

A MOVEMENT FROM FRAGMENTS TO THE INCOMPLETE

by

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“The term “public” signifies the world itself, in so far as it is common to all of us and distinguished from our privately owned place in it. This world, however, is not identical with the earth or nature, as the limited space for the movement of men and the general condition of organic life. It is related, rather, to the human hands, as well as to affairs which go on among those who inhabit the man-made world together. To live together in the world means essentially that a world of things is between those who have it in common, as a table is located between those who sit around it; the world like every in-between, relates and separates men at the same time.”

Hannah Arendt

Introduction

This collection of works from two movements in an architectural education represent the challenging of one learning situation by another. It is not a definitive study on architectural education, but rather documents the search for a beginning point of one student of architecture.

The volume focuses on the two summation points thus far, the undergraduate thesis and the graduate thesis. The inclusion of the first is to provide a reference point for the direction taken in the graduate work.

The volume consists of three sections. The first consists of the undergraduate thesis, A Geriatric Facility, and graduate work along the same line of process and thought. The second is a collection of architectural essays, with “*wall*” as the theme from which each essay departs. The third is a descriptive analysis of the principles manifested in the wall studies. The third section analysis seeks to establish a first principle by posing a question.

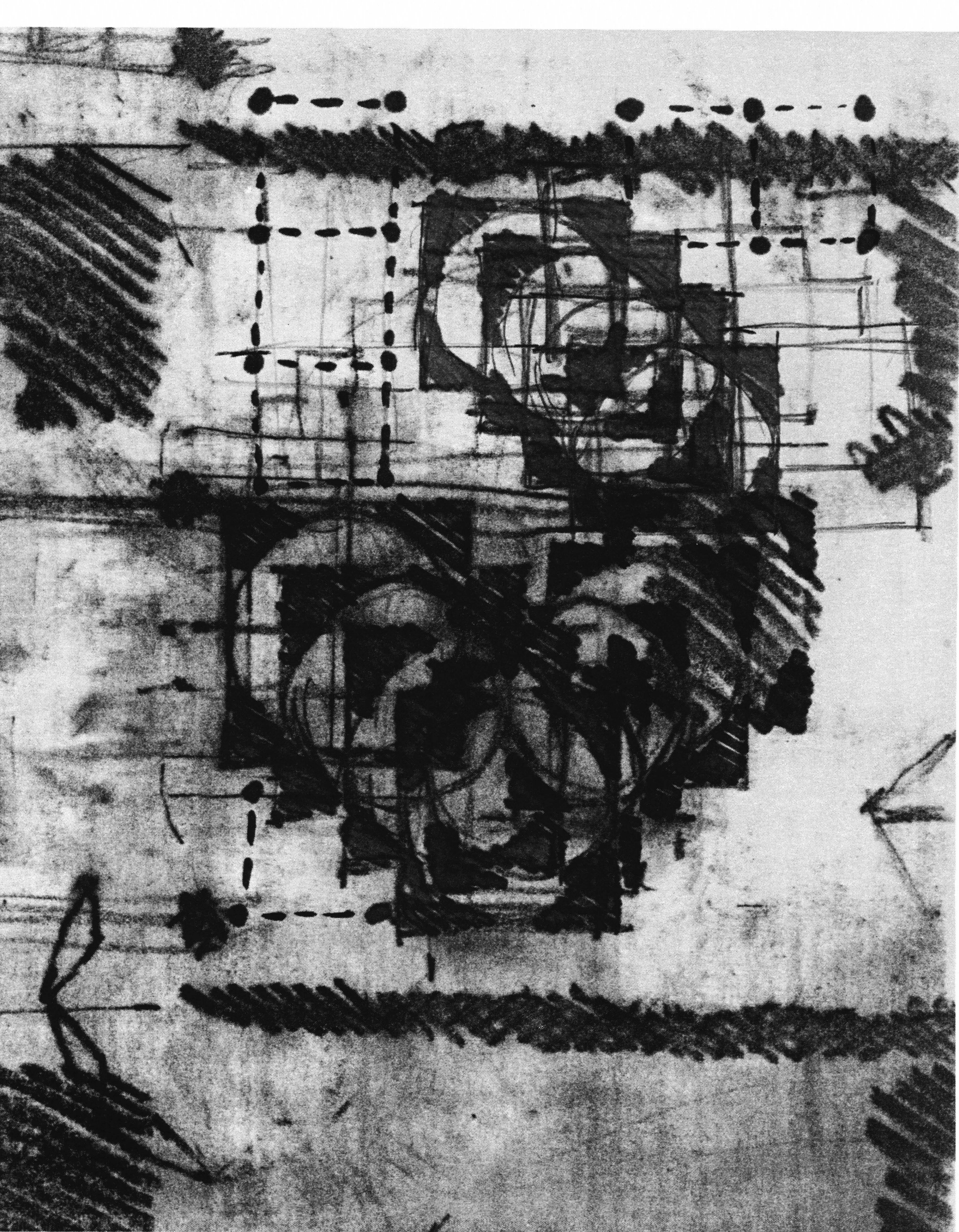
Each movement begins with a discourse of the issues and influences explored in the sequence of works which follows, ending with a subjective description of the significance of each lesson. The work of each movement is organized according to development and intention, chronologically ordered only when it parallels the analysis of development.

There are a common set of qualities and characteristics revealed through an analysis of the collected works. It is a heterogeneous structure of the parts which comprise a whole, beginning to develop the emotions of a space through the tactility explored in models and drawings. An understanding of the basic notion of ‘*to relate and to separate*’ is developing, manifested in the theme of ‘*to harbor and to bring forth*’ which forms a basic structure of the work.

As a body of work, the graduate thesis raises the question of: what is an architectural project; when does a project challenge; when does it test; and when does it document what is known? This

body of work challenges, for it is challenging where true discoveries are made.

This work requires another project with limits, to test the discoveries of the exploration of the themes which emerged through the constructions.



Experiments With an Education

“The way in which the human mind knows the nature of things is abstractive and discursive, for the intellect draws its conceptions from sense and imagination and proceeds from there by means of judgement and reason.”

St. Thomas Aquinas

Learning can be defined as a search to know the nature of things. An architectural education is the learning of the architecture of things, their elements and parts. This includes not only the material, i.e. walls, floors, ceilings, but the abstract which defines structure, expression, limits.

There are limitations and the exploration of these elements as a result of an education based on two points: establishing a process; and human needs from the psychology of behaviorism. Process may be defined as a linear sequence of steps which lead to the solution of a problem. Behaviorism abandons the concept of the mind and consciousness in favor of the objective study of human behavior and needs. This detaches the work from a context of *“things.”*

By re-evaluating the role of *“thinking”* and the role of *“play”* in an architectural education, process and human needs are tested. To be able to consider the role of thinking, it is first necessary to clarify the misconceptions of the use of ideas of reason, from the discipline of philosophy. It was held that one began a work of architecture by thinking, translating an idea from outside of the realm of architecture, to give meaning to the work. Heidegger writes of thinking as informing the poetic only indirectly, and that the potential of interference in the conception of the work is ever present.

The poetic work commences with the innocence of play, beginning with a thing. Through imagination and the sense the properties and qualities of the thing are explored. The significance of play is expressed by Alvar Aalto in the following:

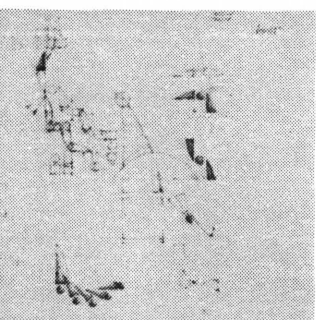
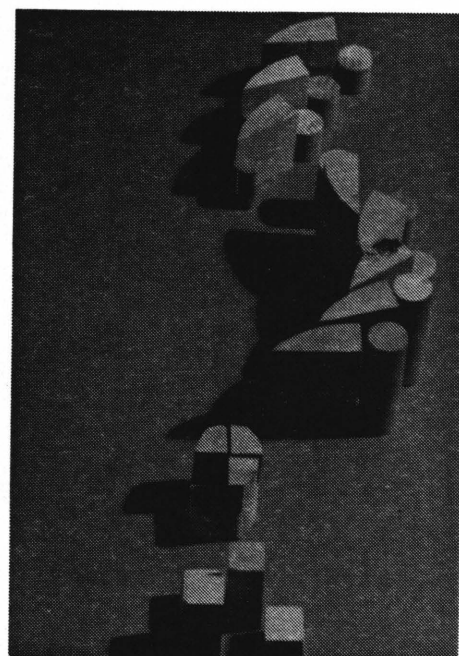
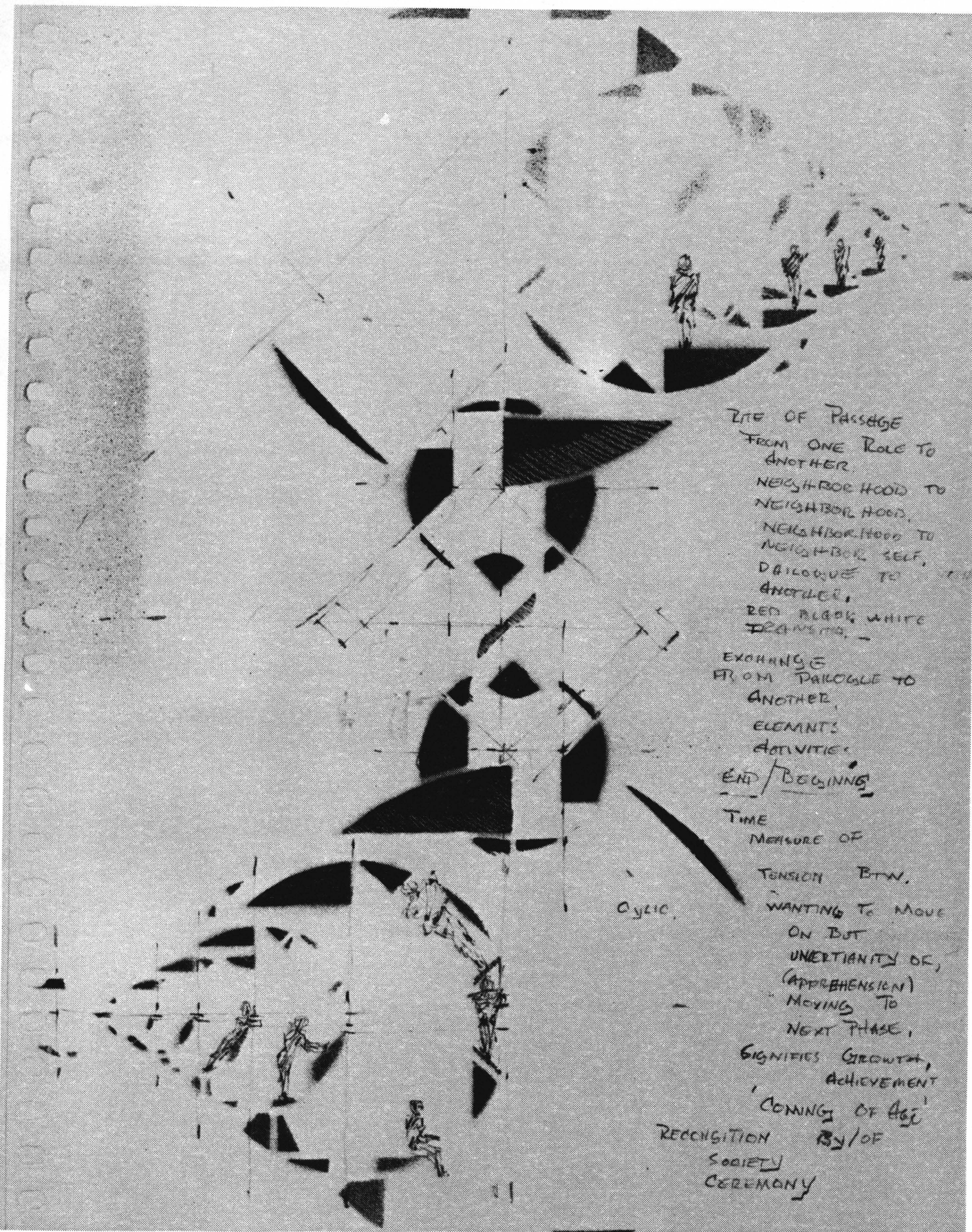
“In order to achieve practical goals and valid aesthetic forms in connection with architecture one cannot always start from a rational and technical standpoint - perhaps even never. Human imagination must have free room in which to unfold. This was usually the case with my experiments in wood. Pure playful form, with no practical function whatsoever have in some cases led to a practical form...”

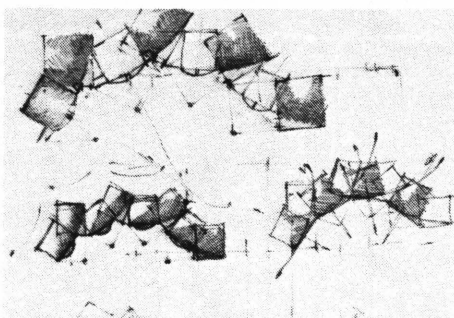
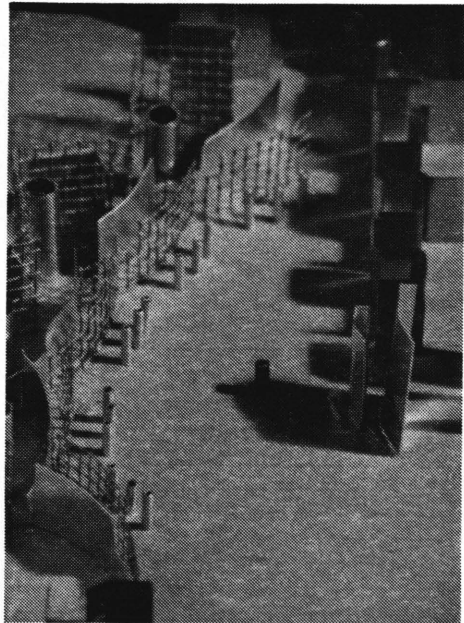
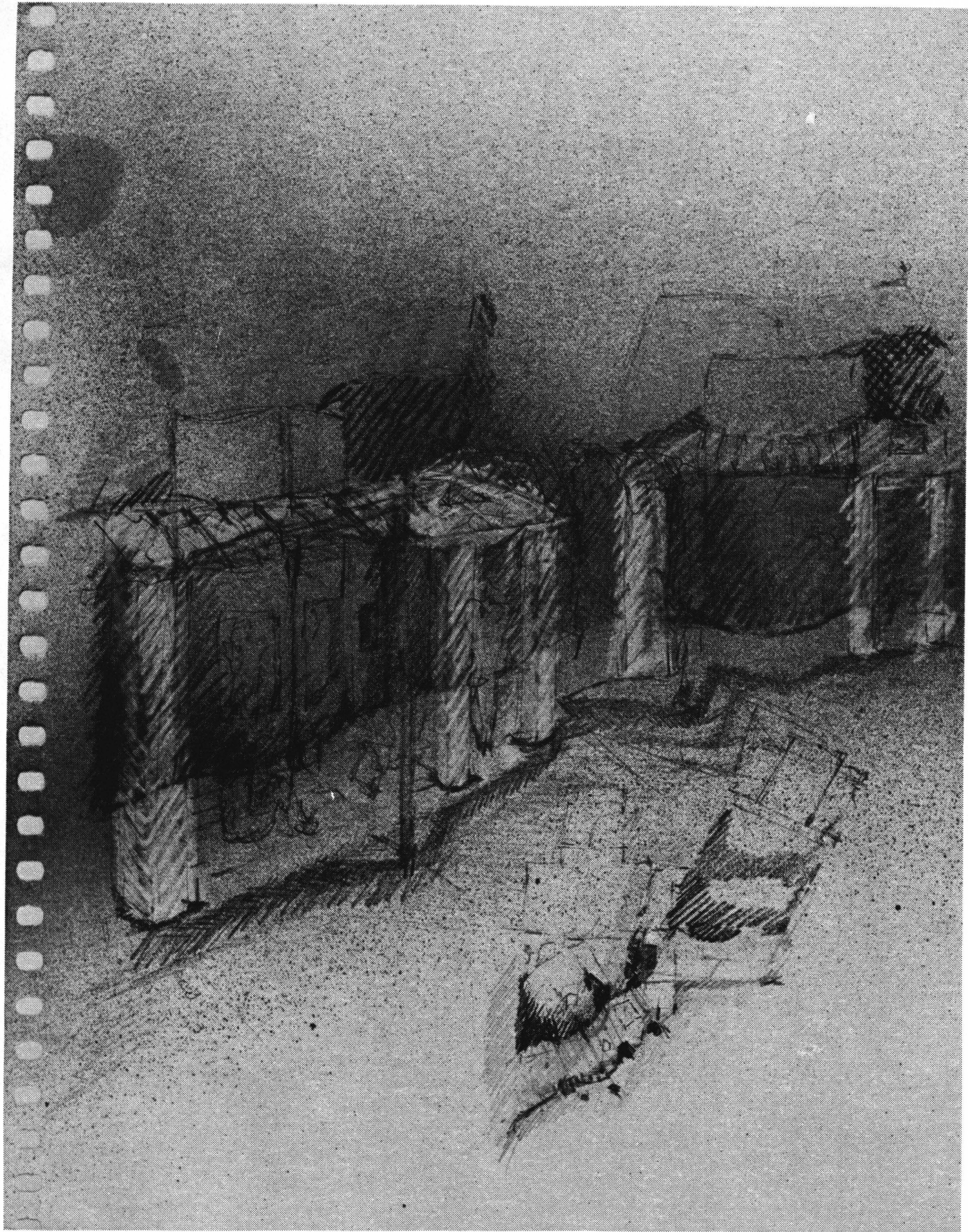
Sincere play will lead to valid aesthetic forms. What must be allowed for, and learned from, are the unsuccessful paths which will also unfold, providing detours and the opportunities to double back.

