

Mapping the Fisher House

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PREFACE: THE PROMETHEAN ACT

"Prometheus at once went to Athena, with a plea for a backstairs admittance to Olympus, and this she granted. On his arrival, he lighted a torch at the fiery chariot of the Sun and presently broke from it a fragment of glowing charcoal, which he thrust into the pithy hollow of a giant fennel-stalk. Then, extinguishing his torch, he stole away undiscovered, and gave fire to mankind." —Robert Graves, *The Greek Myths'*

Prometheus stole fire from the sun to warm the human race. Kahn's desire was to reveal it's beauty. This was his proposition: "The sun never knew how great it is until it struck the side of a building."

Louis I. Kahn was born on an island in the Baltic Sea on February 20, 1901 and three years later almost died there when he was severely burned in an accident. Walking home in 1904, he stopped by a fire that fixed and fascinated him. Attracted by the bright coals burning a beautiful shade of blue-green and wanting to save the color, he reached into the fire, picked up a coal, and put it into his apron. It flared up in flames seriously burning his face and hands. This incident marked him for the remainder of his life.

Fifty years later, Kahn sits in his Philadelphia office with a stick of vine charcoal in his hand poised like a magic wand above the smooth yellow tracing paper. He comes to the realization that the touch of charcoal (burnt wood) on paper is both the structure of the building and the light of the sun. He discovers that *poche* is the generator of structure, that "structure is the giver of light" and that the line of charcoal is the place where space, light, and structure are united.

When Doris Fisher asked Louis Kahn, one Sunday evening early in 1970, how he began their house he answered, "It's really structure. When I put down the places where the rooms were constructed I was thinking about the light. I wasn't thinking of beams or the studs. I was thinking about what is there about the structure that will give you light." And later that same evening, Kahn said, "All material is spent light. Light is the maker of all material."²

PART ONE: VOLUME ZERO

On August 23, 1960, Louis Kahn signed a contract with Dr. Norman Fisher and Doris Fisher to design a house for them on Mill Road in Hatboro, Pennsylvania. Kahn was given a list of requirements that included a program, cost constraints, material preferences and site information. The program was explicit. In addition to the living room, dining room, kitchen, bathroom, and bedrooms, the Fisher's requested a conservatory, music room, and solarium. Characteristically, Kahn began by changing the client's program. He underlined the list of required rooms right below the kitchen, bathroom, and bedrooms and said, "This is all you can afford".)

It is somewhat surprising that economic concerns compelled this change. Financial worries were usually not foremost in Kahn's thoughts during the preliminary phase of a project. Perhaps, the reason for the change was his search for beginnings. He achieved this, in part, by reducing a program down to its most essential elements, freeing it of circumstantial needs. He put it this way to Doris Fisher, "A house must be so good that the one who will live in it after the person who ordered it will feel comfortable in it."⁴ Through a process of distillation Kahn was trying to find a form that could express the nature of House.

Even though he started work on the house in 1960, there is no evidence that Kahn, two years and six months into the project, had yet found a satisfactory form. On the contrary, the drawings that he did in 1961 and 1962 show him fighting his material. In January, 1963, before he left for Bangladesh to begin work on the Capital Complex at Dhaka, he felt dissatisfied with his ability to design houses. He says as much to his students at Penn and in frustration he assigned the Fisher House to them as a studio project.⁵ Then, two weeks later, on February 8, in one of the notebooks he carried with him, he sketched in crayon, the form idea for the National Assembly Building in Dhaka.⁶ This drawing is a beautiful thing and in it you can feel the form of the Fisher House emerging. Here is suggested the characteristic aspects that would play such an important part in the final design of the Fisher House: two rotated squares joined at their

corners and a well-defined geometric form that stands out clearly and distinctly from the land. The confusion of January is gone. Kahn is charged again. And it would be my guess, the drawing isn't dated, that a few months later Kahn had found the appropriate form for the Fisher House.' The fact that the form drawing for the National Assembly Building in Bangladesh bears a strong resemblance to the form drawing for this single family house in the United States of America might cause alarm. However, in Kahn's scheme of things, form expressed the ideal and the universal transcending time, place, and circumstantial need.

