

ARCHITECTURE,
DWELLING, AND
PROCESS:

Between the
Rational and
Irrational,

by Susan A. Ciano

Thesis submitted to the Graduate Faculty of the
Virginia Polytechnic Institute and State University in
partial fulfillment of the requirements for the degree
of

MASTER OF ARCHITECTURE

Blacksburg, Virginia

June 1986

approved

Salahuddin Choudhury, Chairman

John T. Regan

Jaan Holt

Guenter Lehmann

ABSTRACT

This inquiry attempts to examine different aspects of architecture and an understanding of space by exploring architectural expectations. The process described herein depicts the struggle to find a translation between two languages, one verbal and one visual. The key to my search was a constant set of ideas. The challenge was first to discern, and then to learn to use, the tools that would become my guide to the language of architecture.

When the shadow of the sash appeared on the curtains it was between seven and eight o'clock and then I was in time again, hearing the watch. It was Grandfather's and when Father gave it to me he said, Quentin, I give you the mausoleum of all hope and desire; it's rather excruciatingly apt that you will use it to gain the reducto absurdum of all human experience which can fit your individual needs no better than it fitted his or his father's. I give it to you not that you may remember time, but that you might forget it now and then for a moment and not spend all your breath trying to conquer it. Because no battle is ever won he said. They are not even fought. The field only reveals to man his own folly and despair, and victory is an illusion of philosophers and fools.

William Faulkner
THE SOUND AND THE FURY

DEDICATION

The help and guidance of many people have made this book possible. Thanks first to _____ for enticing me with their ideas, their commitment to education, and their encouragement of my endeavors. Special thanks to _____ for glimpses of worlds otherwise not seen. And to _____ whose encouragement and affection have helped bring me to this point.

Most of all, this book is dedicated to my parents.

ANARCHY AND ORDER

Dwelling and Experience	2
The Pythagoreans and the 20th Century	2

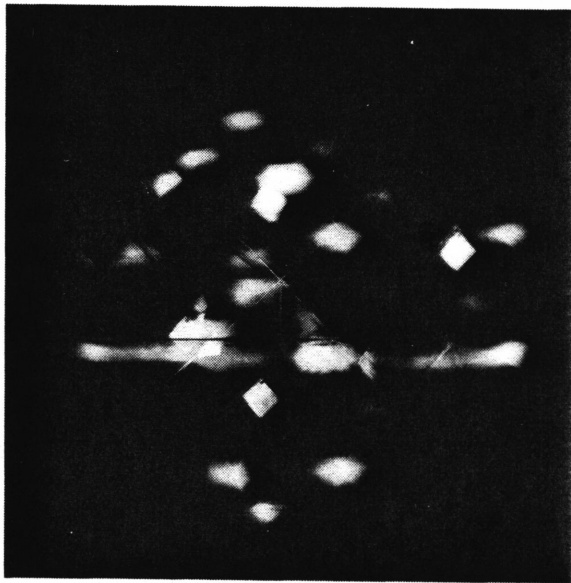
BETWEEN THE RATIONAL AND IRRATIONAL

Process	4
First Design Scheme	4
Model Studies	5
Second Design Scheme	6
Model	7
Third Design Scheme	8
Model Studies	9
Fourth Design Scheme	10
Axonometric Studies	11

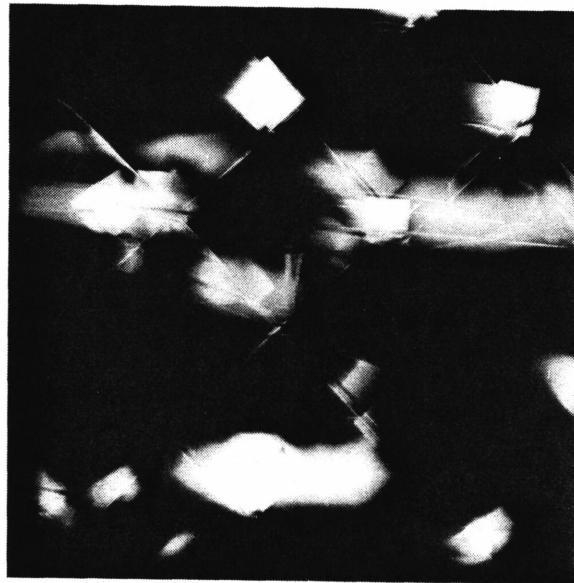
THE BALANCE

Final Design and Development	13
Model	14
First and Second Floor Plans	15
Sections	16
East and West Elevations	17
South Elevation	18
North Elevation	19
Views	20

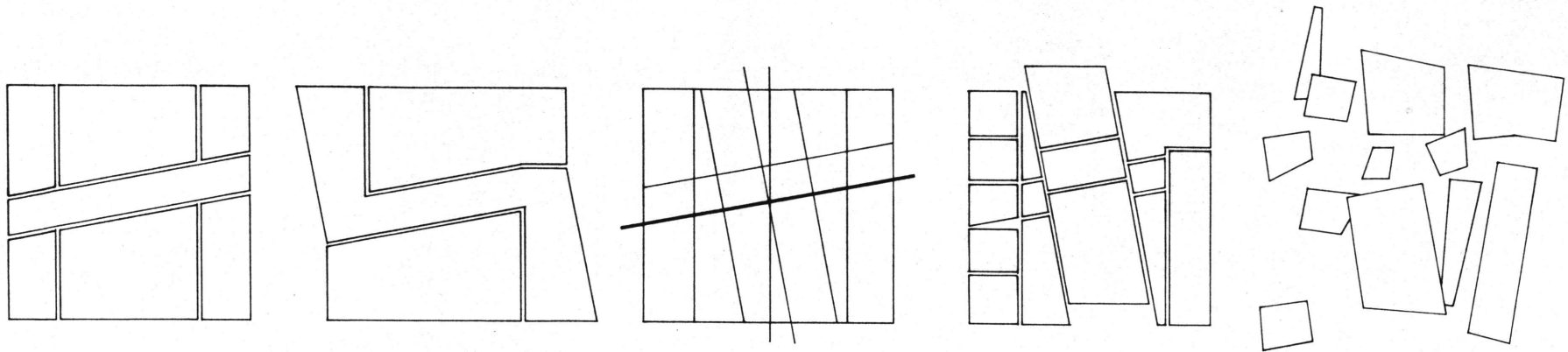
TABLE OF CONTENTS



ANARCHY AND ORDER



PROJECT: Paralogism



DWELLING AND EXPERIENCE

The perception of architecture is for any individual a perception based on his own experiences and understanding of spaces. Each person finds his own definition, if you will, in the individualized nature of his understanding. This thesis intends to explore this notion through the design of a house embodying these ideas. The major tenets of modern architecture concentrate in part on the idea of universal space born of the functional and rational. At least initially, I have chosen to examine a contrasting supposition.

The process delineated in this study begins with the premise that since understanding, and therefore, subsequent action, is based on subjective understanding, it is valid to design without regard to a particular and rigid order. A place in which one dwells should encourage diversity of movement as well as a diversity of relations between places and elements. The interpretation of one's surroundings is, as always, left to the dweller who exists in a state of constant dialogue with his environment. It is for the architect to strive to create the possibility by which both the dwelling and the dweller can exist and grow in their dialogue. It is through this process that we come to contrast and resolve the physically ordered nature of the universe with the self-ordered nature of experience.

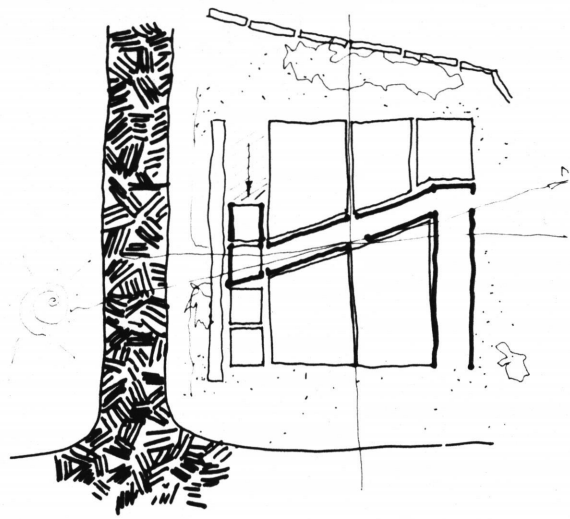
In every form exists the possibility of all form.

THE PYTHAGOREANS AND THE 20TH CENTURY

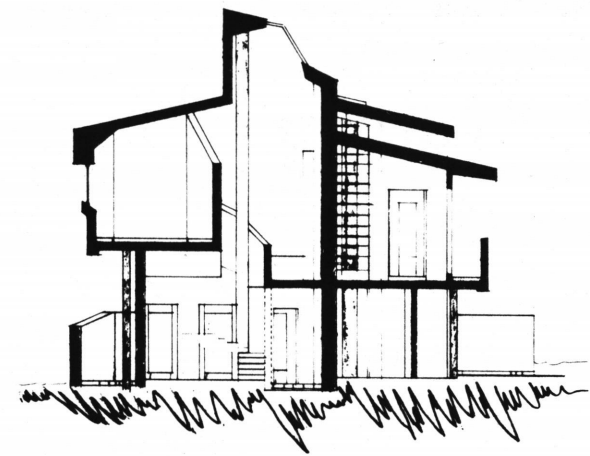
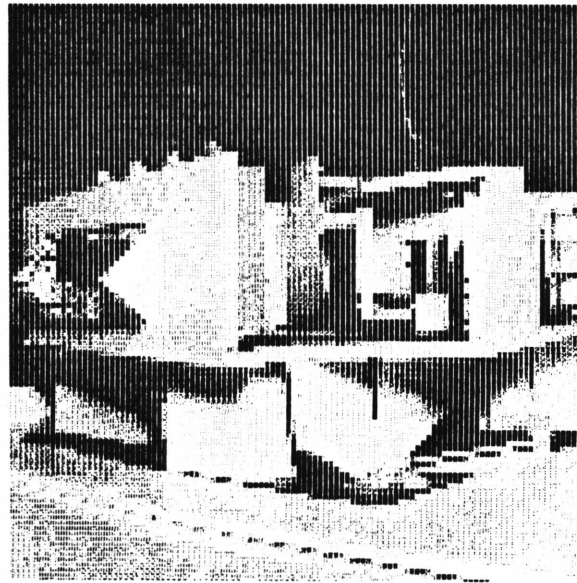
Since the Pythagoreans, an overwhelming sense of mathematical order has pervaded human understanding and shaped both the structure and image of all that is western. This all pervasive sense of the rational and orderly has influenced both thought and image. To this extent, all which cannot be deduced to share in the pure and mathematical nature of the universe often becomes banished to the hard-to-interpret world of the irrational (without reason), chaotic (without purpose or design), or anarchic (without order). Our descriptions for things which do not share in this logic of mathematics and science—the order of an understandable and rational nature—become that of the negation of the rational rather than an affirmation of something possibly representing an otherwise ordered and contingent set of relationships. It is only in the age of modernism that the ideas of disjunctive thought, presentation, and image have begun to be brought to their test. It has since been the struggle of the modern eye and the modern mind to reconcile this new understanding along with, and in terms of, a long nurtured sense of the

rational and orderly.

