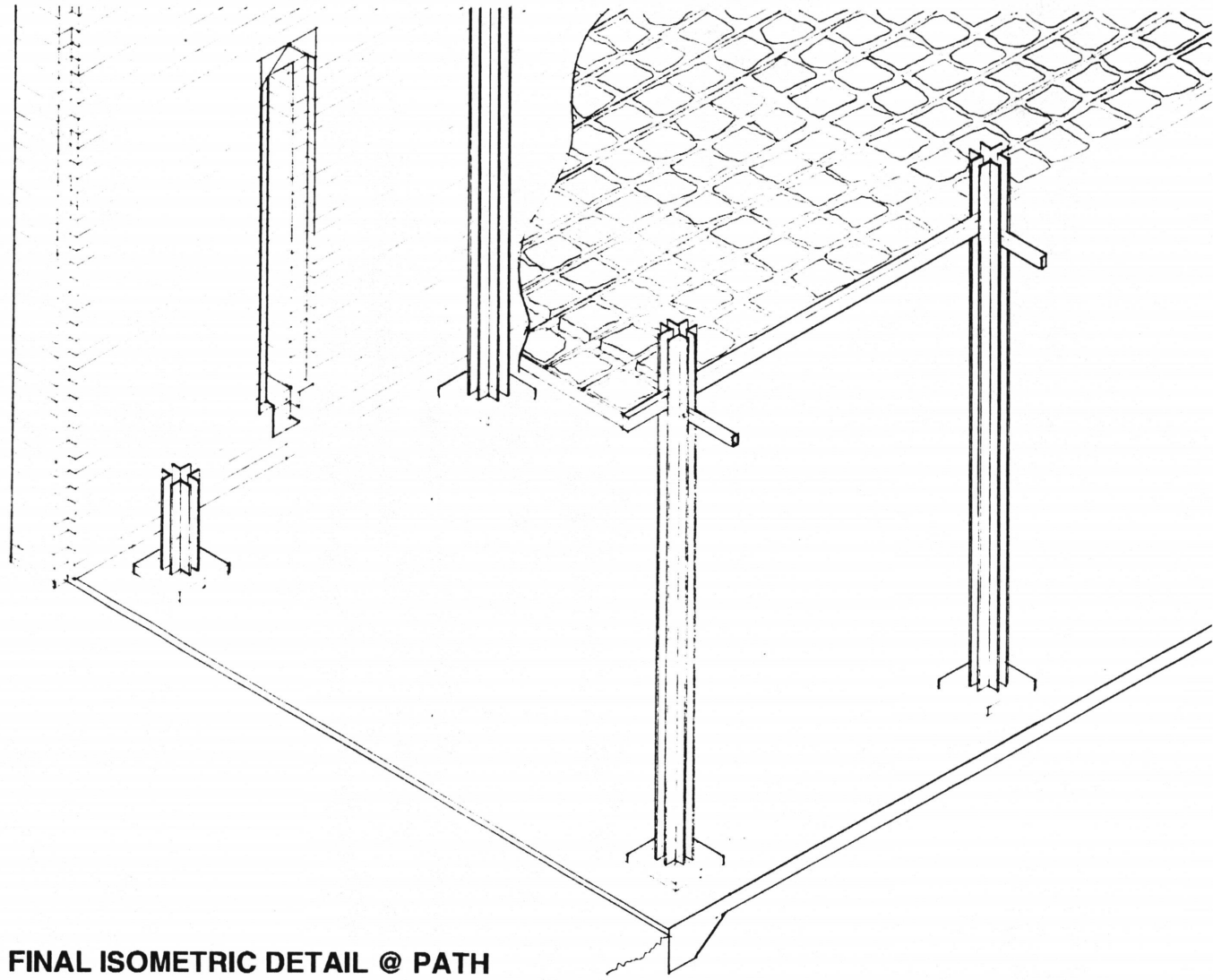
ELEVATION STUDY



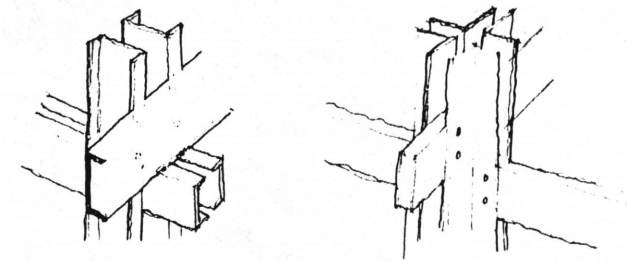
AXONOMETRIC SKETCH



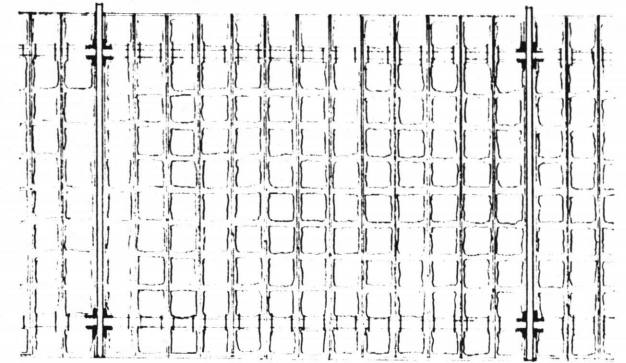
KEY PLAN



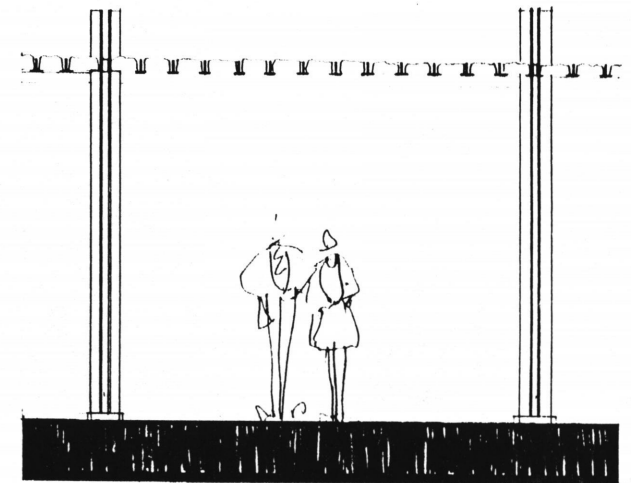
FINAL ISOMETRIC DETAIL @ PATH



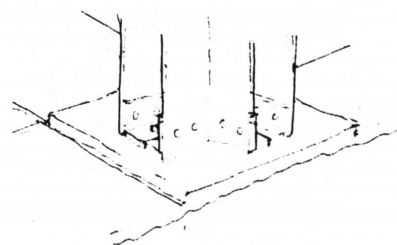
AXONOMETRIC STUDY



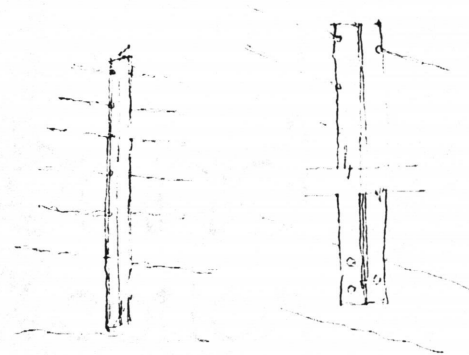
FINAL PLAN



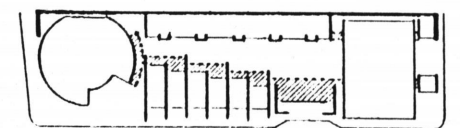
FINAL SECTION



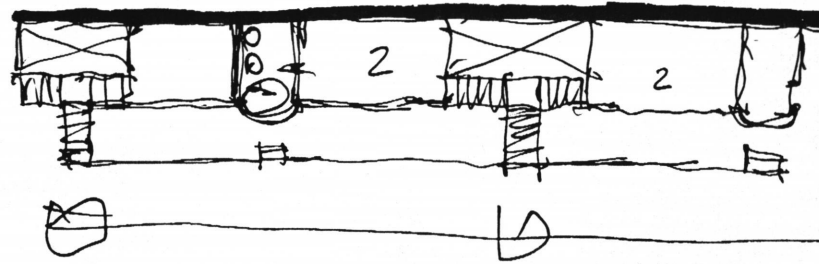
DETAIL SKETCH



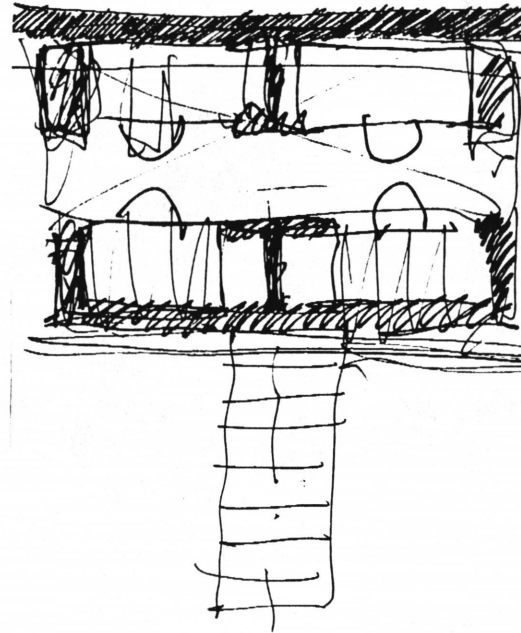
ELEVATION DETAILS



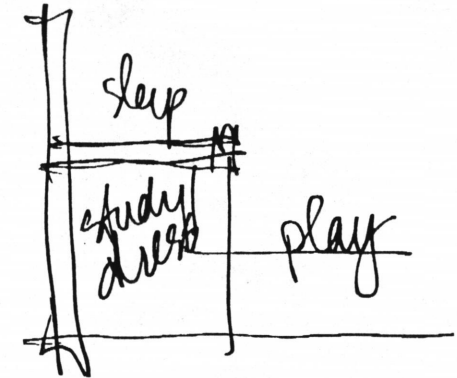
KEY PLAN



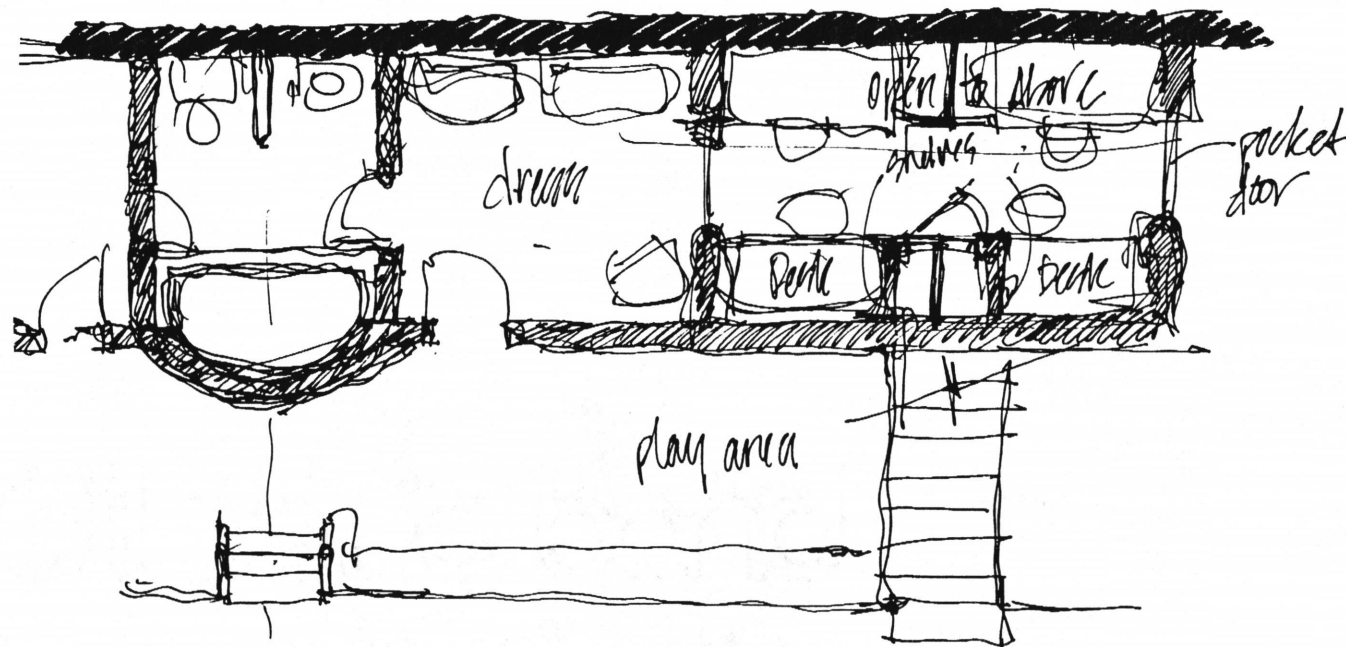
PLAN STUDY



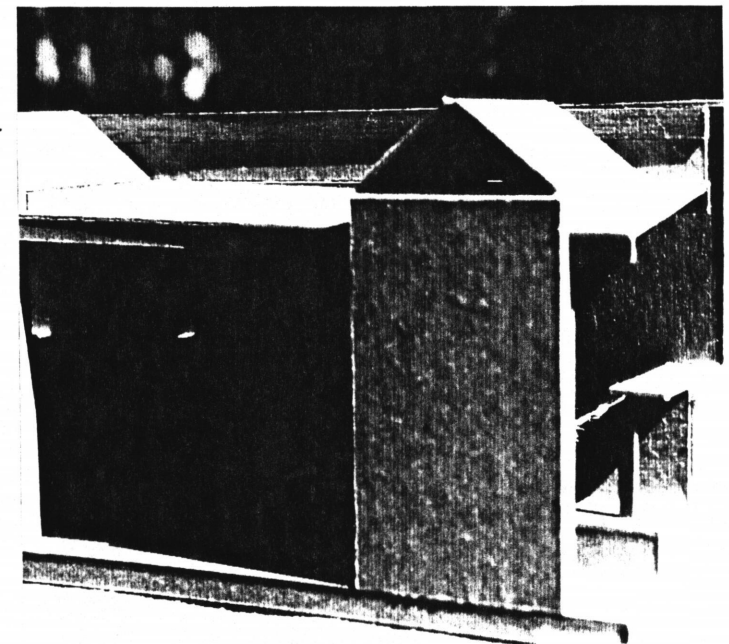
PLAN STUDY



SECTION DIAGRAM



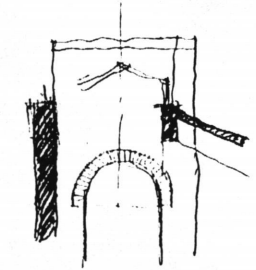
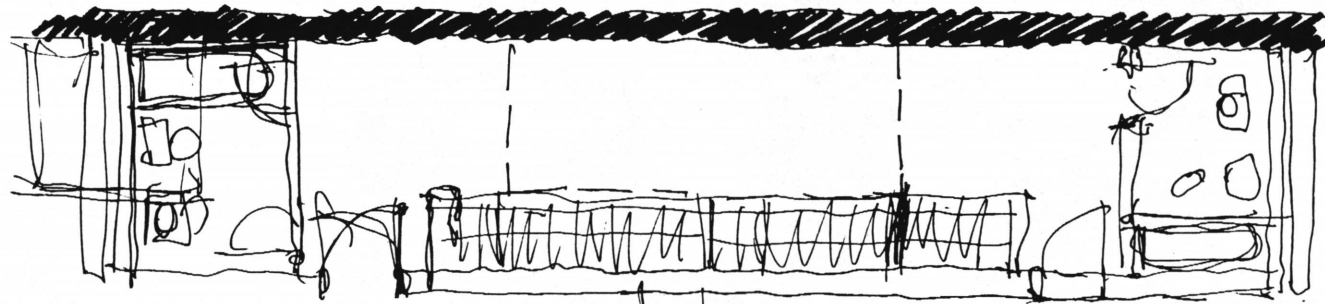
PLAN SKETCH