Kahn believed that in order to find an appropriate archi-

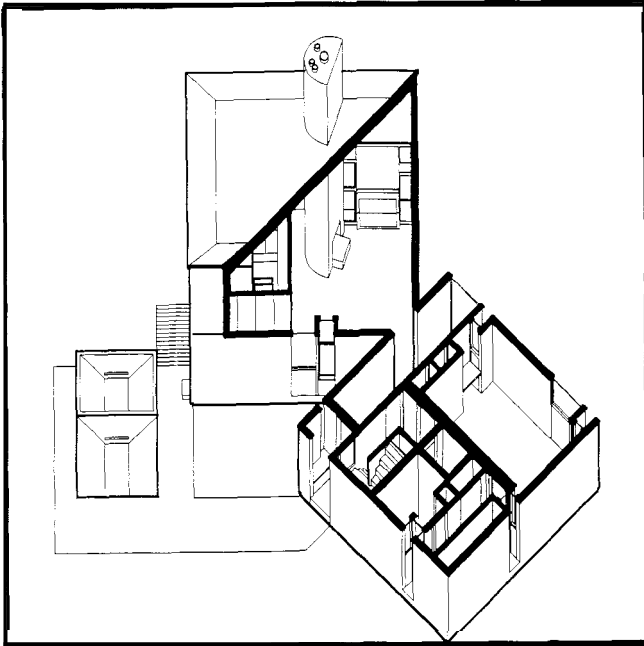


Fig. 1. Axonometric

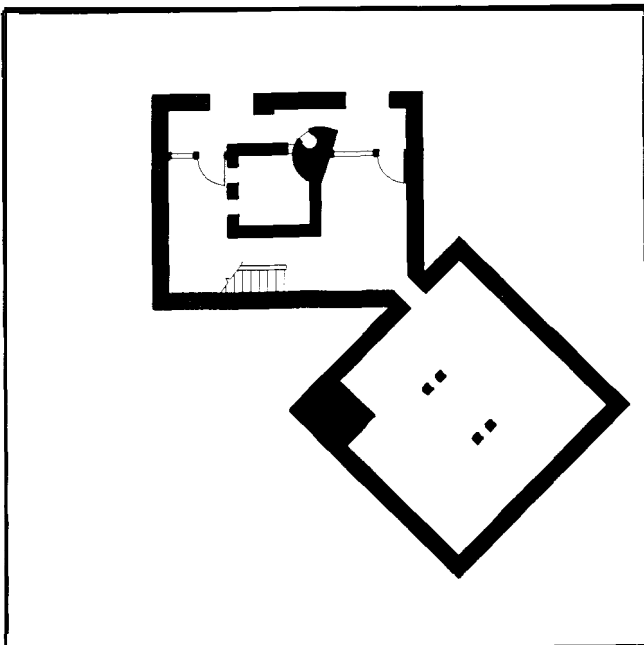


Fig. 2. Basement Plan

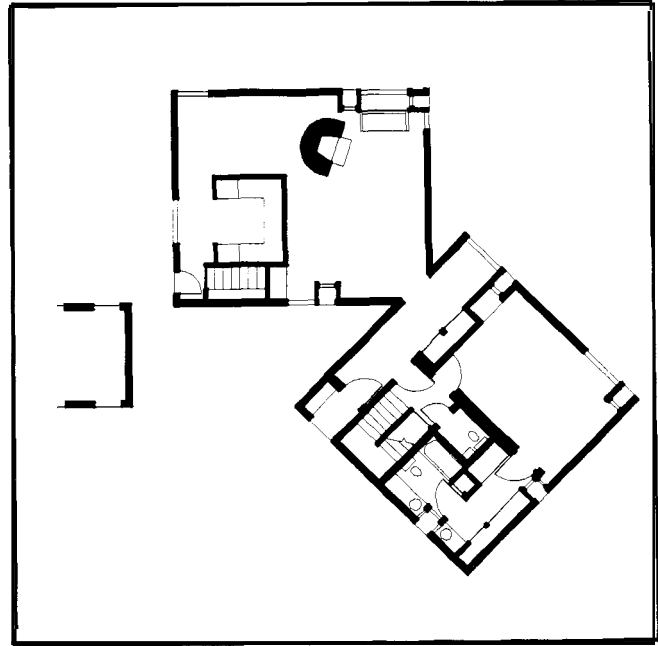


Fig. 3. First Floor Plan

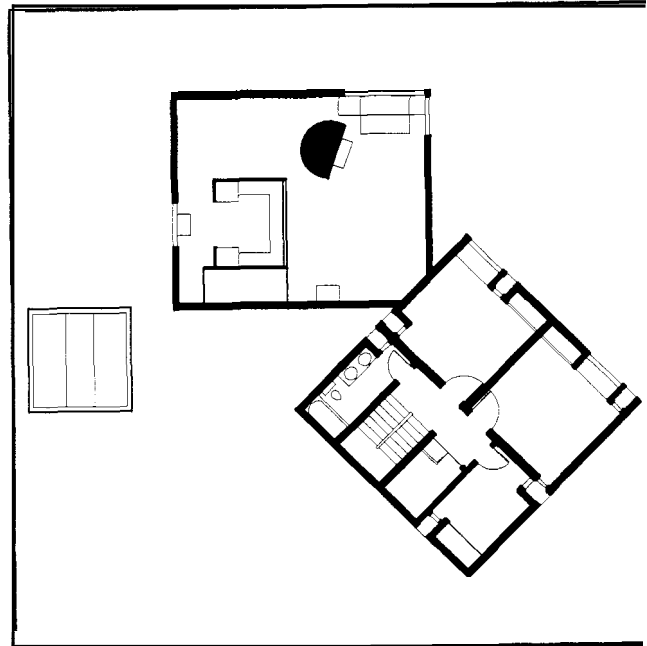


Fig. 4. Second Floor Plan

tectural form for an institution, to discover its deepest meaning, and to express its essential nature it was necessary to go back to its beginnings. In an attempt to find his way back to the source he looked to what he called Volume Zero. It is important to note however, that what Kahn meant by Volume Zero was not the beginning of things, but the unmeasurable force which makes beginnings possible. In the design of the Fisher House he was **thinking** about how the first house came to be. He wanted to rediscover not **how** it was made, but what made it **be**, that is, what was the force that sparked its beginnings. It was this peculiar preoccupation with beginnings that made Kahn, Kahn.

PART TWO: HOW THE TWO PARTS OF THE HOUSE COME TOGETHER

FISSURE: break, crack, cut, detach, divide, fracture, gap, gash, incision, part, rift, separate, sever, slice, split, and tear.

CONNECTION: assemble, attach, bond, bridge, clasp, couple, fasten, hinge, interweave, join, link, meet, span, tie, touch, and unite.

The Fisher House is an architecture of connections and fissures as well as an architecture of duality and unity. Connections have always played an important role in Kahn's work and here they are celebrated. Perhaps the most notable characteristic of the house is its composition of two interlocking cubes expressing the idea of an "architecture of connection." A series of vertical fissures or cuts articulate the exterior of the house offering the possibility of both structure and light. They hint at the idea of "hollow columns" and begin to suggest notions about the mythical moment in the history of architecture when "the walls parted and the column became." The two recessed windows on the street elevation also reiterate the notion of duality expressed in the plan with its clear division between daytime and nighttime activities. Here Kahn explores the problem of how dual elements can become a unity. The formal structure of the plan's interlocking geometry and the spatial character of the two interconnected volumes plays a significant role in tying the building together conceptually and experientially. The two blocks are joined and held apart creating an ambiguity and tension between the oneness of the house and the duality of its parts.

One reading suggests that the two cubes are rotating and pulling apart from each other without establishing a complete separation. The sleeping block appears to be spinning away from the living block. At any moment the plan seems about to break apart into a constellation of individual elements. But this is not allowed to happen. The space between holds the cubic volumes around itself becoming not a fissure between separate units, but the bonding agent that ties them together.

A second reading suggests that the two cubes are coming together and touching each other without establishing a complete union. They reach towards each other and touch like the hands of a couple, bound to one another, walking two by two. This reading recalls the coupling composition of the yin/yang symbol which is drawn in the margin of one of Kahn's early sketches of the Fisher House.⁸ In either reading, the spacing, connection, and distinction between the pavilions implies their singularity as well as their interdependence.

