FINDINBROOK
SPIRITUAL
COMMUNITY

AN ARCHITECTURAL THESIS

BY

TERESA ANNE DRERUP

AUGUST, 1983
The College of Architecture and Planning at Ball State University requires that a three quarter thesis be undertaken by all degree candidates during the final year of undergraduate studies. The entire process, from project selection through all stages of design, to full documentation, is the sole responsibility of the student.

Ideally the selection of a thesis is based on the student's current interests and goals, and a specific area is focused upon which will continually challenge and stimulate the student.

During the latter part of the third quarter of work the design investigation is brought to a close and a book documenting the process(es) and product(s) is compiled. Copies of all thesis books are housed in the College of Architecture Library.

I wish to express my gratitude to the following people:

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- Paul Laseau
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  Ball State University
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  Instructor of Architecture
  Ball State University

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- Jeffery Culp
  Instructor of Architecture
  Ball State University

Thanks also to all who supported my endeavors in this thesis.

To Nicholas, for "leading me to water".
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ABSTRACT

The goal of this thesis is the design of a building of approximately 25,000 square feet to house a community of around 20 people who have emigrated from Findhorn, a spiritual commune in Scotland, to the Borough of Brooklyn in New York City, where they intend to continue their work. The site lies at the intersection of Atlantic Avenue, a busy commercial thoroughfare, and Clinton Street, a quieter, residential street, in the affluent, historic neighborhood of Brooklyn Heights, just across the Brooklyn Bridge from Manhattan.

The primary needs of the new community include individual dormitory-style rooms and communal living and dining areas, a top-floor greenhouse/garden, a large assembly space for public functions, and a vegetarian cafe and health food shop. The community is to be totally supporting and as self-sufficient as possible, growing much of their own and the cafe's food, and salvaging all recyclables.
Twenty years ago on the sandy shores of northern Scotland, Findhorn community was founded. Peter and Eileen Caddy and their good friend Dorothy Maclean, all of whom were involved in spiritualist teachings, received guidance during meditation to begin the new community.
Findhorn is a spiritual center, based on guidance from higher levels and on esoteric teachings. The lifestyle is one of simplicity, integrity, holiness, flexibility, and openness. Findhornians search within themselves to develop new levels of consciousness. Anyone who reaches heightened levels has a grasp of the emerging New Age, an age where we broaden and deepen our individual and collective perspectives and assumptions so that we embrace ourselves as a species, as humankind, rather than as separate factions. It involves, moreover, seeing ourselves as sensitive, interdependent members of a community of life that transcends the human and embraces the whole of planetary ecology, including the Earth itself as a living being.
From its meager beginnings at a mobile home (caravan) park, Findhorn today is a thriving community with over 300 members. It is interesting to note that the caravan park and the former Cluny hotel, which are the major residence areas, are both symbols of transience. This coincidence is indicative of their philosophy that there are no absolute truths, and that we should use truths only as tents, for temporary shelter until the counter truth looms up. Then, as the Lord says, it is time to "take up your bed and walk."
Attunement is the major force keeping Findhorn alive. Attunement is holding hands, closing eyes, and experiencing the coming together of the group, the task at hand, and the tools of the task. Members attune before making any group decision. "If you are centered and attuned, you can't help but make the right decision."