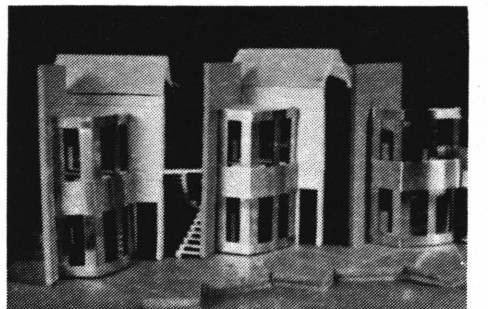
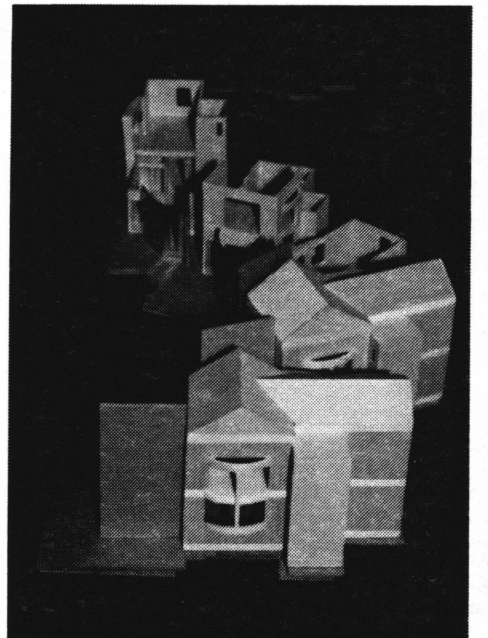
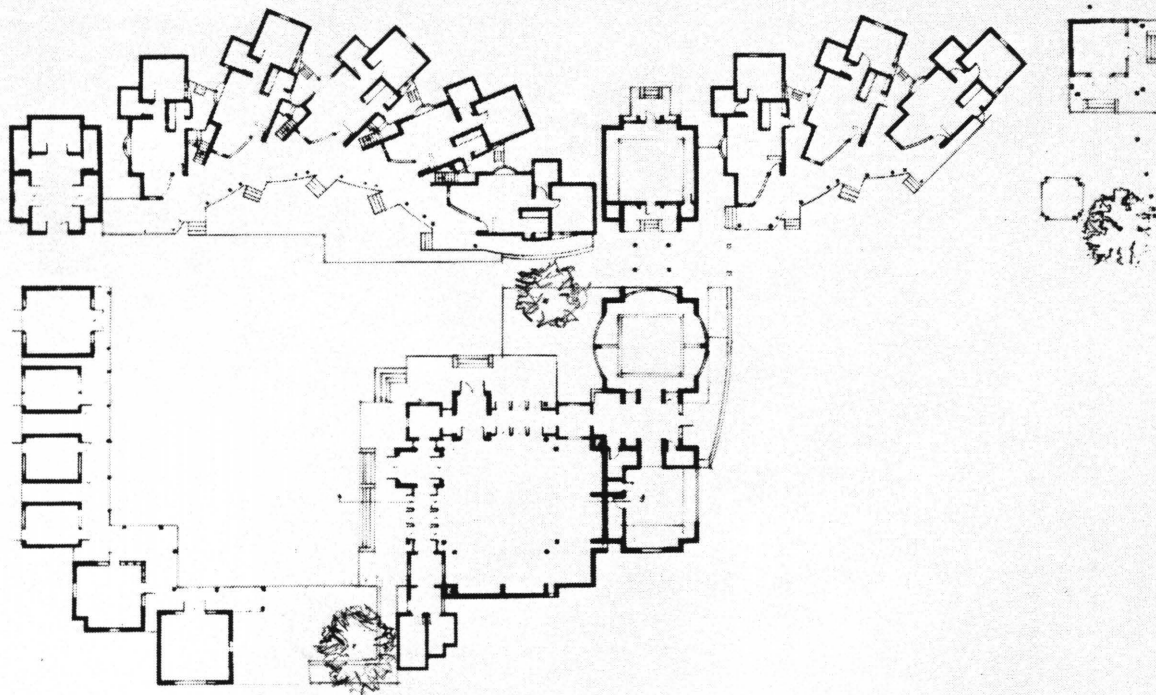
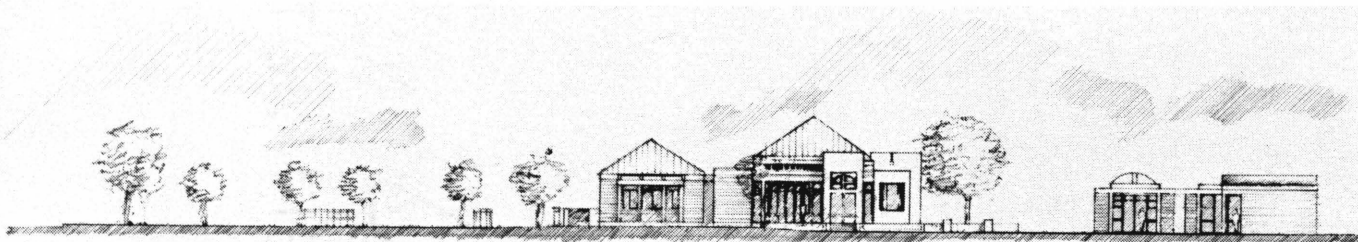
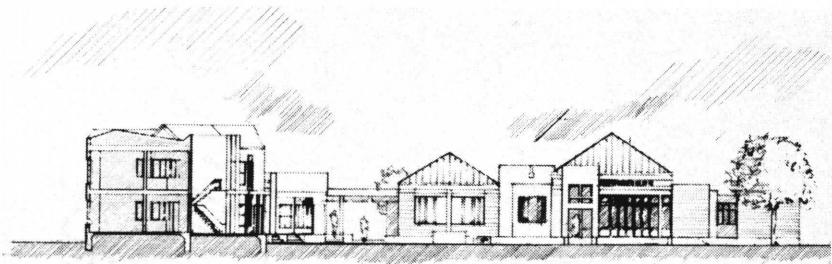
Learning cannot be a linear process, but rather as Jerome Bruner describes, it is a ‘*spiral curriculum*’ building upon earlier discoveries while spiraling back to understand them in a new way. A result of oscillating between doing and thinking, the dialectic, which begins by doing. The ‘*thing*’ which is the subject of the doing, provides a point from which to start. This is reflected in Aquinas’ statement ‘*to know the nature of a thing through imagination and the senses,*’ apprehending and understanding the properties and qualities of the thing.

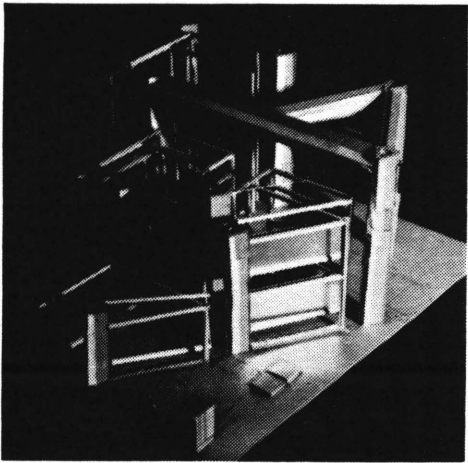
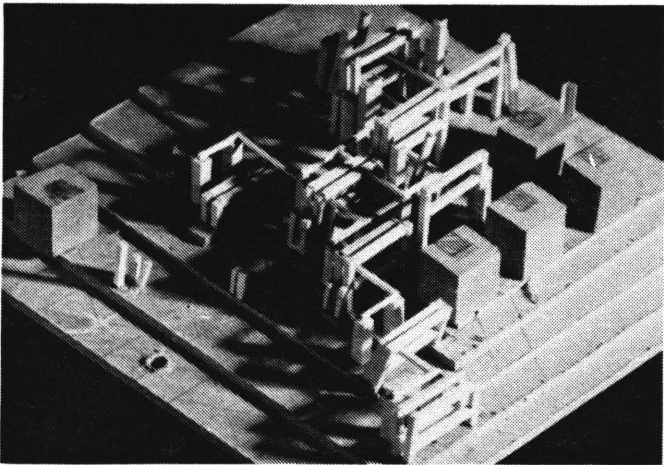
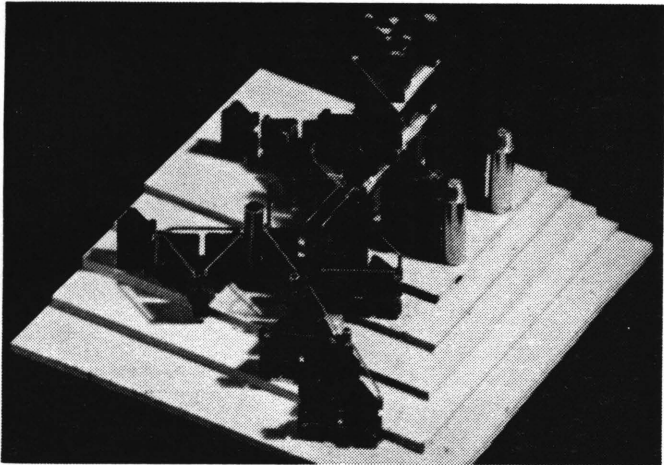
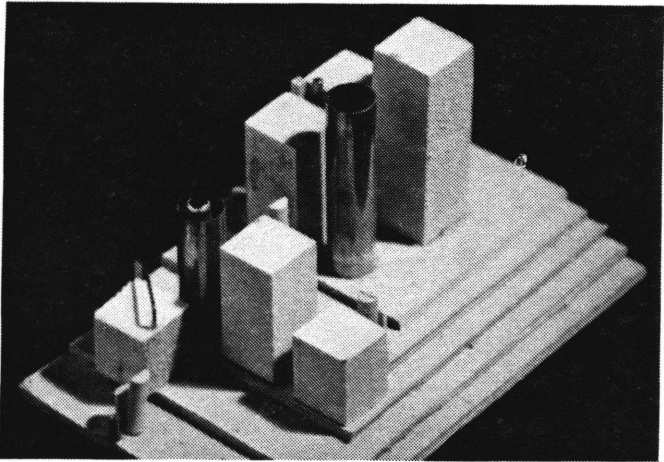
The principles apprehended through play are basic; it is the combination of these simple ‘*observation and reflections*’ which, as John Locke states, builds to the complex.

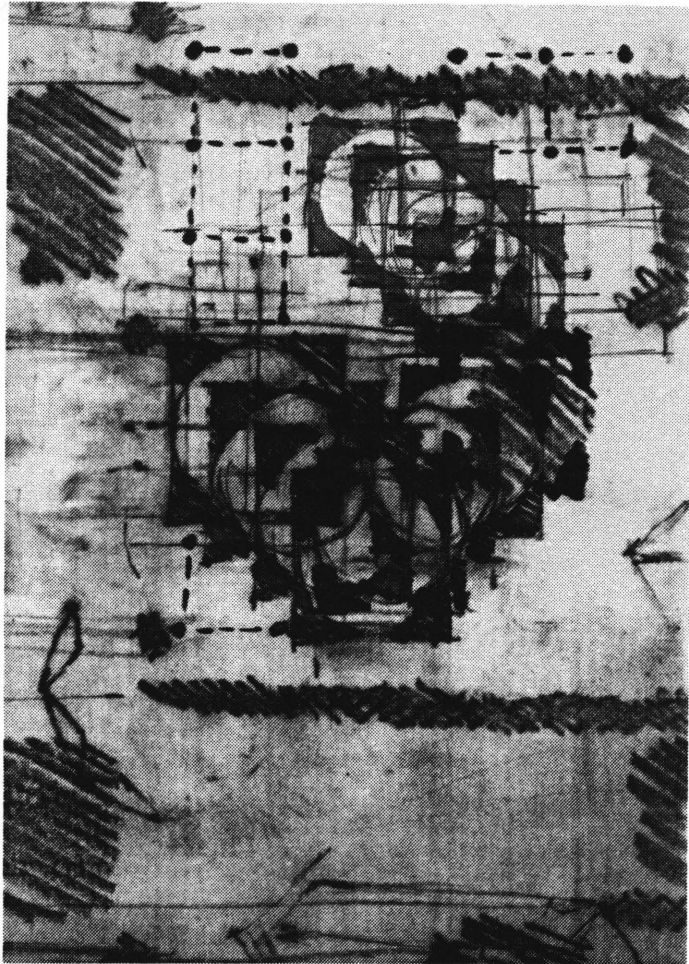
To form a position to begin from in learning, begin with a thing which can be contemplated.