CHILDREN'S HOUSE

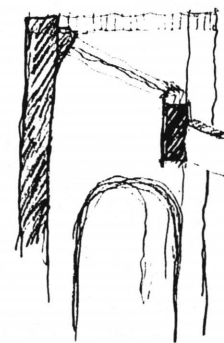
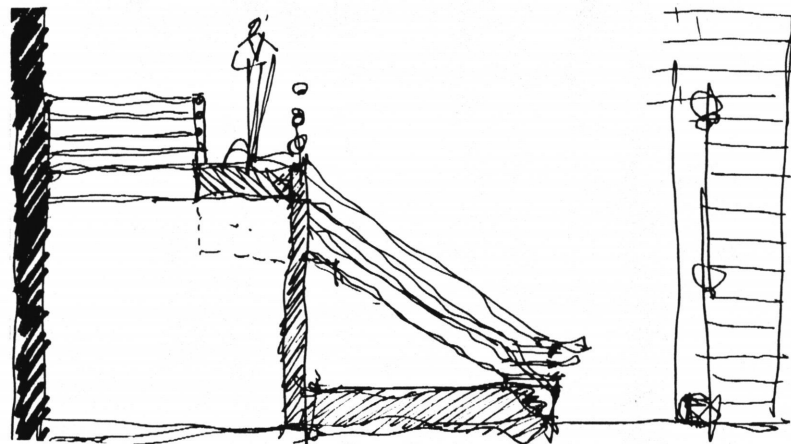


KEY PLAN

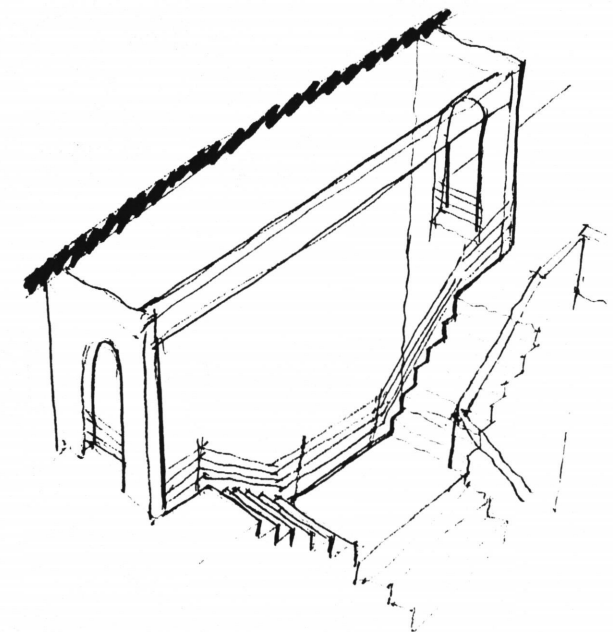


SECTION STUDY

PLAN STUDY



SECTION STUDY



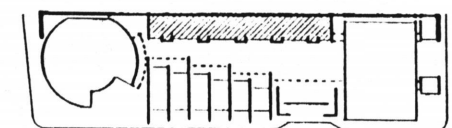
AXONOMETRIC STUDY

SECTION STUDY

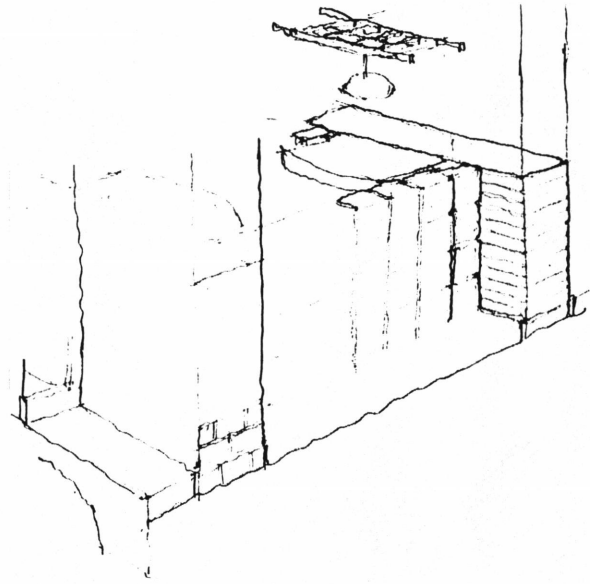
The Children's house is the anchor for the community. The back wall orders the overall site. This is a "house as a wall." These children are their mother's lifeline. It is most likely because of these children that these mothers have a reason to live, and live their lives sober. This house is in the most sheltered part of the site. It will be the safest place to be and should give the children a sense of security. It is adjacent to the community house, providing easy access to their mothers and the common eating areas. The house has several bays with doors that give direct access to the community lawn, where the children are sure to spend many hours playing. The house

developed as a layer of zones. These zones (as in House 3) ranged from the public realm to the private. There is an abundance of natural light and primary colors. A continuous skylight washes the back wall with natural light. The back wall is brick with a smooth finish. As the light hits the brick, a rich, varied color radiates into the rooms. The main passageway moves parallel with the wall and is the most public of spaces. Off the main walkway, within the structural bays are study carrels. Each bay contains 2 desks. Within the same structural bay lies the stairs that lead to the sleeping lofts. The zone closest to the hall is a play pit that is about a foot and a half below the

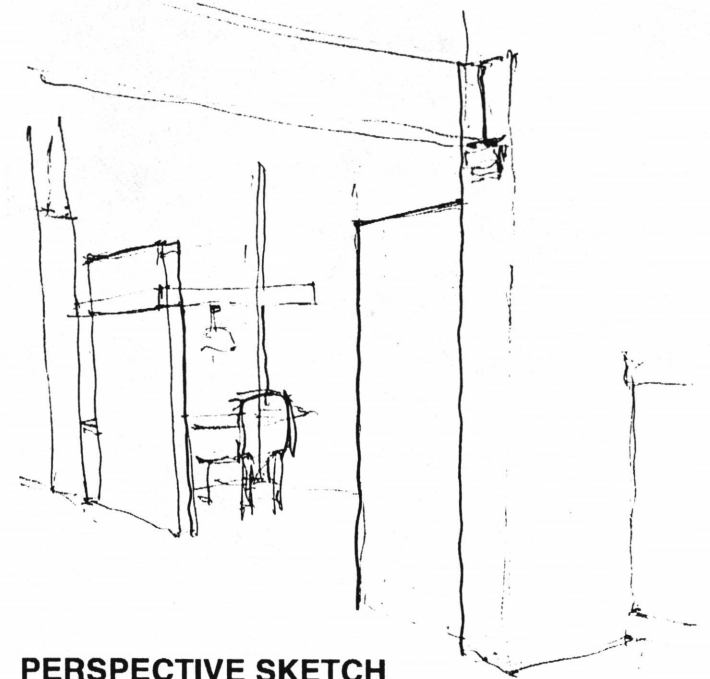
main level. This play area receives the most natural light, since it is directly in front of the 2 level windows between the structural bays. The most sheltered area contains bathing facilities, and clothing areas. This linear house as a wall, with its colors, and bright light may be the home these children never had. They will adapt to a new, safer world, while their mothers are taking the very steps that will ensure them safety once they reenter the world outside.