Theoretically, the formal idea of a "house within a house" underlies the conception of the Fisher House. When asked how he arrived at the concept Kahn explained, "I thought of the idea of building a house within a house."⁹ The Fisher House provides a good example of how the spatial implications of the "bi-nuclear" plan of the Weiss house and the "room-space" concept of the Adler and DeVore house projects became progressively transformed and how their formal ideas

were extended. He told Doris Fisher that, "There is nothing that really restrained me in this house. All I had to do is be more frugal in the making of what I had to make. Less in number but not less in the quality of the central idea."¹⁰

Kahn characteristically broke the program down into its fundamental activities and housed them in separate spatial units defined by their own geometric, construction, and structural order. The living block is comprised of a living room, dining room and kitchen. The sleeping block is comprised of bedrooms, bathrooms and circulation halls. Kahn came to the realization that the nature of the public living spaces were inherently different from the private sleeping spaces and he felt that by finding the appropriate relationship between them he could strengthen the expression of their individual natures. In answering a question regarding how he responded to the Fisher's particular needs, Kahn made this comment, "I would say that if I were designing a living room it was different from a bedroom because in a bedroom you have a feeling of privacy—a house within a house. The bedroom is really a house within a house." And he went on to say, "The living room is a place where everyone gathers. The windows are much freer. They look down into the landscape especially yours where you can bring the trees inside."¹¹

In recognition to the rhythm of life within the house, the light in each room has its own character. In the entry hall, the "space of invitation", the warm golden light is intentionally part of the welcoming pattern of the house. While in the bedrooms, the light has a softer, more intimate quality appropriate for those spaces. Kahn spoke of designing the fenestration so that the "the walls can feel the mood created by the time of day and the seasons of the year."¹²

The two story living room has a public and somewhat monumental character achieved primarily through the generous height of the space and the massive stone fireplace. In an early scheme, to further underscore and articulate the difference between the public living spaces and the private sleeping spaces, Kahn proposed two cubes constructed of different materials. The living block was to be built in stone and the sleeping block was to be built in wood resulting in a Stone House and a Wood House. Dr. Norman Fisher described how the living block was to be built. "The living room, dining room and kitchen were ensconced in a stone cube about thirty feet square. The exterior walls were slightly canted. They were three feet thick at ground level and they decreased to about eighteen inches at the top. The interior space was a cylinder so that the amount of mass at the corners was unbelievable."¹³ The cost of this preliminary scheme proved to be prohibitive and the distinction between the living and sleeping place became simplified in the final scheme.

The Fisher House is made of three clearly defined cubic volumes juxtaposed in a complex relationship to the site. The composition is anything but loose. The disposition of the blocks was determined by formal and functional concerns. They are arranged with respect to each other, the sun, the street and the views. The axis of the public living block runs

parallel with the public road. The square sleeping block is rotated 45 degrees to Mill Avenue and placed slightly in front of the living block. This rotation and positioning not only provides the living room with a degree of privacy as requested by the client but it also brings the two pavilions into a dynamic balance and orientates the bedrooms so that all three of them receive the east morning light and look out onto the garden in the back.

Inside the entry hall, the equivocal nature of this seemingly simple house becomes apparent. There, one is presented with the first of a series of controlled interior views through a sequence of rooms that produce a variety of spatial experiences. Straight ahead, through the one story space of the entry hall, the framed landscape outside drops below eye level and to the left the ceiling of the living room rises above. Kahn felt that the house should have a lot of little exciting vistas instead of one large expansive view. The actual experience inside is more spatial and the perspectives are more varied than the plans lead one to expect. This diagonal entrance into a room or a building is a recurring theme in Kahn's work. He felt that entering at the corner allows one to better understand the nature of the room's spatial geometry. It is also important to note that by having light penetrate the cubic volume at its limiting planes, that is, the walls, floor, and ceiling Kahn was able to strengthen the intrinsic characteristics of its geometric order.