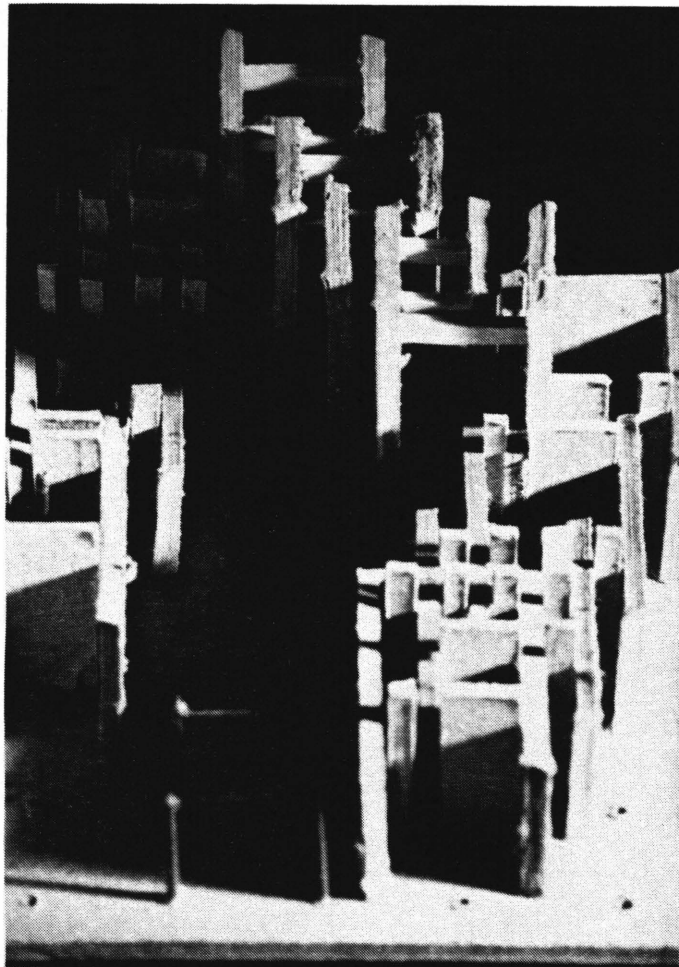


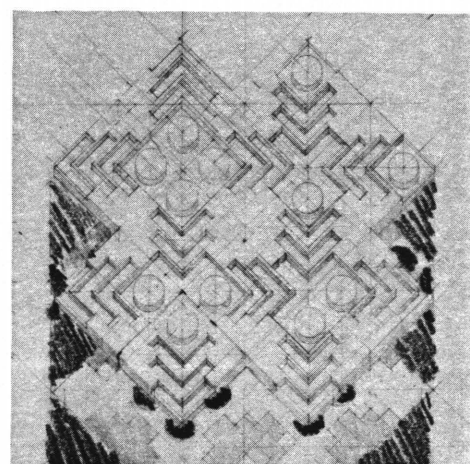
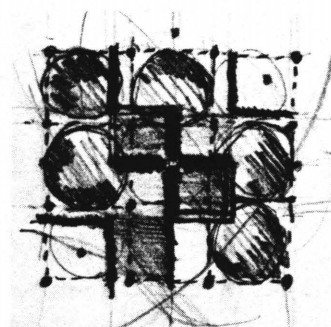
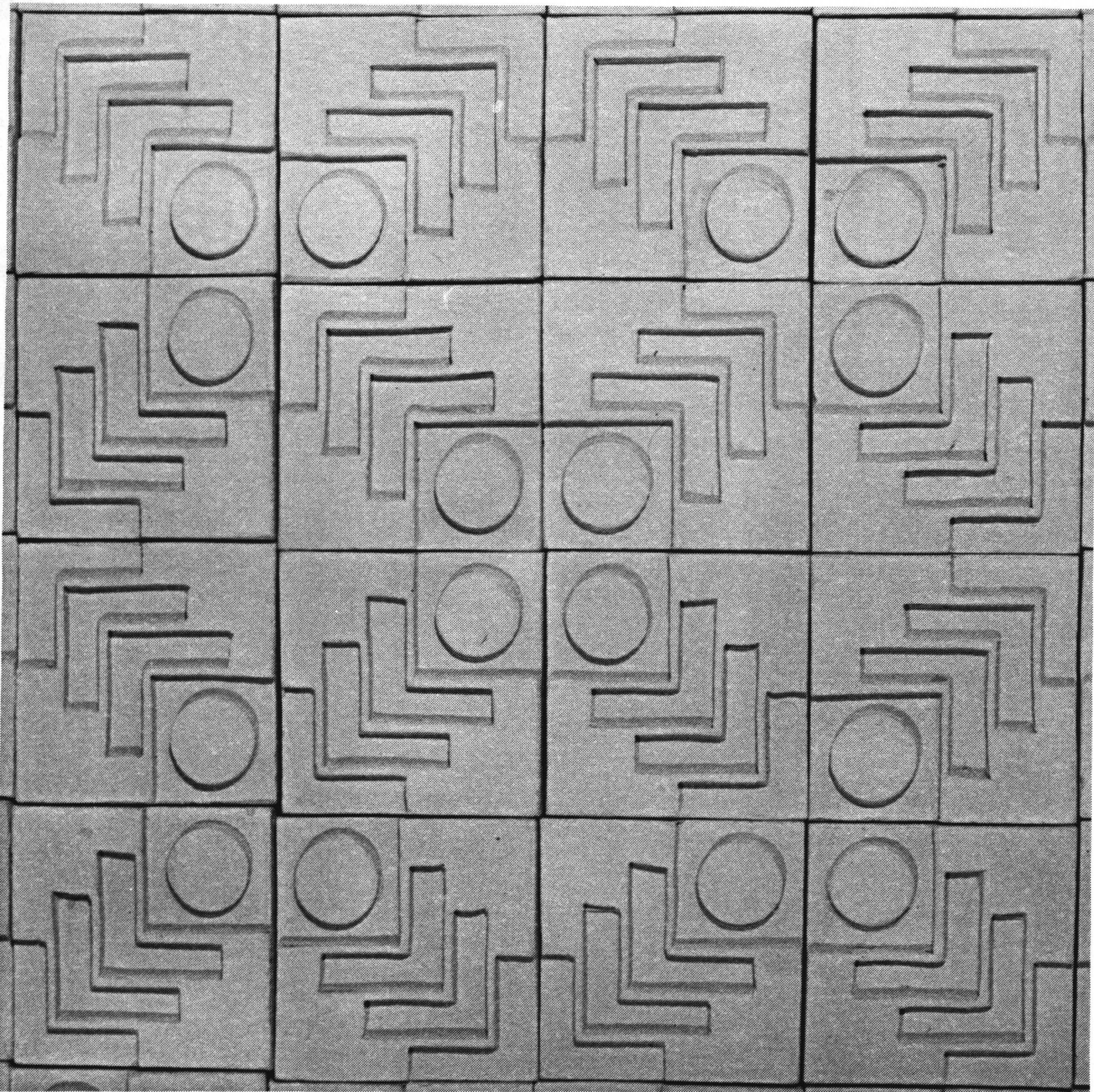


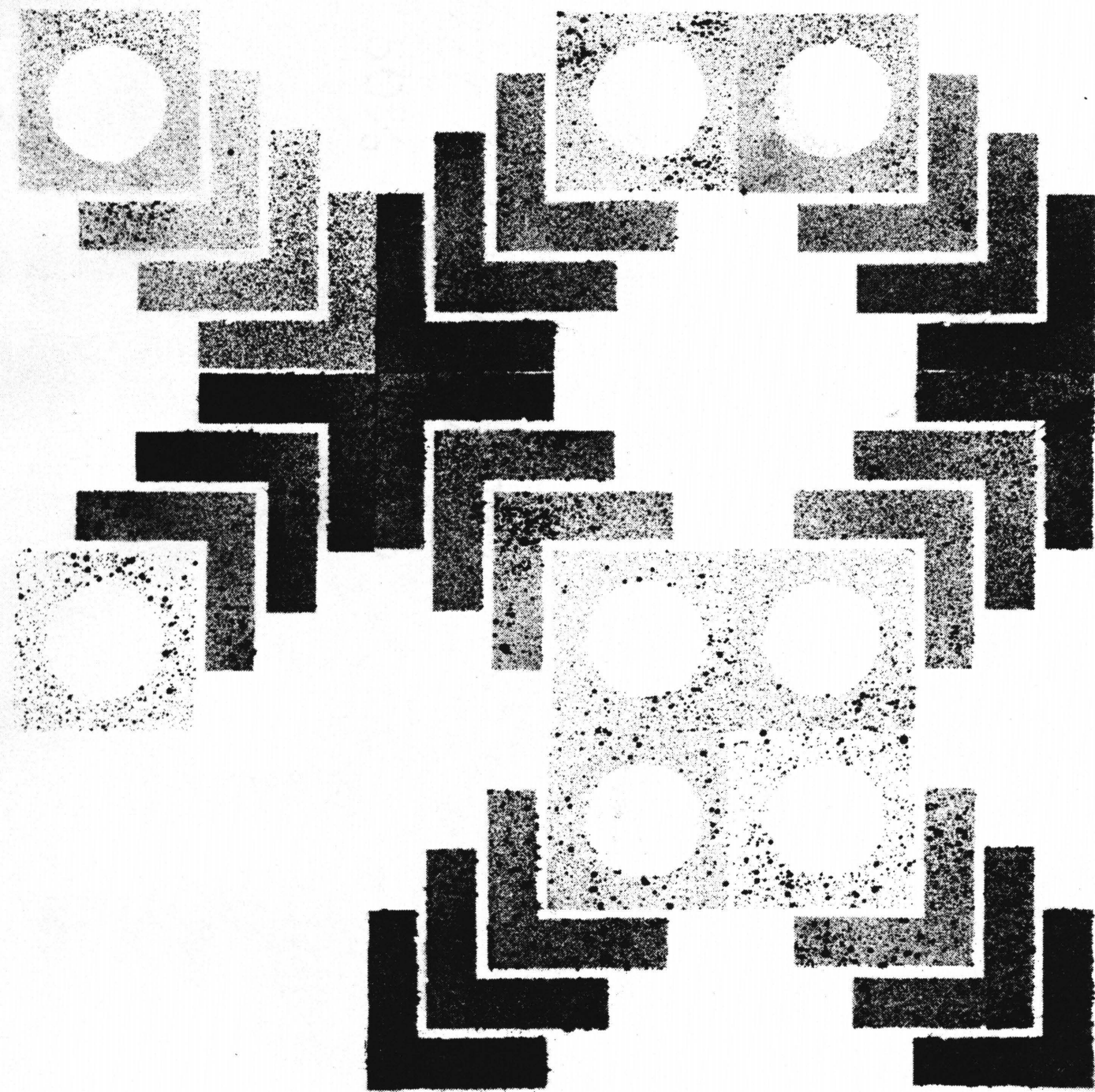


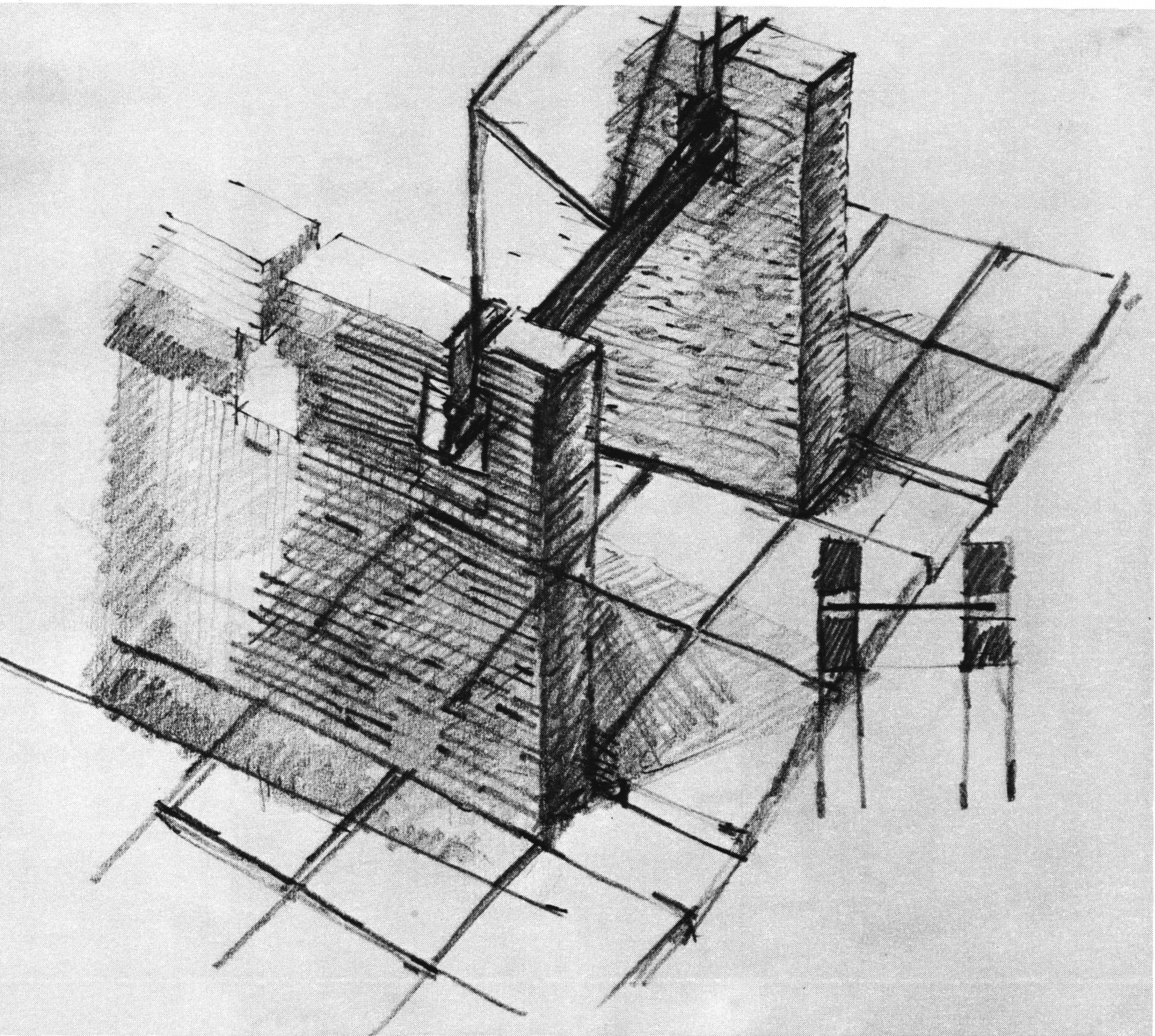












Architectural Essays

“As an architect one can dream of creating a good hedgerow. We know these hedgerows from the winter landscape where they stand naked, trees and bushes thick and intertwined, softening the fierce force of the winter wind. Then comes spring and the time to bloom. The yearly wonder as the hedge awakens and is alive, rich in color.”

Jorn Utzon

Architecture requires the poetic knowledge of the individual, the things themselves, understanding it in such a way as to release the work into its own, with its own course of development. Creating an element which has that quality which brings it into its own necessitates a balance between experience and theory. Aristotle states that *“experience is knowledge of the individual, and theory is knowledge of the universal, actions and productions are knowledge of the individual.”* Each wall construction has explored an understanding of the properties and the characteristics of the element and its composition of parts. The variance from essay to essay occurs by a change of scale, investigating the wall from the vantage of one man, responding to the scale of an individual, to the wall as a building, with a range of spaces from the *‘great hall’* to the *‘catacombs.’*

There are a set of characteristics which are common to each study, the sense of construction developing the pieces, the texture of each material, the development of the section not from rational constraints but from the spaces and the elements which define the space. These properties can be traced to the influence of Goethe’s phrase *‘significant roughness.’* Designing not to the complete but to construct the structure from which it develops its own course.

There are a collection of thoughts which the constructions provoked they stand now as individual statements not yet having that thread or principle which binds them together, and are as follows.

The constructions (things) establish a dialogue with man: as a solitary object marking the

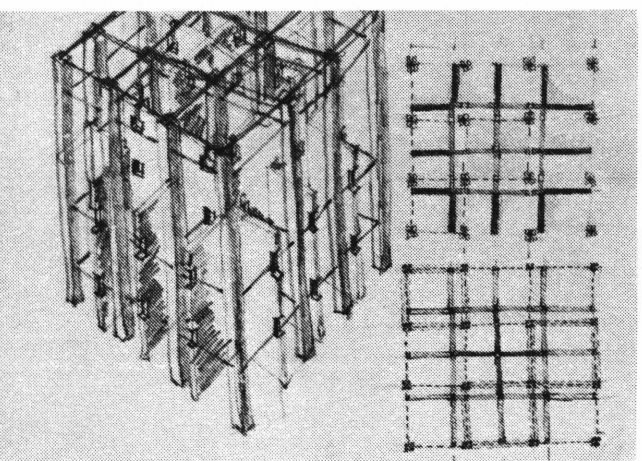
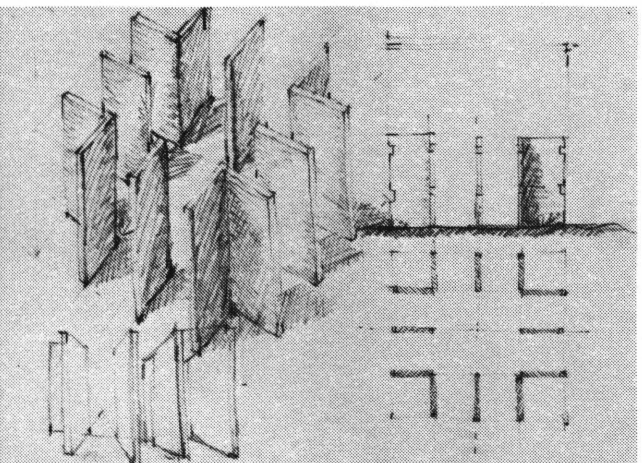
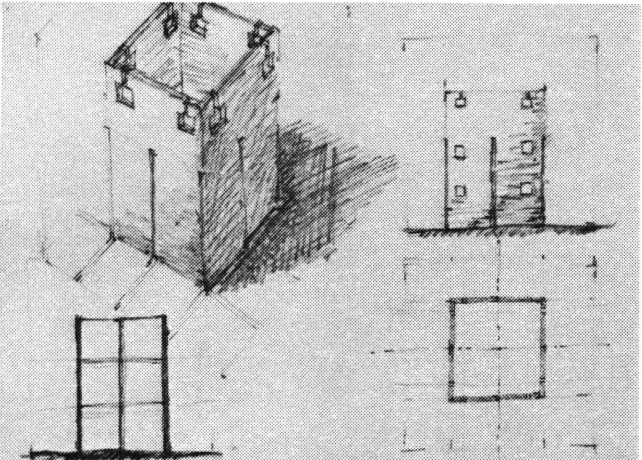
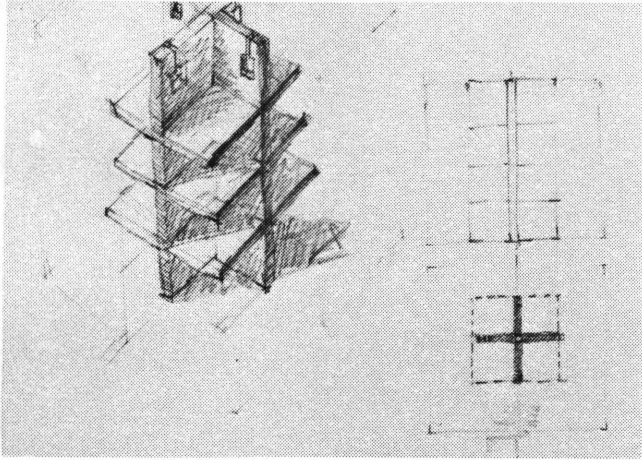
landscape or as a set of objects which enclose and define a place.