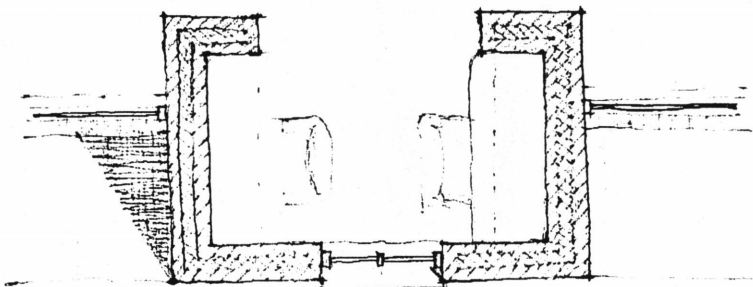
KEY PLAN



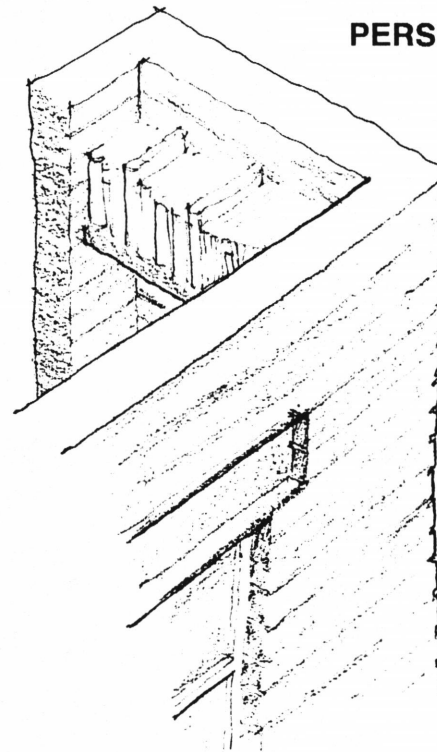
AXONOMETRIC SKETCH



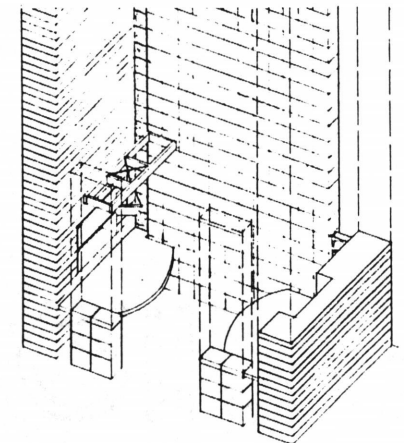
PERSPECTIVE SKETCH



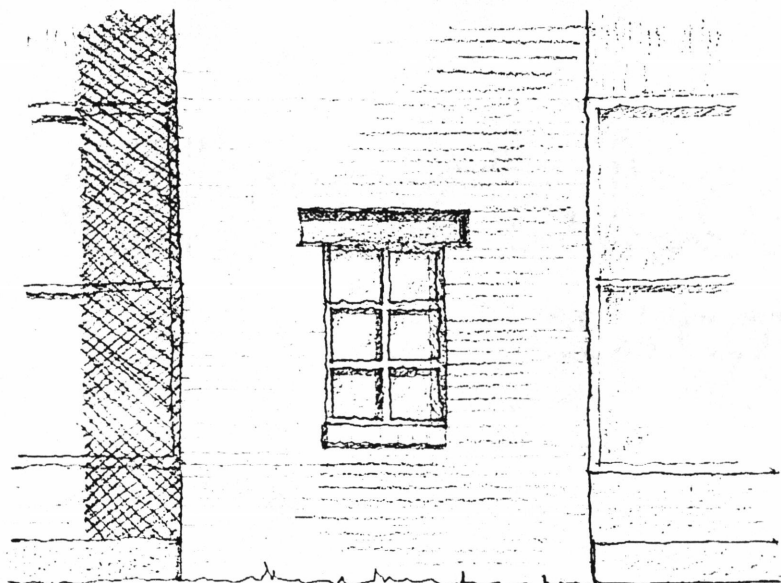
PLAN



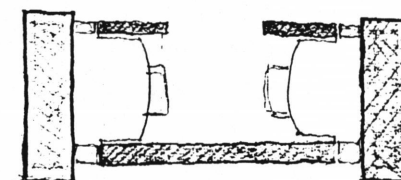
ISOMETRIC SKETCH



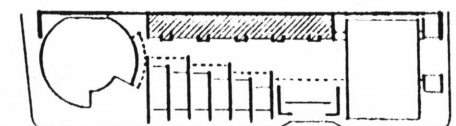
**FINAL ISOMETRIC @
STUDY CARREL**



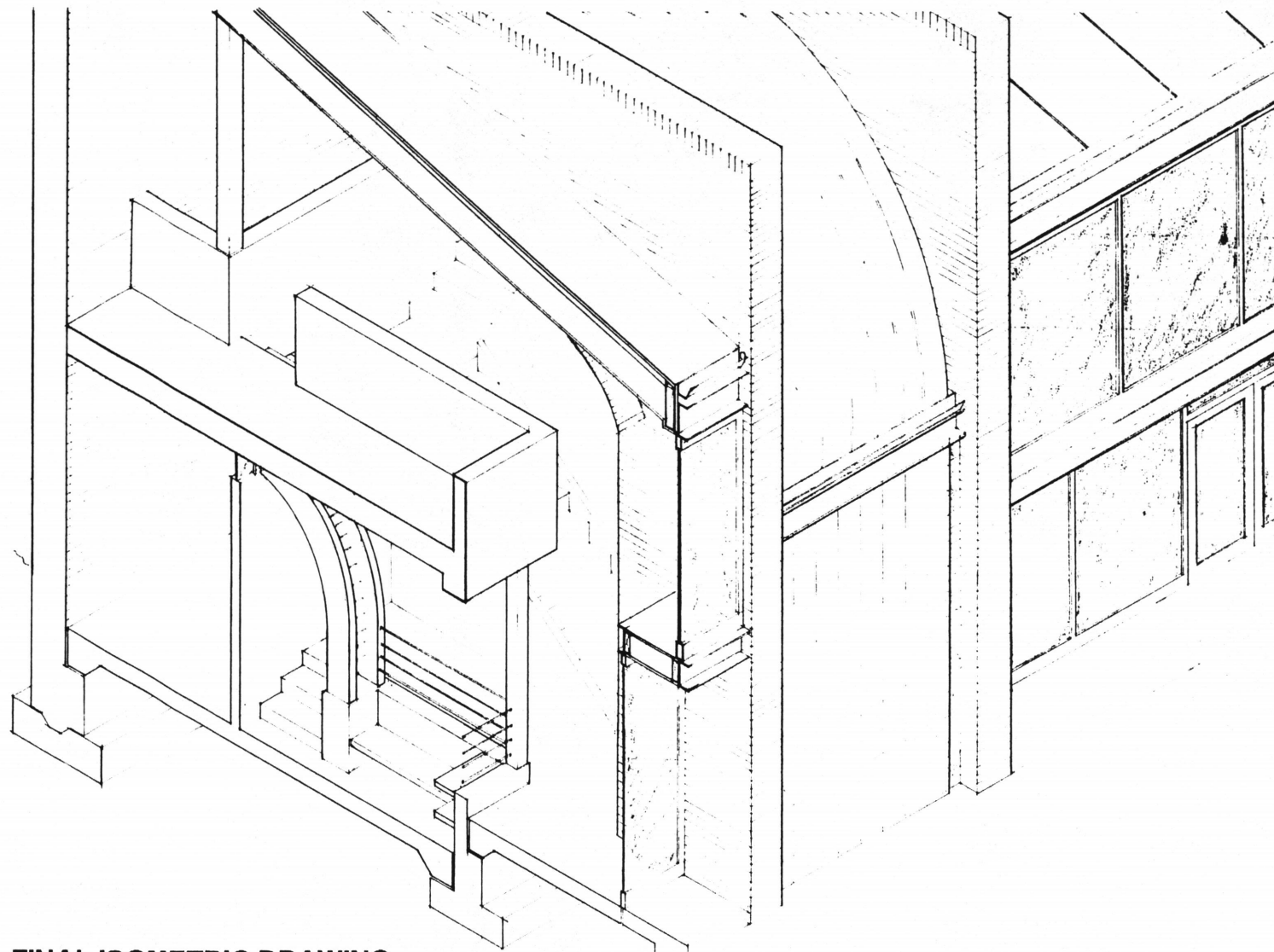
ELEVATION



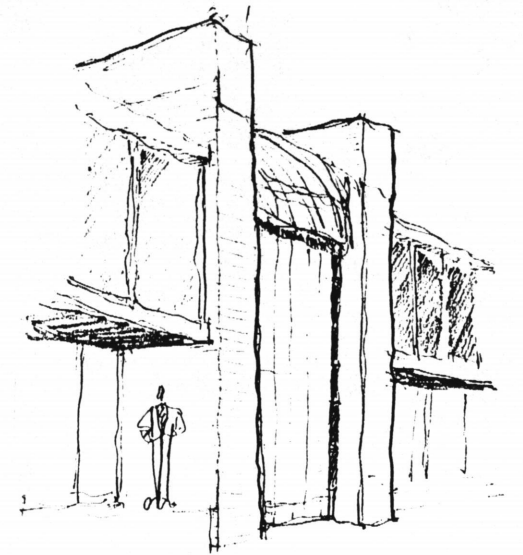
PLAN



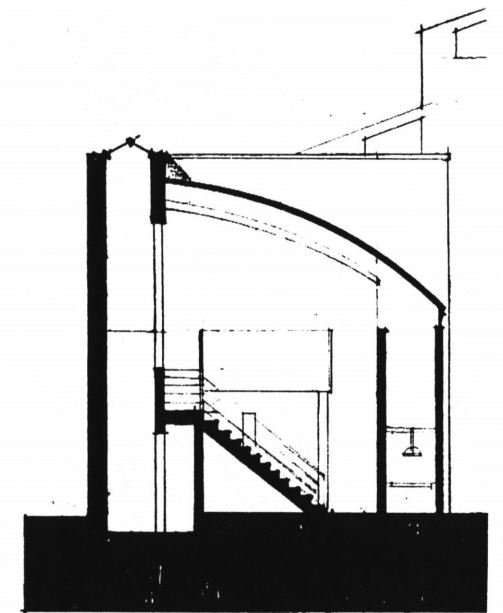
KEY PLAN



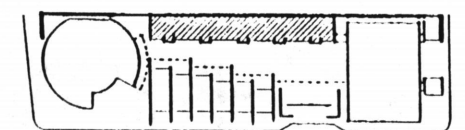
FINAL ISOMETRIC DRAWING



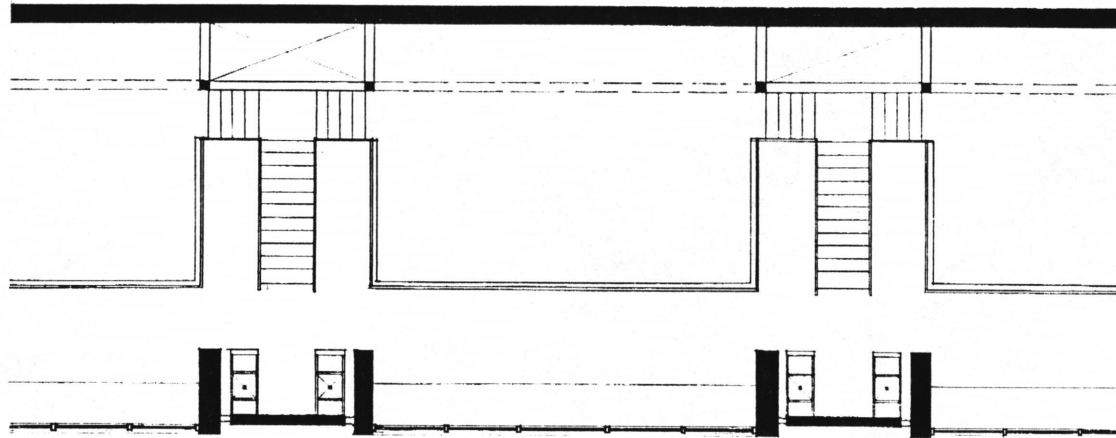
PERSPECTIVE SKETCH



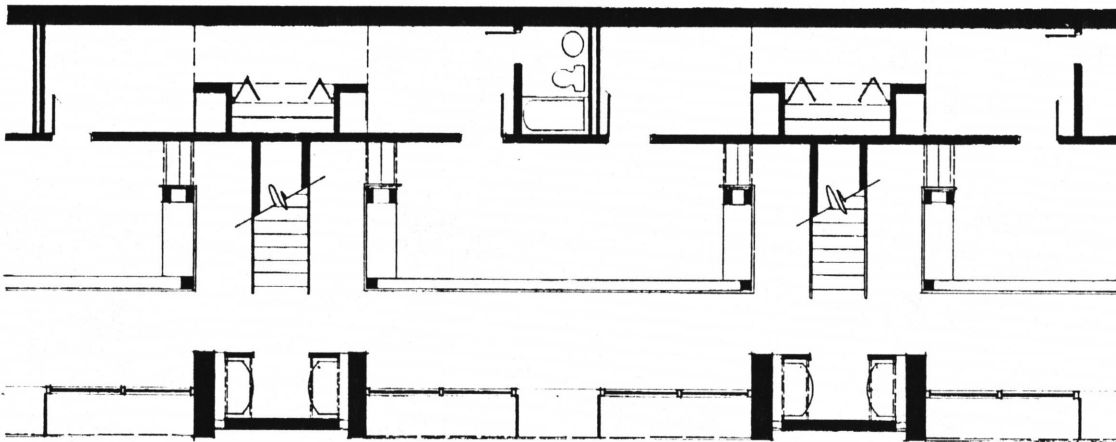
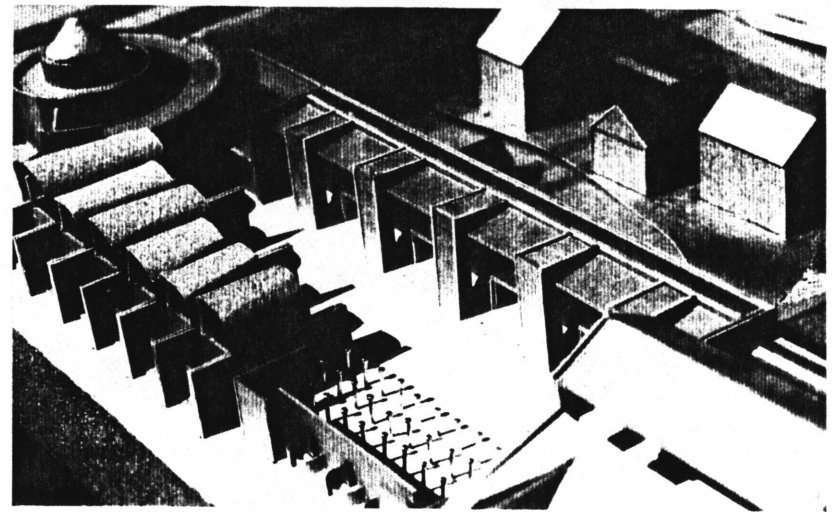
FINAL SECTION