Protruding elements do not compromise the purity of the

simple cubic form. Even the doors and windows are recessed so that when they are open they are still contained within the cubic volume accentuating its overall clarity. Kahn was striving for the purity that he sensed in the Greek temples, however, no overt reference to the classical language are made. As an architect, Kahn was skeptical of stylistic representation and rejected extraneous surface decoration and superficially applied styles. The typical Palladian overtones that neighboring houses have drawn from was a luxury that Kahn was unable to permit for himself.

One of the striking things about the Fisher House is the respect for material evident in the excellent craftsmanship, the care in which materials were put together, and the attention to detail. What he said to Doris Fisher in regards to his commitment to these materials is the point to be recognized. "I think wood is firm and wood is very pliable and workable. You feel as though you can take a piece of wood and hold it in your fingers and make a shape. You can't do that with stone. You have to hack away at it. It is more resistant. Wood is very receptive. And you loved wood and so I loved it more than you."¹⁴

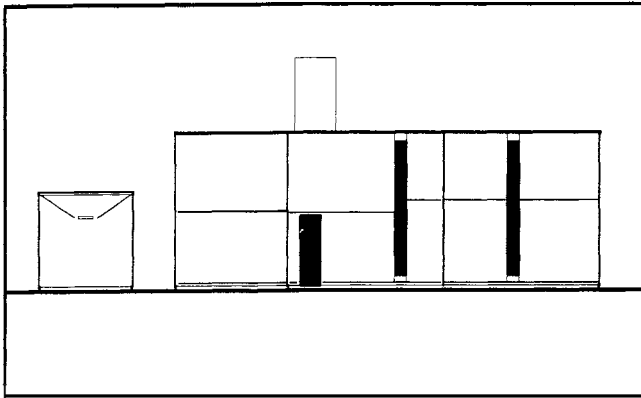


Fig. 5. Street Elevation

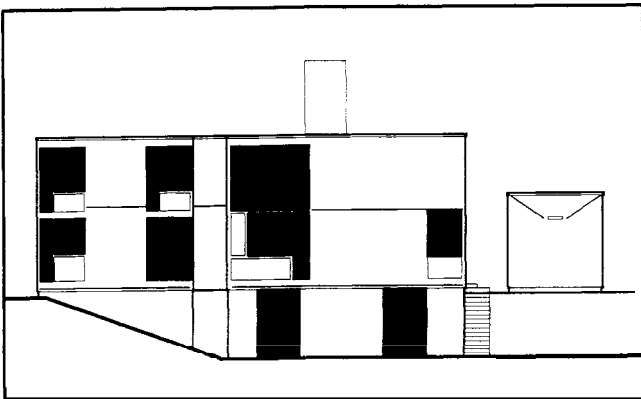


Fig. 6. Garden Elevation

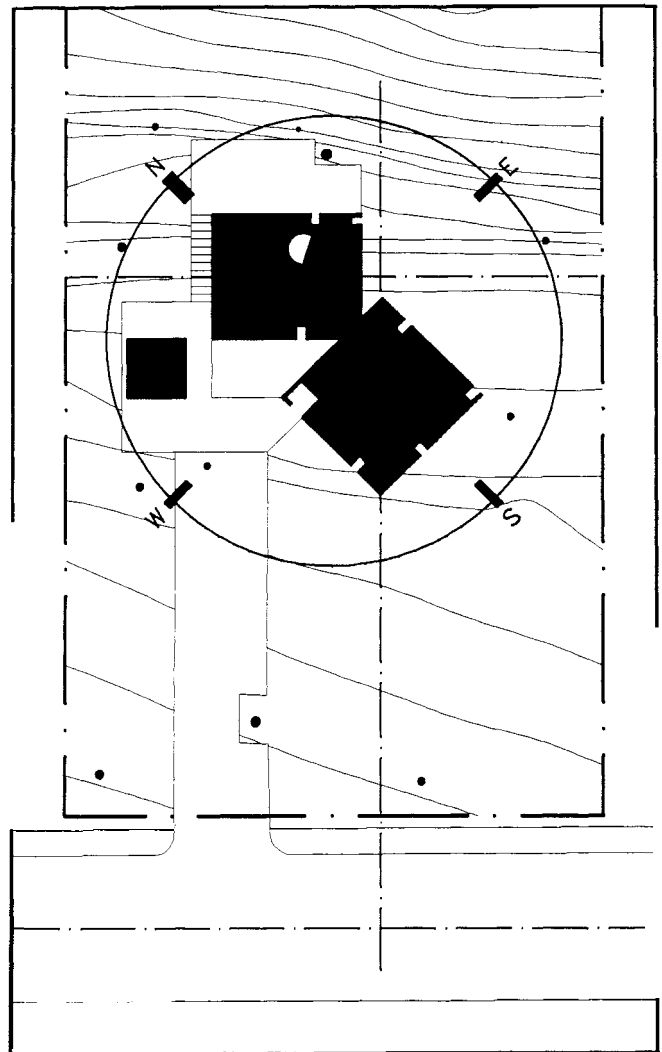