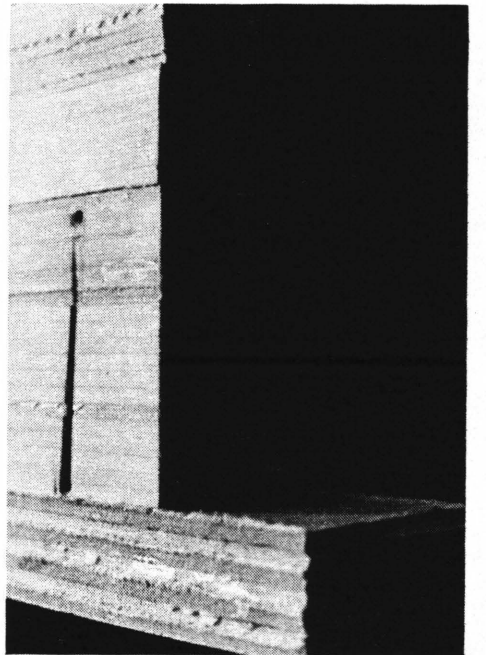
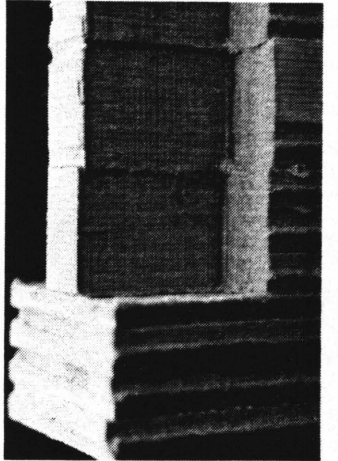
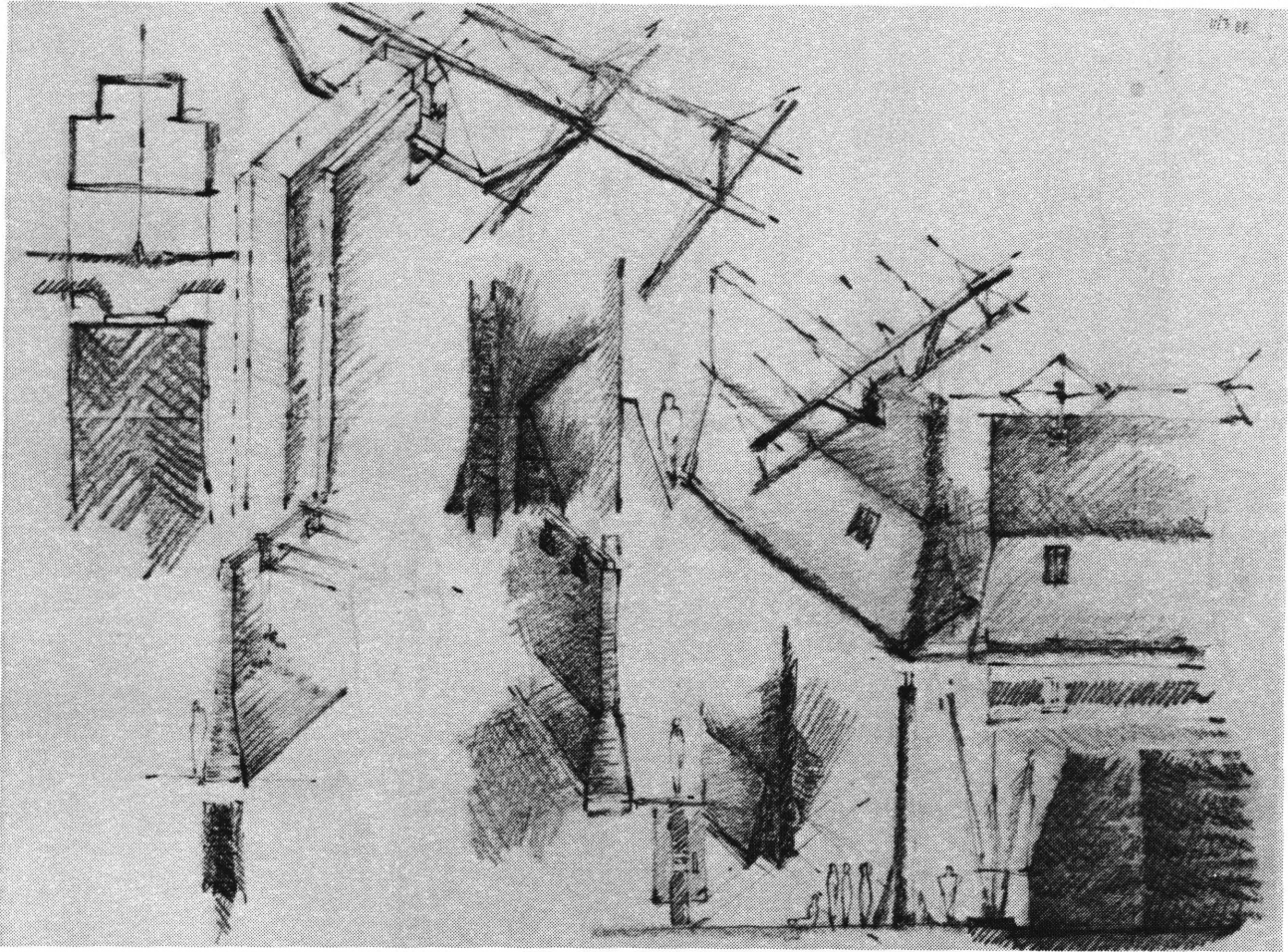
The “*wall*” as an interval between two dissimilar institutions of man which protects and fortifies each: to divide, to defend, to protect and to bring forth.

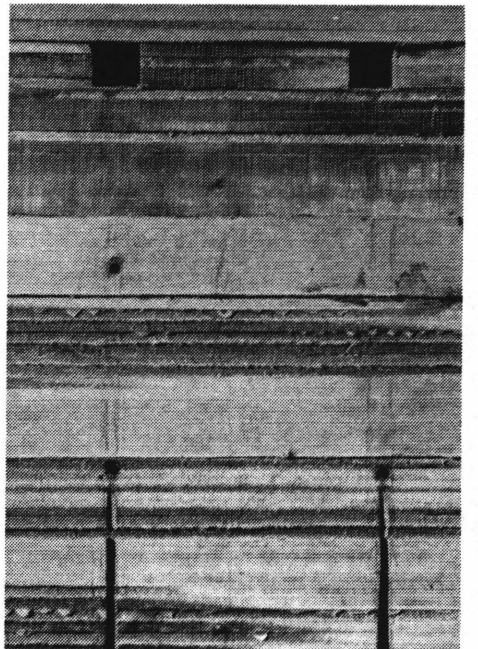
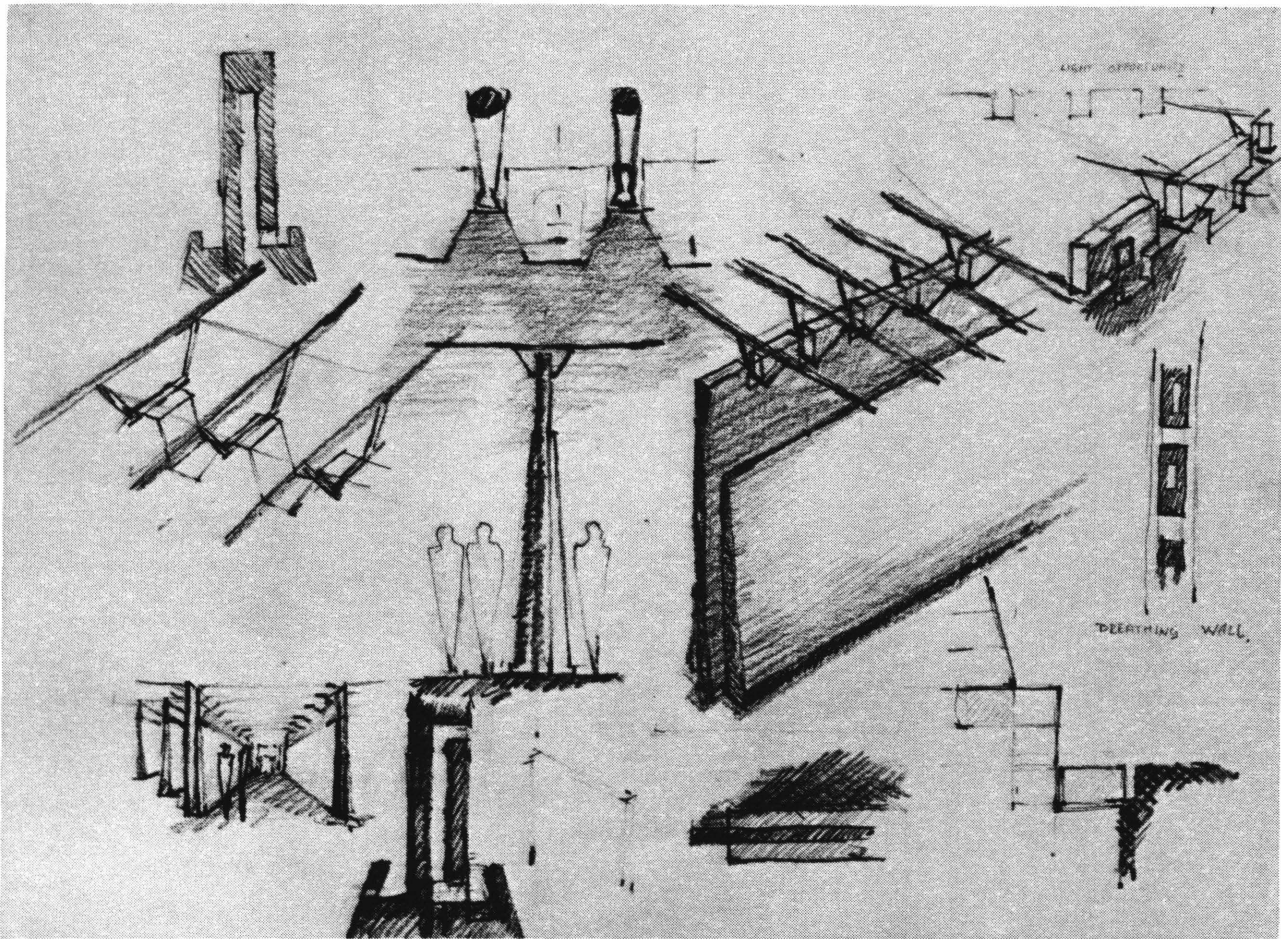
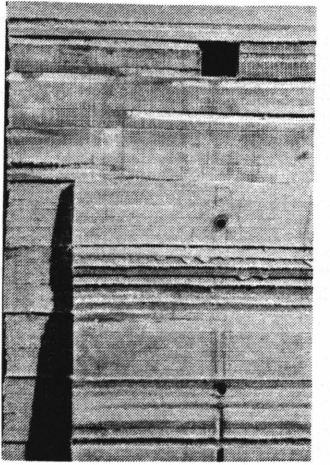
There are places of a wall in which one is harbored or which form a stage: the space within a wall is a place to harbor the individual, his thoughts and memories; the space around the wall is a place for the world to be played, a world of institutions.

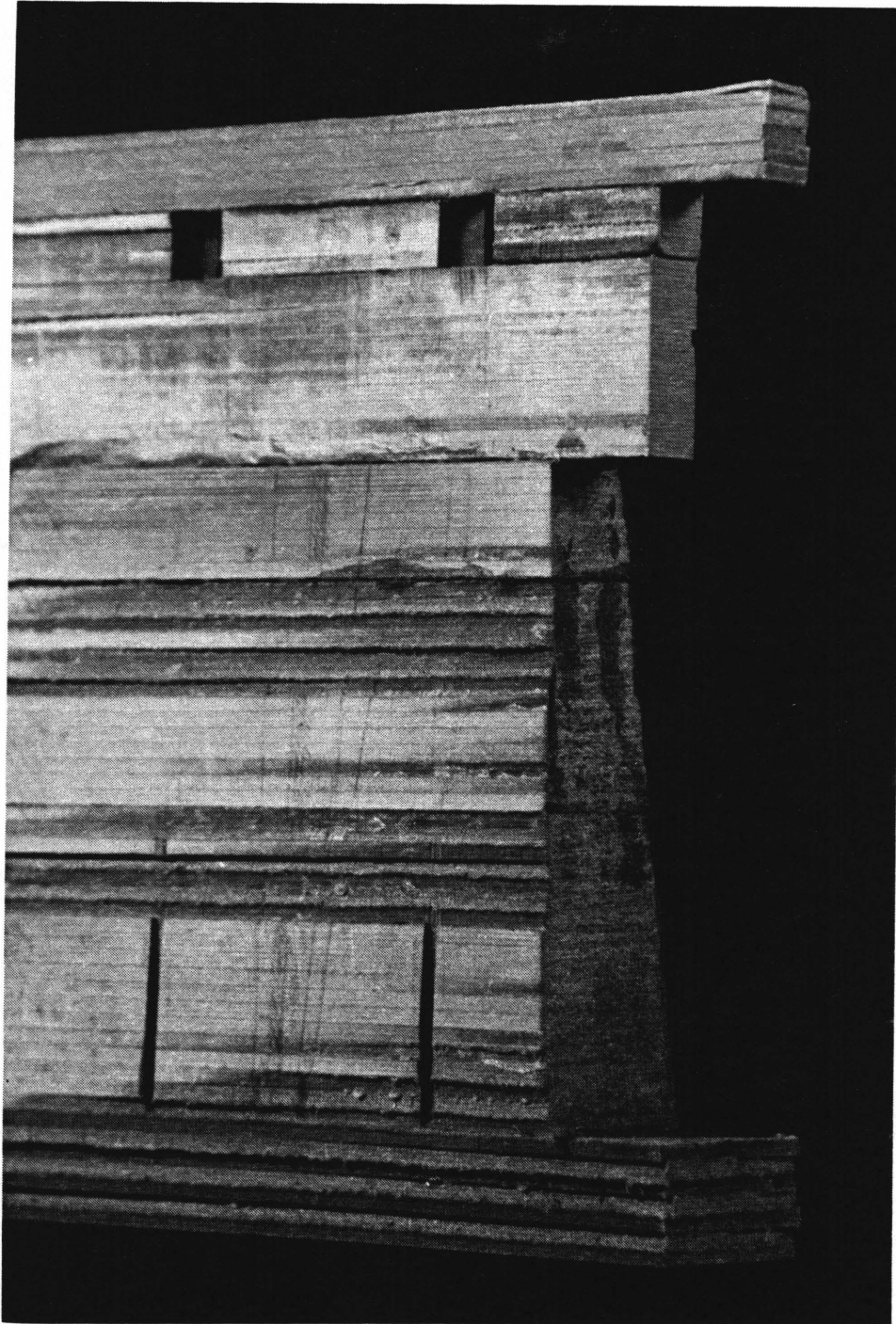
Each element is composed of parts each having its own significance: the rampart, the interval between which protects and defends; the pole and the beam, which establish the continuity and rhythm of the wall; the wickerwork, the fabric of the wall which shields by establishing the texture of the wall.