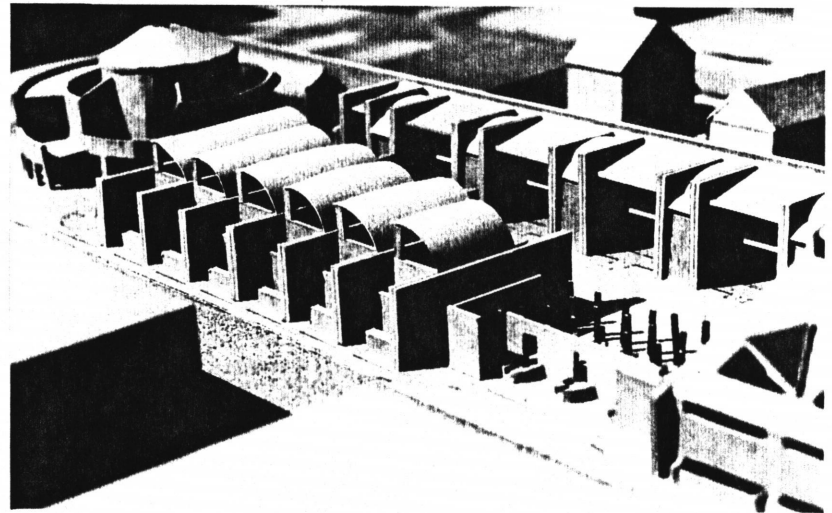
KEY PLAN



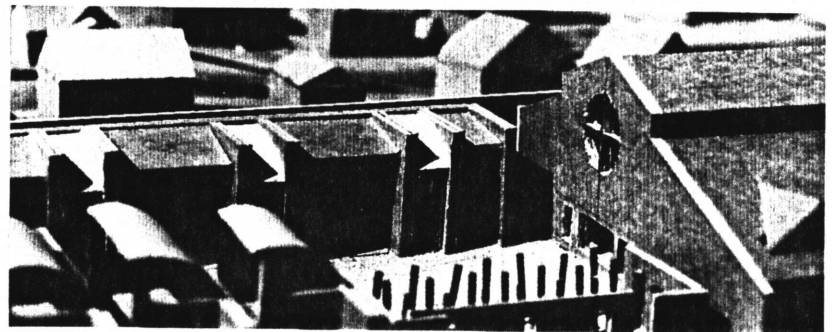
FINAL UPPER LEVEL PLAN



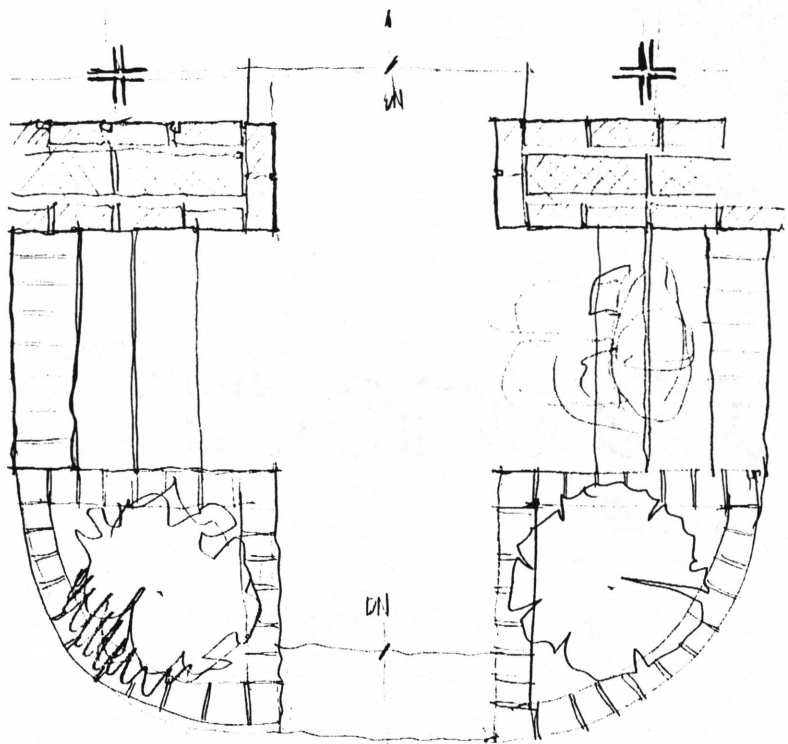
FINAL LOWER LEVEL PLAN



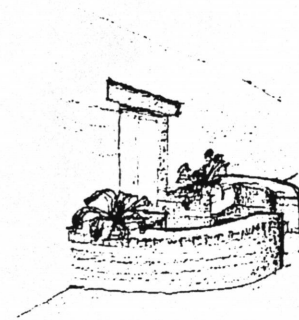
FINAL ELEVATION



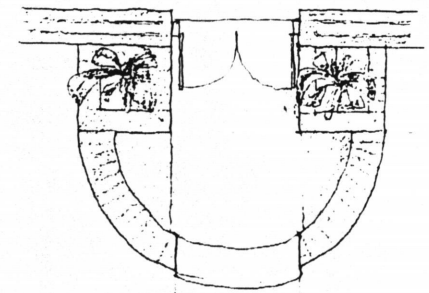
KEY PLAN



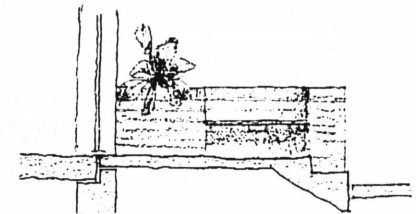
PLAN SKETCH



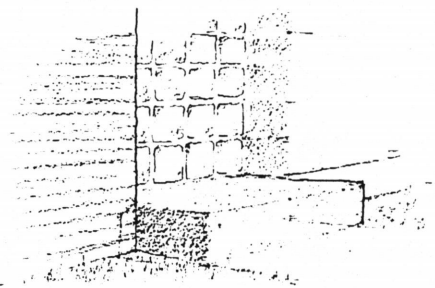
PERSPECTIVE



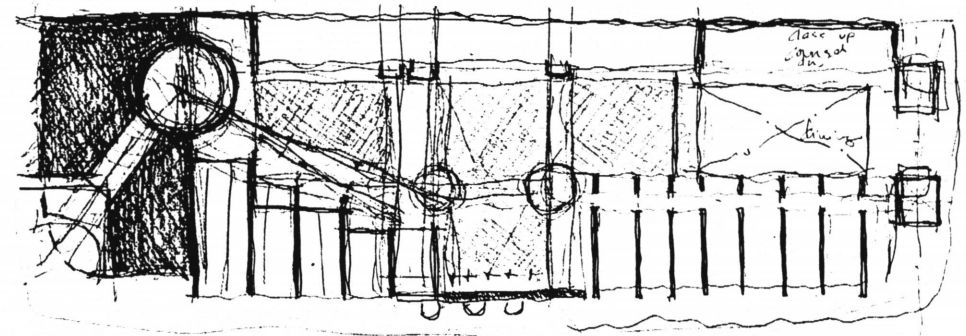
PLAN DETAIL



SECTION DETAIL

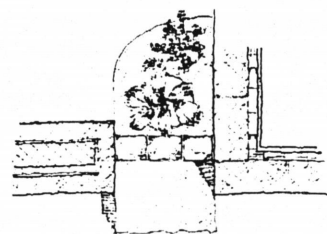


PERSPECTIVE SKETCH

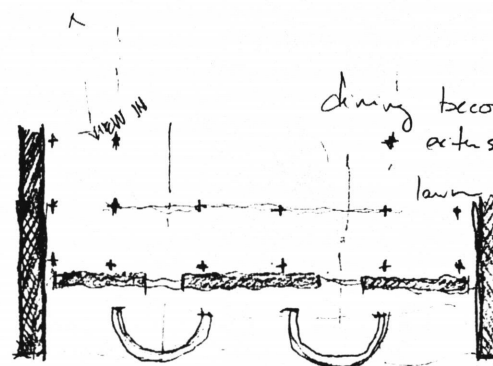


PLAN STUDY

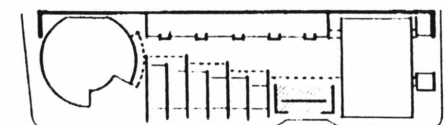
BUS STOP



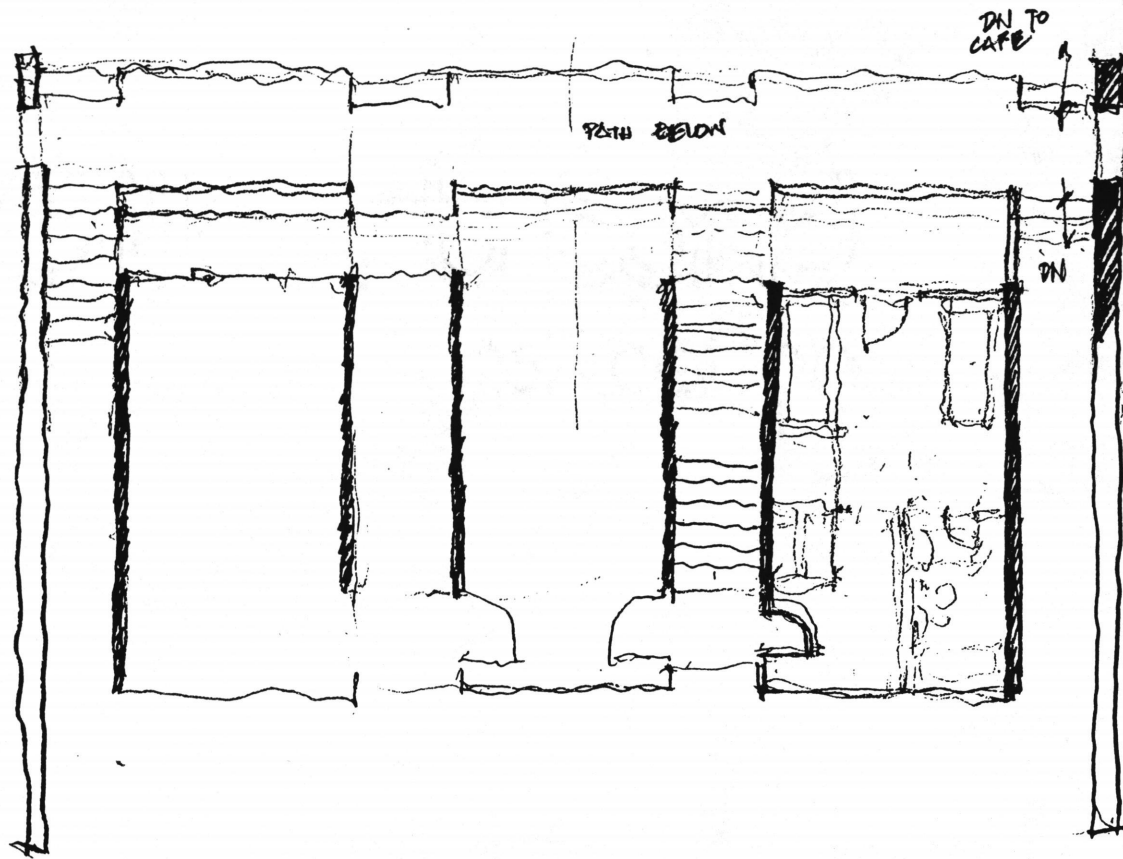
PLAN DETAIL



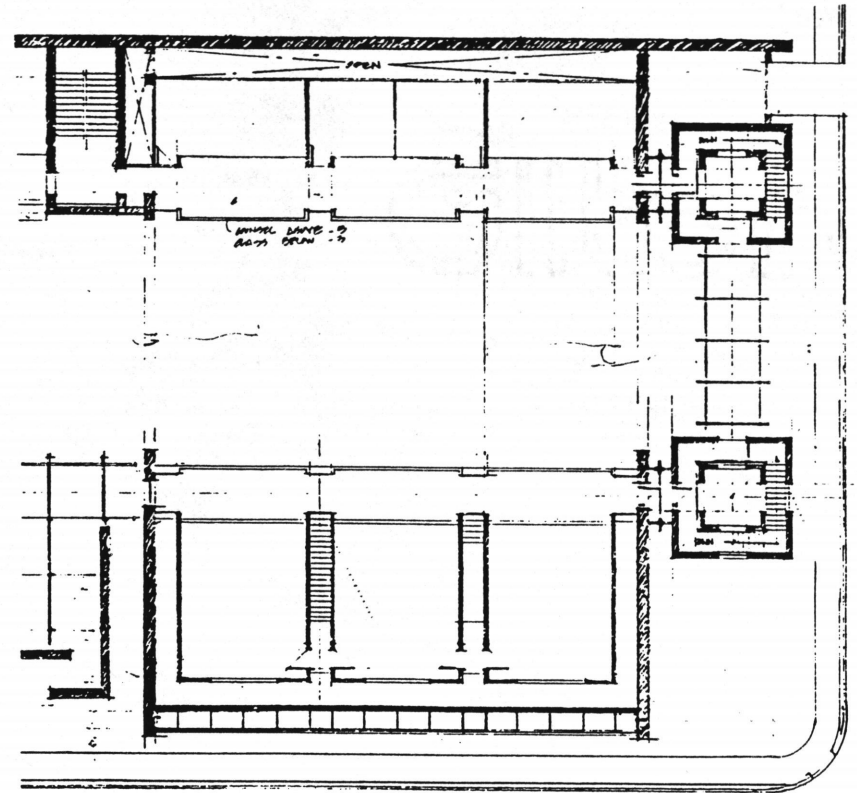
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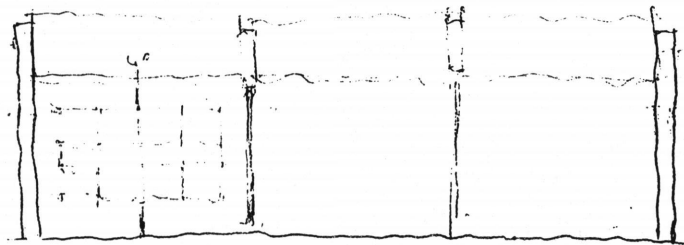
KEY PLAN



