A COMMUNITY OF HOUSES

by

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ABSTRACT

This thesis is about the process of discovery. It is a search for an ordered architecture that is faithful to the generating ideas that formed it. It is the creation of an architecture that captures the spirit of the place where it lives.

The form of architecture is the manifestation of an idea that satisfies and expresses a need. The purpose of architecture is to inspire and fulfill the spirit. But the true essence of architecture lies beyond appearance. It is an internal quality revealed by what it is, what it represents, and what it contributes to mankind. It is essential to reach beyond merely satisfying the functional requirements of a building to create meaningful architecture.

Architecture is born from an idea and success is measured by how well that idea is portrayed. Ideas can be expressed in an infinite number of ways and studying the guiding principles proven throughout history can help to govern and direct a design as it progresses. True architecture results from an uncompromising position about certain ideas and the resulting work reveals the dedication to those ideas.
...social activity marked by a feeling of unity but also individual participation completely willing and without loss of individuality; an interacting population of different kinds of individuals constituting a society of association...

excerpt from Webster's New International Dictionary, 1986
The objective of this thesis is the creation of a group of houses that celebrate individuality and at the same time emphasize the idea of community. Within the project is an exploration of structure, materials, and the repetition of the single house form to create usable in-between spaces. It also encompasses a search for order through the composition of spaces logically derived from the nature of the site. The design expresses an inherent order of materials and exists harmoniously with the site. Responding carefully to the land and ideas of what a good community should be, I tried to recognize the order within the existing conditions of the site and carry that order through to the plan for the community. I believe that a design sensitive to the ideas of community will strengthen the surrounding neighborhood and create a sense of pride for the inhabitants.
The Site

"A house is in delicate balance with its surroundings, and they with it."

Charles Moore
The site chosen for this project is a wooded hillside in the city of South Pasadena, California. The sloped lot faces north with a remarkable view of the San Gabriel mountain range and the city below. The hill is thick with native vegetation and several groves of oak, eucalyptus and palm trees. Access to this piece of land is from a heavily traveled street directly to the North creating the boundary for this side of the lot. Single family homes and one low density apartment complex surround the other three sides of the lot. There is no existing access road into the site. The Southern California climate is very mild, dry and warm and because of this the area has long been considered to be an extremely favorable place to live. Looking beyond the immediate boundaries of the site, the context is a typical suburban city just outside the heart of downtown Los Angeles. Most of the existing houses were built between 1880 and 1930 in the traditional framed bungalow vernacular.
This is a very challenging site that poses many limitations, but within these very confines emerge opportunities that inform the architecture of the site. The starting point was to establish an order for the community based upon the potentials of the existing conditions. The next step was to let the attributes of the site inform the placement and design of the community.

Studying the piece of land at the largest scale reveals a ridge that flows down the hill from south to north. The houses naturally deserve the celebrated spot on the ridge, situated at the highest point for security and view. The ridge, surrounded by the houses, is dedicated to the entire community. At the end of the ridge, a curved wall holds back the earth simultaneously creating a place to sit to view the mountains and the city below. In front of this stretches a smooth flat piece of grassy earth for children to play ball before the hill continues its descent. A hierarchy is deliberately set up between the houses at the top of the hill and the automobiles at the bottom to keep the realm of the automobile separate from that of the community.
The path between the houses leading to the common green space at the end of the ridge is a unifying element. It ties the houses together and defines the shared community land. This common land is a natural connection between the eight houses and the placement of the houses around the ridge expresses the importance of it to the community. From one house, across this area of land, the other houses can be seen through the trees but are not close enough to be an intrusion or compromise privacy. The existing trees remain and the natural vegetation is allowed to proliferate in this area. There are clearings for benches at the intersection of the entry path axis and the common path encircling the shared land.
In placing the houses on the site, it was appropriate to respond through materials and form to offer an experience of the place to the residents. There exists an idea of the house as pinwheel of volumes encircling the tower and a staggering of floors to follow the force of the hill and emphasize the slope. This idea also encompasses the entry terracing of land. The front entry stair and path are a continuation of the idea within the house of platforms stepping down and creating places. The order set up within the houses is followed and a place is offered that contributes more to the community than what existed before. The building form follows the slope in an attempt to create a harmony with the surroundings. Neither the house nor the site dominate one another, resulting in a symbiotic relationship between the two.
With the design of the access road it was important to be sensitive to the topography as well as considering the order of the community. Clues from the site dictate the placement of the road which incorporates all the needs of a car such as resident and visitor parking, access, and turn around space. By giving it more than one purpose, the road becomes elevated from a typical suburban cul-de-sac solution. The struggle to break from convention was facilitated by thinking about the road in terms of the community and how integration into the overall design could help to structure it.