Many technological and scientific discoveries paralleled the twentieth century's initial struggle with this new way of seeing. The beginnings of the modern movement can be exemplified visually in the works of Cezanne, Picasso, and the cubists, and through literature such as Eliot's "The Waste Land", and the writings of Joyce and Faulkner. Such examples point to the shattering of the conventional structure of understanding, and the subsequent reweaving of fragmented perceptions into a new analogical understanding of the modern condition. The modern understanding begins to reflect the structure of the modern experience—a continual process of bombardment, layering, sorting, and redefining of both information and images. The place of the individual in today's society and his perception of himself is pitted against an environment in which he exercises increasingly little control. This forces the modern individual to look within for the structure by which to operate and understand his experiences.

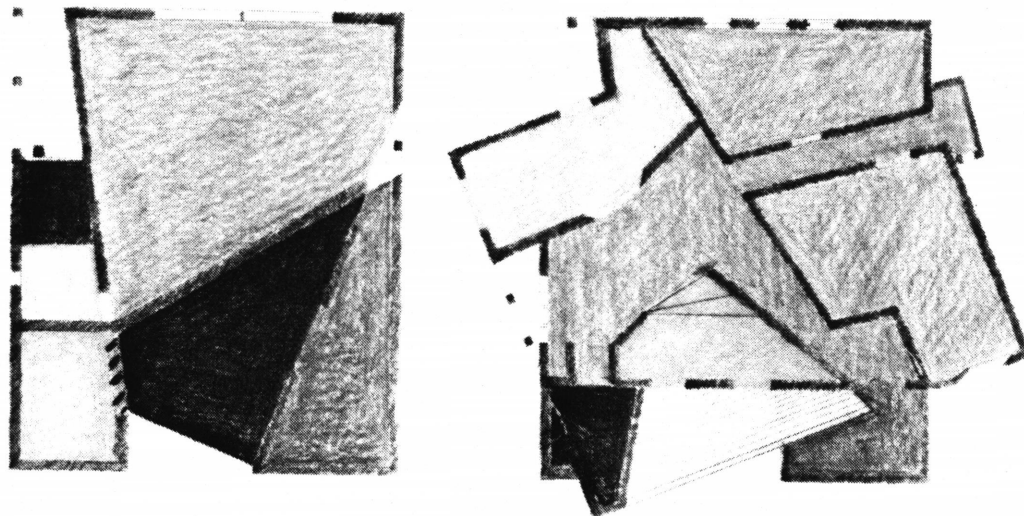


BETWEEN THE RATIONAL AND IRRATIONAL



PROCESS

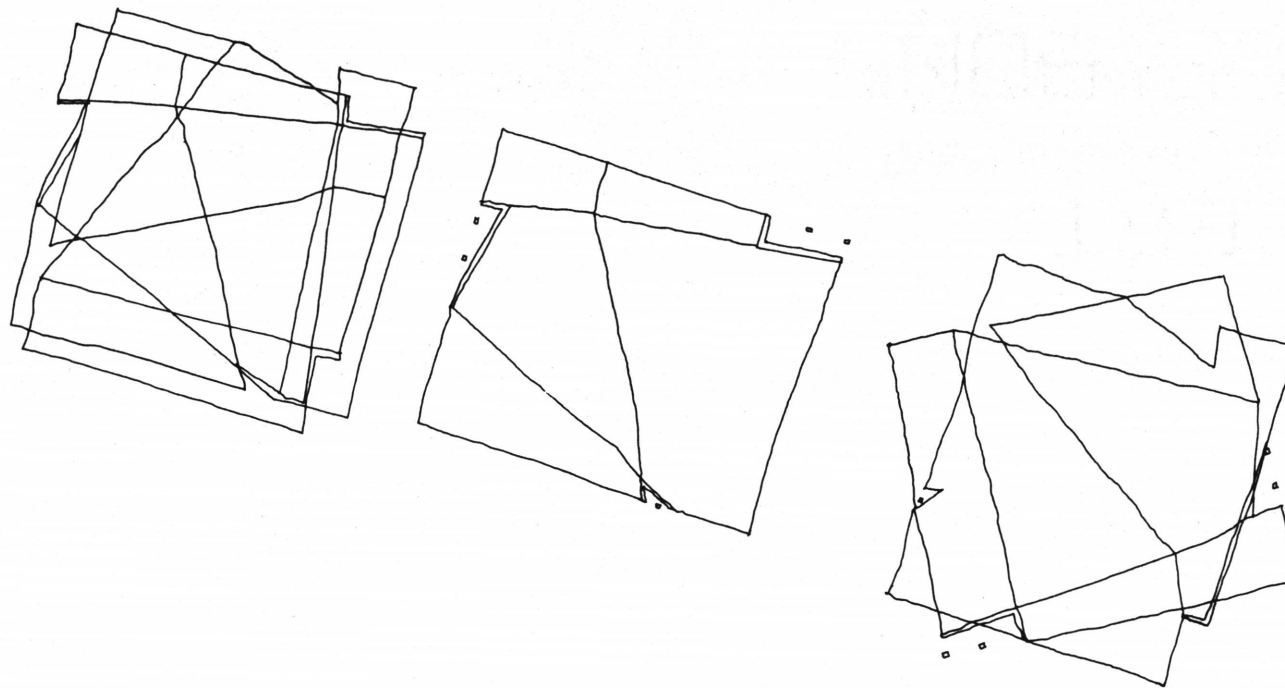
FIRST DESIGN SCHEME



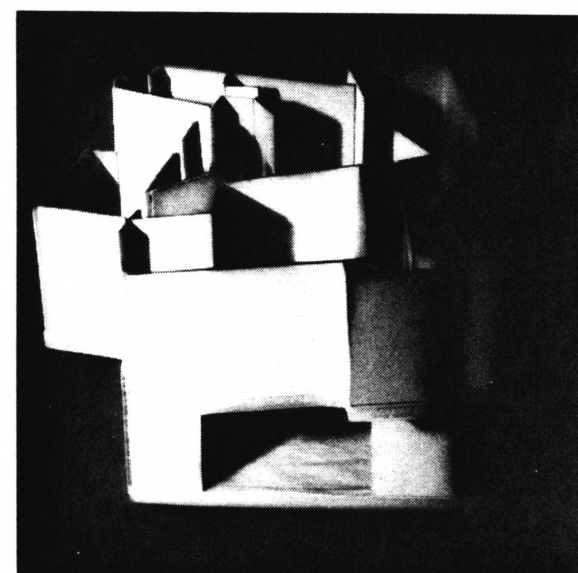
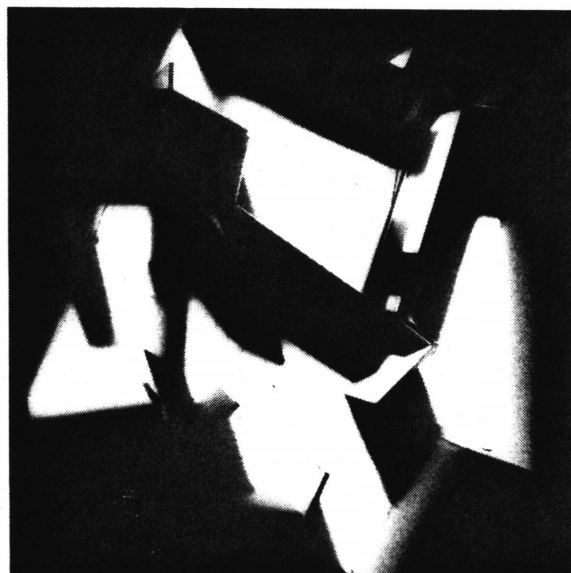
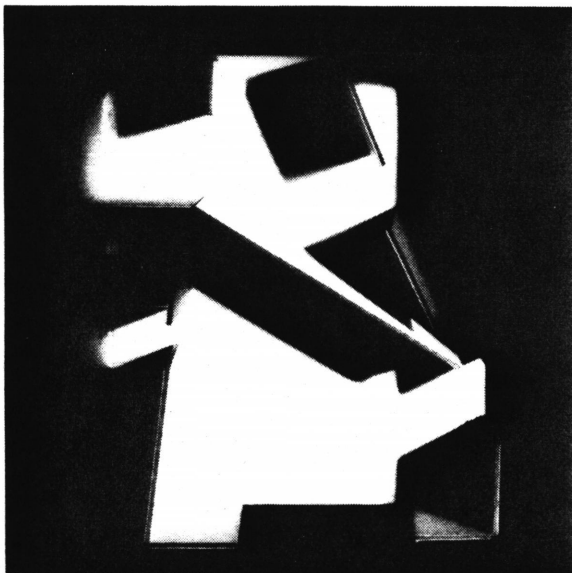
PROCESS DEVELOPMENT

The following sketches, photographs, and drawings describe a path travelled between an irrational, almost sculptural, approach to the project's design and a more rational attempt to moderate the seemingly chaotic results of my explorations. The experience of dwelling in a house can be thought of as an experience similar to that of viewing a sculpture. One is confronted with certain parameters and the task becomes that of arranging one's self in a way which leads to an understanding or appreciation of the experience. This initial point of departure in the design process bears an abstracted configuration based in geometric translation and transformation. Along with it arises a challenge stating that given any particular configuration of spaces, anyone will arrive at his own understanding via his individual experiences. This includes the possibility of creating the ultimate sculpture which can become a place for dwelling. It must be understood that these ideas are not based simply in viewing architecture as a collection of objects that could be inhabited. Rather, I have chosen the dweller's natural disposition towards a self-defining of his environment to be a major design premise.