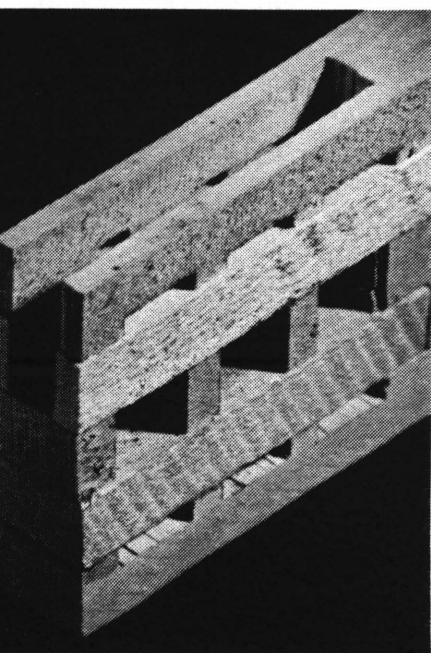
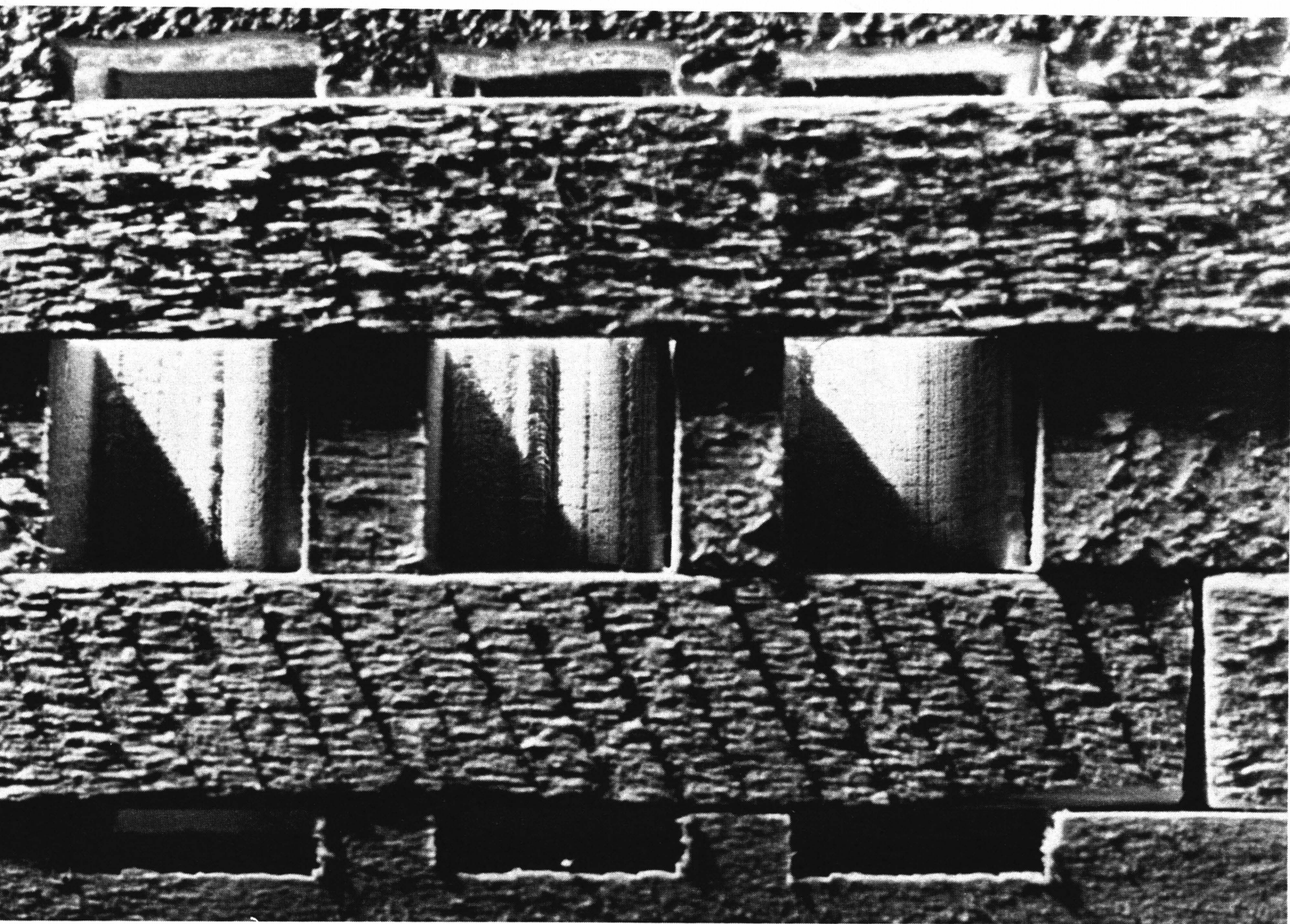
The first wall constructed yielded the majority of the statements and it is believed that by returning to this wall an analysis will reveal or cause a question to form which locates the principle which threads the statements together.

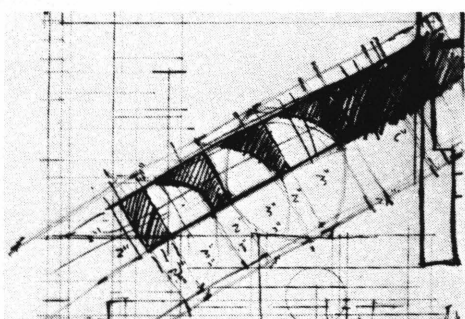
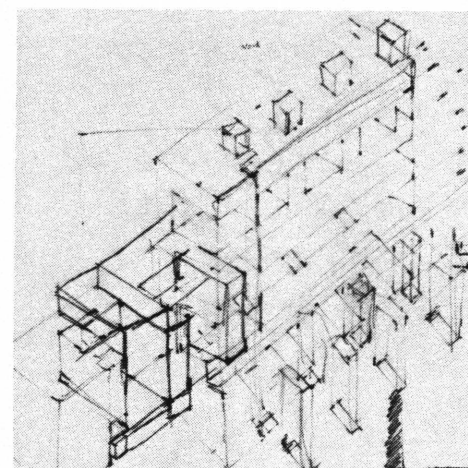
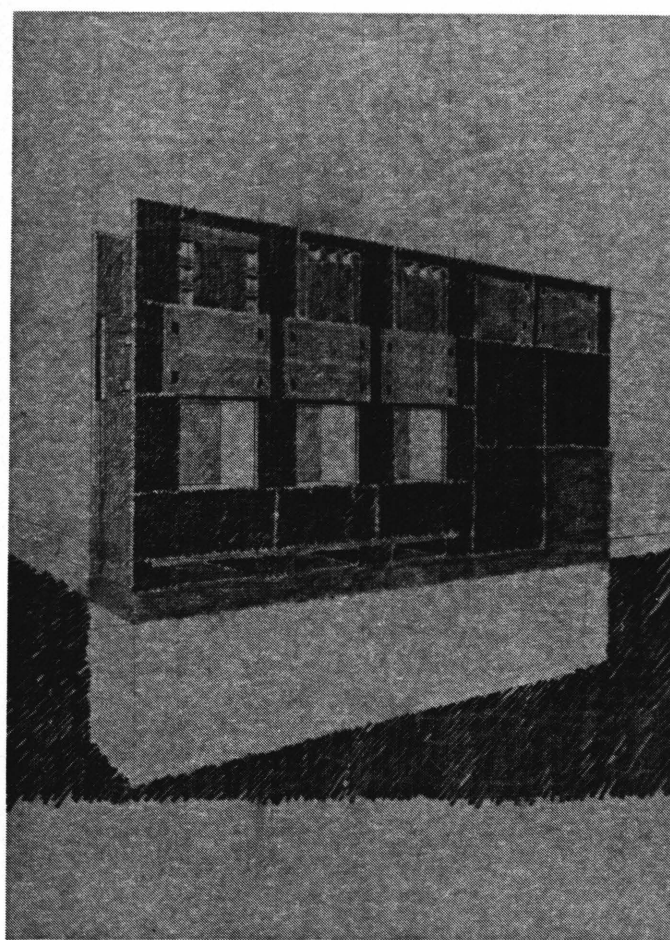
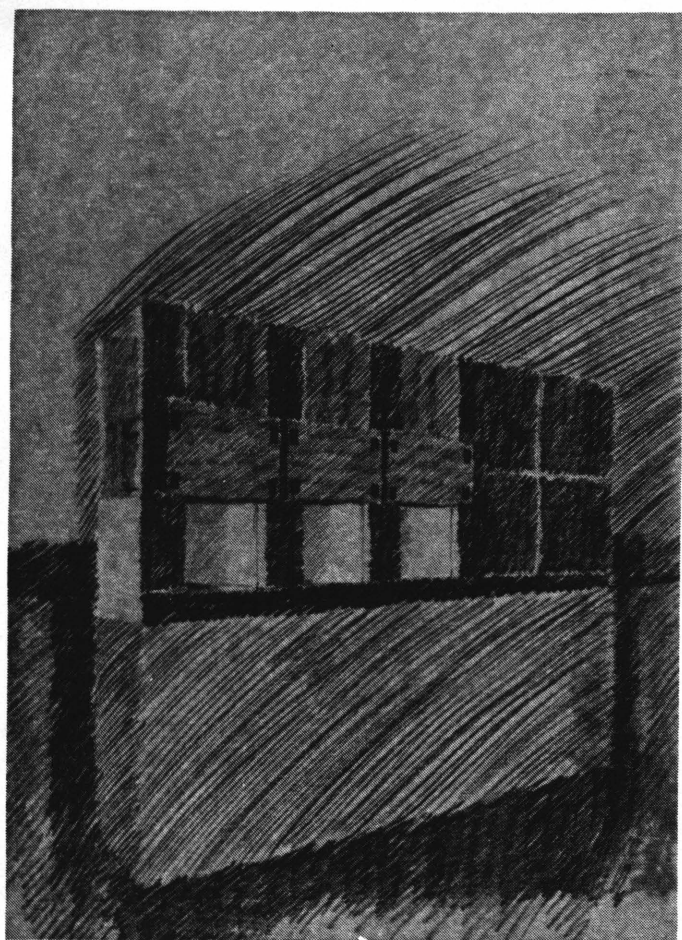
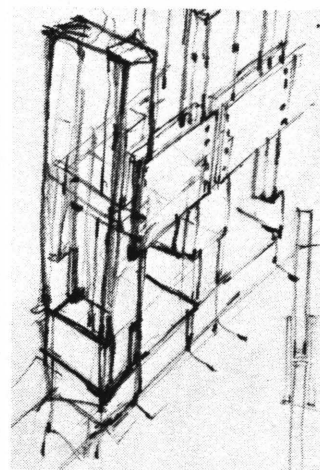