The design of the road is based on the belief that people are more important than cars. This idea, however, must be tempered with reality in todays car dominated society where the automobile demands immediate accessibility. The solution came from separating the parking and houses by a change in level. Non-intrusive parking courts defined by turf blocks and shielded from the houses with landscaping create this place for the car. Parking at the level of the street allows the act of ascending to the front door to become a way for neighbors to meet enhancing the social interaction of the community.
The Place

"The place, therefore, unites a group of human beings, it is something which gives them a common identity and hence a basis for a fellowship or society."

Christian Norberg-Schulz
A place is made by the essential qualities that it holds. The history, the vegetation, and the location all combine to create a place that will evoke certain thoughts and memories. South Pasadena was described in 1930 as "a quiet little hamlet made up of pleasant, health giving homes surrounded with fruits and flowers and affording a safe retreat from the great busy world." Another early settler described this area as "a winding, romantic strip of wild wood." Back then the city, nestled in a valley surrounded by mountains, evoked a sense of magic with the superb climate and peaceful fruit orchards. Today the hustle and bustle of downtown Los Angeles is slowly enveloping this once quiet little town, but the landscape of mountains, semi-arid foliage, dry Santa Ana winds, cool ocean breezes, desert-like heat of summer and mild winter still remain to serve as a reminder of the early days.
The city is a true community where the neighborhood presents wide, tree lined streets, sidewalks, and single family homes with detached garages. My community is a place that borrows the prevailing sense of friendliness and community from this surrounding neighborhood. The site is an oasis in the city; a place to rest and recover from the activity of daily life. Here is a chance to live with nature away from the ever encroaching city. It is very important to capture and preserve this rural aspect of the site and integrate the community design into the natural existing landscape to achieve a peaceful coexistence between the two. The houses are conceived as part of the site showing their relationship to the land by embracing the landscape. Here the inhabitants have a chance to affirm their relationship to the natural world. For the children, the wooded shared land is a place to use their imaginations and build lasting memories.
The Houses

"Houses must be special places within places, separately the center of the world for their inhabitants, yet carefully related to the larger place in which they belong."

Charles Moore
The main issue in this thesis is the development of the ideas within one house and the creation of spaces when many are put together. Within the house there is an investigation of materials, structure, connections, separation of public and private, and a whole made up of parts. Each house is a community of rooms shown by the volumes of the house. Variety comes with placement and the individual marks the inhabitants make to their home. The similarity of the houses creates a community with a strong sense of character and identity.

The design came about from thoughts of the interior spaces and the experience within. In this way the interior decisions greatly influenced the exterior appearance emphasizing that the house is most importantly a place to live in. The houses echo the scale of the hillside and are placed around the perimeter of the ridge to express the shared nature of the land. The path around the ridge connects all the houses and culminates in a vantage point for viewing the mountains and the city. The investigation of the in-between spaces focuses on creating spaces for many as well as for one and designing every part so that no space would be left over.
Using the technology and materials of today, the qualities of color, texture, permanence and solidity are achieved. Concrete block is the obvious choice for the foundation and tower symbolizing the strength and anchor of the house. The exposed wood columns support the roof and contrast with the polished concrete block throughout the interior of the house lending a sense of warmth to the space. The existing architecture and materials were considered and a common material language was employed to form a tie with the surrounding community.