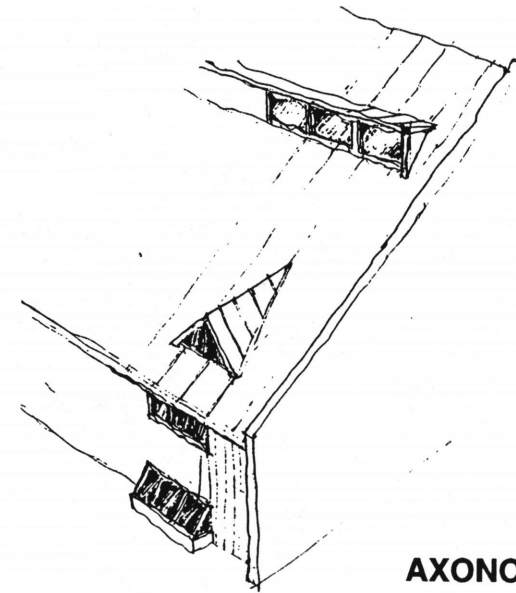
PLAN STUDY



PLAN DRAWING

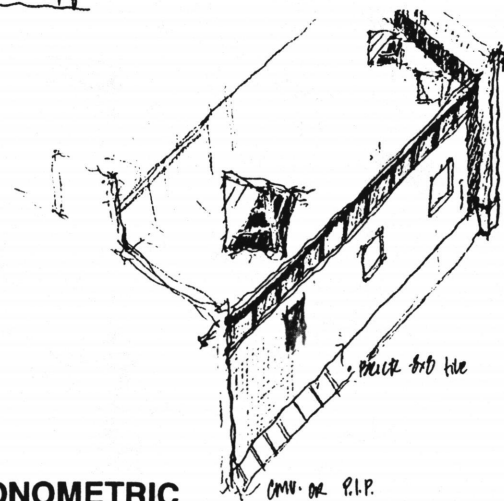


ELEVATION

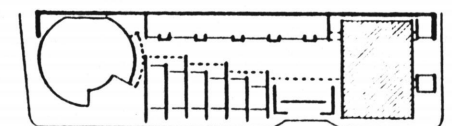


AXONOMETRIC

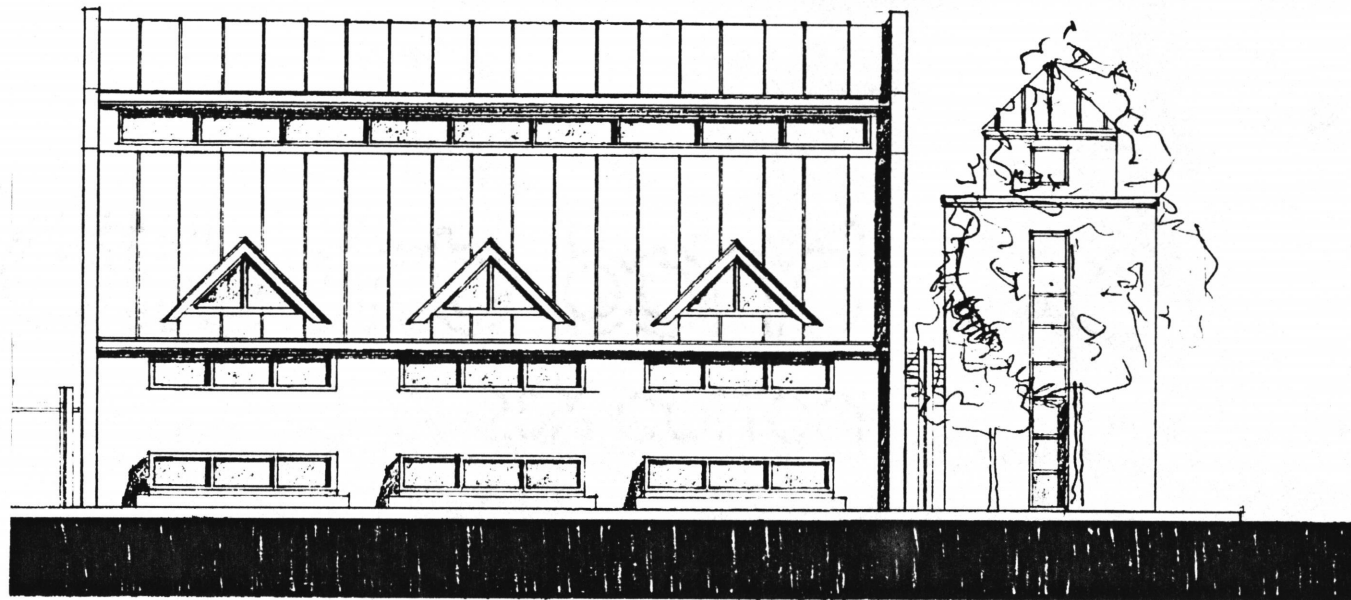
GROUP HOUSE



AXONOMETRIC



KEY PLAN



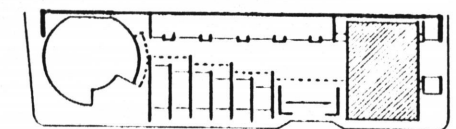
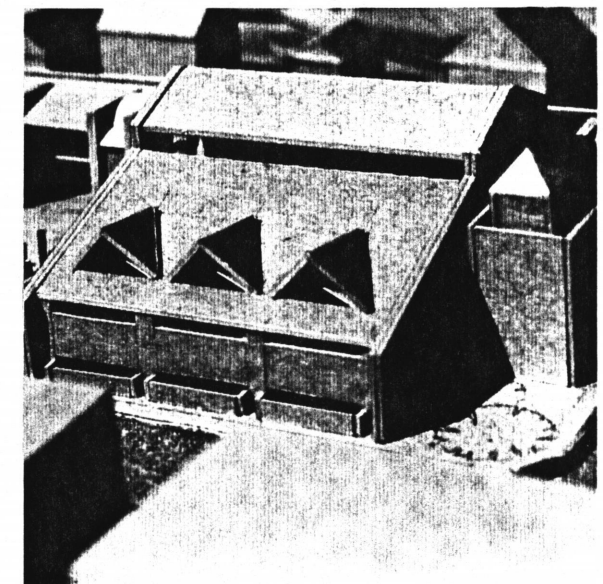
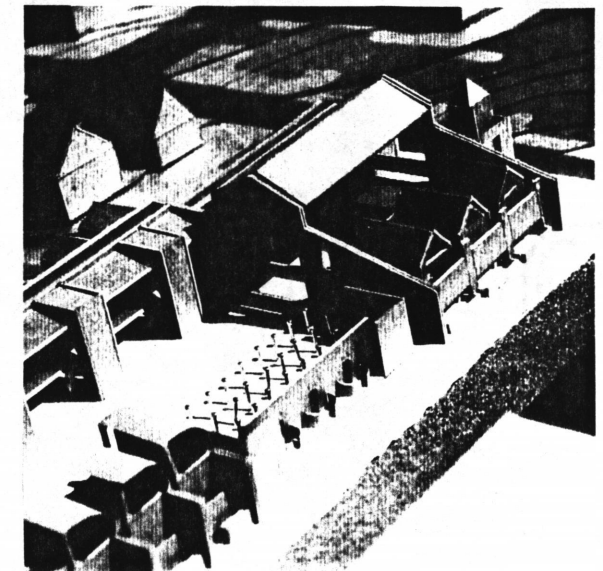
FINAL FRONT ELEVATION



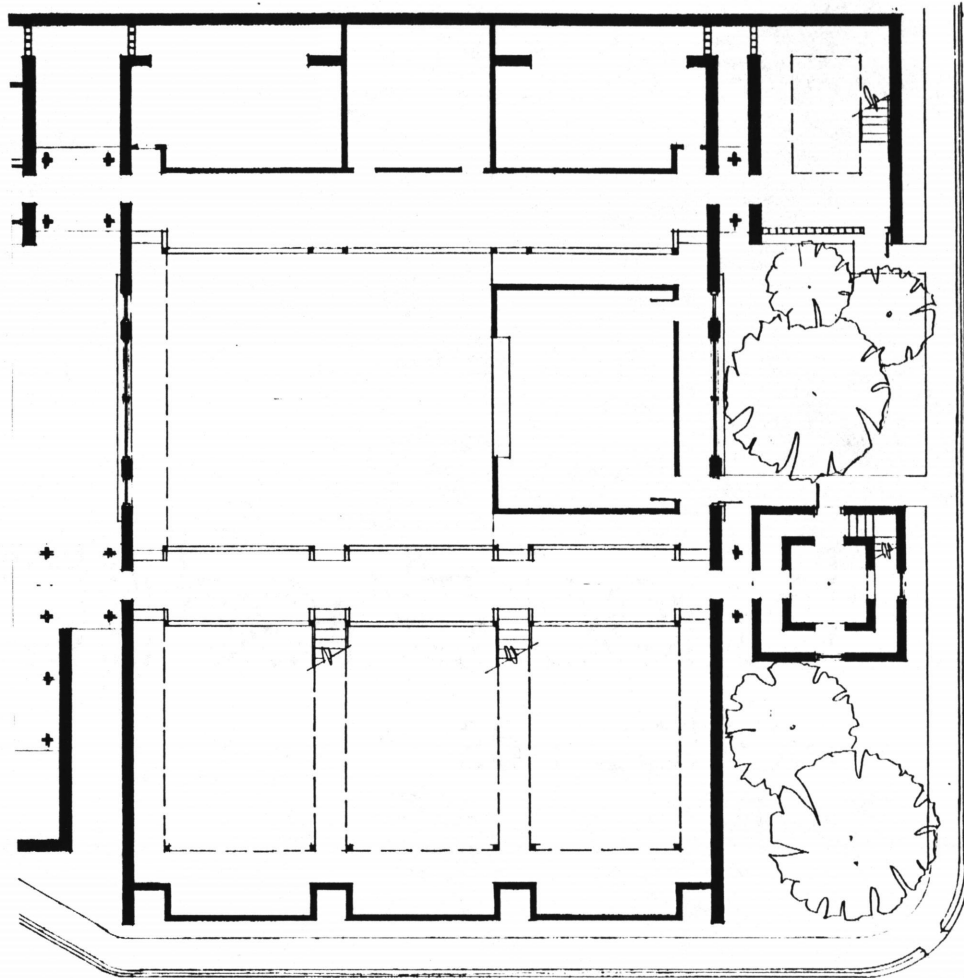
FINAL SIDE ELEVATION

The Group House is the place where a sense of community is nurtured. This is the house where the mothers are initially exposed to the community. The pods, or families live, eat, work, and counsel together at this location. This house is also one of the corner anchor's for the site. The 3 pods are represented on the exterior with dormer windows and the facade language that faces Glebe Road. Behind these windows are 3 separate houses. They become houses within a building. The lounge and recreation areas are below the houses

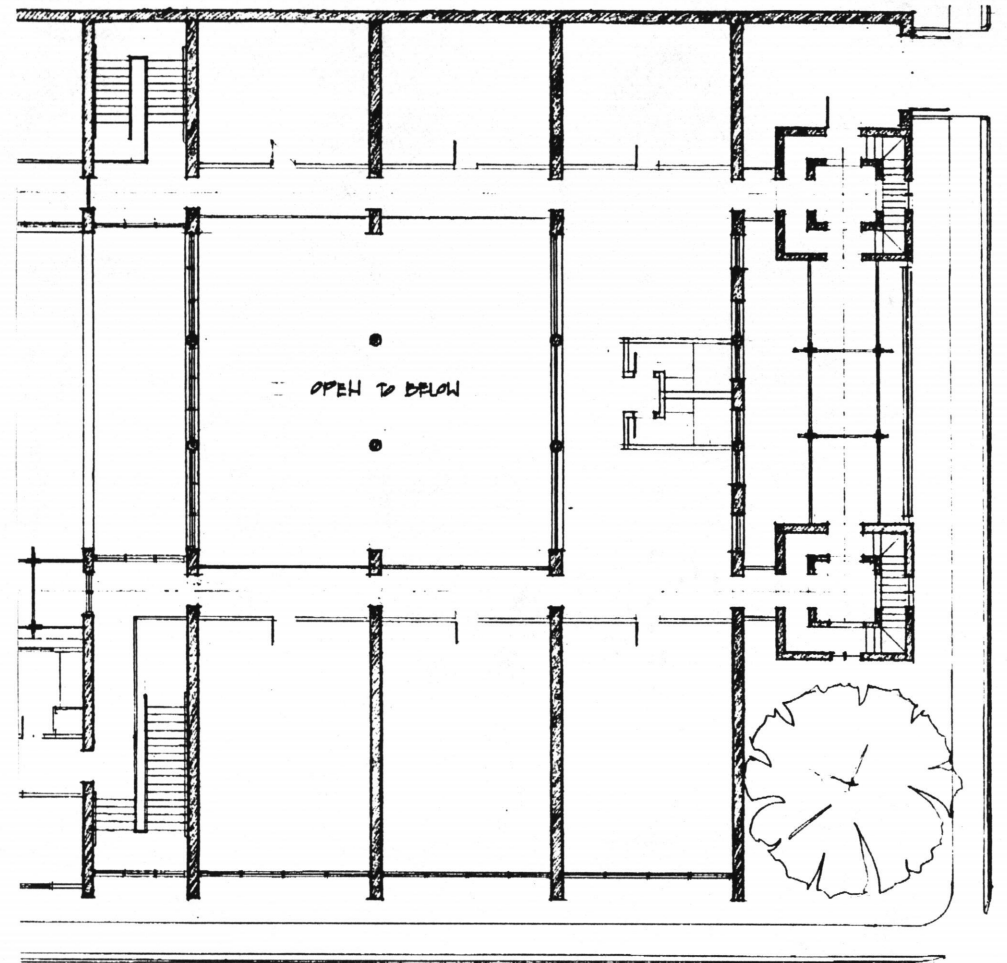
that are built on pilotis. The houses, classrooms, counseling rooms, and T.V. areas surround the main dining area that is the main focus for this building. This room is almost majestic, with a vertical span of 30 feet, topped by a clerestory that allows streams of sunlight to envelop the room in the morning. The windows on the end elevations develop from the brick and its relationship with the roof slope. Steel lintels are exposed above the windows, displaying the veneer nature of the material between the brick piers within the end walls.