Fig. 7. Site Plan

As one drives into Hatboro one is struck by a landscape detail that is common to this place and is echoed in the Fisher House. Stone is used to shape the rolling topography into level surfaces for the cultivation of trees. The tree, the stone, and the earth are synthesized into an architectonic relationship. The Stone House, built with local Montgomeryville stone, adjusts the house to the slope of the site. It is devoted to services: washer/dryer, mechanical equipment, storage, and woodshop. The Wood House is built with conventional light wood frame construction. The relatively thin planes inherent within this construction system are folded into thick walls which shape, structure, and articulate the rooms. This produces a thick wall which accommodates the services of modern living. The folded wall construction of the Fisher House presents the complex condition of a room within a room. At the back of his mind were Palladio's Villa Rotunda and Michelangelo's St. Peters and their use of poche. Here the thickened wall becomes a place for service-rooms and built-in furniture and cabinets. Like in the Scottish castles that he admired so much these "servant" spaces tend to gravitate to the perimeter walls becoming a compacted crust

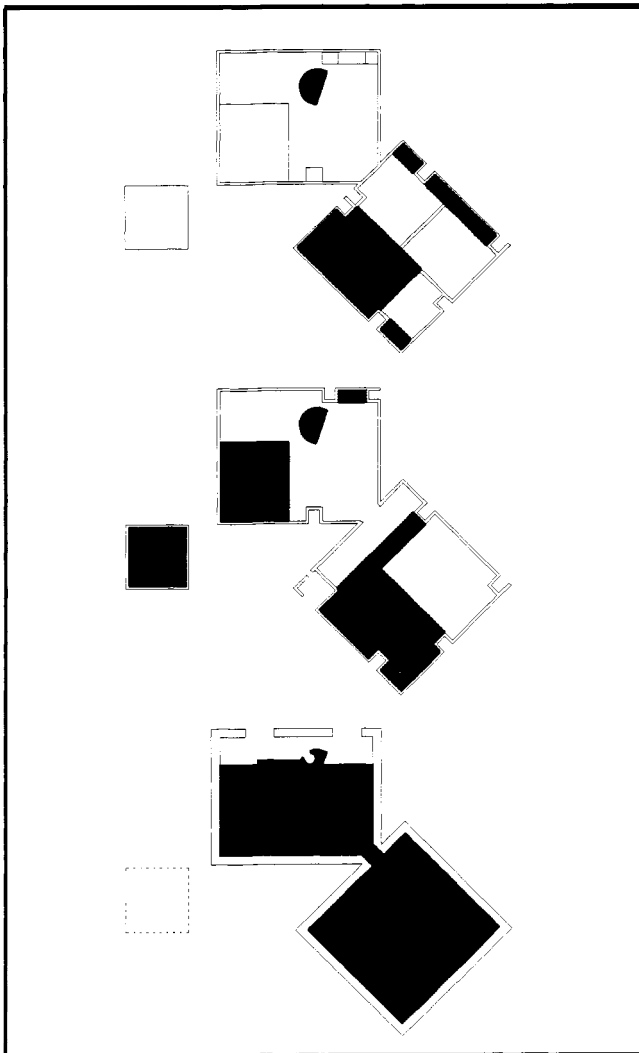


Fig. 8. Servant-Served Diagrams

which wraps around the periphery of the "served" rooms.