Within this project there is an understanding of material capabilities, composition, nature, and inherent strength. The materials are chosen for their attributes. The choice of concrete block had to do with its strength and availability. It is important to take advantage of the strength inherent in the form and emphasize the direct correlation between material and function. A design should be sensitive to the unique attributes and beauty of the material.
Three pieces, articulated by the roof, make up the public space of the house. These pieces are not discrete, however. The space flows between them to create one large community place within the house. Columns, stairs, and changes in ceiling height indicate the different functions of each space. The qualities of the public part of the house are achieved by employing columns instead of walls and orienting the volume towards the community space. The large windows extend the room outside and help to make a gradual transition between the inside and outside. The patio, defined by a low wall, and porch create semiprivate places which encourage neighborly visits.
Three separate rooms comprise the private area of the house. Walls enclose the frame that makes up the supporting structure. These rooms are small, private and inward looking. There is a feeling of coziness and protection within them achieved in the design by low ceilings and small windows. The small size of the rooms and the ability to shut them off from the rest of the house further emphasizes the notion of privacy.

The gallery that flanks this part of the house is a transition zone. It separates the entry court from the bedrooms and encourages movement along it towards the far end where it transforms into a reading room.
Two houses each share an entry path leading up from the parking court which encourages neighborly interaction. This front entry path and stair link the two neighboring houses together, form a connection between public and private zones, and accentuate the hierarchy between the house and the car with the use of a path, steps and landscaping. This transitional zone of progression defines the area where the individual and the community can meet. The entry is celebrated by employing brick and timber steps and seating and planter boxes. The pair of towers help to define the entry court between each group of two houses. Places are provided for people to linger, talk, visit or wait.
Order is valuable in architecture because it helps to make a design understandable and organized. The order of the eight houses comes from ideas of how they should relate to the hillside and to each other defining the public and private areas. The repetition of forms and materials as well as the path and common land also give a sense of order to the group of houses. Within the houses, order is established with materials, organization of interior space zones and thoughts about the public and private nature of spaces that each part of the house will perform. The structural system that holds up the roof is based on a 4x4 grid system due to space and material requirements and extends through the site. The grid creates the underlying order for the placement of elements such as parking, stairs, the entry and walkway. Order in the community comes from location, materials, structure, the form of the houses, paths, landscaping and the inherent qualities of the site.
The Parts

"A good house is a created thing made of many parts economically and meaningfully assembled. It speaks not just of the materials from which it is made, but of the intangible rhythms, spirits, and dreams of people's lives."

Charles Moore
The house design started with the tower as the central entry connection which represents ceremony and creates a landmark. It is the most essential part of the project and has many functions, most importantly as the vertical anchor of the house to the hill. As Christian Norberg-Schulz notes, any vertical structure has a responsibility to define itself between the earth and the sky and this tower is a link between the two. Its concrete base solidly of the earth giving way to a light wood frame at the top that shelters from the elements and yields to the sky.

The tower is the connection and transition space between the public and private parts of the house as well as the entry and focus of the house. These main living pieces of the house surround this central element, borrowing their strength from it and deferring to it as the most important piece. All the volumes of the house except for the tower are low and horizontal to emphasize its verticality.
The tower contains the idea of refuge. It serves as a marker in the hillside to provide a sense of security and place for the occupants. Upon entering, the tower interior is cool and dim; the strong walls surround and protect its inhabitants. It houses a narrow stair of which access is at the corner of the room. The stairway is very utilitarian but it must be so in order to emphasize its private nature. Ascending the stairway introduces a change from the heavy concrete floor to light wood treads indicating the type of room that is to come. Light coming from some small windows washes the concrete block wall as one climbs higher revealing the smooth texture of the block. The light also illuminates the space where the two parts of the house meet.
Reaching the third and last flight of stairs reveals bright light and the small room at the top presents a view in every direction making apparent the connection to the larger world. The room is framed in wood to emphasize the difference between this part of the tower and the entry. This room is the refuge in the house, as the house is the refuge from the city. It is a private world that is only known by and accessible to those who live there. Each house has an unobstructed view from the top of the tower to the community space and the city. This is important for it emphasizes the tie between the individual and the larger collective world. It forms the connection of one house on the site to the immediate surrounding community as well as to the larger surrounding city beyond the site boundaries.
The foundation and the tower are both built of concrete block. This sets up an order of materials, the strongest being closest to the earth and the lightest supported by it. The concrete supports the wood as the tower symbolically supports the house volumes. The foundation is seen as an extension of the tower. It has the function of anchoring the pieces of the house to the ground as well as holding the frame securely. The foundation wall supports the wooden floors as they step down the hill to emphasize the idea of movement and the dynamic aspect of the hillside. It continues above the floor and becomes visible as it articulates window openings and the rooms within the exterior volumes. The foundation ties the parts together at the base and becomes a prominent and important element of the house. The sturdiness of texture is emphasized by the lightness of the frame.
A frame structure of laminated wood columns and beams defines the impermanent part of the house. It allows the space in the house to be continuous, separated only by columns, eliminating the need to employ walls. The columns allow for spatial definition and a visual connection from one part of the house to another. The frame has a strong presence and several inherent attributes important to the architecture of the houses. The revelation of the structure leads to an understanding of how the houses are built and the exposed wood brings a sense of scale and warmth to the space. The frame helps to encourage the relationship between indoor and outdoor living by creating spaces for large windows that allow the interior space to extend out and embrace the site. The frame influences the roof and window placement and reveals the connection to the tower by a joint of light. This joint of light is the connection between the parts and the tower. It acknowledges that this is a special place and allows the tower to retain its complete identity while still relating to the pieces by acting as the joint between the public and private realms of the house. The shed roof reinforces the idea of the pieces making up the living parts of the house.
The Community