Although people of many nationalities are drawn to Findhorn, they think of themselves only as "planetary citizens." Findhorn is one of several "planetary villages" or "Centers of Light." As more such communities develop, a "Network of Light" will evolve.
Frohnmans contend that they receive communication from the plant "devas," or nature spirits. They believe all forms of life are conscious and that conscious communication should take place between all life, Stories speak of plants having minds and fulfilling the fantastic growth to the supernatural intervention of the deities. The garden is the...
foundation on which the community grows. Just as the members nurture the plants, so they also nurture each other and encourage growth and interdependence.
Rather than adhering to a strict code of laws as many spiritual communities do, they look to guidance through attunement to higher levels. But Findhorn people don't have psychic or supernatural powers, nor do they know all the answers to life. They struggle with many of the same problems and mundane chores that people everywhere do. The difference here is that they learn to love and accept whatever they are doing, no matter how boring.
The key to Findhorn is that it is not necessary to go there to live that lifestyle. Each of us has the potential to create a harmonious co-existence with all other forms of life, regardless of where we live. We need only open up to our own intuitions to see the possibilities for new growth, like the Findhorn garden, in our everyday activities and relationships.
The history and philosophy of the Findhorn people is difficult to capture in words. The photos have much more impact, though they too are somewhat lacking. For anyone who is interested in pursuing this subject, I thoroughly recommend reading both Faces of Findhorn and The Findhorn Garden written by the community itself.
Dating back to 1814 when the first steam ferry between Manhattan and Brooklyn came into use, Brooklyn Heights is the oldest residential suburb of New York City. The first village map, recorded by Jeremiah Lott in 1816, the same year Brooklyn was incorporated, shows virtually the same street arrangement extant today north of Clark Street. Later maps, such as Lott and Poppleton's 1819 survey of the Pierrepont estate, indicate the general layout of the southern section of the Heights as it is today. A 1831 map by village surveyor Isaac T. Ludlam shows no real development since the earlier records, but by mid-century all streets on the Heights were given their definitive form. Until the construction of the Brooklyn-Queens Expressway (BQE) in the 1950's, which took off the northwest and southwest corners of the Heights, the streets had remained unaltered since 1850.
None of the structures shown on the 1816 or 1819 maps remains today, although a number of buildings erected soon after are extant. Consecutively built row houses of brick and brownstone were predominant in Brooklyn Heights, although early builders who did not care for the narrow-plot pattern constructed homes with open space on all four sides, several of which remain. As a suburb more easily accessible to commercial New York, centered below City Hall, than most Manhattan neighborhoods prior to the advent of railways, Brooklyn Heights boasted some of the most opulent, substantial residences in Greater New York. Until the intrusion of large apartment buildings, banks, clubs, and businesses at the close of the nineteenth century, the Heights was a neighborhood consisting primarily of private houses, handsome churches, several elegant hostelries, and a few corner groceries and taverns.

A listing of the diverse architectural styles represented on the Heights and the approximate dates of their span of existence is as follows:

- Federal: 1820-35
- Greek Revival: 1834-60
- Gothic Revival: 1844-65
- Romanesque Revival: 1844-1900
- Italianate: 1849-60
- Renaissance Revival: 1860-1900
- Ruskinian-Venetian Gothic: 1867-69
- Queen Anne: 1880-1900
- Colonial Revival: 1890-1940
- Neo-Classic: 1892-1940
- Modern Period: 1890-
Despite the invasion of rampant commercialism early in the 1900's, Brooklyn Heights still retains much of the charm and scale of bygone days. Though from a distance it appears composed of the thin, horizontal lines of the BOE and the Esplanade, and the bulky upright masses of hotels, apartment and office buildings, and a few industrial plants around its perimeter, the romanticism of its tree-shaded streets, bluestone-paved walks and decorative wrought-iron fences enclosing rows of stately old brick and brownstone houses remains beautifully intact.
Extending from Atlantic Avenue on the south to Fulton Street on the north, and Court Street on the east to the cliff overlooking the East River on the west, Brooklyn Heights is, at its greatest about eight blocks wide and fourteen blocks long. The Esplanade, cantilevered over the bi-level roadways of the BQE, affords a breathtaking view of the skyscrapers of lower Manhattan’s financial district, the magnificent Brooklyn Bridge, and the New York harbor, including Liberty, Governor’s, and Ellis Islands, New Jersey, and Staten Island.
Originally connecting Brooklyn Heights to Manhattan were three ferries, one between the Fulton Streets of both sides, another between Montague Street and Wall Street, and the third between Atlantic Avenue and South Ferry. The Atlantic Avenue ferry marked the termination of the Brooklyn-Jamaica railroad, the last mile of which ran underground beneath fashionable Atlantic Avenue, and which was the world's first passenger subway. Although unused for over a century now, the subterranean vault still exists.

Located directly on the Atlantic Ocean, New York experiences somewhat mild winters, with the occasional heavy snowstorms usually melting rather quickly. Summers tend to be quite hot, though, again, the ocean seems to temper the climatological extremes.

Today traffic between the two boroughs flows through Battery Tunnel and over the Brooklyn and Manhattan Bridges, thus avoiding the residential streets of Brooklyn Heights. The majority of subway lines in New York run through downtown Brooklyn, adjacent to the Heights, providing easy access from most areas in the city.
Today Brooklyn Heights is a neighborhood inhabited largely by young professionals, similar to the young lawyers who spearheaded the restoration drive and had the Heights designated a Historic District in 1965.