KEY PLAN



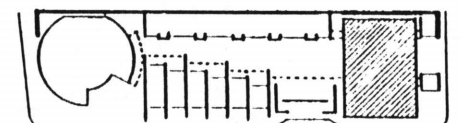
FIRST FLOOR PLAN



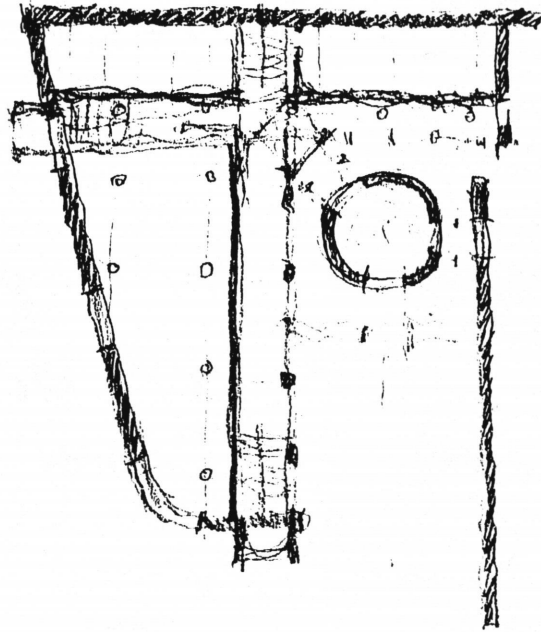
SECOND FLOOR PLAN



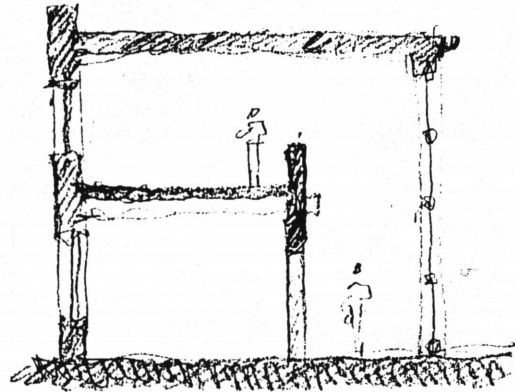
SECTION



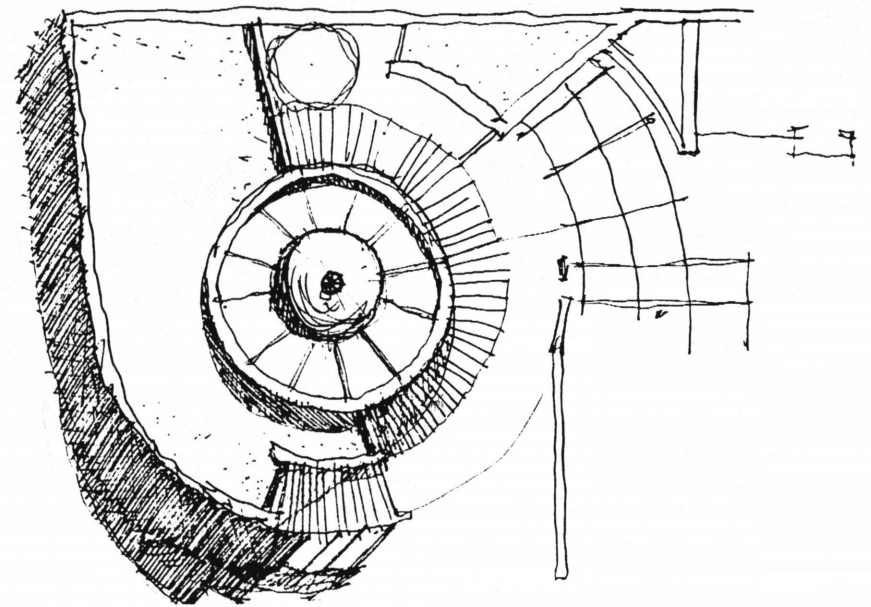
KEY PLAN



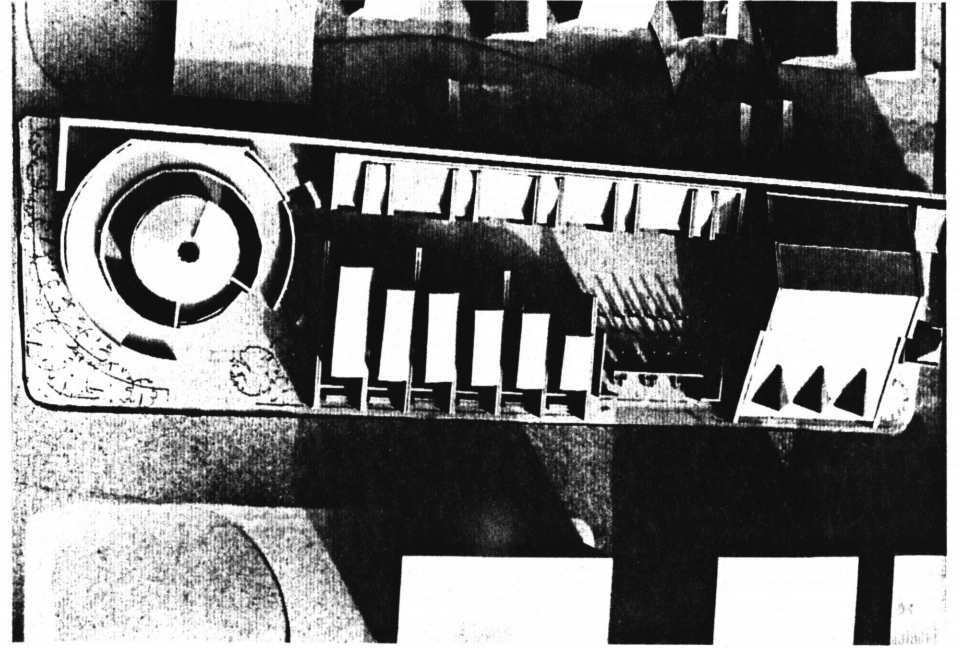
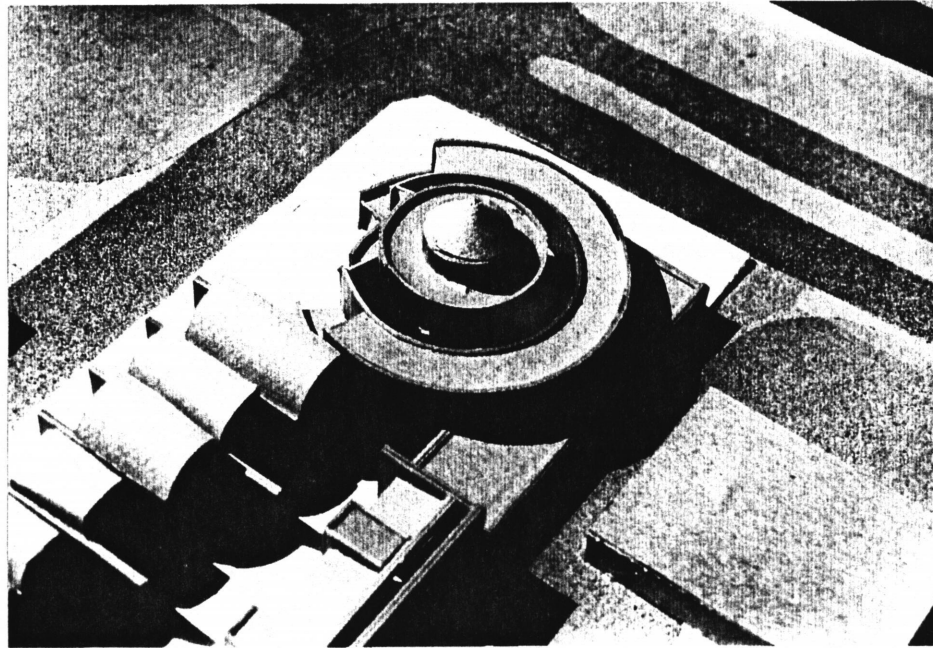
PLAN STUDY



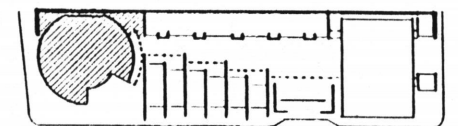
SECTION SKETCH



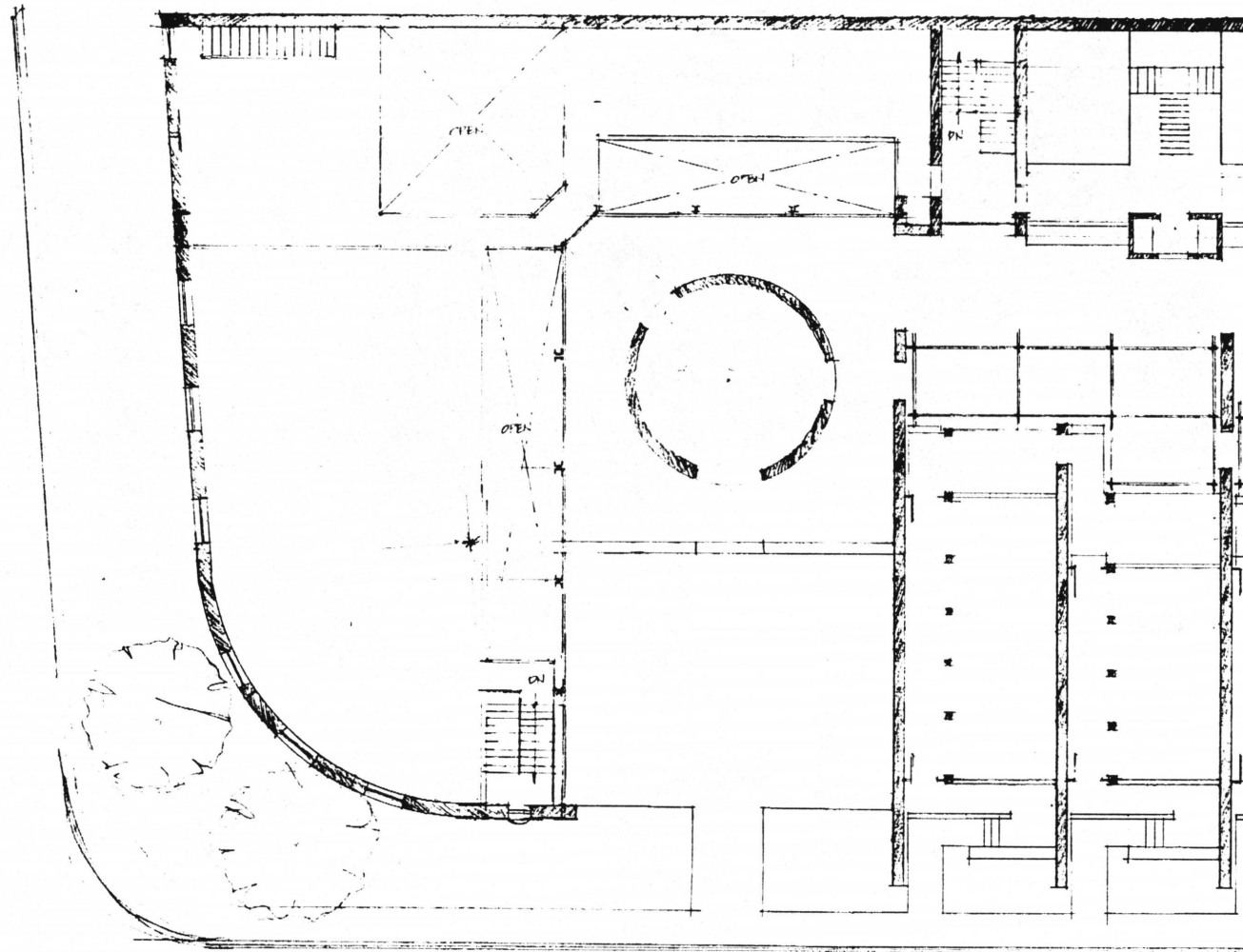
ROOF PLAN STUDY



ADMINISTRATION BUILDING



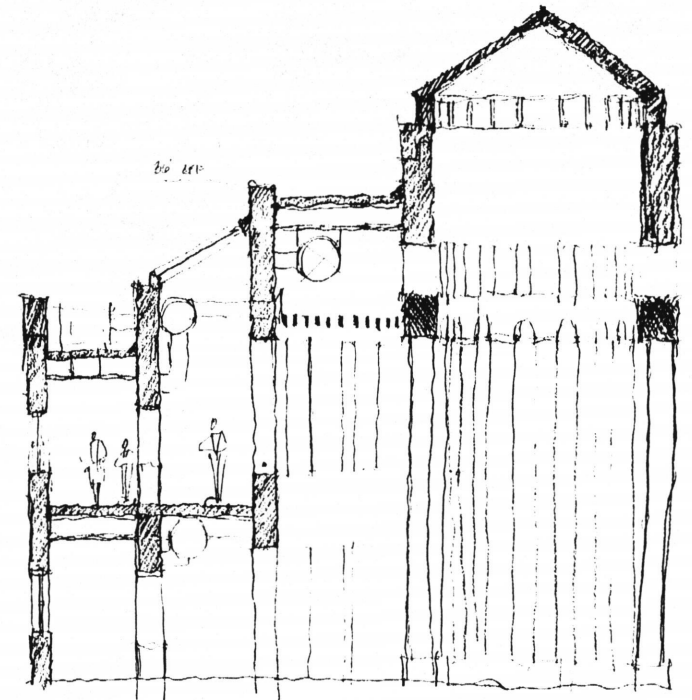
KEY PLAN



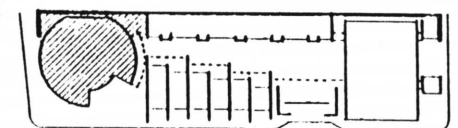
PLAN DEVELOPMENT STUDY

The Administration Building was the final building to be developed. It is an important building because it is the first part of this complex one is exposed to upon entering the facility. The center of this building is on the main axis of the site, and is aligned with the center of the group house. If one stands just below the apex of the building and looks West, he or she is able to obtain a glance into the future. After admittance to the facility one enters the site on axis through the narrow gateway that generates

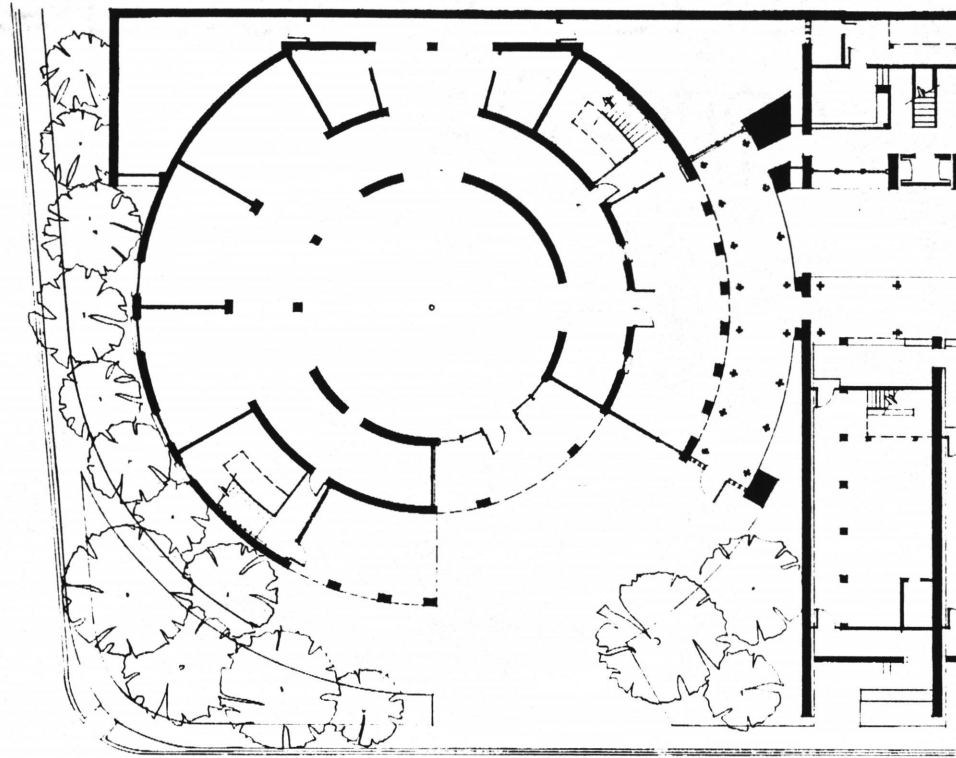
a slightly larger view. The view unfolds as one progresses through the walls of house 3. After this progression one walks through a forest of columns that create sheltered space allowing an individual to focus on oneself. Mothers who enter here are about to begin the process that will make their lives, and their children's lives free from the bonds of drugs and their grip on life.