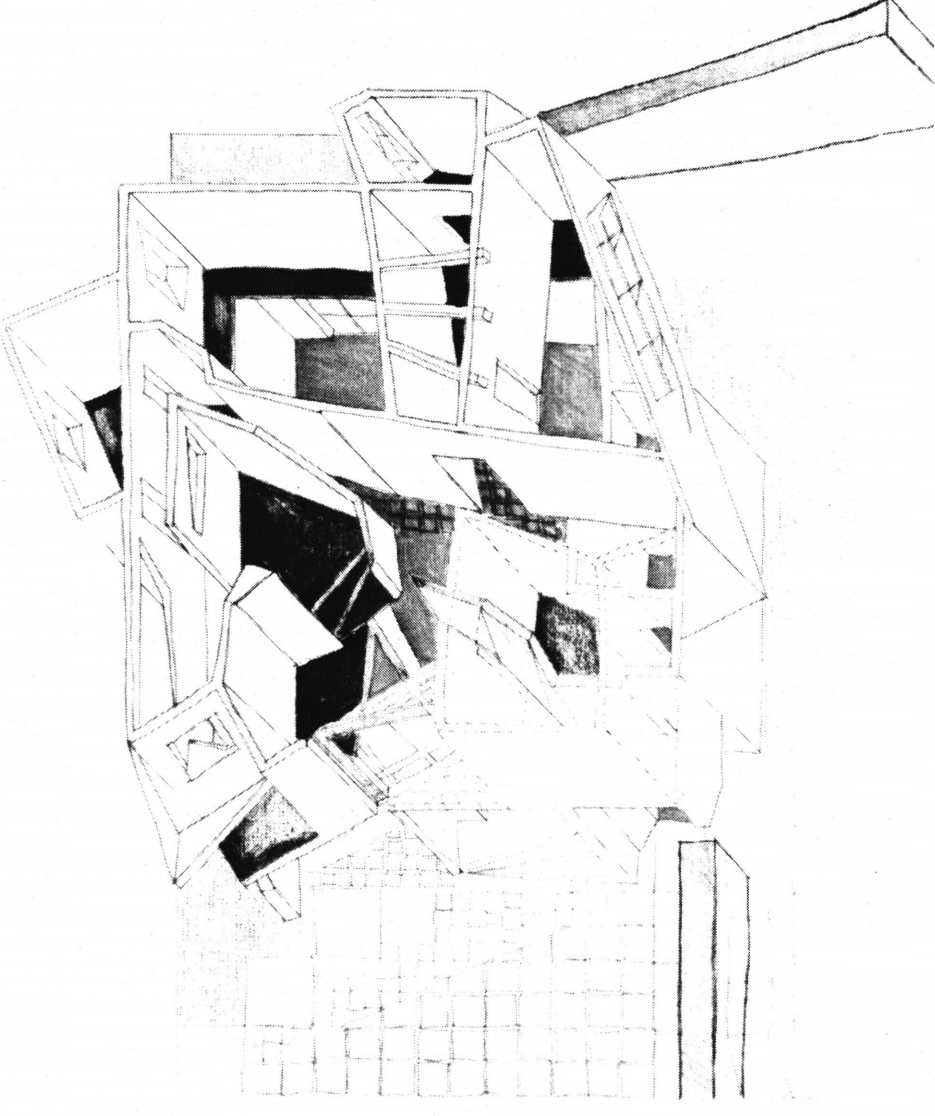
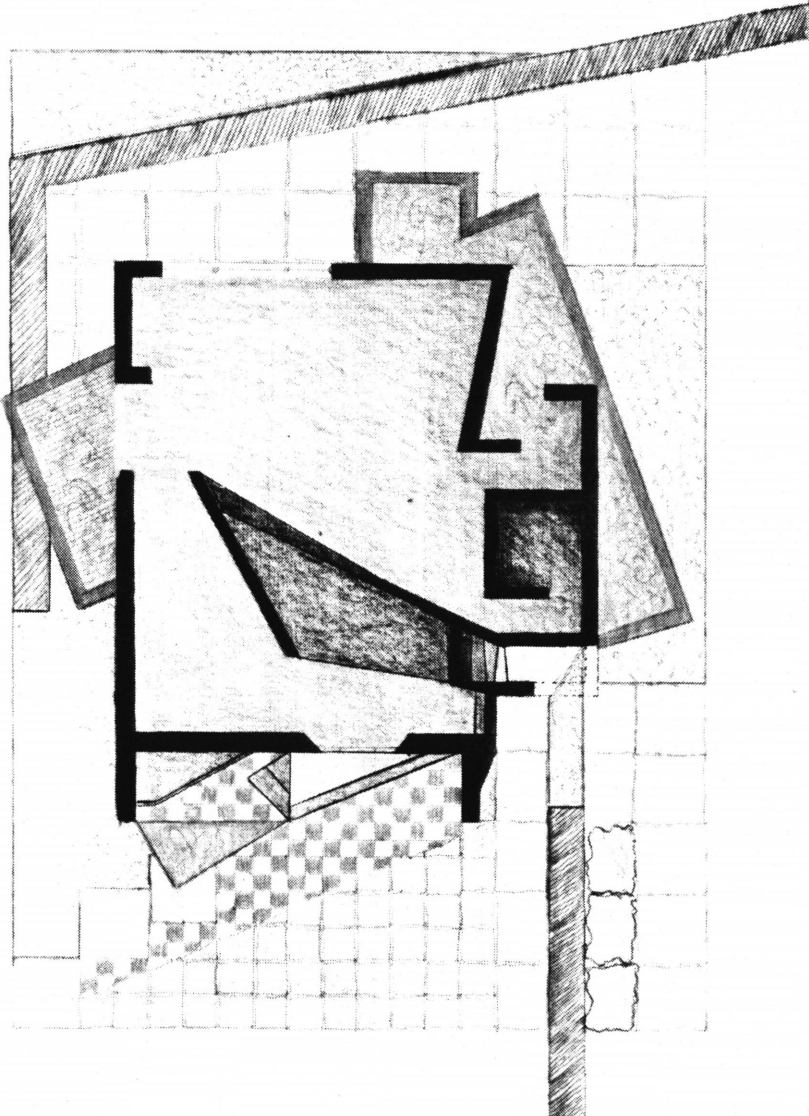
These ideas are displayed in the drawings and models from the first few design schemes. The geometries are striking and the ideas seem clearly translated visually in two dimensions as well as in three. While the simplicity and literalness of the translation retain a certain power, the task still remains to build not only an idea but to create a design which will embody and clearly express these ideas in the language of architecture and dwelling. I begin to search for an order that will bring a certain poignancy to the variations. Variation for variation's sake runs the risk of appearing as complete abstraction and chaos. Variations that come as a result of violation created a sense of tension and counterpoint, granting them greater strength and validity. The major design goal for the house becomes an attempt to strike a balance between the excesses of the compulsively rational and the deficiency of the gratuitously irrational. In this balance a harmony can be found through which both the dwelling and the dweller will be enriched in their interaction.