Many houses are already restored, and the trend is continuing into neighboring communities. As one of New York's quietest, safest, and most beautiful neighborhoods, the Heights has few vacant apartments, and rents begin at $500/month for a small one bedroom and rise sharply thereafter. Even so, Brooklyn Heights is very likely to remain the choice of many New Yorkers for its location, historicism, and undeniable charm.
Many variables influenced my decision to undertake this particular thesis. My desire to work on a small project (unlike every other project I have done in school) and actually reach the point of detailing, was an initial factor. I also chose an urban site, namely Brooklyn Heights, since I had recently lived in that area for six months and had become quite familiar with, and partial to, it. Always intrigued with the concept of communes, and having been a vegetarian for nine months, I originally intended to design an urban environment for vegetarians. After a short time I realized that vegetarianism was not any foundation on which to build an integrated, caring community of people living in tight physical proximity. Ironically, just as I was starting to become disillusioned, I happened to see Louis Malle's film, My Dinner With André, in which André Gregory tells his friend, Wally, of his fantastic journeys into remote lands and incredible adventures with native tribes and people who were experiencing a much more profound existence than Americans. When he mentioned the Findhorn community and its lush garden teeming with exorbitant growth due to the "communication" between the people and the plants, I was instantly inspired. Having come across Findhorn in my earlier research on communes, I eagerly soaked up all the information to which I could gain access.

Designing for a specific group of people with specific philosophies proved a much more exciting approach to the thesis. I found myself reading and re-reading the two books written by the Findhorn people, gaining new insights and impressions each time. I accepted as my design process an intuitive, meditative approach, as I felt these people would do in this situation, allowing decisions to flow naturally from my subconscious, inner self, rather than setting aside 1 pm to 4 pm daily for design time and imposing rigid, meaningless deadlines. What at first seemed a risky, uncertain path soon proved to be the most sensible, honest method I have ever attempted. At times I made decisions with no apparent logical basis simply because they "felt" right. It was not easy to maintain this state of attunement to myself, but since experiencing it I want nothing more than to achieve it again.
CONCEPTS

After narrowing my thesis to the Findhorn philosophies, several vital design concerns surfaced. The "Center of Light" designation seemed to imply various messages, including the use of natural light in a physical sense--for plant growth--as well as the emotional and spiritual implications. How many different "kinds" of light are there? What moods are created by diffuse, direct, mottled, indirect, or channeled light? A major criterion in the placement, size, and shape of spaces was light; not only that each area received sufficient light, but that an appropriate quality of light was achieved.

Flexibility and openness were two important criteria which seemed to go hand in hand. As the community grows and changes, so must their environment be able to adapt to their changing needs. The best way to accomplish this seemed to be merely to design the "shell" of a building--structure, circulation, systems, and skin--and allow the community itself to complete it as their individual and group guidance led them.

This concept also ties in with the design process I employed. By working only when I could achieve an "attuned" state, decisions seemed to ooze forth, rather than be forced out. Design decisions made in this manner proved much more sound and complete than either the arbitrary or meticulously calculated results, which inevitably lacked any sense of total integration on the physical and spiritual planes.

The site, of course, offered many challenges. Situated on a corner where one street consisted of commercial establishments entered at street level, and the other of brownstone residences with stairs leading a half level up, provided an initial controversy. In addition, the multitude of architectural styles juxtaposed randomly throughout Brooklyn Heights left me with no clear idea for an appropriate facade.

Related to this was my desire to extend the charm and aesthetic of the Heights to Atlantic Avenue, which marks the border to the somewhat less affluent neighborhood of Cobble Hill.

A final primary goal was to create an atmosphere where a curious, rather cautious public would feel at ease in interacting with the Findinbrook community. By designing a very informal cafe and a fairly open, inviting first floor, the public would approach the community with a more relaxed, open viewpoint, which is fundamental if the Findinbrook people are to coexist in harmony with their new neighbors.
DAYLIGHT STUDY

A study was undertaken at the beginning of the third quarter to view the effects of natural daylighting inside the building. Søren Faar- toft and I arranged a series of three exercises on a 3/8" scale model with movable parts to determine the exact dimensions of the atrium space. Additional tests provided data for direct sunlight, light entering through first and second floor windows, and reflectivity of materials.

The model used for testing represented a 30-foot slice through all four levels of the 75-foot wide building and the skylight. Side and back walls were black to prevent unwanted reflections, while the sliding floors were a semi-glossy white, representative of glazed tile flooring. Floor-to-ceiling heights of 15 feet, 10 feet, and 10 feet for the first, second, and third floors, respectively, conformed to already established criteria. To measure how light fell on the various levels, we utilized a measuring stick marked in 25-foot increments, the basic design module of the building. By using a small room with white ceilings and light colored walls, and by shining two 500-watt bulbs upward, we were able to simulate overcast sky conditions, which account for the typical minimum natural daylight.
In each of the first three exercises, the floors opening onto the atrium were aligned in different formations. First, both sides were parallel, second, one side stayed vertical and the other receded as it went up, and finally, both sides receded going up. Shadow measurements were taken on all four floors during each exercise and are compiled in the following table:

<table>
<thead>
<tr>
<th>Exercise #</th>
<th>Floor Level</th>
<th>From Back Wall</th>
<th>From Front Wall</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>15'</td>
<td>15'</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>17.5'</td>
<td>17.5'</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>12.5, 17.5, 25' *</td>
<td>12.5, 17.5, 25' *</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>13'</td>
<td>15'</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>15', 25' *</td>
<td>15', 7.5' *</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>22.5', 30' *</td>
<td>16.5', 7.5' *</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>15'</td>
<td>15'</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>15.5', 22.5' *</td>
<td>15', 25' *</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>20', 25' *</td>
<td>20', 22.5', 27.5' *</td>
</tr>
</tbody>
</table>

*Multiple shadow lines were probably the result of light bouncing off ceilings.
One test was made by placing a small mirror and a piece of black cloth on the floor and then viewing the reflection cast by these materials on the ceiling directly above. Although we had no way to accurately measure these reflections, it was amazing to see the differences the various materials made. From this exercise I determined a semi-glossy floor surface, similar to the effect of the Form-Cor utilized in the model, would be optimum.

A special exercise utilizing an intense light source representative of direct sunlight indicated the need for a removable shielding curtain along the skylight. The accompanying photos show how light is falling on the second floor 1) under direct sunlight, 2) with a white nylon curtain shielding the sun, and 3) with whitewashed glazing shielding the sun. The intense brightness evident in the first photo clearly indicates the need for some type of screening. The direct sunlight also created a shadow 21 feet from the back wall on the second floor, whereas the curtain and the whitewashed surfaces diffused the light and resulted in only a 15 foot shadow.

The final test measured the distance light permeated the first and second floors through the windows only. This data was quite useful when determining exact wall placement of rooms around the perimeter of the building. Again, on both floors two shadow lines were distinct, possibly due to ceiling reflections or the two-foot thickness of window openings. On the first floor shadow lines fell at 7½ and 15 feet from the windows, while on the second floor, which has smaller windows, lines were discernable at 5 and 10 feet from the windows.
BASEMENT

Mechanical Room

This space houses all mechanical equipment including heating, ventilating, air conditioning, electrical, and security systems. Fresh air intake occurs at the ground level on the northeast corner of the building.

Composting Pits

Waste from the resident's toilets and the toilets off the large meeting area, as well as all dead plant material from the garden and the kitchens, is collected in two chambers located directly under each function. After the material decomposes it is used as natural fertilizer for the garden. In order to ensure that no foreign objects enter the composting areas, only waste from the private areas is utilized, with the exception of the two public toilets off the large meeting area, where warning signs are posted -- based on the assumption that patrons of the workshops/conferences held in this space will be somewhat more conscientious than the cafe patrons who will use the conventional toilets located in that area.

Pantry

Situated adjacent to the Clinton Street delivery conveyor, the pantry houses all food products purchased elsewhere, such as dairy products, nuts, grains, and coffees, as well as the fruits, vegetables, and herbs grown within the community. Its location near the elevator allows for the most efficient transport of goods to and from the kitchens and garden.

Storage/Future Use

As the community grows and continually redefines itself, it may need additional usable space for work or recreational areas. The section of the basement along Clinton Street, where low windows allow the permeation of light, provides an ideal location for a variety of prospective uses. Additional storage area along the Atlantic Avenue side should be sufficient for the community's present and future needs.

FIRST FLOOR

Meeting Area

The large multi-use area located in the northeastern quadrant of the first floor is the scene of the primary interaction between the Findinbrook community and the neighboring communities. Events are scheduled regularly to obtain maximum use of the space. Diverse workshops exploring such topics as vegetarianism, yoga, meditation, the art of simple living, organic gardening, attunement to oneself, and effective communication, among other philosophies of the community, provide interested New Yorkers with possibilities for an improved existence. The workshops and lectures are administered by members of the Findinbrook community and are open to the public for a small registration fee. Other events include various exhibits and social affairs such as concerts or skits performed by the community, parties, and receptions. Thus, the space is utilized both during the day and the evening. Easily accessible via the wide ramp up from the Atlantic Avenue entrance, the space is served by two public toilets and a storage area for tables, chairs, and other equipment.
Health Food and Gourmet Shops

Contained within the openness of the cafe area, the health food shop and the gourmet shop consist of free-standing, movable racks and display shelves. Surplus organically-grown fruits and vegetables from the garden and homegrown herbs, as well as breads and other home-baked goods are the primary items sold in the health food shop, although certain natural health products not prepared on the premises are also for sale. The other half of this area, the gourmet shop, contains cooking utensils similar to those used at Findinbrook. Here shoppers will find an assortment of gadgets including canning and herb storage jars, wooden utensils, huge yogurt making pots, baking tins, and stoneware jars and dishes sold on consignment by area craftsmen. The flexibility of these areas allows members to sell whatever is in season or on hand at the time.