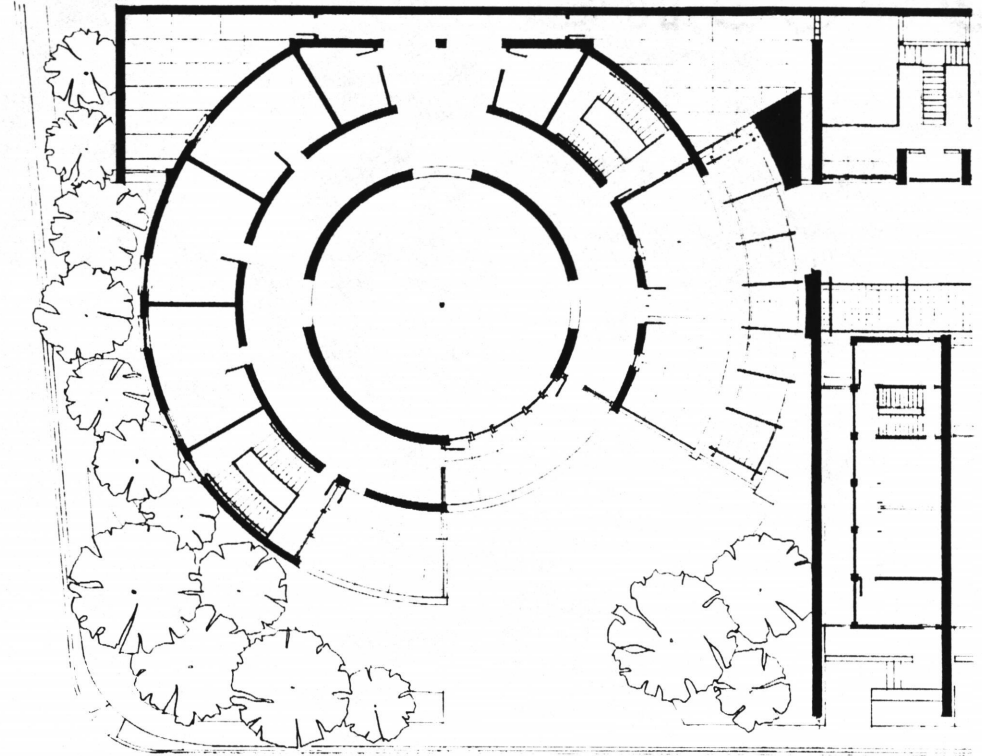
SECTION STUDY



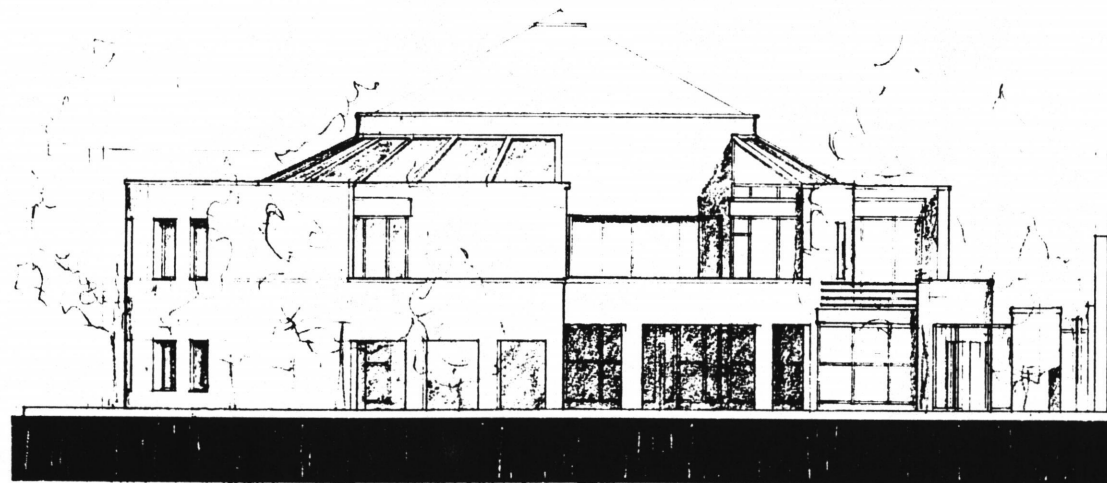
KEY PLAN



FINAL FIRST FLOOR PLAN



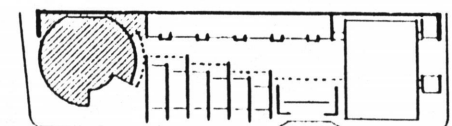
FINAL SECOND FLOOR PLAN



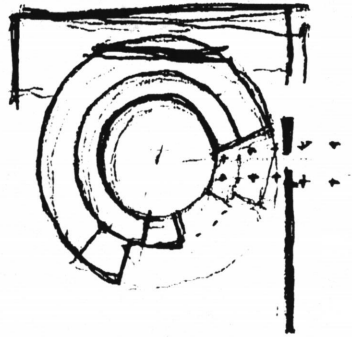
FINAL NORTH ELEVATION



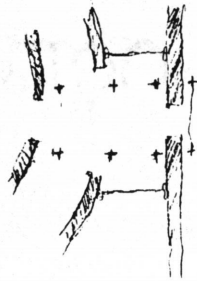
FINAL SECTION



KEY PLAN



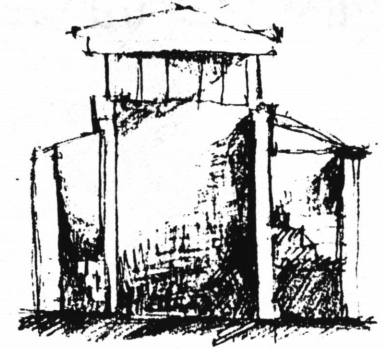
PLAN STUDY



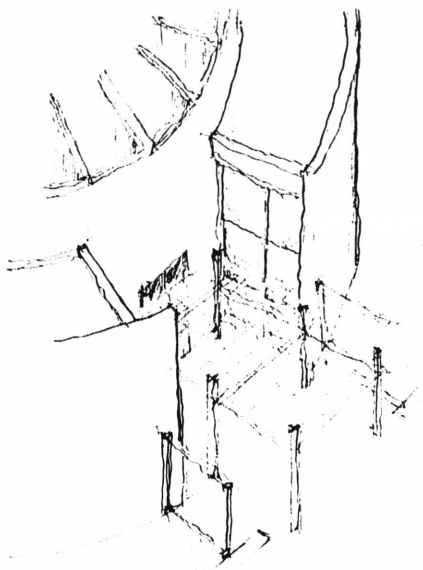
PLAN SKETCH



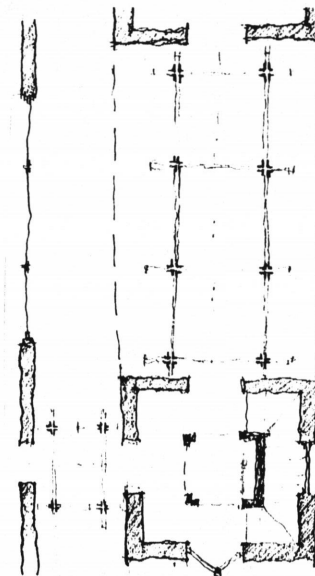
AXONOMETRIC SKETCH



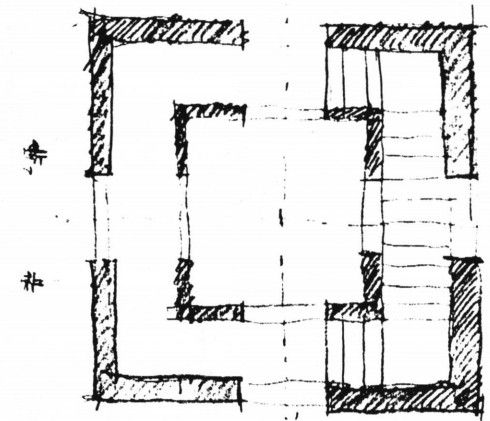
SECTION SKETCH



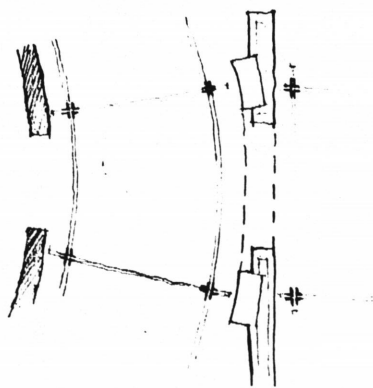
AXONOMETRIC SKETCH



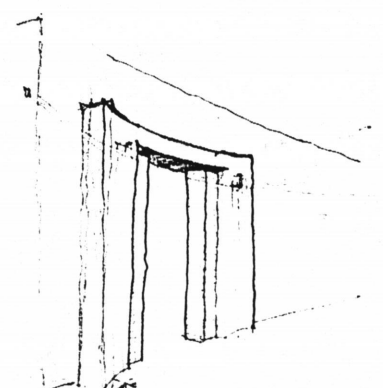
PLAN STUDY



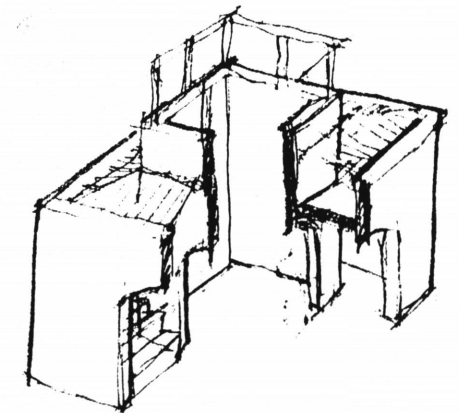
PLAN SKETCH



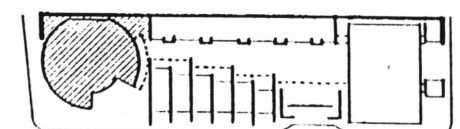
PLAN DETAIL STUDY



PERSPECTIVE SKETCH

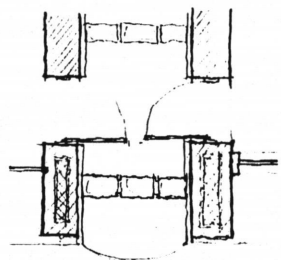


AXONOMETRIC SKETCH

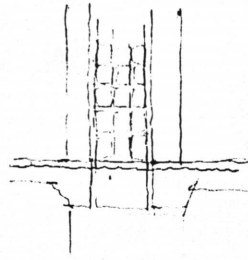


KEY PLAN

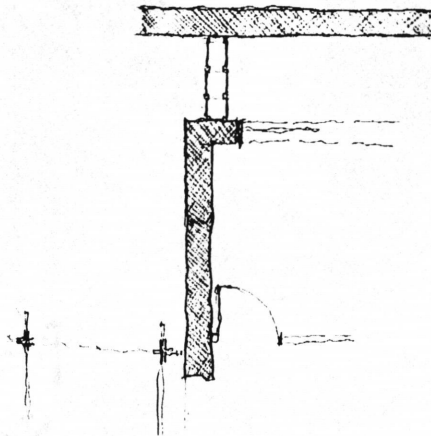
BUILDING JOINTS



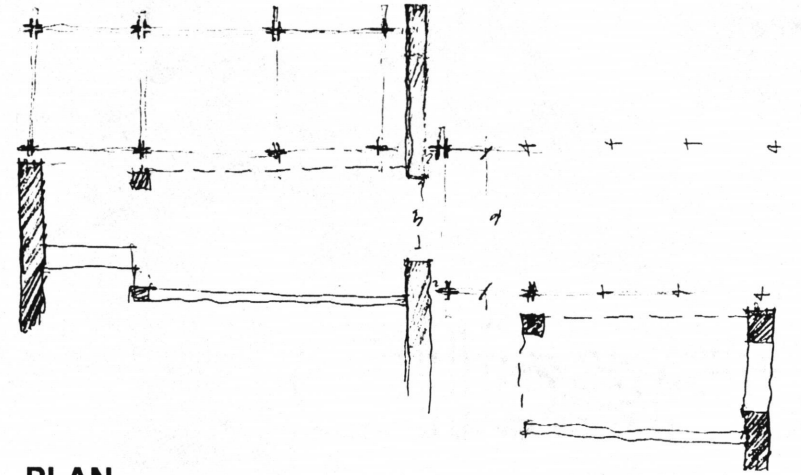
PLAN STUDY



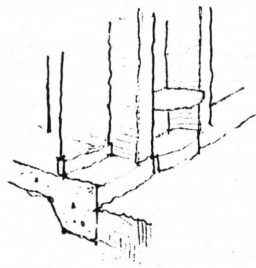
SECTION



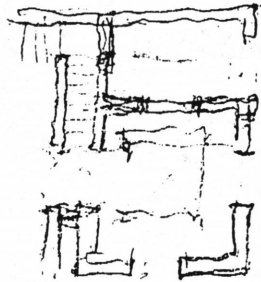
PLAN



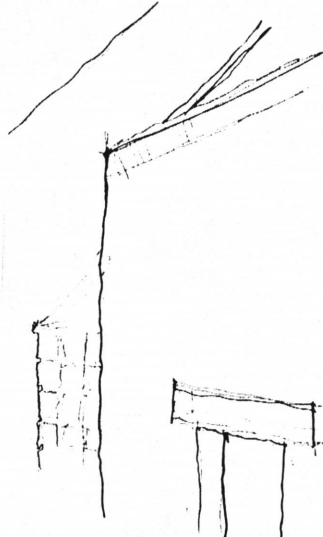
PLAN



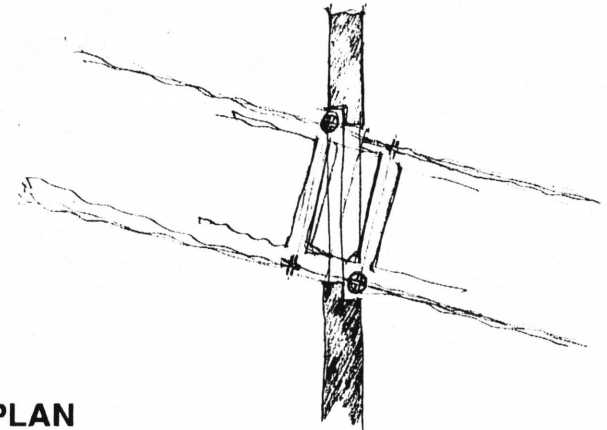