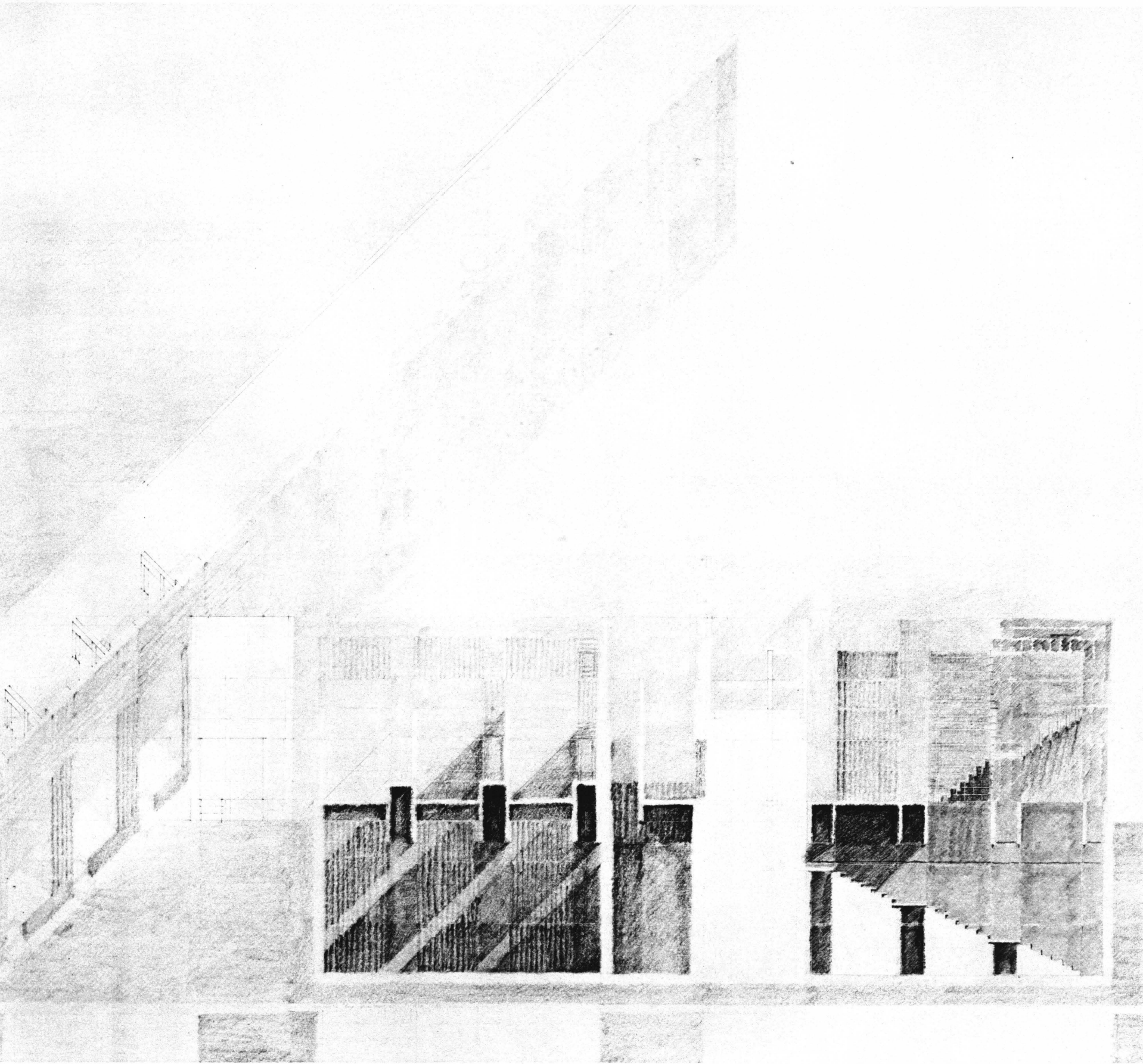


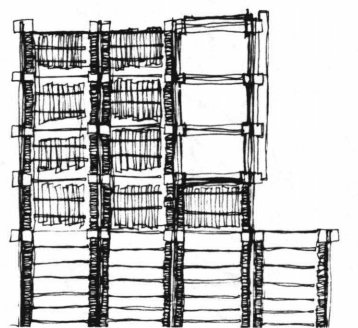
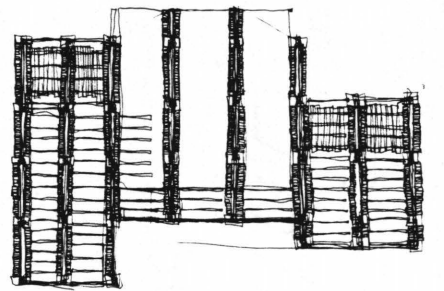
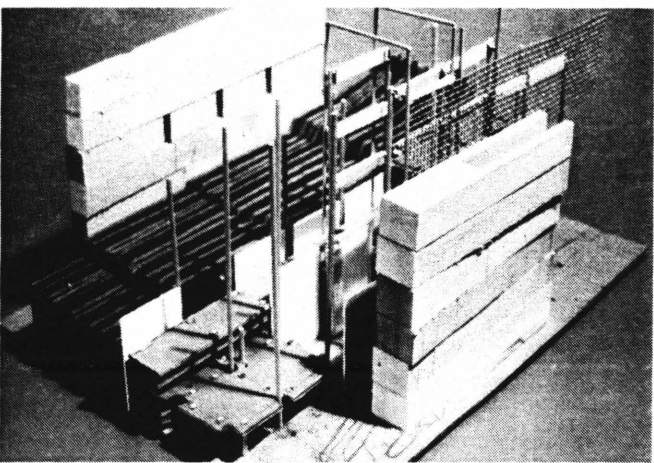
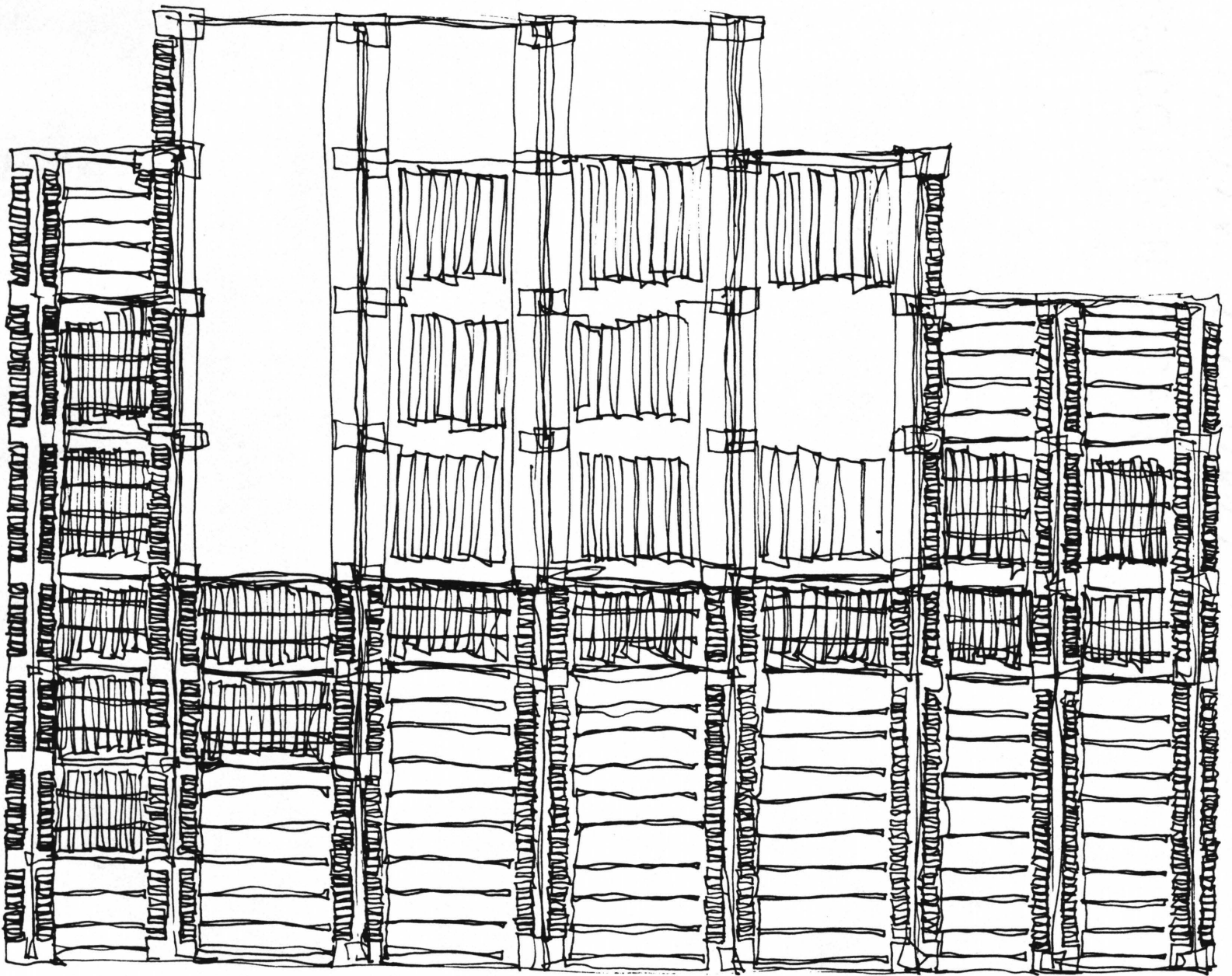


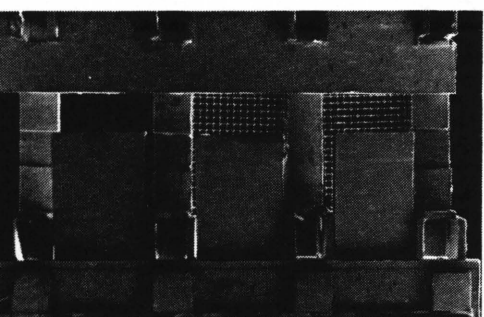
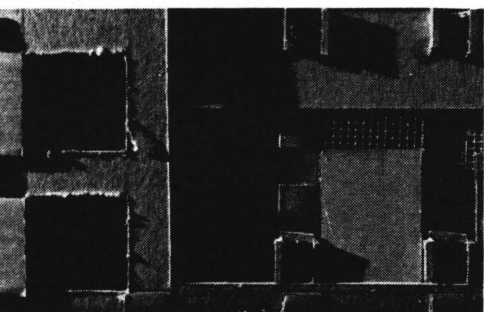
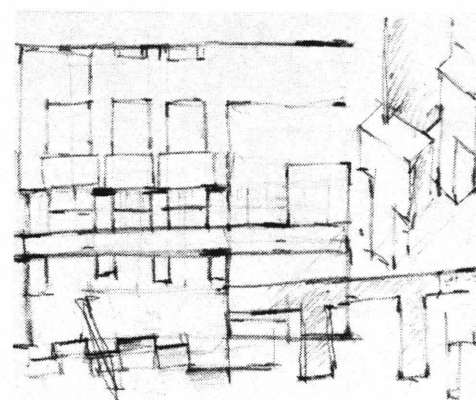
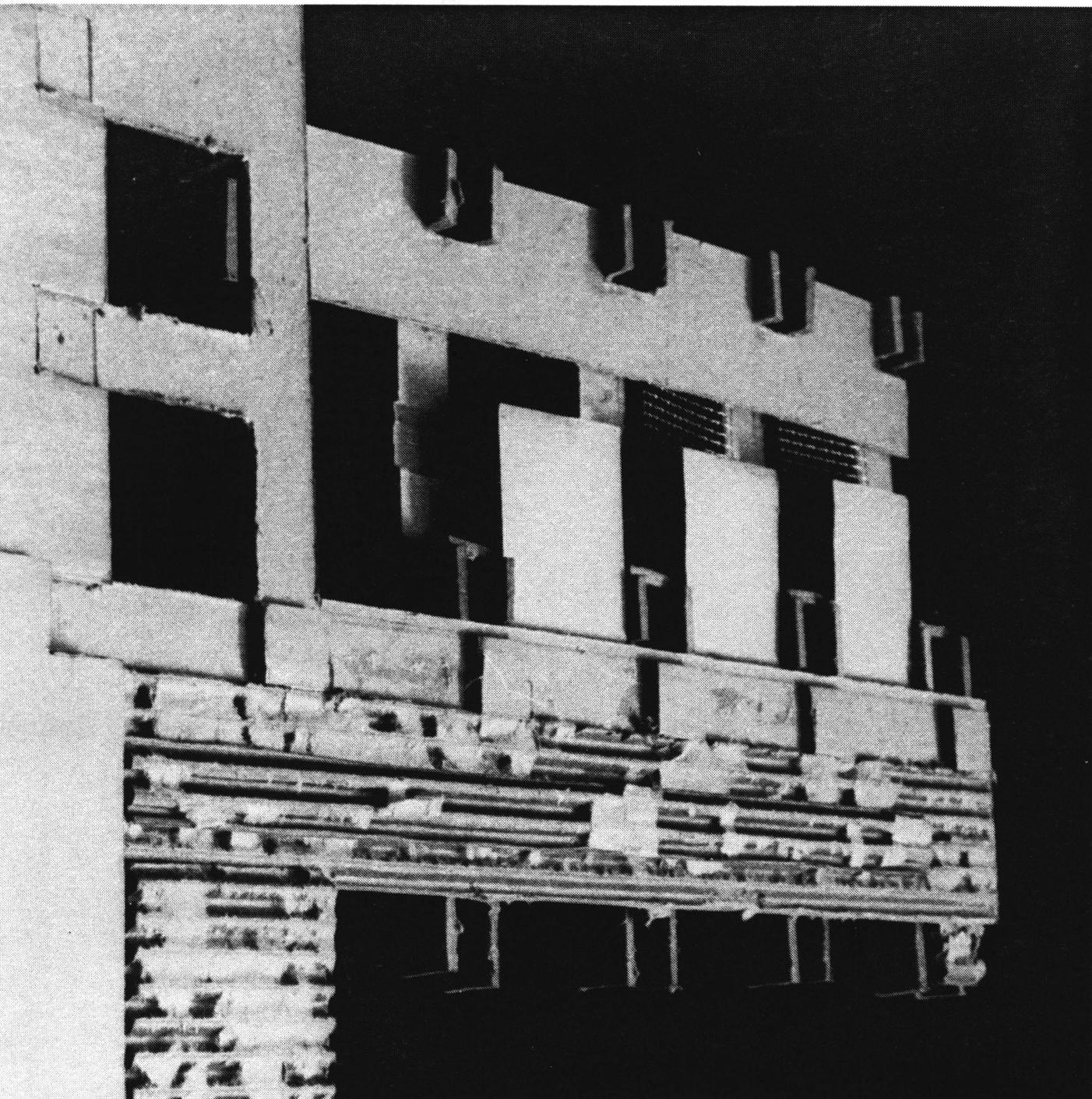


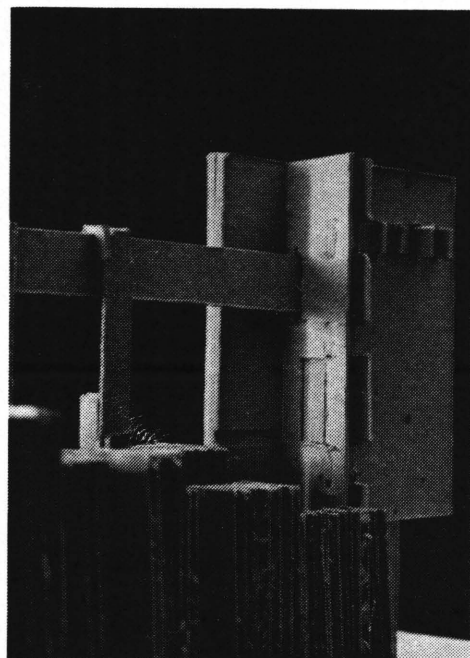
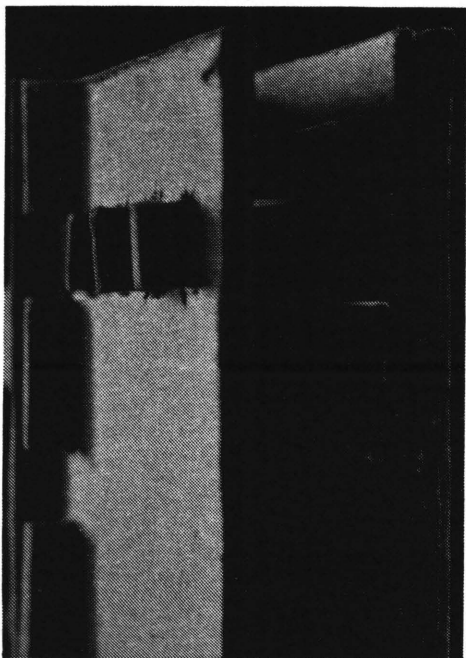
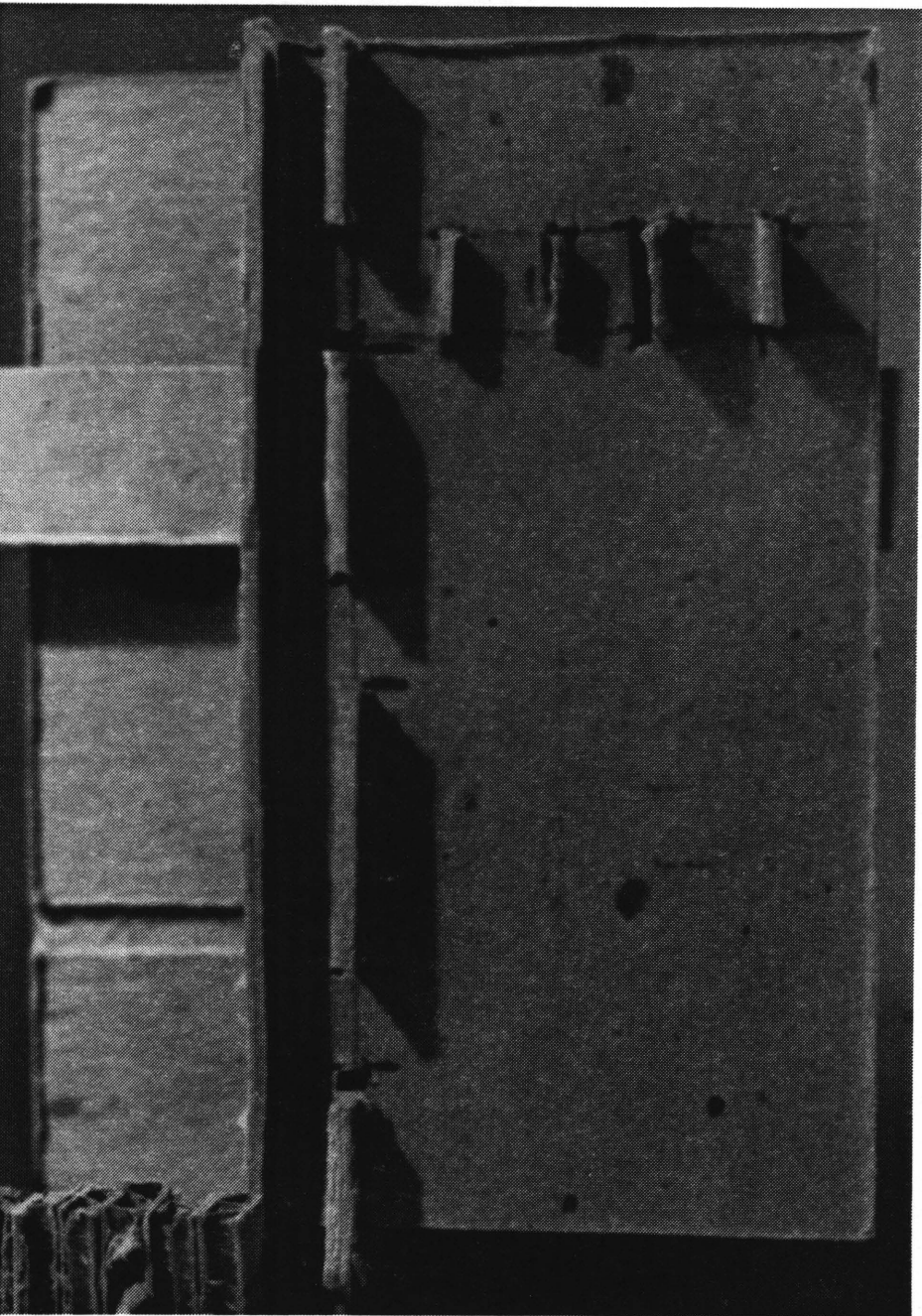