Bookshop

Located to the right of the Atlantic Avenue entrance, the bookshop carries a wide range of literature, including health books, cookbooks, periodicals, note cards designed by the community, posters, and related items. Specializing in hard to find books, the inventory is geared toward those who demand the most current and reputable literature on the broad subject of spiritualism, although a substantial quantity of the shop's stock will entice the novice. Storage is above the main bookshelves in the fifteen foot high space. Since the shop is situated along the path of the commercial traffic of Atlantic Avenue, a window display of interesting books serves to draw in customers.

Cafe Kitchen, Serving Area, Dining Area

In order to minimize time spent working in the cafe, which frees members of the community to attend to other duties, the cafe utilizes a self-service, cafeteria-style line. After passing through the health food shop area, diners arrive at the counter containing the day's offerings, which may vary according to which foods are in season. Small trays are provided, and the food, which is displayed in large quantities behind the glass counter, is served by a community member. To minimize dishwashing, as many items as possible are served on one plate, a tactic which adds to the cafe's home-cooked aura. The far end of the counter holds the cash register. Food also may be purchased to carry out. Seating is provided outside along Clinton Street during the warmer months in addition to the bi-level dining areas inside. From the lower level, diners can watch the passing pedestrian and vehicular traffic of Atlantic Avenue, while the upper level affords views over Clinton Street as well as over the food preparation area. Flush-type toilets are found on the upper level of seating.

Located directly behind the display counter, the large preparation table is used for all non-cooking preparation of foods, including salad and bread making, sandwich assembling, and fruit and vegetable preparation, among other tasks. Just beyond this area a large refrigerator and utensil storage cabinet are located. Before and after preparation, but prior to placing them in the display counter, perishable foods are stored in the refrigerator. Behind these storage areas and along the back wall of the kitchen are located the
dishwashing and cooking/baking functions, out of the view of the public. After washing, utensils and dishes are placed directly into the storage cabinet. Cooked and baked items are transported the short distance to the food counter to be sold. At this end of the kitchen a door opens directly into the elevator and stair lobby, for ease of vertical transportation of food ingredients. Also opening from this lobby is the large meeting area, allowing coffee and refreshments to be served directly from the kitchen to workshop participants.

The design of the cafe area requires that only three or four people work at a time—one person serving the food, one taking cash, one bussing tables, and perhaps another coordinating the food. Obviously, during peak lunch and dinner hours, several more people may be required to staff the area.

Business hours of the cafe may vary, but it is generally open for breakfast, weekend brunch, lunch, and dinner. While customers may eat at any time throughout the day, food preparation is geared to lunch and dinner, so the availability of a selection of foods during "off" hours may vary. Leftovers are generally saved and eaten by the community members to avoid wasting food.

Although the menu changes daily, breakfast usually consists of homemade pastries and breads, fresh fruits, yogurt, coffee and tea. For lunch a selection of fruit and vegetable salads is featured, in addition to hot or cold soups, sandwiches, and unusual desserts. Diners will find hot entrees for dinner such as lasagna, fettuccine, and other homemade pastas, tofu and legume concoctions, egg dishes, nutloaves, and other protein-rich main dishes, as well as cooked vegetables, salads, breads, desserts, cheeses, and a delicious variety of coffees.

While dairy products are used, no meat or products obtained by killing animals are served or eaten by the vegetarian community. This discipline has led to the creation of highly nutritious, unusual, and appetizing foods, not found in other restaurants. The community prepares and serves its foods in full view of diners, which promotes a feeling of honesty and openness. Although the majority of diners live in or near Brooklyn or lower Manhattan, people occasionally come great distances for the delicious food. Non-vegetarians are common at the cafe, some of whom eventually become vegetarians, others who merely enjoy a refreshing break from meat-laden meals.

**Business Office**

All financial business involved in the operation of the community is transacted in the business office, located near the Clinton Street entrance. One person works from 9 am to 5 pm managing the office and performing bookkeeping chores. An adjacent room holds records and a safe. A window wall allows the business manager to monitor the Clinton Street entrance lobby.
SECOND FLOOR

Member's Rooms

Men are housed in the rooms on the second floor, women on the third floor. Five single rooms and three doubles are provided per floor for a total maximum occupancy of 22 people. Married couples may reside either on the second or third floor, but one spouse will need to go upstairs or downstairs to use the bathrooms. Rooms are square with no closets, for maximum versatility of arrangement. Residents must bring their own furniture when they move in, such as bed, desk and/or dresser, wardrobe or rack for clothes, chairs, and bookshelves, and anything else desired, like televisions, stereos, and so forth. Each room has from one to five windows, allowing members their preference. Rooms primarily front along Clinton Street as it is residential and likely to be somewhat quieter than Atlantic Avenue. The Clinton Street stairwell, which, on the second and third floors, opens directly adjacent to the private rooms, is the entrance/exit route used by members.