"Make of each place a bunch of places of each house and each city, for a house is a tiny city, a city a huge house."  

Aldo Van Eyck
The existing neighborhood community is very close. The betterment of the city is a concern of the residents and it shows in the highly rated school system and the high housing prices of the area. Studying this community and some new towns show that a successful community encourages interaction and communion between people. What are the aspects of a good community? Clearly defined public space, intimate scale, reduced use of the automobile, respect of the natural environment and respect of the historic character of the place are several characteristics that contribute to the making of a successful community.
How does this design emphasize these ideas of community and what are the attempts to create the opportunity for a community to develop and prosper? In this design, the houses establish a coherent image, public shared space is easily identifiable, cars are limited to the edge of the lot, and paths allow people to walk, meet and interact. There are also plenty of opportunities for people to express their individuality and personalize their space. The idea of community is investigated in the scale of one house and also in the group of houses. The rooms become the link between individuality and community.

A good community promotes the interaction of residents and brings them together. Opportunities exist for people to express their individuality while sharing in spite of diversity. There is a sense of belonging and permanence. The residents have a feeling of pride and ownership for their home and a sense of identity within the community. Good design provides for meetings to occur within communal spaces. Paths make it easy to get around on foot. The automobile is convenient yet non-intrusive. The idea of community is encouraged in the shared group spaces of the house and site.
"My house is practical. I thank you, as I might thank Railway engineers, or the telephone service. You have not touched my heart.

But suppose that walls rise towards heaven in such a way that I am moved. I perceive your intentions. Your mood has been gentle, brutal, charming or noble. The stones you have erected tell me so. You fix me to the place and my eyes regard it. They behold something which expresses a thought. A thought which reveals itself without a word or sound, but solely by means of shapes which stand in certain relationship to one another. These shapes are such that they are clearly revealed in light. The relationship between them have not necessarily any reference to what is practical or descriptive. They are a mathematical creation of your mind. They are the language of architecture. By the use of raw materials and starting from conditions more or less utilitarian you have established certain relationships which have amused my emotions.

This is Architecture."

— Le Corbusier
Towards A New Architecture

As cities grow larger, people have an increasing psychological need for a special place in this world where there are others who know and care about them. This can only happen if the interaction that leads to these kinds of relationships is allowed to take place and is facilitated by good design. Places that have a sense of community are fulfilling places to live that embody a positive quality of life. As architects we have the power to influence the actions and emotions of people and we have a responsibility to them. We can physically shut them off from one another or bring them together. It is up to the architect to realistically choose the best tools and materials to satisfy the clients' demands and our own idealistic goals. Architecture not only has to do with what exists physically, but also with what a person brings to it. In this way the inhabitant becomes a part of the making of the architecture which truly is for and about people.
BIBLIOGRAPHY


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