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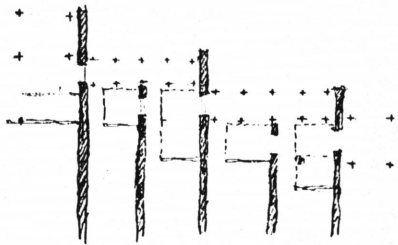
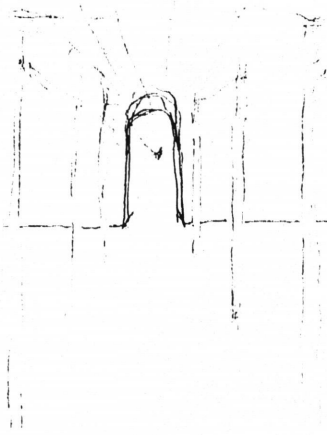
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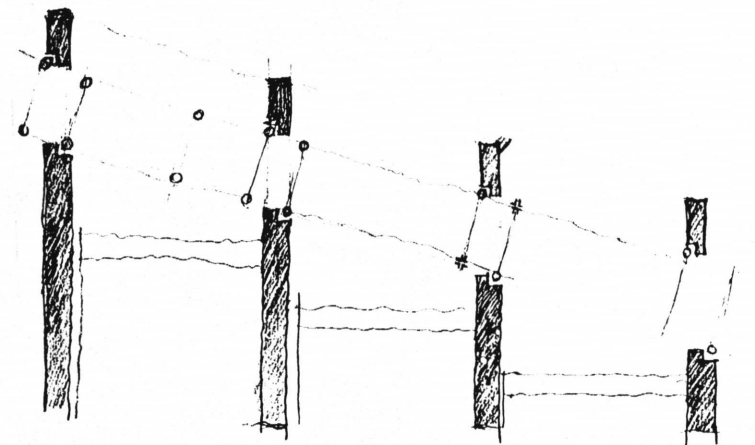
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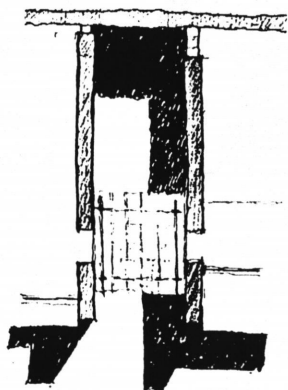
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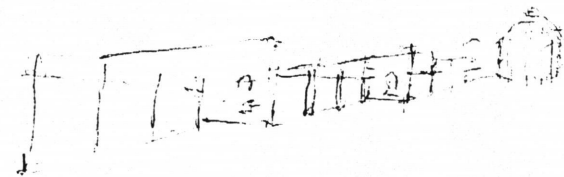
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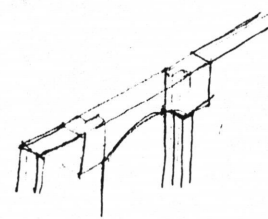
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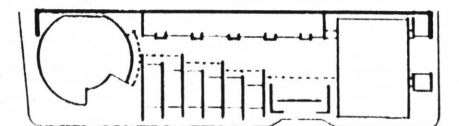
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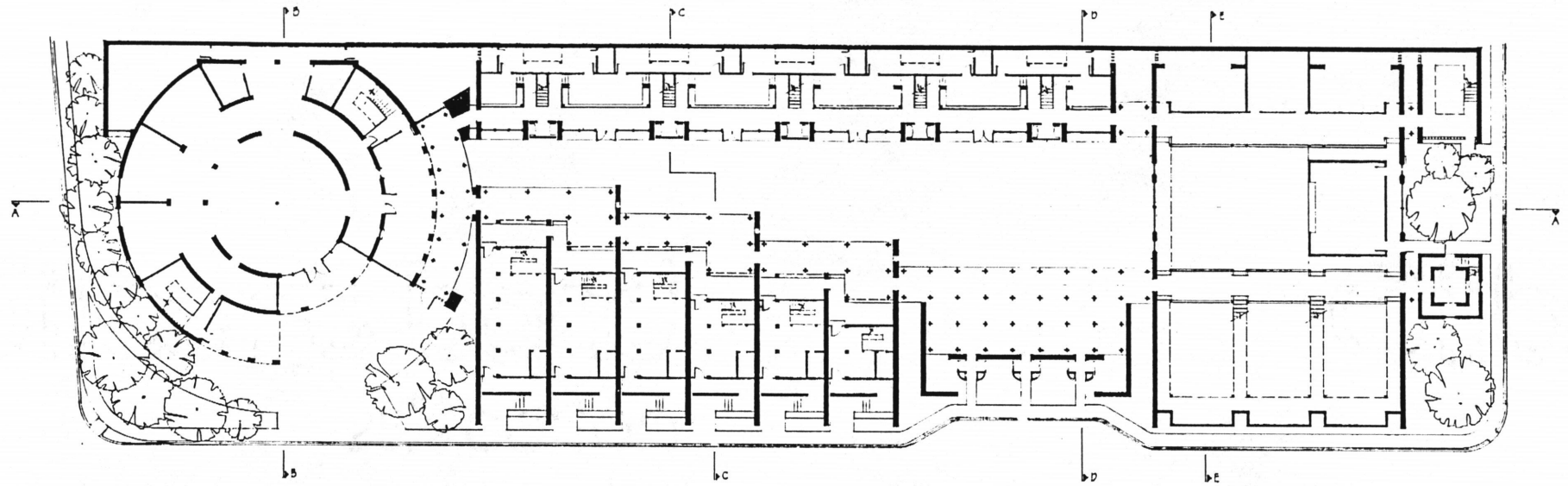
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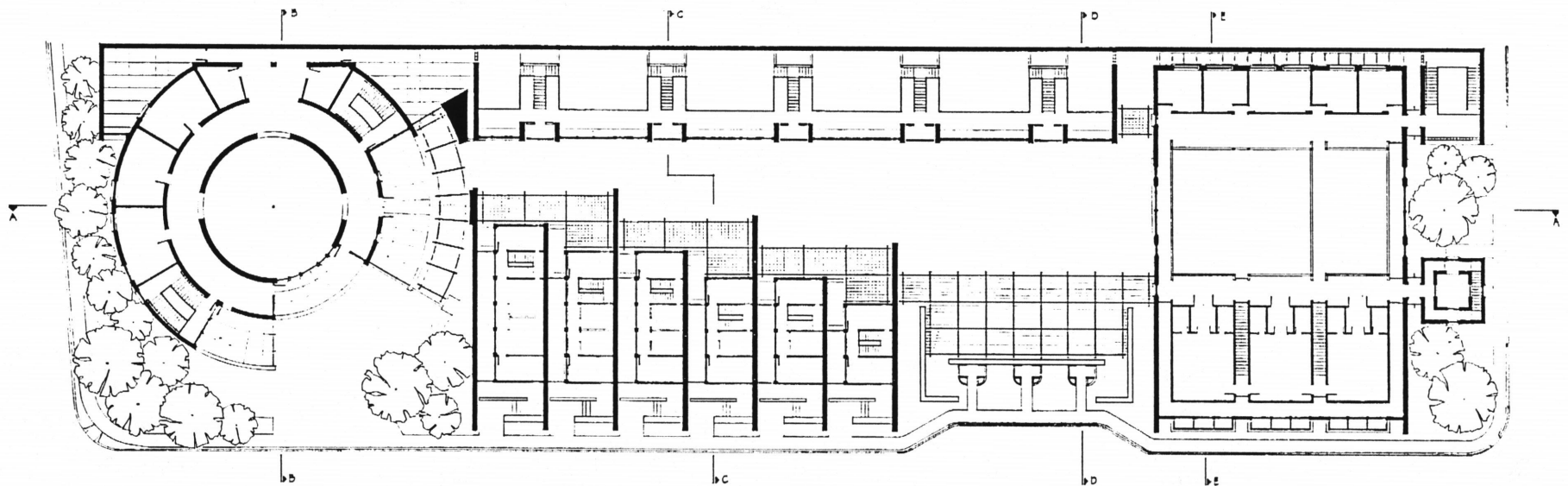
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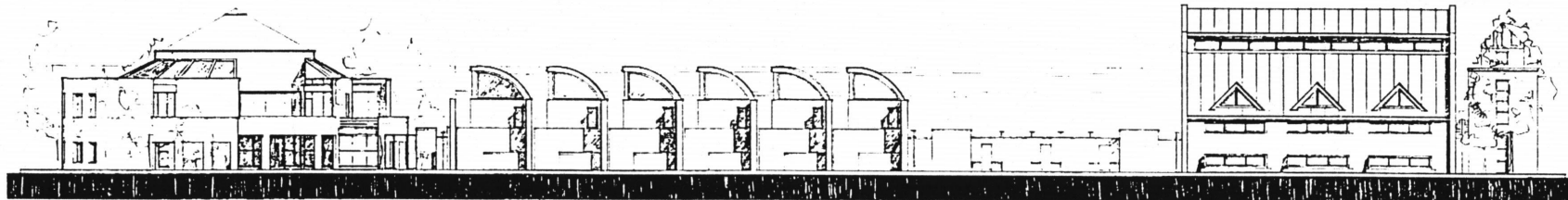
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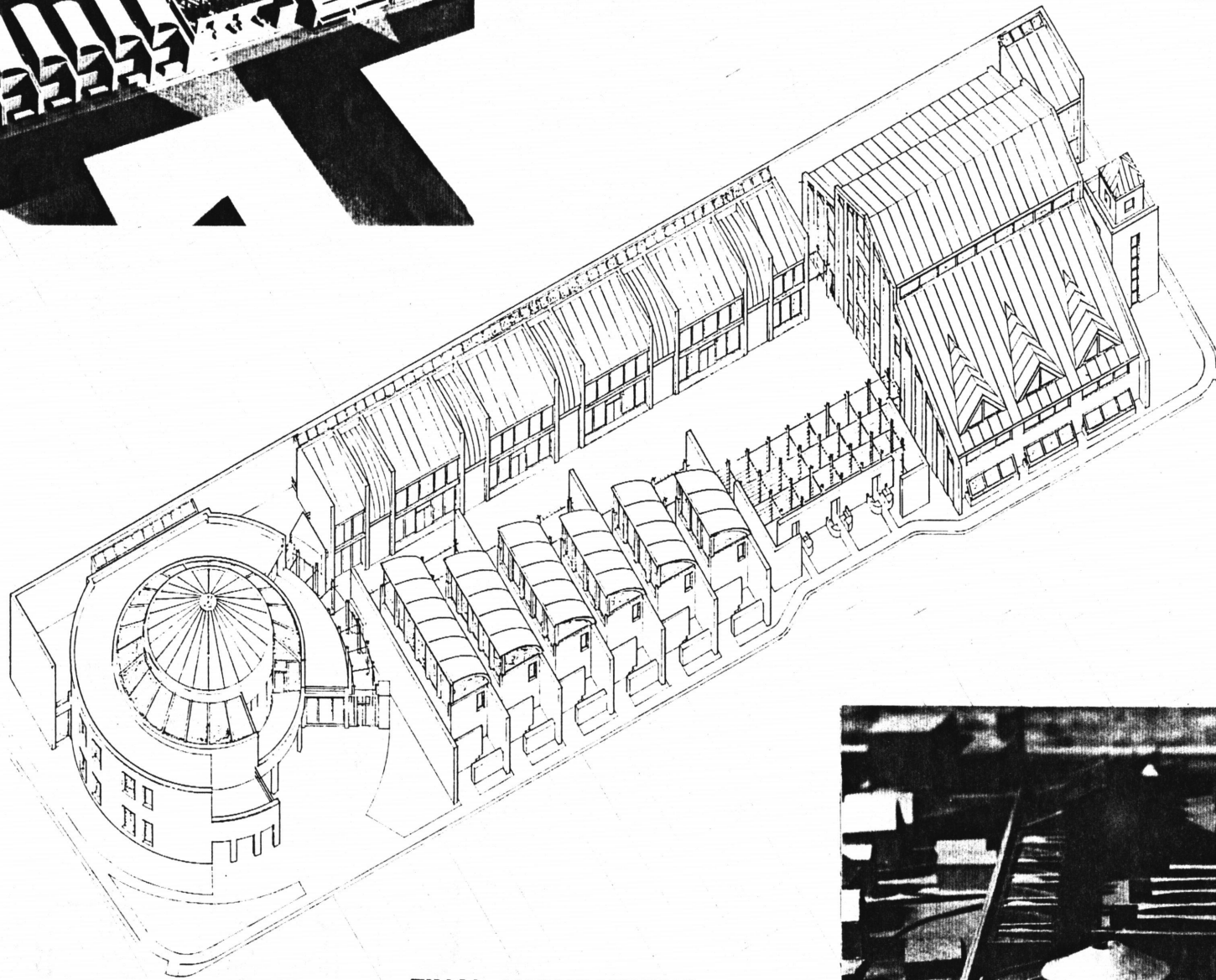
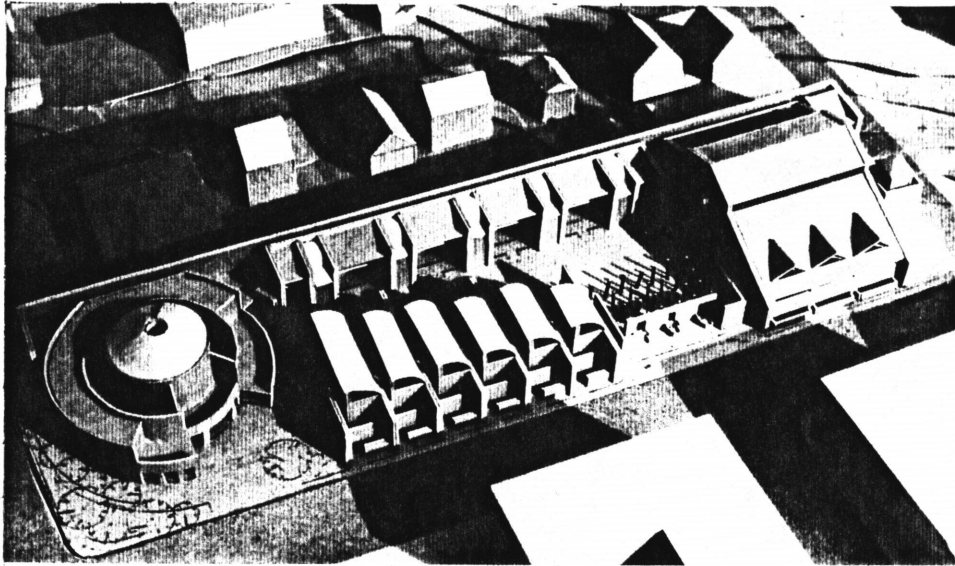
FINAL FIRST FLOOR PLAN



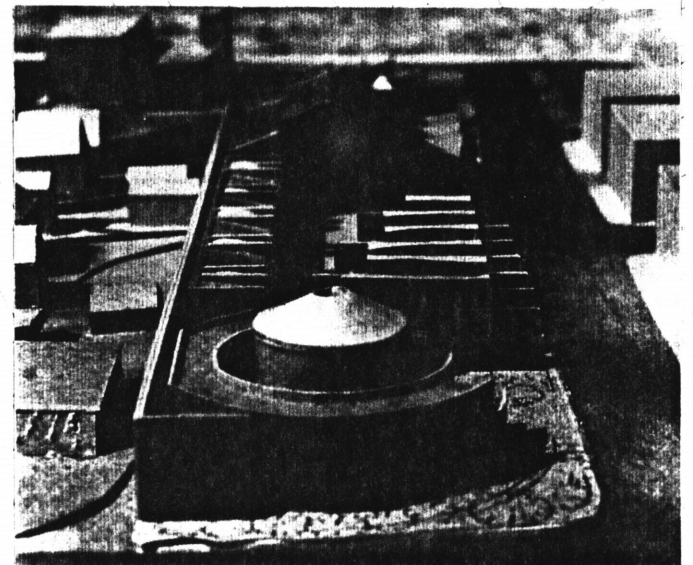
FINAL SECOND FLOOR PLAN



FINAL STREET ELEVATION



FINAL AXONOMETRIC



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