Bathroom

Behind the stairwell at the end of the corridor off which the residential rooms open lies the bathroom, consisting of two sinks, two toilets, two showers, and a bathtub. Plenty of full-length mirrors are provided in the sink area, and a second door gives access to the areas on the other side of the stairwell.

Exercise Area

Located next to the bathrooms is the exercise area. A wall of mirrors along the east side allows members to check their postures and positions. Individual exercise is encouraged, as well as group involvement, partner exercises, and aerobic dance. The hardwood floor may be covered with mats if desired, for yoga and other floor exercise. No special equipment, other than the mats--and perhaps a bit of self-discipline--is necessary for residents to enjoy the full benefits of fitness.

Dining Room

After meals are prepared in the large kitchen downstairs, members dine in their own private area on the second floor. A kitchenette on this floor serves as a sort of back-up for refrigeration, cooking, and storage of resident's food. The dining area itself is large enough to accommodate guests for meals and/or banquet-type occasions.

Printing Office

This office is equipped with a small printing press and xerox machine for use in printing workshop materials, signs and posters, and leaflets. All printing takes place here, with the exception of books and other large scale work. Design of the printed materials is done elsewhere, as the office is exclusively for duplicating, collating, and storing printed matter.
Meditation/Meeting Room

Community meetings and meditation sessions occur in this space, situated in a remote area in the building’s northeast corner. Blocked on both sides by the wall of adjacent rooms, the meeting area is the most private, secluded space in the building. Matters involving group decision-making, community government, and rule-making are dealt with here. Meditation and attunement are often employed in the process. Each morning before breakfast all members gather in this room to meditate together for several minutes. Again in the evening the group joins together in attunement. These practices keep the individuals open and attentive to themselves and the others and truly keep the community together and functioning smoothly.

Miscellaneous Space

The wide, open corridor outside the residential rooms may be utilized a number of ways. It is generally intended as an extension of the individual rooms, as a sort of communal living area. This entails group clusters of seating for lounging, conversation, reading, and/or television watching. Lush plant materials in this buffer zone between the atrium and the private rooms minimize noise transmission and also allow people in the area itself relative privacy.

THIRD FLOOR

Member's Rooms and Bathroom

The layout of private residential rooms and the communal bathroom on the third floor is identical to that of the second floor. Women reside on this floor, a somewhat arbitrary decision, although they may feel more secure here. Due to the larger atrium opening at this level, the open circulation corridor is seven and a half feet narrower than on the second floor.

Studio/Work Space

Comprising the remaining half of the third floor is a large, open, L-shaped space used for working on all projects in which the community is involved. Group endeavors such as designing printed materials for workshops or neighborhood distribution, stitching banners, curtains, costumes, and so forth, as well as private work like making individual birthday cards, hemming a pair of pants, or refinishing a piece of furniture are accomplished in this studio space. Hammers, wrenches and other tools are provided, as well as sewing machines, drafting tables, and large tables for extensive projects.
FOURTH FLOOR

Garden and Tool Storage

Encompassing the entire perimeter of the fourth floor, the garden forms the groundwork from which the community grows and develops. Each member spends a part of his/her day working in the garden. Through communication with the plant devas, prosperous growth is realized in an infinite variety of species, including most vegetables, many fruits, herbs, and nuts. Flowers are also grown for the beautification of the public, as well as private, areas of the dwelling. Crops are rotated seasonally to different locations within the garden and plantings are staggered to ensure a more continuous harvest. The garden is fertilized organically with compost manufactured on the premises.

Garden tools such as hoes, claws, rakes, hoses, and baskets for harvesting are located nearby for easy access.
## BASEMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>SQ FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composting Pits (2)</td>
<td>360 sf</td>
</tr>
<tr>
<td>Mechanical Room</td>
<td>2,650 sf</td>
</tr>
<tr>
<td>Miscellaneous Storage/Future Use</td>
<td>1,760 sf</td>
</tr>
<tr>
<td>Pantry/Future Use</td>
<td>560 sf</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>5,330 sf</td>
</tr>
</tbody>
</table>