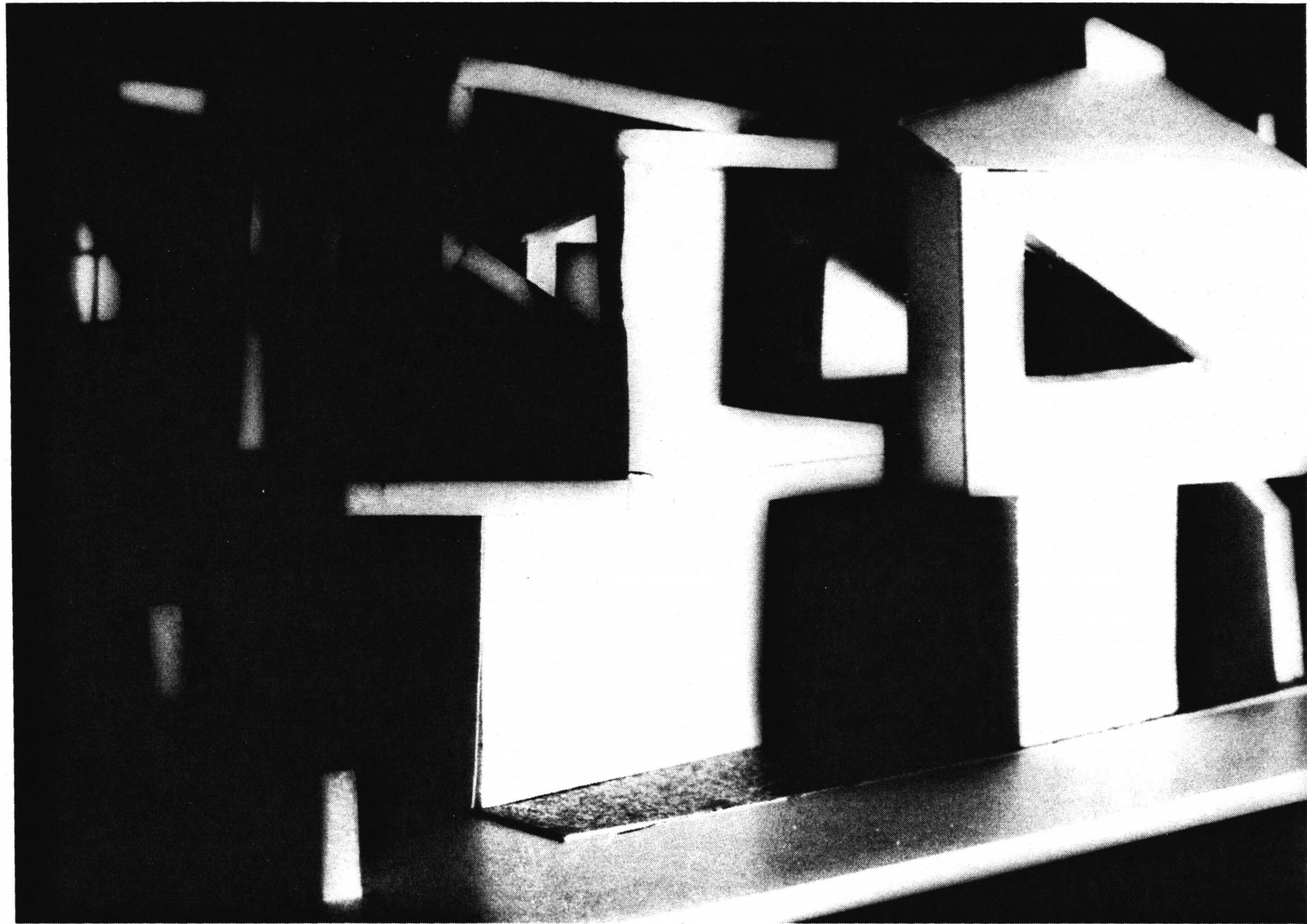
MODEL STUDIES: First Design Scheme



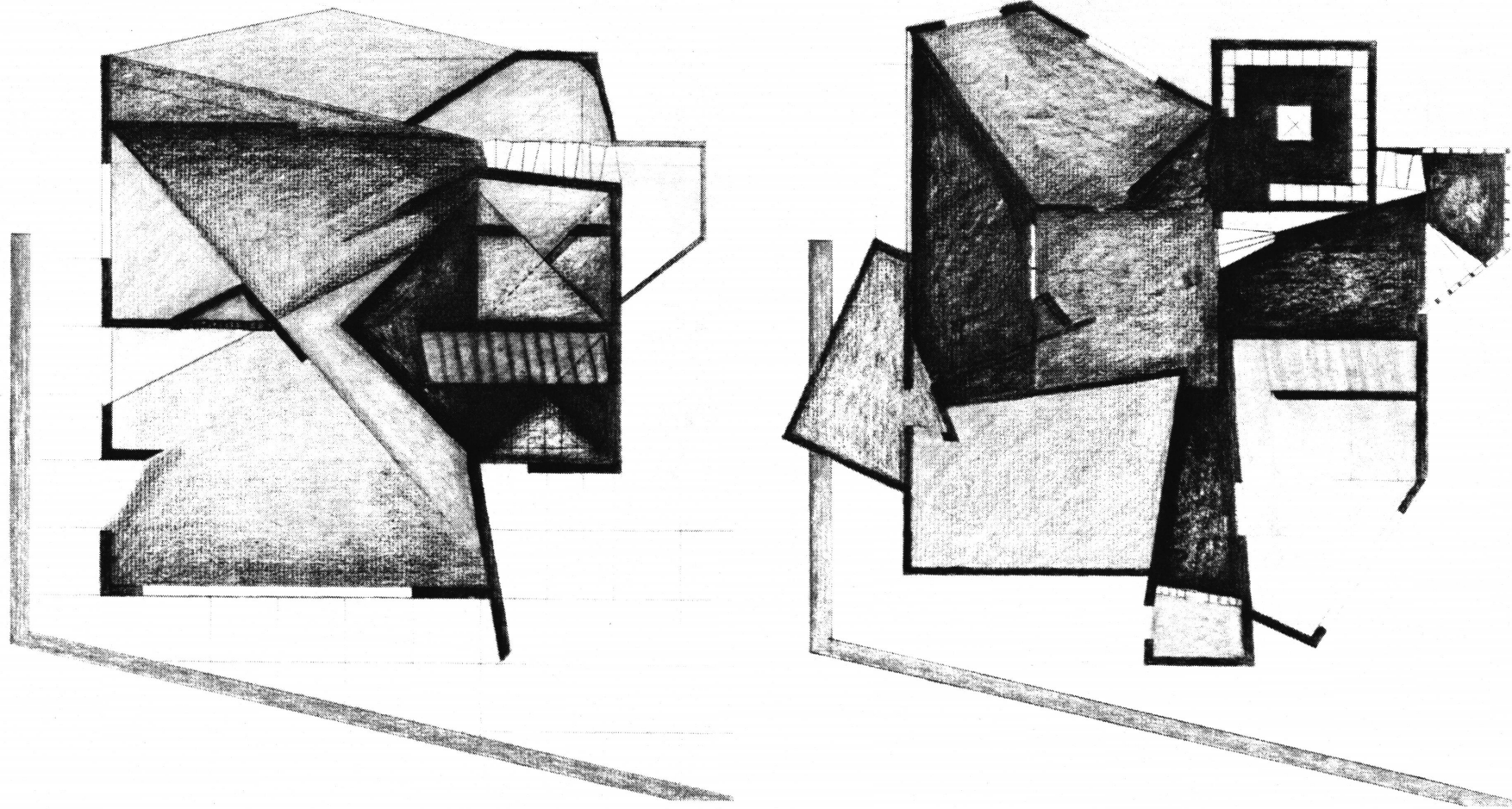
SECOND DESIGN SCHEME



MODEL: Second Design Scheme

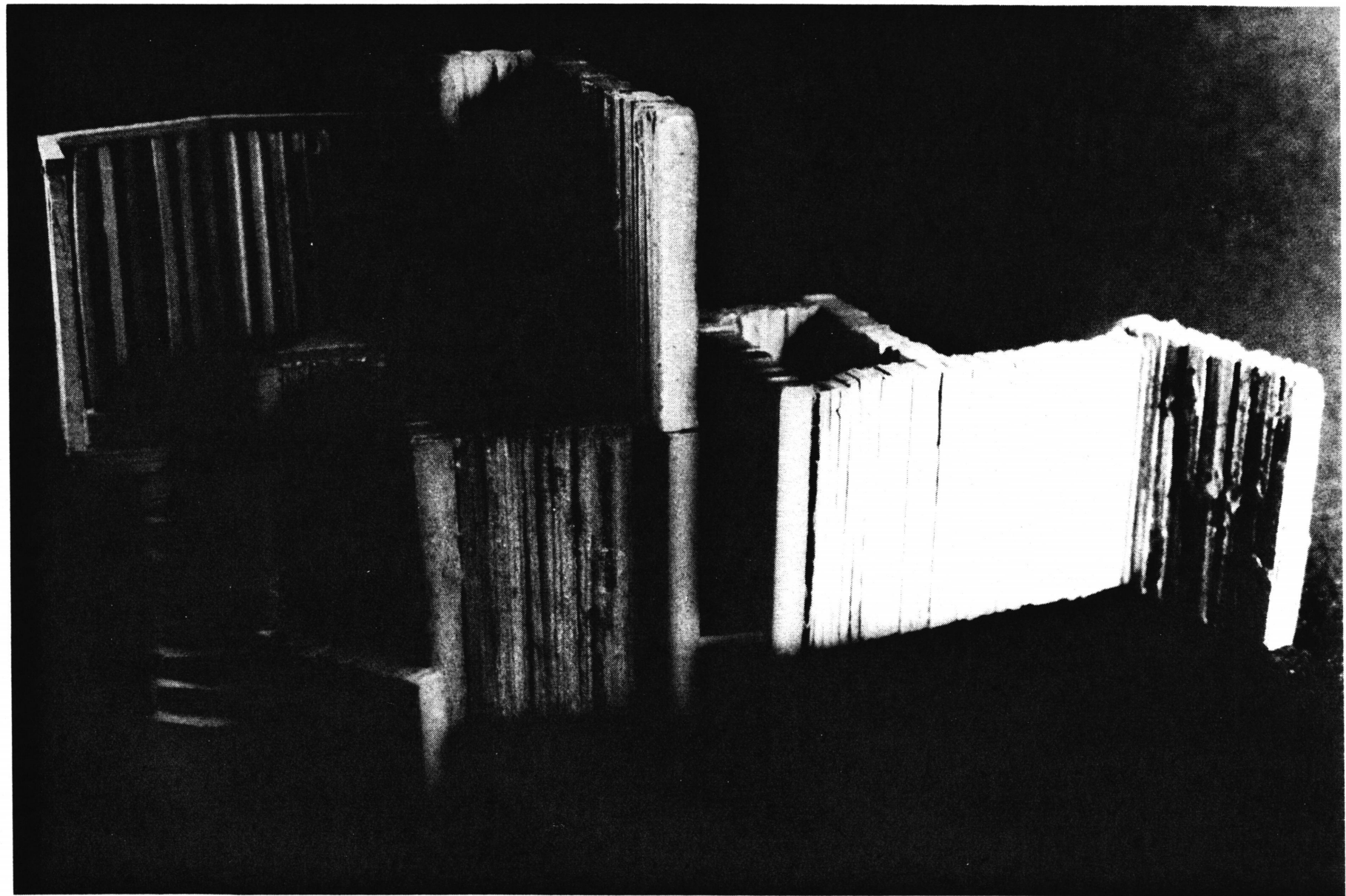


THIRD DESIGN SCHEME

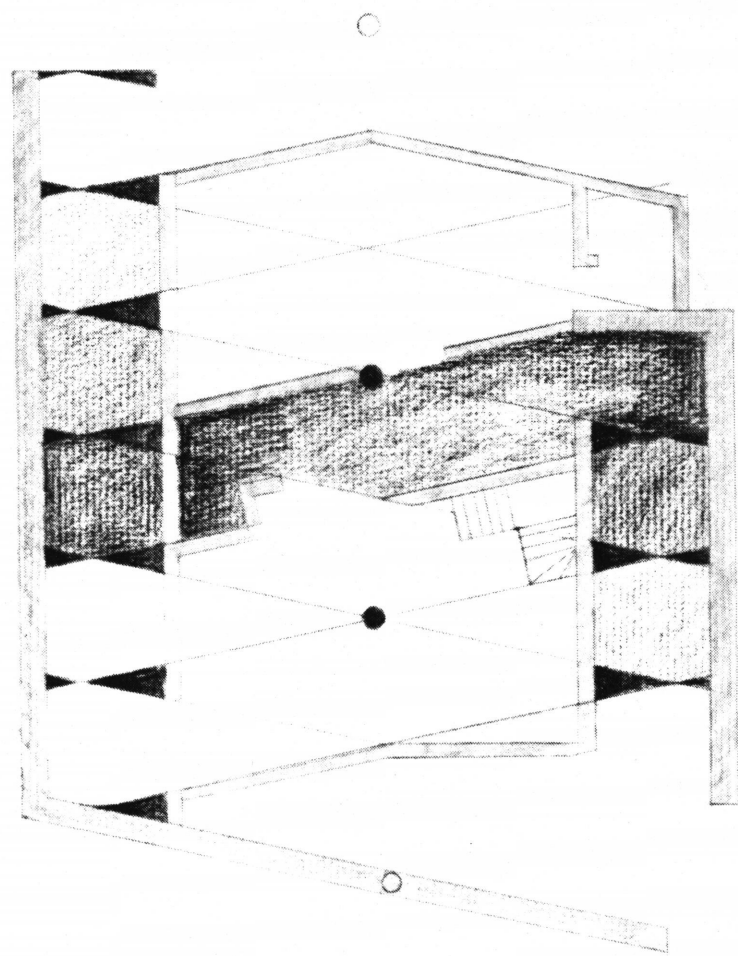




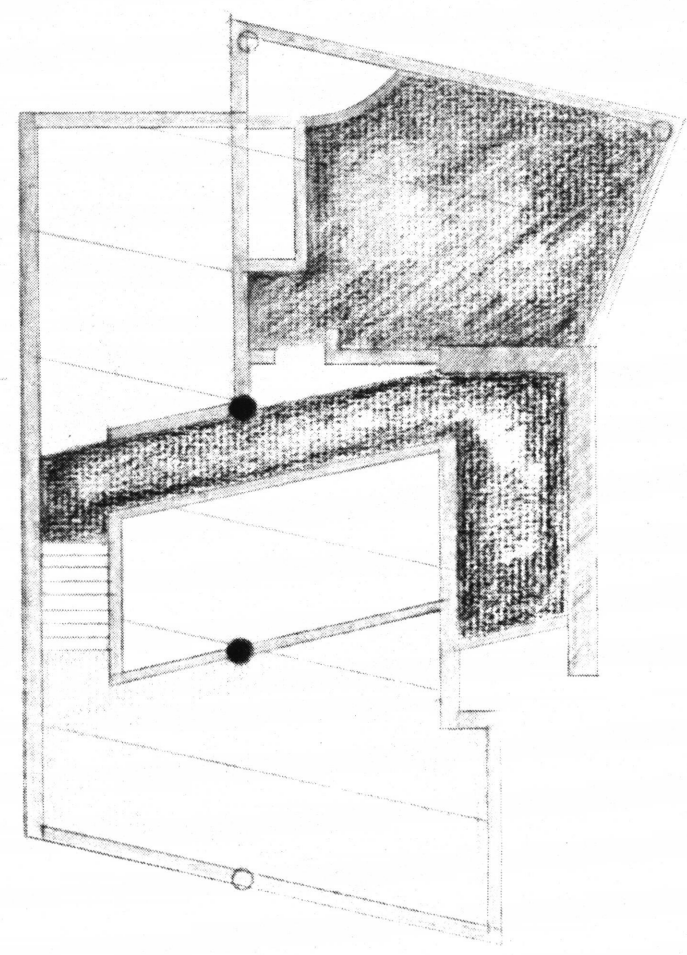
MODEL: Third Design Scheme



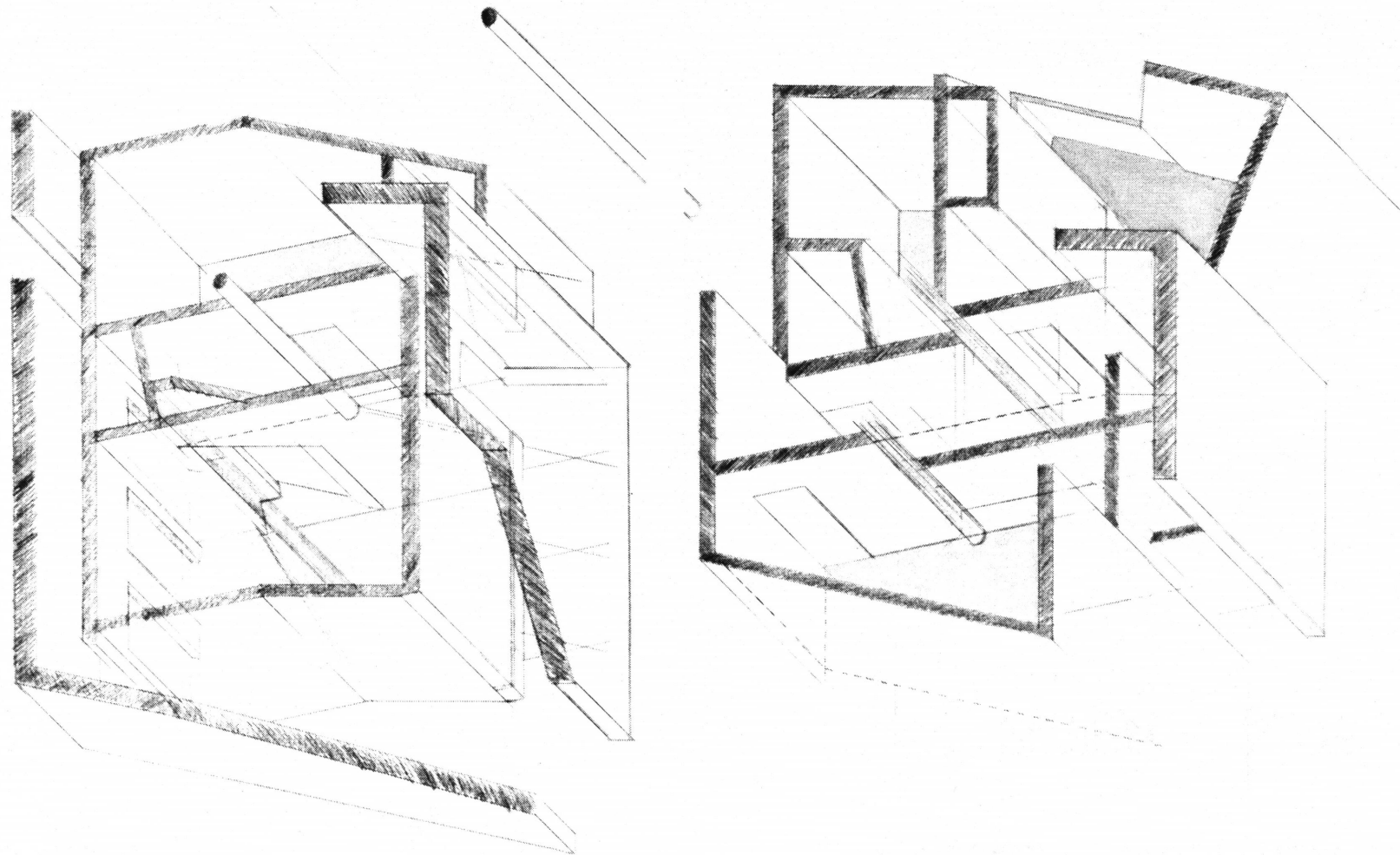
FOURTH DESIGN SCHEME

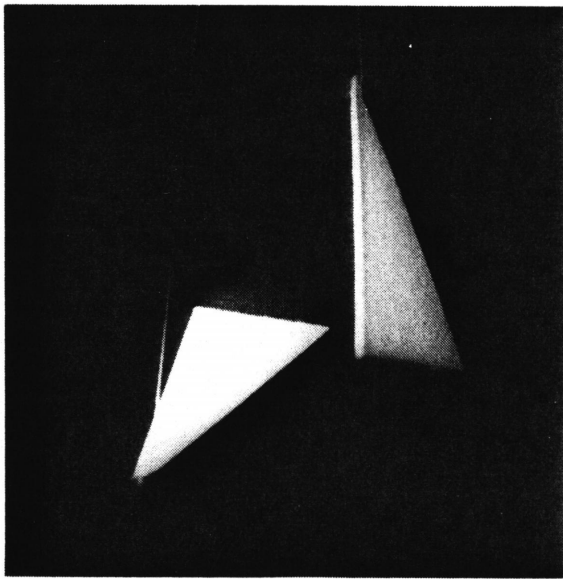


Handwritten annotations including the number '2' with an upward-pointing arrow, and other illegible scribbles.

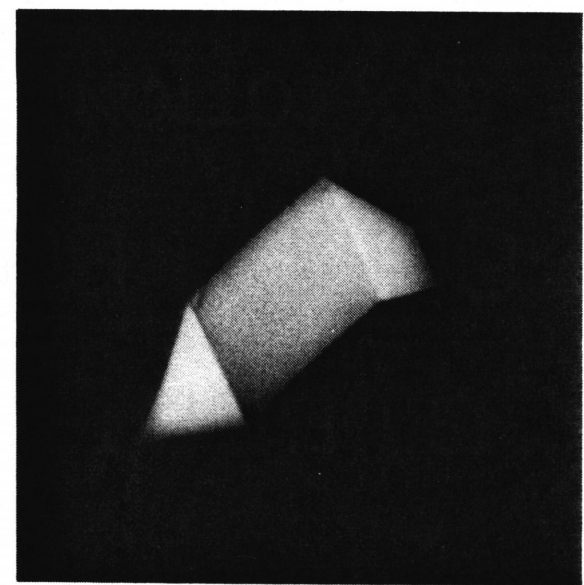
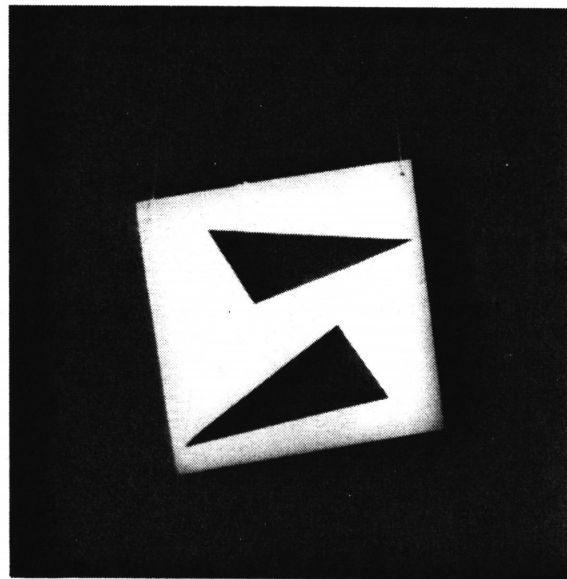


AXONOMETRIC STUDIES: Fourth Design Scheme





THE BALANCE



PROJECT: Perspectmobile

FINAL DESIGN

The final design attempts to bring into balance the guiding factors in the project's development. The main concepts of the design are threefold: the idea of boundary and an expressed relationship between the inside and the outside; the ideas of entrance and passage within; and finally, a geometry of movement which performs formal and functional tasks such as allowing fluid circulation and further expression and emphasis of the ideas and relationships within the house.

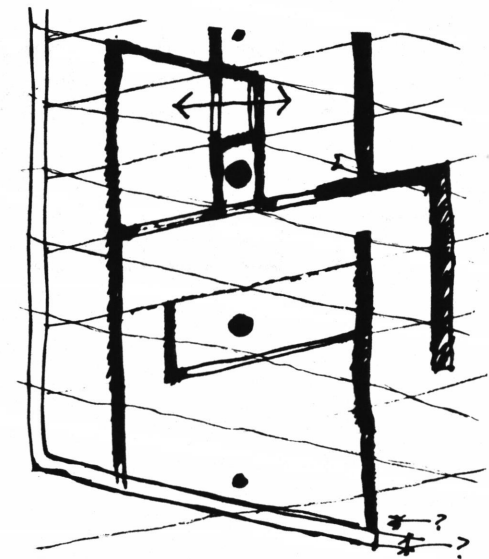
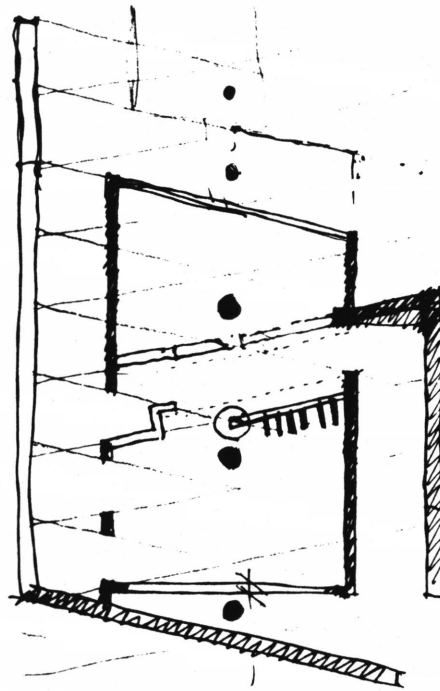
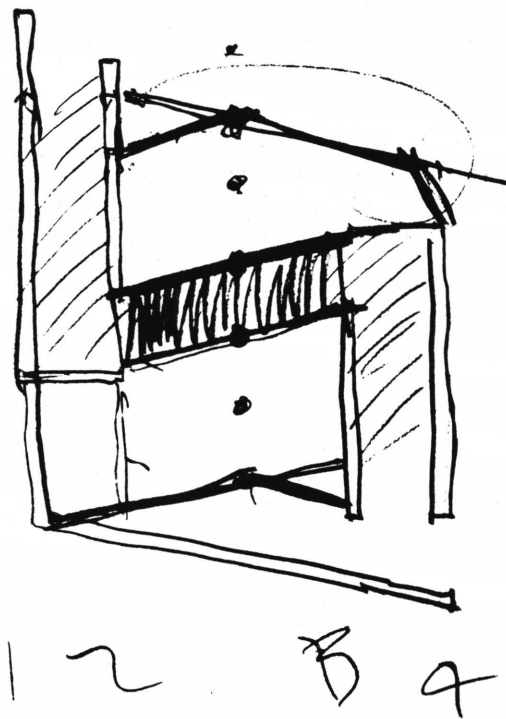
BOUNDARY