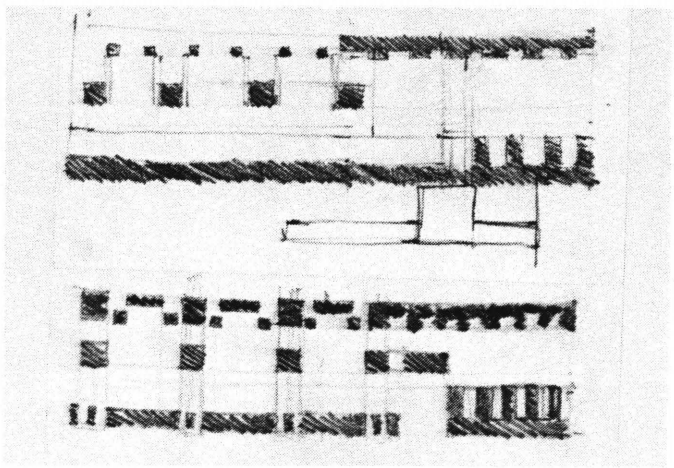
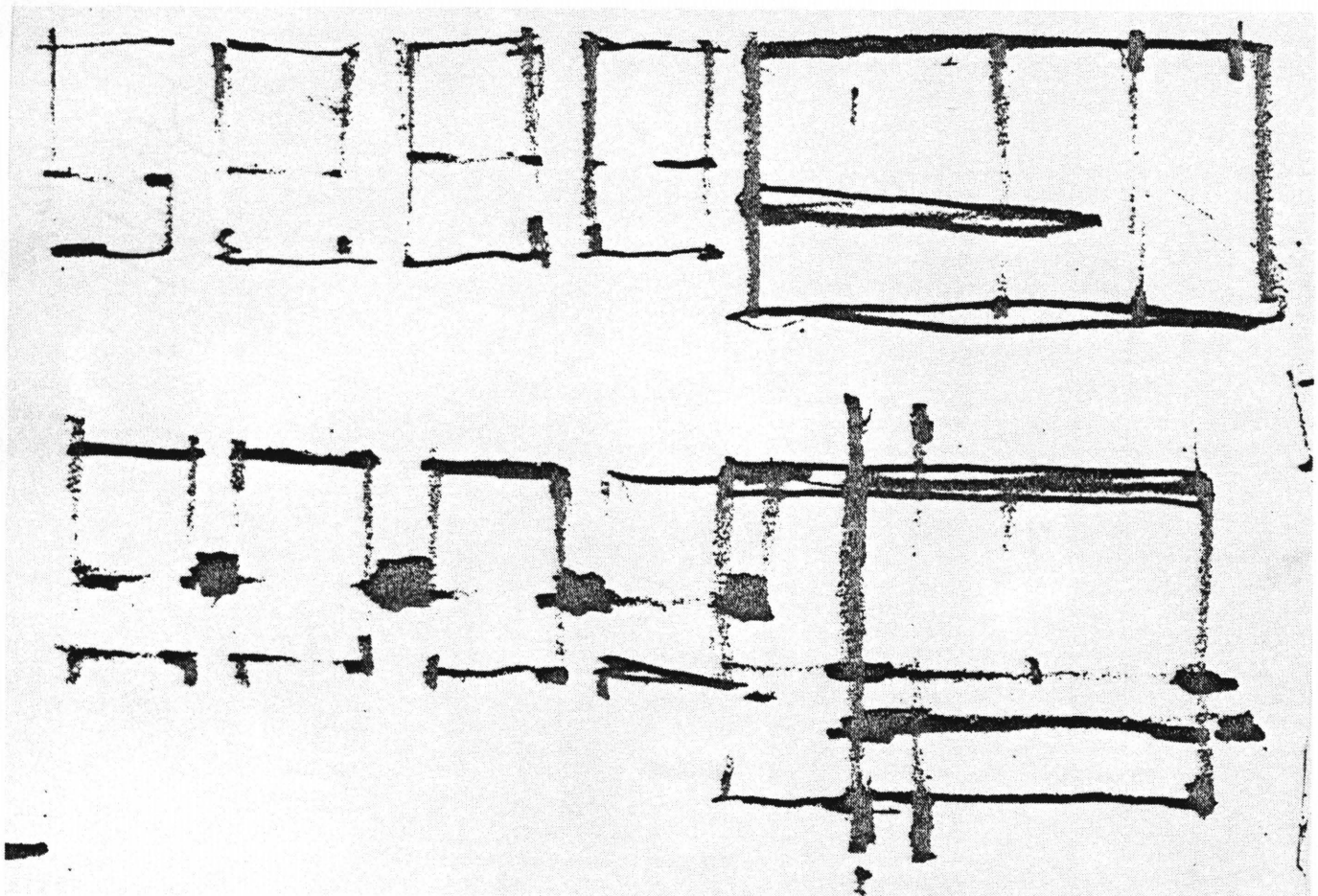
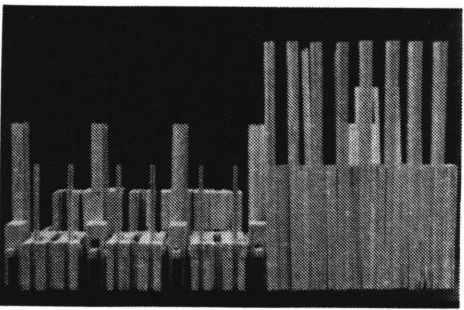
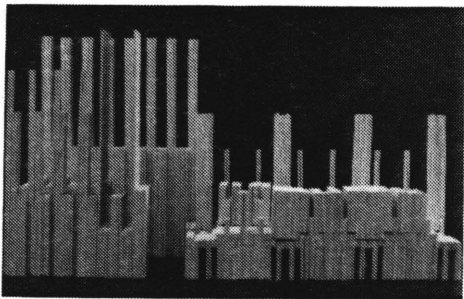


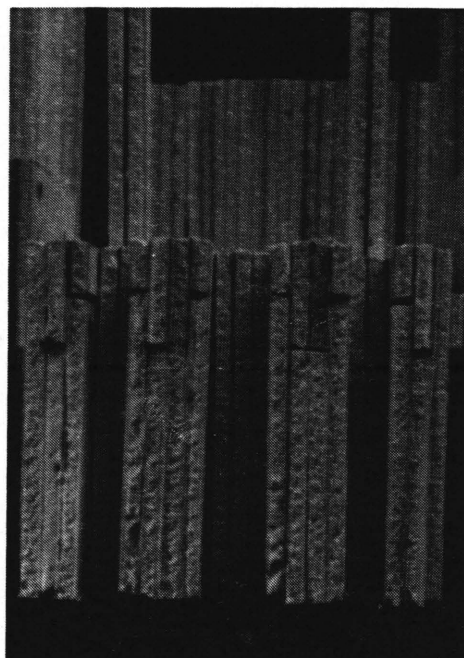
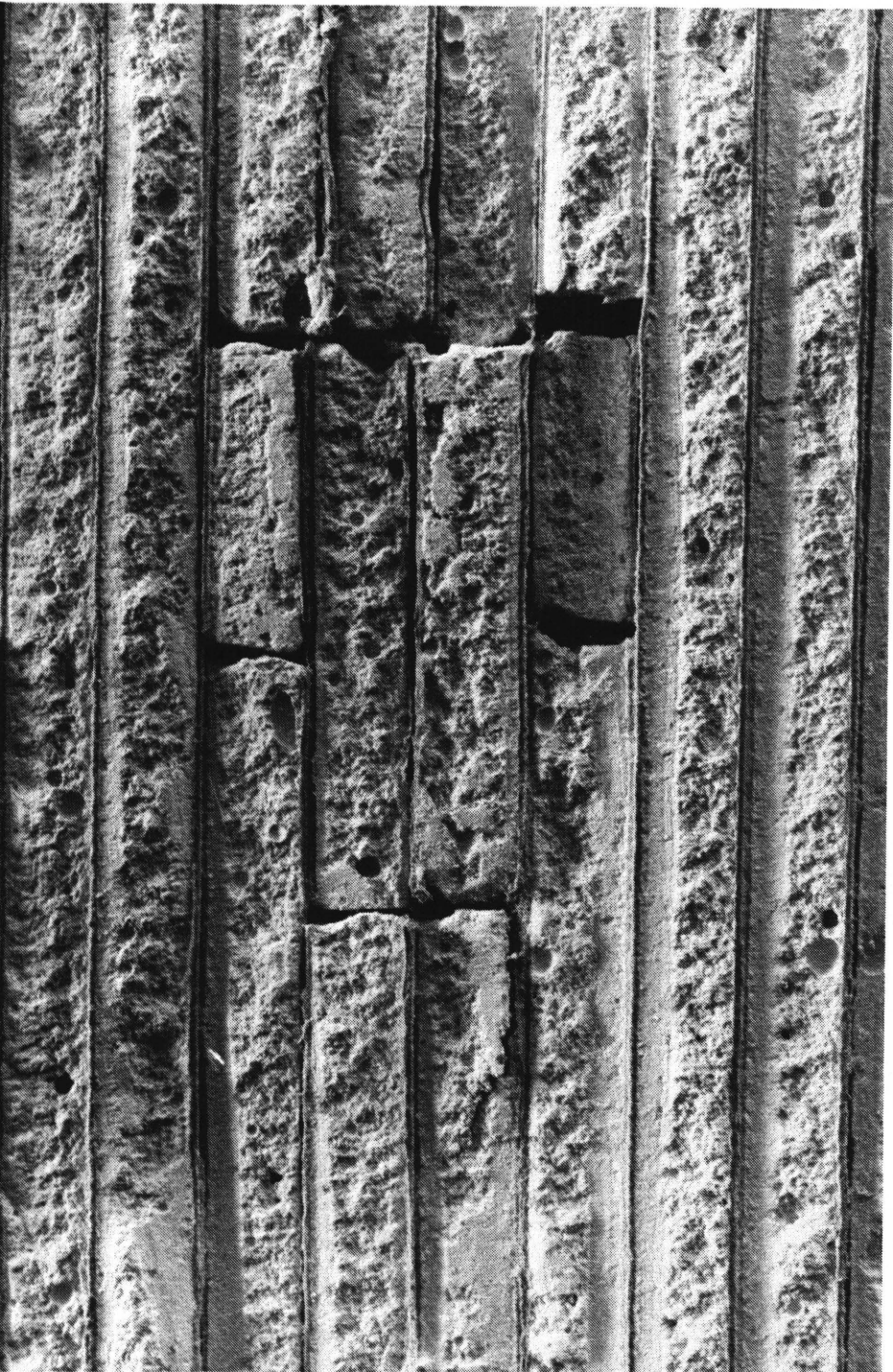








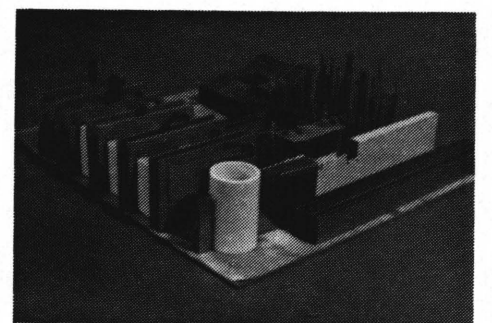
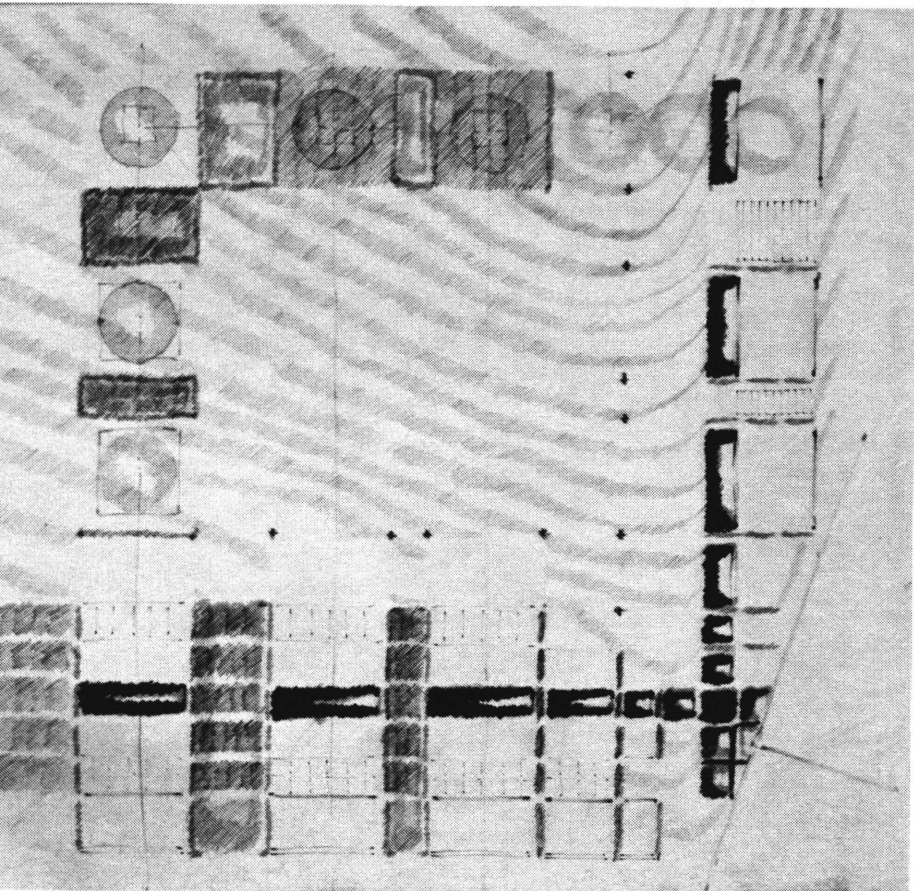
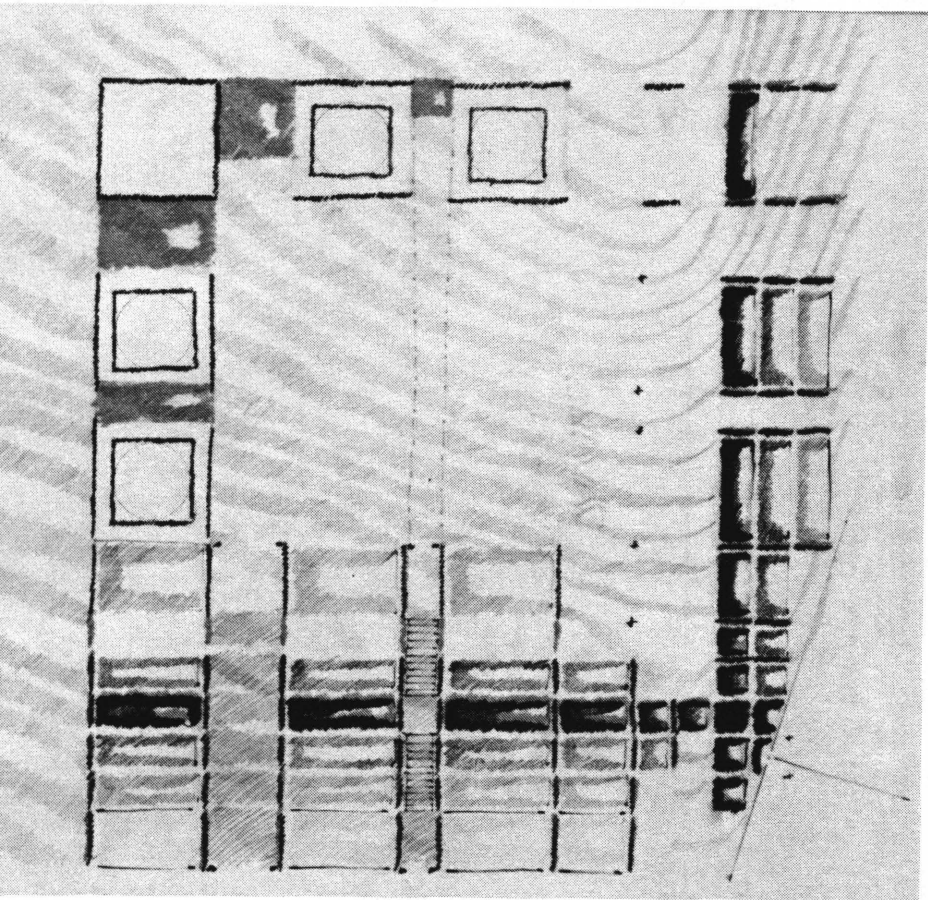