## FIRST FLOOR

<table>
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<th>Description</th>
<th>SQ FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting/Exhibition/Conference/Workshop</td>
<td>2,280 sf</td>
</tr>
<tr>
<td>Toilets 2 @ 52.5 sf</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>105 sf</td>
</tr>
<tr>
<td>Bookshop</td>
<td>80 sf</td>
</tr>
<tr>
<td>Health Food Shop</td>
<td>175 sf</td>
</tr>
<tr>
<td>Gourmet Shop</td>
<td>165 sf</td>
</tr>
<tr>
<td>Kitchen</td>
<td>200 sf</td>
</tr>
<tr>
<td>Dining</td>
<td>360 sf</td>
</tr>
<tr>
<td>Outdoor Dining</td>
<td>775 sf</td>
</tr>
<tr>
<td>Toilets 2 @ 25 sf</td>
<td>250 sf</td>
</tr>
<tr>
<td>Food Serving</td>
<td>50 sf</td>
</tr>
<tr>
<td>Business Office</td>
<td>240 sf</td>
</tr>
<tr>
<td>Storage, Files</td>
<td>220 sf</td>
</tr>
<tr>
<td>Atlantic Entrance Lobby</td>
<td>100 sf</td>
</tr>
<tr>
<td>Open Space/Circulation</td>
<td>360 sf</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>6,060 sf</td>
</tr>
</tbody>
</table>
### SECOND FLOOR

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member's Rooms (5 single, 3 double)</td>
<td>970 sf</td>
</tr>
<tr>
<td>Bathroom</td>
<td>400 sf</td>
</tr>
<tr>
<td>Exercise Area</td>
<td>570 sf</td>
</tr>
<tr>
<td>Meditation/Meeting Room</td>
<td>460 sf</td>
</tr>
<tr>
<td>Member's Dining Room</td>
<td>525 sf</td>
</tr>
<tr>
<td>Kitchenette</td>
<td>110 sf</td>
</tr>
<tr>
<td>Printing Office</td>
<td>250 sf</td>
</tr>
<tr>
<td>Miscellaneous Circulation/Open Space</td>
<td>1,275 sf</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,560 sf</strong></td>
</tr>
</tbody>
</table>

### THIRD FLOOR

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member's Rooms (5 single, 3 double)</td>
<td>970 sf</td>
</tr>
<tr>
<td>Bathroom</td>
<td>400 sf</td>
</tr>
<tr>
<td>Studio/Work Space</td>
<td>1,480 sf</td>
</tr>
<tr>
<td>Miscellaneous Circulation/Open Space</td>
<td>1,050 sf</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,900 sf</strong></td>
</tr>
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</table>

### FOURTH FLOOR

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garden and Tool Storage</td>
<td>3,500 sf</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,500 sf</strong></td>
</tr>
</tbody>
</table>

**Grand Total** 23,350 sf
HVAC

Central heating and air conditioning equipment is housed in the large mechanical space in the basement. Fresh air intake ducts are located at ground level, just beyond the far outer corner diagonally opposite the street intersection. Ducts for supplying heat and air are located within the two-foot thick outer walls as well as in the floor sandwiches. Ventilation also takes place in the skylight, where a row of windows all around are operable. Thus, as hot air rises through the atrium, a breeze carries it out the top.

Fire Protection

Fire stairs are located on axis with each exit for efficient evacuation. A sprinkler system protects the building's open plan.

Structural

The building is supported by steel columns found along the outer perimeter in the two-foot thick walls as well as three columns at intervals of about 25 feet within the enclosure. Stairwells also provide structural integrity. Two and a half foot floor sandwiches allow space for the necessary structural support of cantilevered atrium balconies.

Toilets

"Clivus Multrum" toilets are used in all areas except the cafe toilets. Composting pits located directly beneath bathrooms collect waste from the toilets as well as vegetable matter from the garden and kitchens. The other toilets and kitchen water supplies are connected to city lines.

Insulation

A rather intricate system of insulation is required to prevent temperature extremes in the completely glass-topped building. On sunny days a white nylon curtain is hoisted by a series of chains on a single motor to cover the entire inside of the skylight. The level top of the skylight is whitewashed on the underside to minimize plant-burn in the adjacent trellis. On cold nights a thick, well-insulated black blanket is installed, in the same manner as the white curtain, to prevent excessive heat loss. The diagram illustrates the mechanics of the blanket.
Security

The Atlantic Avenue entrance is open whenever any public function is in use, such as the cafe, workshops, or receptions. For social affairs which extend later than the cafe is open, rolling gates are provided at the base of the two secondary ramps to close off both areas. The Clinton Street entrance is locked inside the lobby at all times. Members are provided with keys. Visitors must call the business manager on intercom to gain admittance from 9 am to 5 pm, and other visitors may ring the individual room of the person whom they are visiting.

Trellis

An optional system of trellises spanning the different floors of the atrium can provide additional noise reduction and segregation of public and private areas. Plants of a trailing nature are best suited for the trellises. Just inside the upper limit of the skylight a space frame serves as a trellis while also structurally supporting the glazing. A catwalk allows members to water the plants growing here.
ECONOMICS

Except for the initial cost involved in purchasing the land and erecting the building, which I am conveniently assuming has been anonymously donated, the Findinbrook community is financially self-sufficient.