The design of the house emanates from its four primary walls. The walls create two narrow passages on either side of the broader central space, and attempt to make prominent the idea of the whole being a harmony of its three parts. This idea has its origin in the platonic analogy of the soul which is the basis of *Plato's Republic*. Its main concept is the idea that the harmonious balance of parts creates a whole with strength and integrity. These four prominent walls can also be read as a wall within a wall with a structural spine of columns in

their coincidental center, and as two walls allowing and creating a passage between the third and central wall.

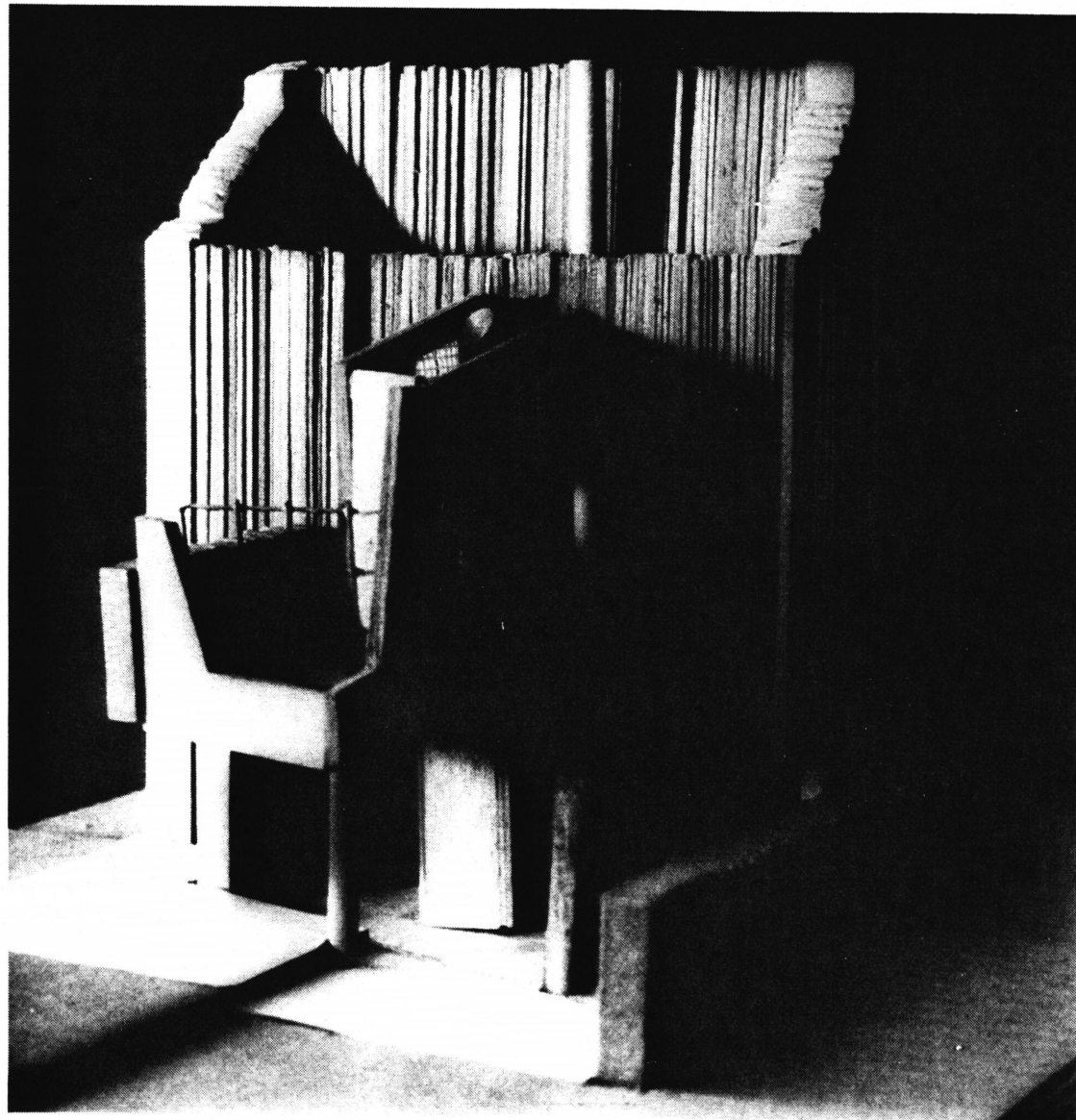
The concept of boundary encompasses many ideas. It is the separation between two realms: the inside and the outside, the public and the private. Boundary is a fortress with varying degrees of permeability, it is a protecting layer or membrane. In a dwelling, boundary defines and protects the private realm within. In architecture the nature of the boundary is the design of the architect. There exist different relationships between the dweller and the interior and exterior of a place. When one is meant to dwell inside, the visual access to the exterior must be guarded and selective so as not to disrupt the experience of the self operating within. Once given gratuitous access to the outside, the relationship of the individual to the interior becomes tainted with the promise and enticement of what is beyond. The experience of dwelling within thus becomes fleeting and secondary. To understand this experience and to shape it through architecture one must be aware of the natural inclinations of human perception. There may be perhaps no greater monument to these ideas than Corbusier's La Tourette Monastery.