Sometime during the design phase, Dr. Fisher suggested hiding the electrical meter box at the back of the house and Kahn emphatically claimed, "There *is* no back to this house".¹⁵ Even though there might not be a back, the house does have two distinct faces—one public, the other private. The front elevation facing the public street appears stern and severe. While the garden elevation is open and accommodating in response to the pastoral setting behind the house. Dr. Fisher said, "We asked Mr. Kahn to design the house with small windows in the front. I felt that I was on view enough in the office and we wanted privacy. But we wanted to be open to the stream, the field and the pond in back. So he purposefully limited the fenestration on the street side".¹⁶

PART THREE: THE FIREPLACE

Out of local stone Kahn has created a fireplace that unites function, symbol, tectonics, and myth. It offers multiple readings and interpretations, both for what it is and what it signifies. 1) The stone fireplace has a powerful presence and is the dominant figure in the living room. It has an anthropomorphic quality which echoes the shape of a human torso. The fireplace might represent "the presence of a man," as Kahn said, but it certainly stands for more than that." 2) It can be taken, appropriately enough, to signify the heart of the house—hearth, warmth, and comfort. 3) One can surely understand the fireplace as connoting home. Perhaps one can even understand it as signifying the initial experience of domestic life—the mythical first home with a family gathered around a fire. 4) This fireplace, along with its cave-like barbecue below, evokes an archaic past and a primordial subconscious. 5) The fireplace personifies Kahn's architecture, his notion of what the nature of the house "wants to be." 6) Perhaps the fireplace with all its mass and weight also suggests a conception of house rooted in the ground connecting human dwelling with nature and reminding us of our home on earth. 7) This stone fireplace, which is built to last, is perhaps emblematic of time and the process of growth and destruction. When the wood house has succumbed to the ravages of time and the walls and roof are no longer there, this massive stone fireplace will remain standing like some ancient monument from time immemorial.

These readings of the fireplace by no means exhaust the possibility of still further ones and a closer look would reveal more. However, if it is true that on one level the fireplace may be read for its symbolic meaning it is also true that this reading is of secondary importance. In Kahn's work symbolic content and tectonic expression are inextricably linked with each other. They are two sides of the same coin. The important question is not what does the fireplace symbolize but rather what made it be. It embodies an unmeasurable measurability and this may be one of the fireplace's most compelling aspects.

To find the form for both the fireplace and the house Kahn went back to beginnings. He had a way of reaching back to

the origin of things — the dawn of the first day, the marvel of the first fire, and the wonder of the first house. He went back to go forward. And the irony is that the farther back he went the more original his work became. He got as far as Volume Zero and it was the beginning of something new. It enabled him to begin again with the Fisher House which he did.

ACKNOWLEDGMENTS

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NOTES

- ¹ Robert Graves, *The Greek Myths*, (New York: Penguin Books, 1960) p. 144.
- ² Louis Kahn, interview with Doris Fisher, March 8, 1970.

- ³ Dr. Norman Fisher and Mrs. Doris Fisher, interview with Michael Borowski, January 14, 1995.
- ⁴ Kahn, interview with Fisher, March 8, 1970.
- ⁵ David G. De Long, *Louis I. Kahn: In the Realm of Architecture*, David B. Brownlee and David G. De Long (New York: Rizzoli, 1991) p. 120.
- ⁶ Kahn drawing, *Louis I. Kahn* (Student Publications of the School of Design North Carolina State of the University of North Carolina at Raleigh Volume 14 Number 3, 1964) Fig. 1.
- ⁷ Kahn drawing # 570.3 in the Louis I. Kahn Collection, University of Pennsylvania.
- ⁸ Kahn drawing # 570.2 in the Louis I. Kahn Collection.
- ⁹ Kahn, interview with Fisher, March 8, 1970.
- ¹⁰ Ibid.
- ¹¹ Ibid.
- ¹² Ibid.
- ¹³ Dr. Fisher, interview with Borowski, January 14, 1995.
- ¹⁴ Kahn, interview with Fisher, March 8, 1970.
- ¹⁵ Dr. Fisher, interview with Borowski, January 14, 1995.
- ¹⁶ Ibid.
- ¹⁷ Louis Kahn, *Louis I. Kahn: Writings, Lectures, Interviews*, ed. Alessandra Latour (New York: Rizzoli International Publications, 1991) p. 296.