Revenues come primarily from the cafe and health food/gourmet shops, bookshop, and registration and admission fees for workshops and other events. Donations are always welcome, but are not actively solicited.

Expenses include purchases of food items and household goods, property taxes, electricity, water, and heating bills, general maintenance, and residents' salaries. In addition to free room and board, each member of the community receives an allowance for entertainment, clothing and personal care items, transportation, and miscellaneous needs.

The general breakdown of funds is as follows:

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents' Allowances</td>
<td>25%</td>
</tr>
<tr>
<td>Food and Household Goods</td>
<td>20%</td>
</tr>
<tr>
<td>Heat/Air Conditioning</td>
<td>10%</td>
</tr>
<tr>
<td>Property and Other Taxes</td>
<td>10%</td>
</tr>
<tr>
<td>Supplies for Projects</td>
<td>10%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>10%</td>
</tr>
<tr>
<td>Electricity</td>
<td>5%</td>
</tr>
<tr>
<td>Water</td>
<td>5%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>5%</td>
</tr>
</tbody>
</table>

100%

<table>
<thead>
<tr>
<th>Income</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cafe</td>
<td>35%</td>
</tr>
<tr>
<td>Workshop/Conference Fees</td>
<td>30%</td>
</tr>
<tr>
<td>Health Food Shop</td>
<td>10%</td>
</tr>
<tr>
<td>Gourmet Shop</td>
<td>10%</td>
</tr>
<tr>
<td>Bookshop</td>
<td>10%</td>
</tr>
<tr>
<td>Donations &amp; Miscellaneous</td>
<td>5%</td>
</tr>
</tbody>
</table>

100%
MATERIALS

The building's two street facades are of deep red, unbonded brick, contrasting with the gray-white limestone window sills, bands separating the first and second floors and the third and fourth floors, and the doorway pilasters and entablatures. Double-glazed sash-type windows dot both facades, while the roof/skylight is composed of triple-glazed insulative glass. Plastered interior walls and ceilings are painted a semi-glossy white for maximum light reflection. Floors in the cafe, garden, large assembly area, and bathrooms, as well as a five-foot wide perimeter around the atrium openings, are of light-toned, glazed quarry tile, eight inches square, for reflectivity and ease of maintenance. Floors in the private areas are of polished oak, and thick, oriental rugs are arranged in the living areas over the hardwood floors. Polished oak railings, three feet high, surround the atrium openings on all levels. Glass block stairwells allow light entering at the top to create a glowing "light well" effect, and at night translucent stairwells are easier to locate in the panic of an emergency. Deep green canvas canopies shade the large first floor windows from intense sunlight on both facades, and the whitewashed underside of the glass covering the space frame trellis prevents sun-baked plants. A lightweight white nylon curtain is employed on sunny days to reflect intense rays and heat, and is located along with the thick, black wool blanket used to retain heat on cold winter nights.

Only the most basic materials are specified here, since the community is free to adapt and transform the flexible spaces to their own needs with their own furnishings.
FINAL DRAWINGS
CONCLUSION

As the project is still very close, it is difficult to evaluate my own degree of success in this thesis. My general impressions at this point are a feeling of great accomplishment, made bittersweet by the disappointment associated with my failure to transform lofty philosophical ideals and revolutionary (for me) design methodologies into an architectural reality representative of them.

I feel a good deal of success in fulfilling the basic needs and goals of my thesis, in that I like the building and would enjoy living there. I think it embodies the honesty and openness fundamental to the Findhorn people and also manages to harmonize with the neighborhood.

On the other hand, I recall a point midway through the second quarter when I succumbed to the idea that simplicity of lifestyle necessarily dictates a simplistic dwelling, and openness of character translates directly into "open-plan" architecture. I realize in retrospect that I was merely taking the easy way out, not challenging myself to really explore the architectural implications of the philosophical ideals I was formulating.

In short, I think something got lost in the translation. If I could go on from here, I would discard the building itself, yet retain most of the concepts which supposedly shaped it, and, armed with all the research on the Findhorn lifestyle, start a fresh design which would, hopefully, be more integral and complete.

That the previous paragraph seems vague is because I cannot concretely describe my intuitions. I have no idea, at this point, exactly what it is I would do differently if I re-designed, yet that inner voice is telling me, "There is something more . . ."
BIBLIOGRAPHY


Hagstrom Map of Brooklyn. (New York: Hagstrom Company).


Malle, Louis, director. *My Dinner with André.* (Film, c. 1980).