DEVELOPMENT



ENTRANCE, PASSAGE, AND MOVEMENT

A building's entrance signals the place where two realms join and the transcendence of boundary occur. It is a place that allows passage into, and therefore takes on the ceremonial assignment of the place of transition. Both the formal and familiar entrances to the house occur along transitional processions. These lead from the street and gradually become more enclosing as one nears the point of entry. One approaches the familiar entrance along the south garden wall. The wall is low and the walkway has a garden-patio scale. Before meeting the door recessed into the circulation axis, one passes the kitchen window. Further along the wall, beyond the door, are two glass doors leading to and from the living room space.



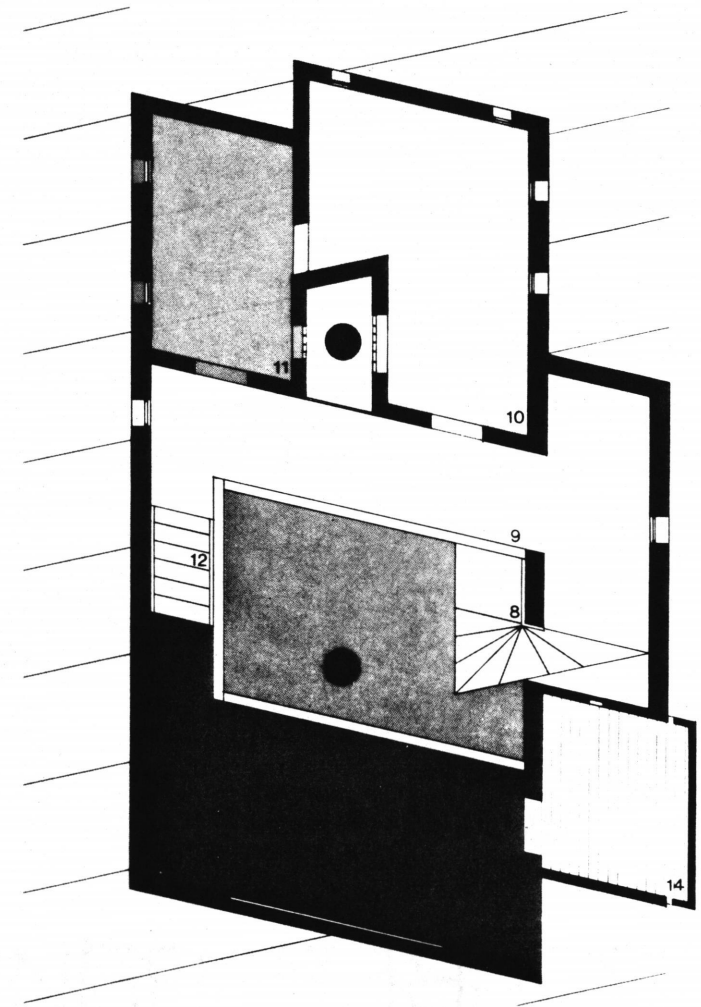
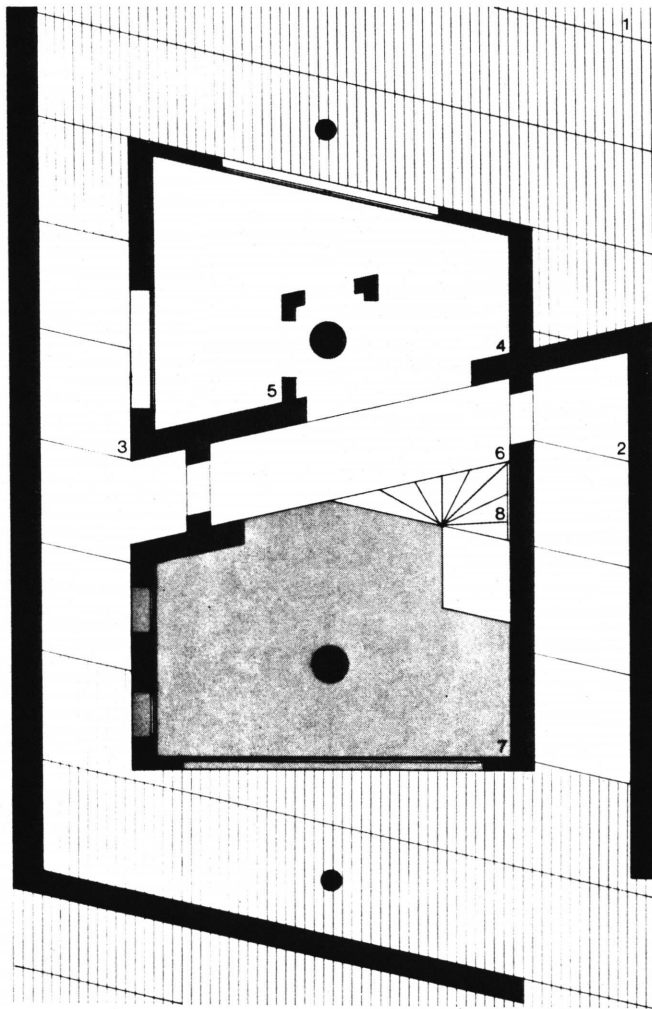
The formal entrance leads into a passage enclosed by a concrete wall, bounding the north side of the house. The wall rises higher and higher as one proceeds, until eventually the space becomes fully enclosing as one stands before the door. Once passing into the house, the stair descends along the prominent transversing axis of circulation. The space to the left of the stair opens the full height of the house, reaching upward to the sky-lighting element which repeats, terminating the axis to the sky.

Movement through the house takes place along the transverse north-south axis which cuts across the east-west orientation of the major walls. Circulation within the house takes the form of an upward spiral which uses continuous momentum to define a hierarchy of spaces. It moves from the lowest, most public space to the highest and most private spaces. The spiral creates passages between the volumes and different spaces within the house. It is designed in such a way as to alternately reveal and conceal while one is in motion. The intention is to provide circulation that is continuous movement; but it also creates passage and perspective with the awareness of where one has been and what might lie ahead.

Within the house visual access is sometimes explicit, as when seeing a stair ahead or looking above to a place only slightly revealed from your perspective. Other times access is subtle or only implicitly revealed—a glimpse of a corridor wall angling out of view below the upper walkway, or of the stair receding into a wall, its termination hidden from view. The interior columns which in part support the skylight above are also pivotal points revealed and then hidden in passage. It is the intention of the circulation spiral to provide a fluid connection between the spaces as well as to reinforce the fragmentation of the whole.

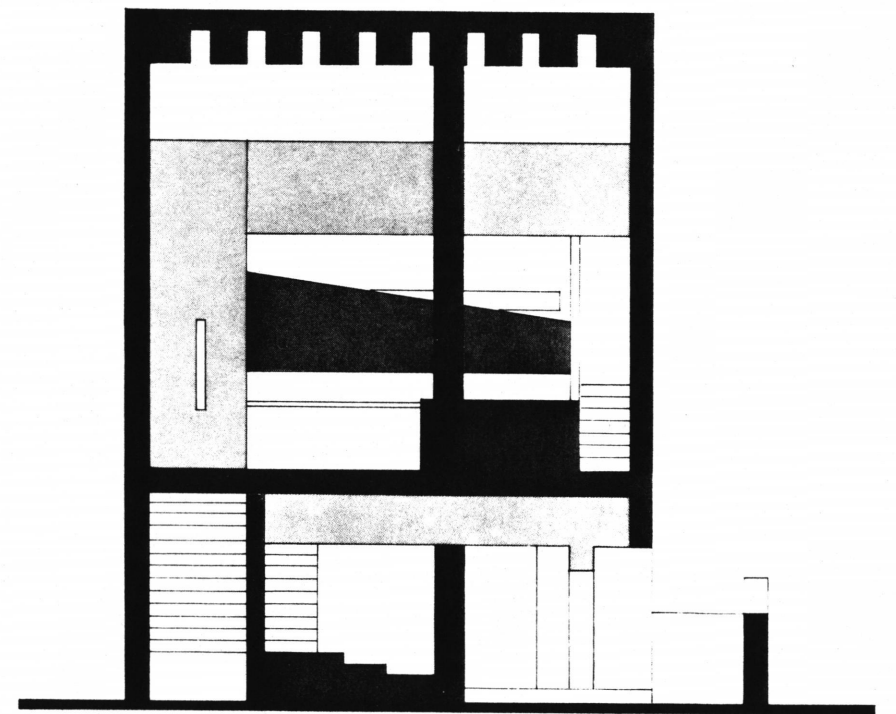
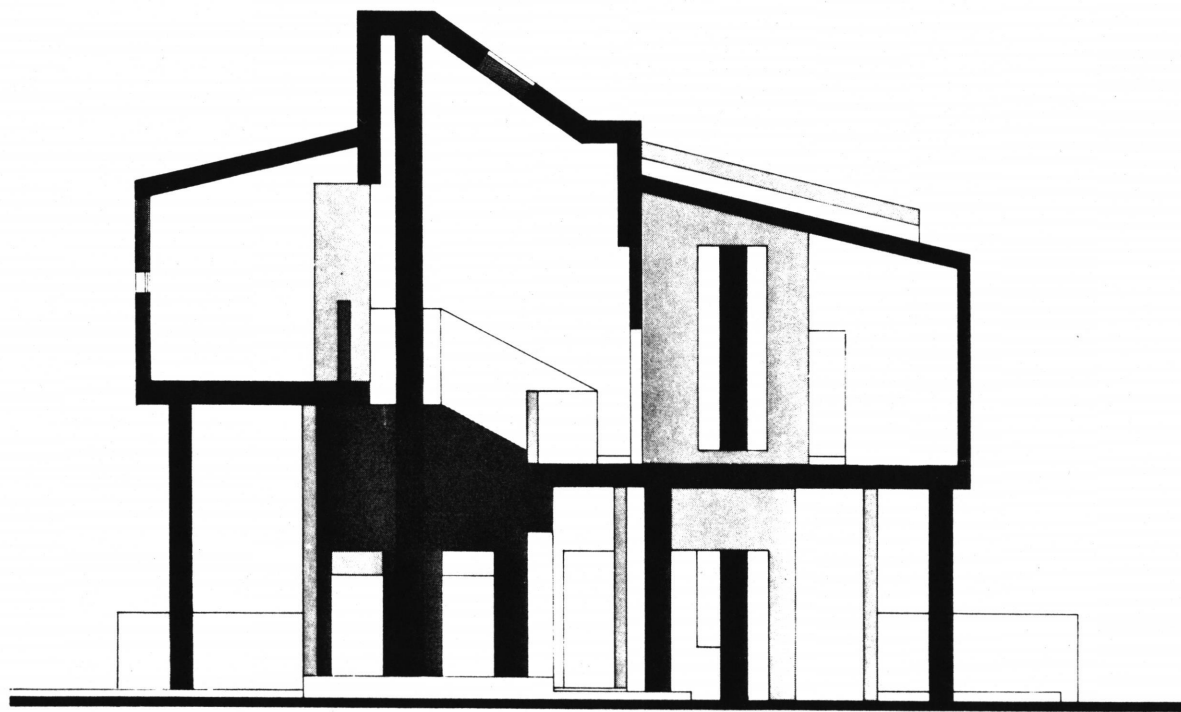
Continuity and fragmentation, or continuity from fragmentation is the character of the modern experience. We are constantly confronted with the disparity between meaning and image. The responsibility for synthesis of these fragments is left up to each individual. Art and architecture necessarily express the spiritual hopes and concerns of man. This reconciliation exists in the realm between that of the real and the possible, the realm of human understanding and struggle. The architect must claim the opportunity to define the interaction of earth, sky, and dwelling. In such a way he creates a code by which to understand, experience, and explore.

1. Patio
2. Formal Entrance
3. Familiar Entrance
4. Dining Room
5. Kitchen
6. Entrance Hall
7. Living Room
8. Stair
9. Galleria
10. Bedroom
11. Bath
12. Stair
13. Library/Study
14. Sun Porch



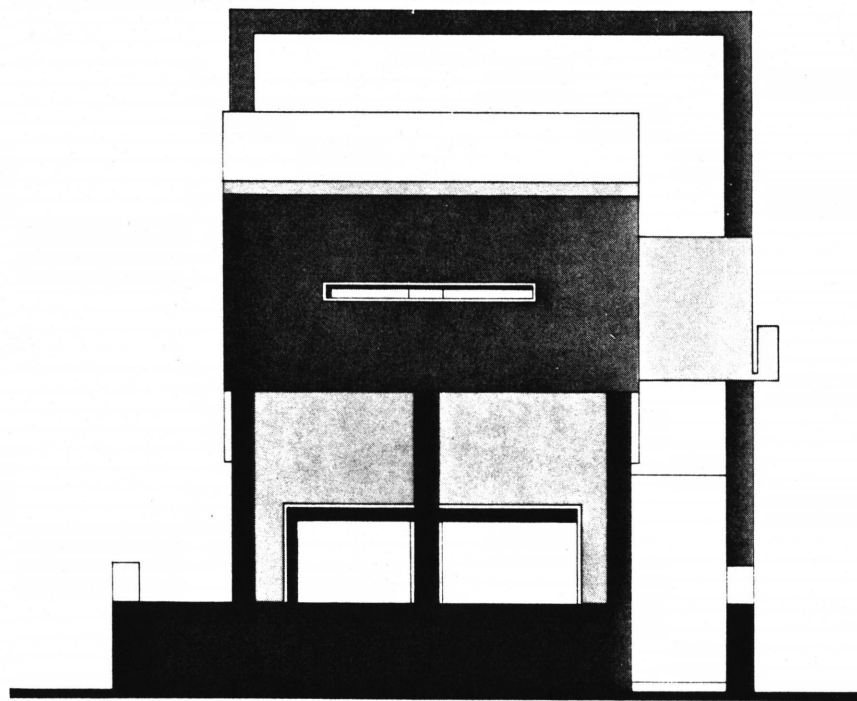
FIRST AND SECOND FLOOR PLANS



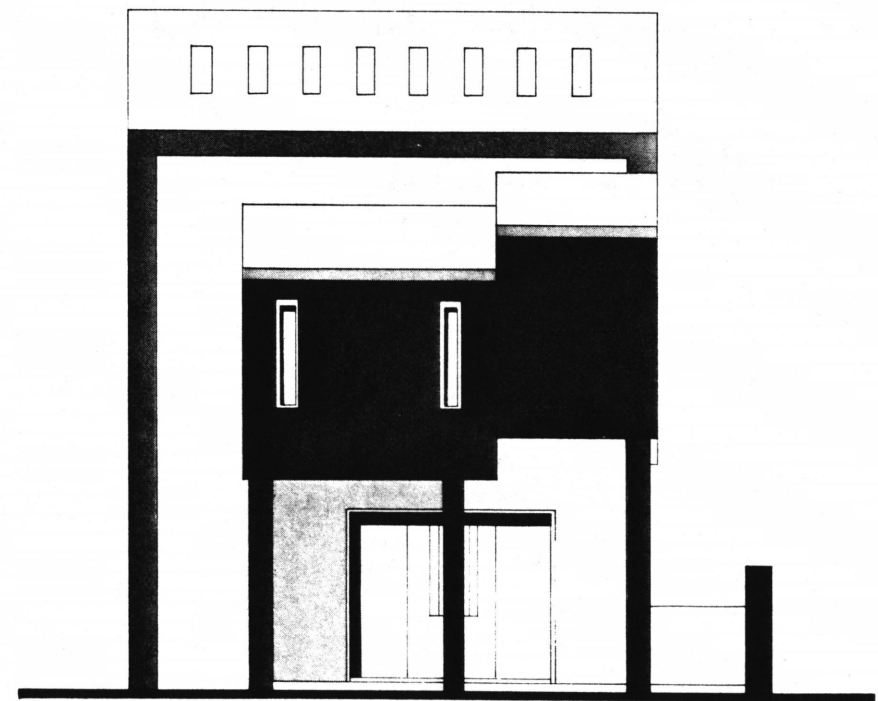


SECTIONS

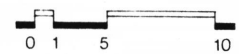


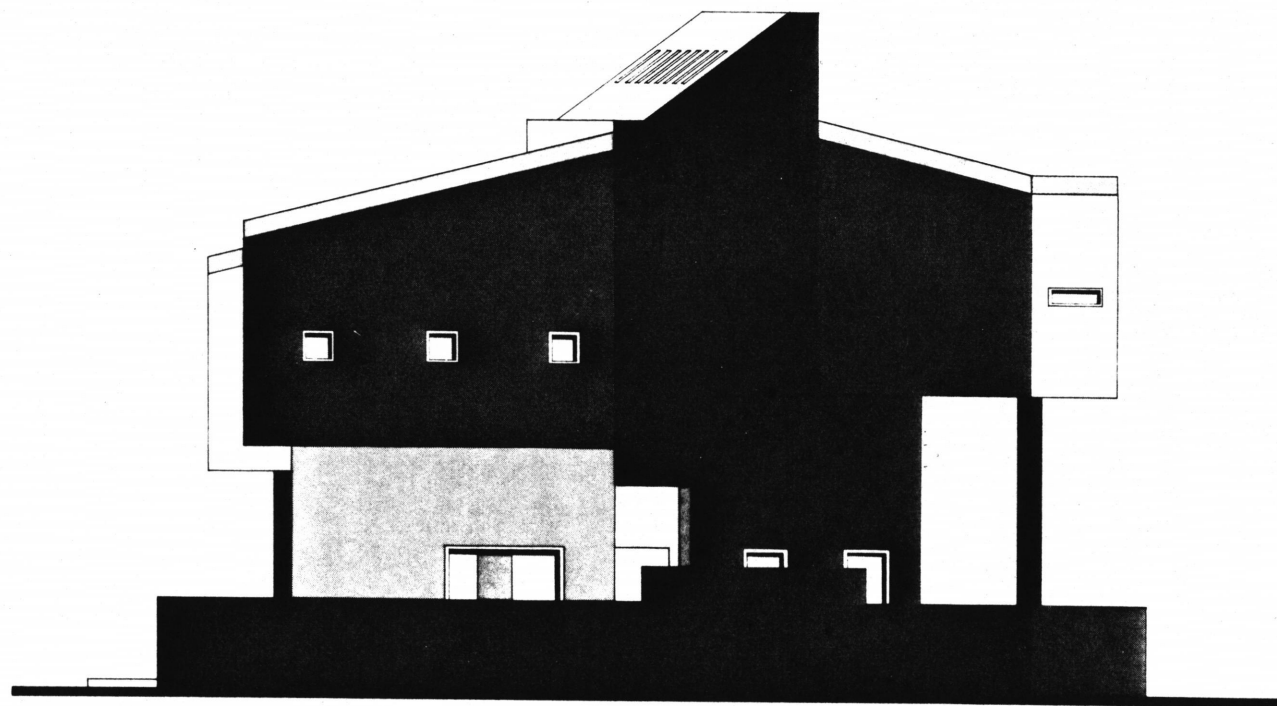


EAST ELEVATION



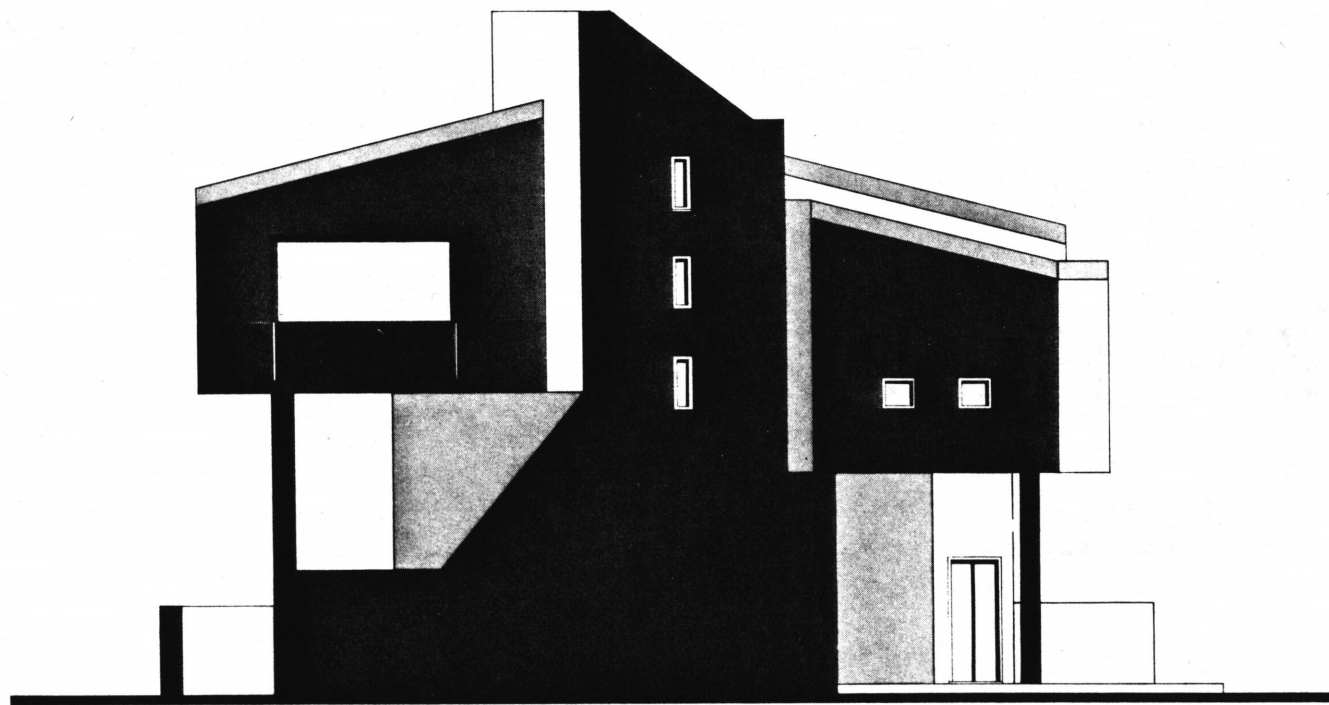
WEST ELEVATION



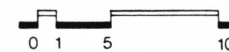


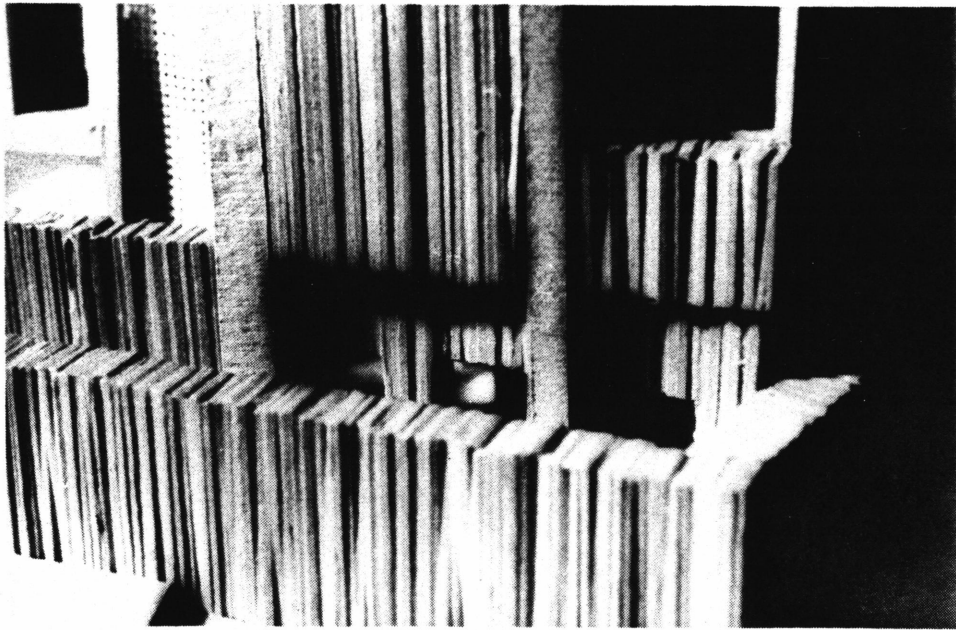
SOUTH ELEVATION



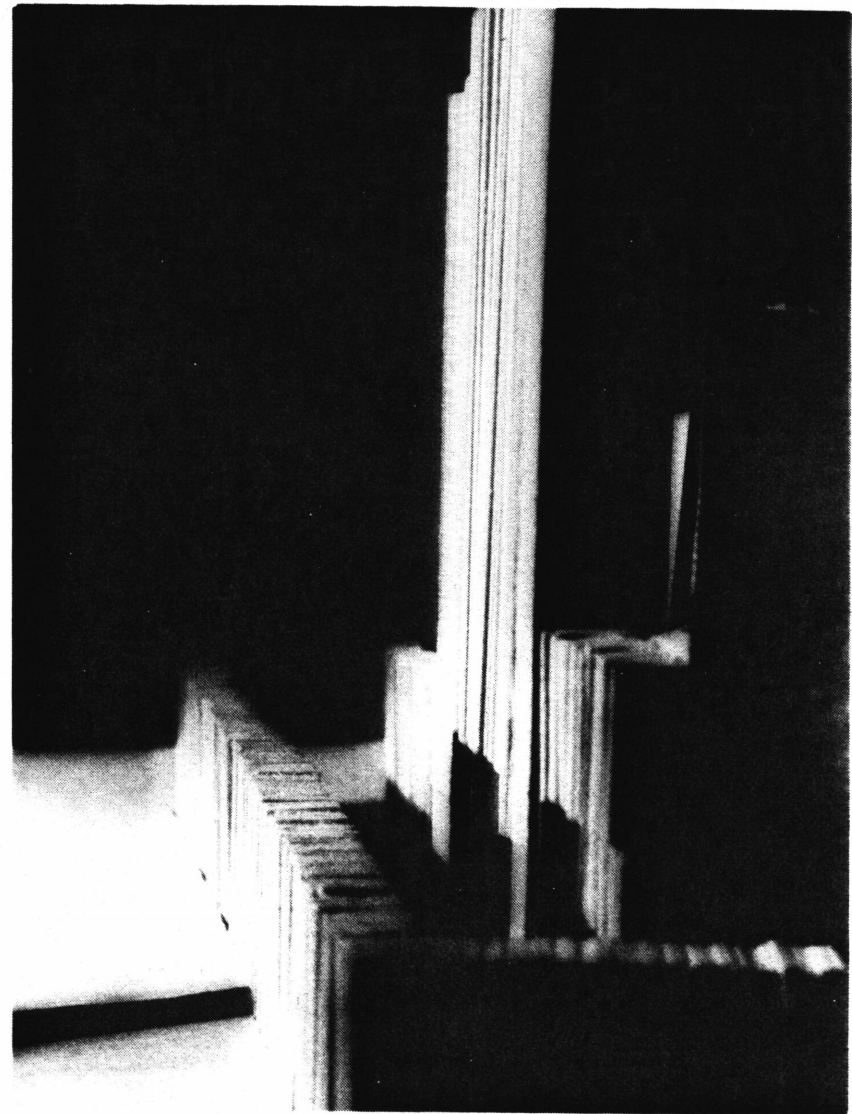
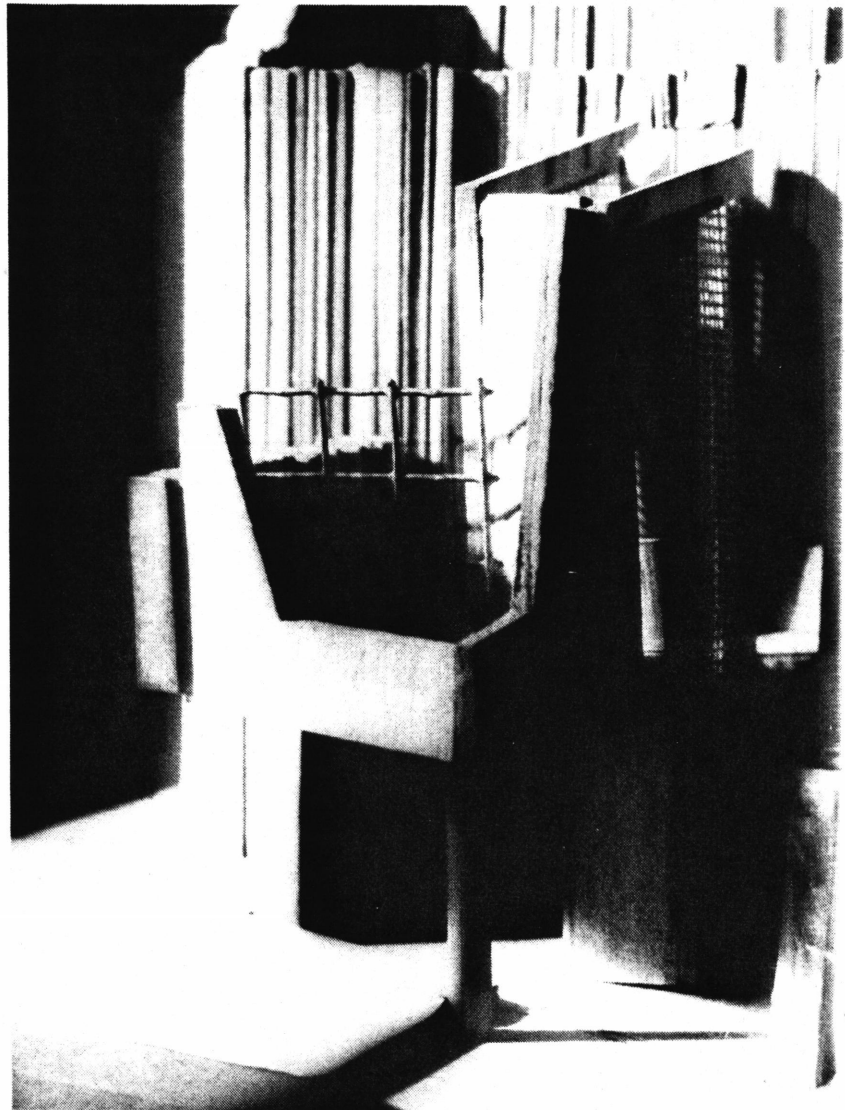


NORTH ELEVATION





VIEWS



BIBLIOGRAPHY

Aristotle, NICOMACHEAN ETHICS. Trans., Martin Oswald, Bobbs-Merrill Educational Publishing: Indianapolis, 1978.

Eliot, T.S., T.S. ELIOT: THE COLLECTED POEMS AND PLAYS 1909-1950. Harcourt, Brace & World, Inc.: New York, 1971. With particular acknowledgment to "THE WASTE LAND".

Faulkner, William, ABSALOM, ABSALOM!. Random House: New York, 1951.

Faulkner, William, THE SOUND AND THE FURY, Random House: New York, 1954.

Gardiner, Stephen, EVOLUTION OF THE HOUSE, Paladin: Great Britain, 1975.

Guidoni, Enrico, PRIMITIVE ARCHITECTURE. H.N. Abrams: New York, 1975. (Luigi Nervi, Editor).

Heidegger, Martin, POETRY, LANGUAGE, THOUGHT. Trans., Albert Hofstadter, New York: Harper Colophon Books, 1975.

Kant, Immanuel, THE CRITIQUE OF PURE REASON. Trans., Howard Kemp Smith, St. Martin's Press: New York, 1965.

Leitner, Bernard, THE ARCHITECTURE OF LUDWIG WITTGENSTEIN. Press of the Nova Scotia College of Art & Design: Halifax, 1973.

Plato, PLATO: THE COLLECTED DIALOGUES. Edith Hamilton and Huntington Cairns: Princeton University Press, 1978.

Tafuri, Manfredo. ARCHITECTURE AND UTOPIA: DESIGN AND CAPITALIST DEVELOPMENT. Trans., Barbara Luigia La Penta: MIT Press, Cambridge, Massachusetts, 1979.

Stevens, Wallace, THE COLLECTED POEMS OF WALLACE STEVENS. Alfred A. Knopf: New York, 1980.

Scully, James, Ed., MODERN POETICS. McGraw-Hill Book Company: New York, 1965.

Wittgenstein, Ludwig. TRACTATUS LOGICO-PHILOSOPHICUS. Trans., D.F. Pears & B.F. McGuinness, Routledge and Kegan Paul: London and Henely, 1978.

**The vita has been removed from
the scanned document**