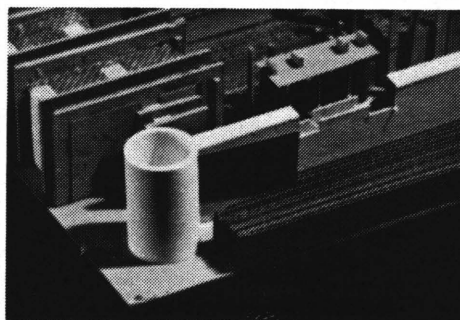
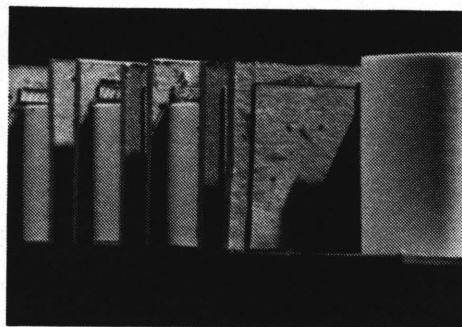
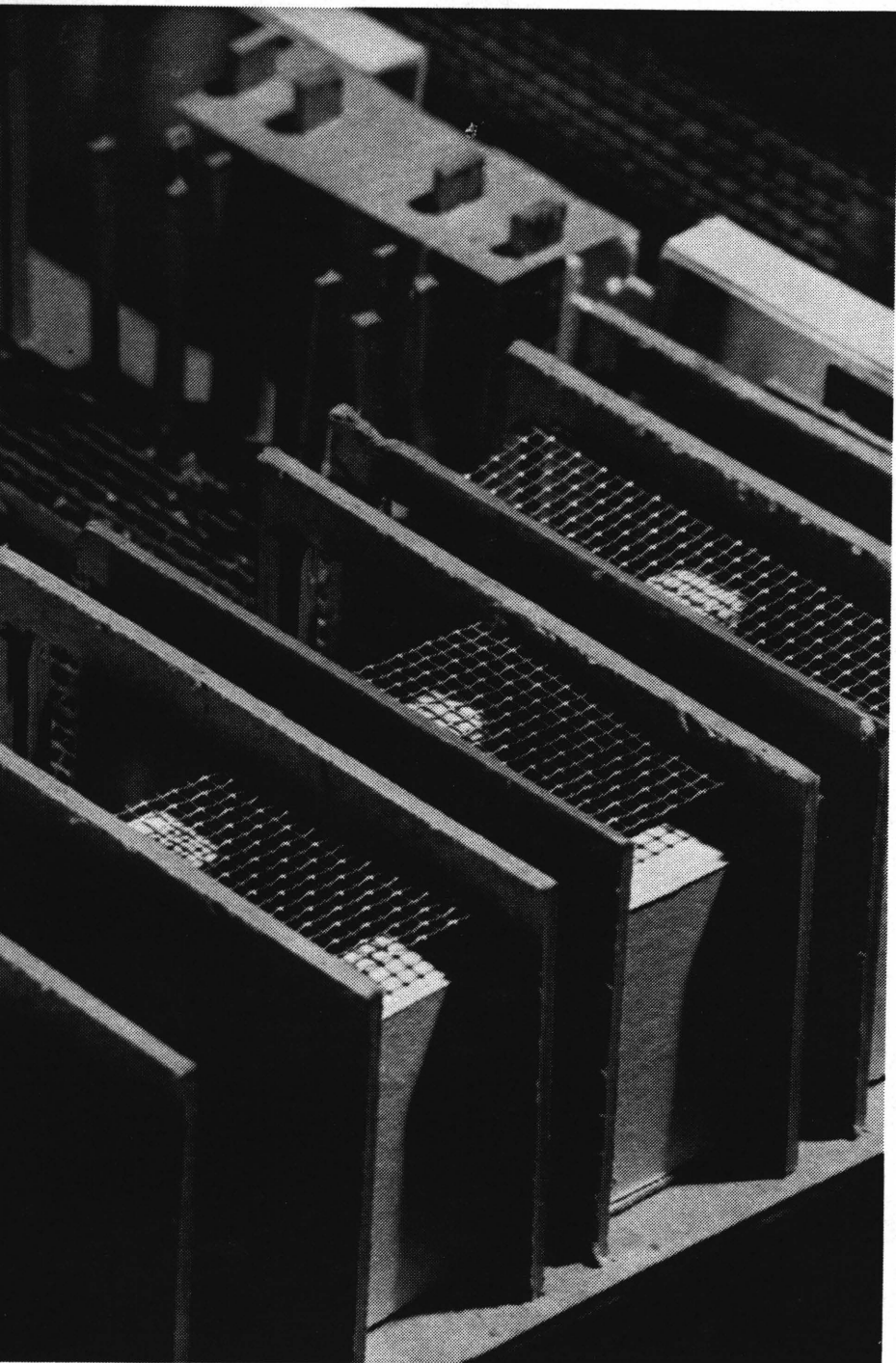


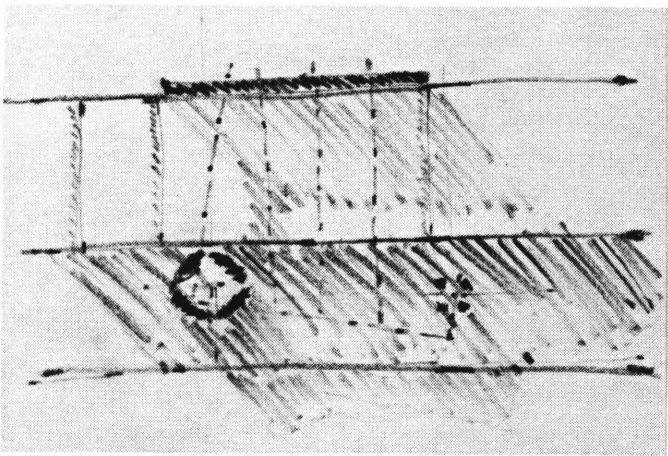
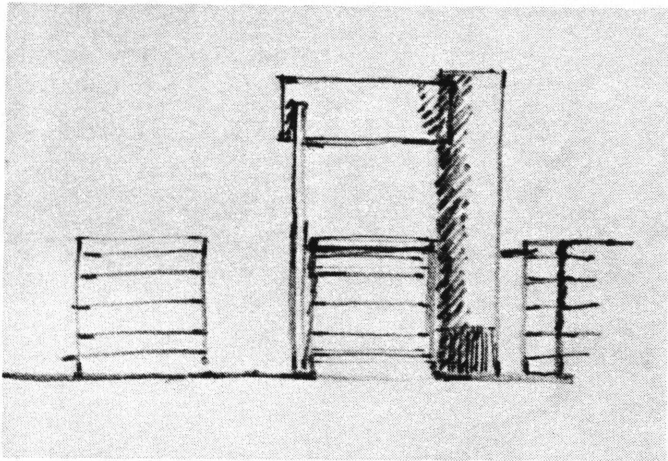
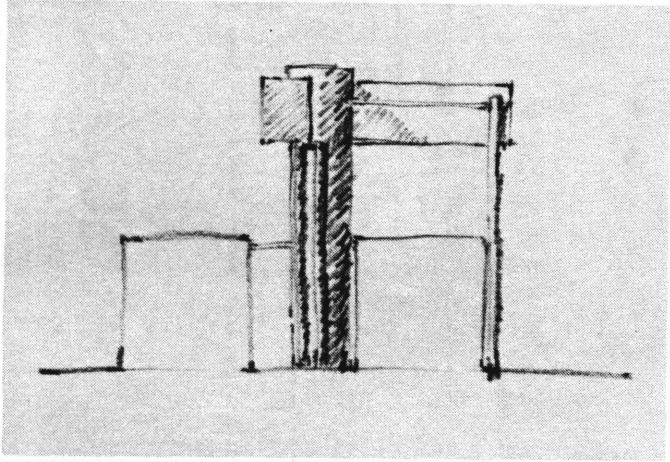
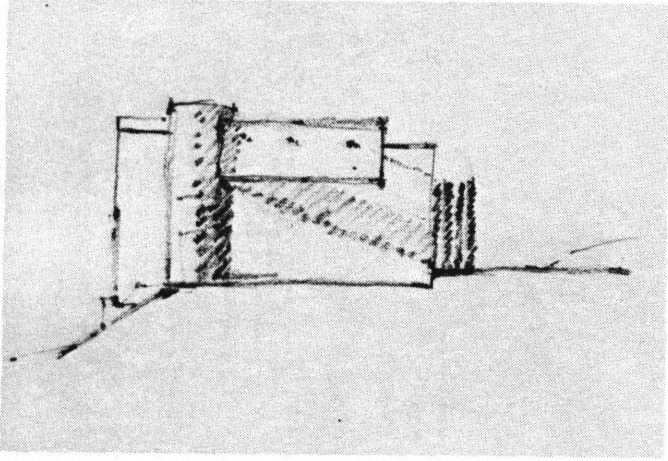


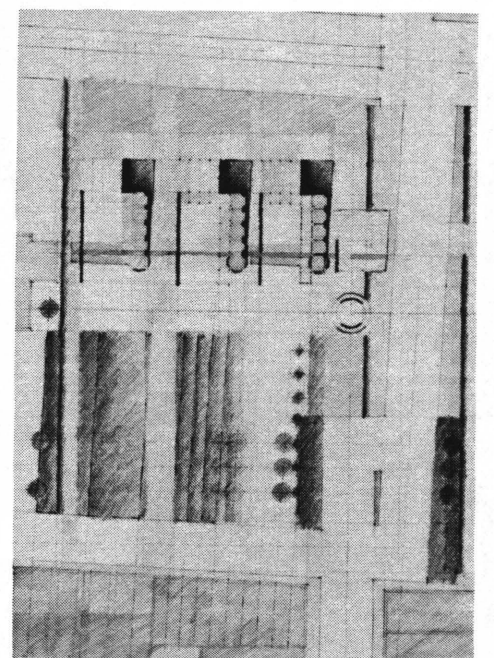
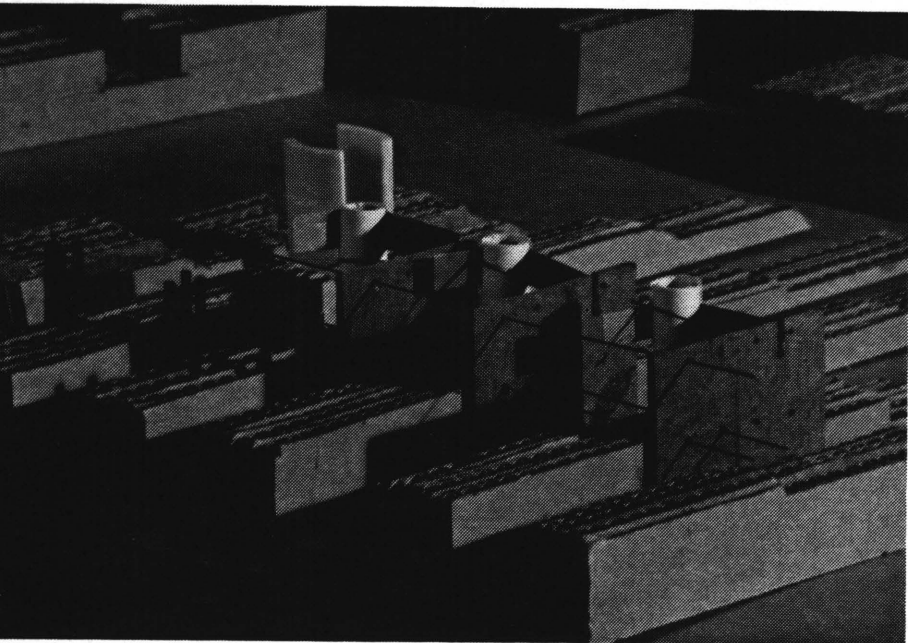
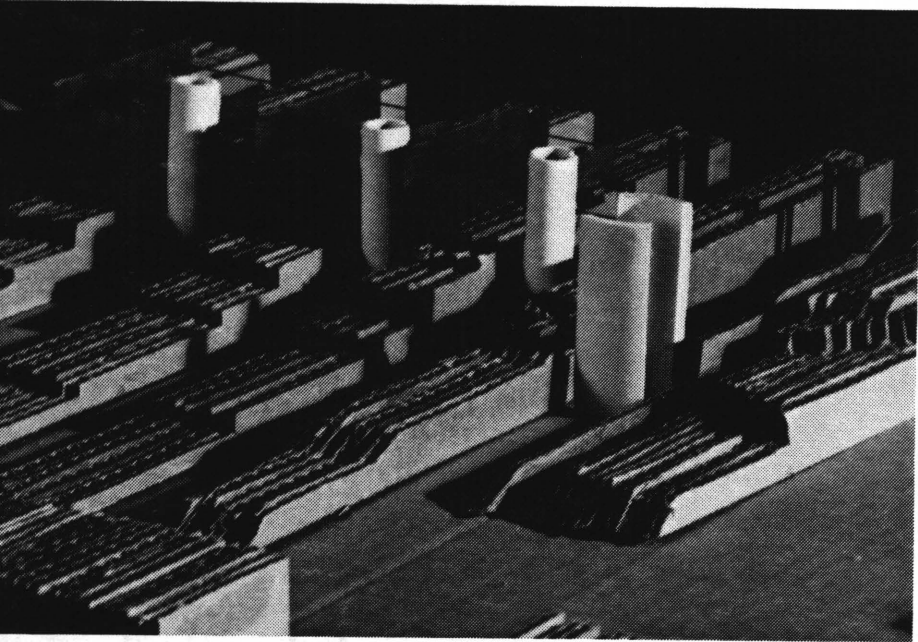
Site, a place in which everything comes together, is concentrated. The site gathers onto itself, supremely and in the extreme. Its gathering power penetrates and pervades everything. The site, the gathering power, gathers in and preserves all it has gathered, not like an encapsulating shell but rather by penetrating with its light all it has gathered, and only thus releasing it into its own nature.

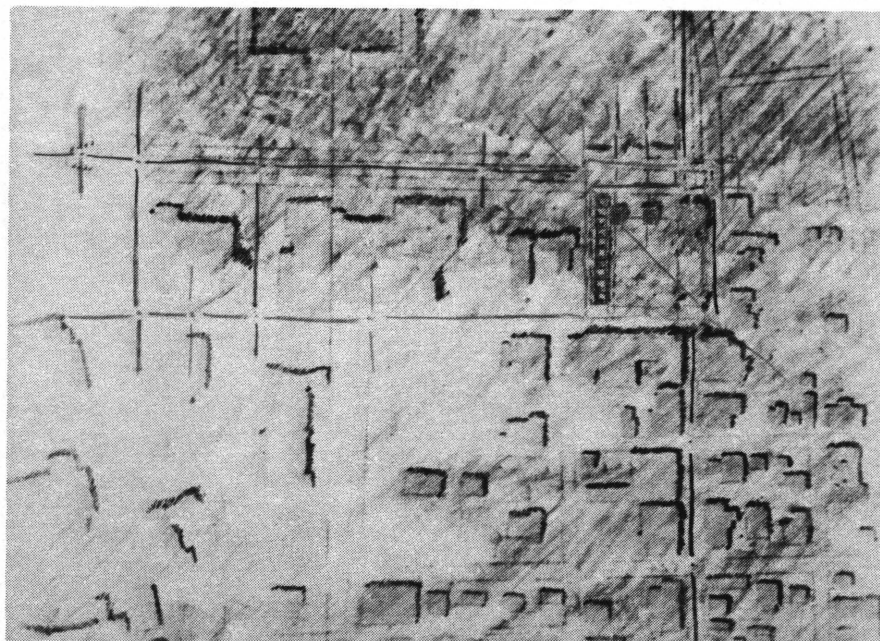
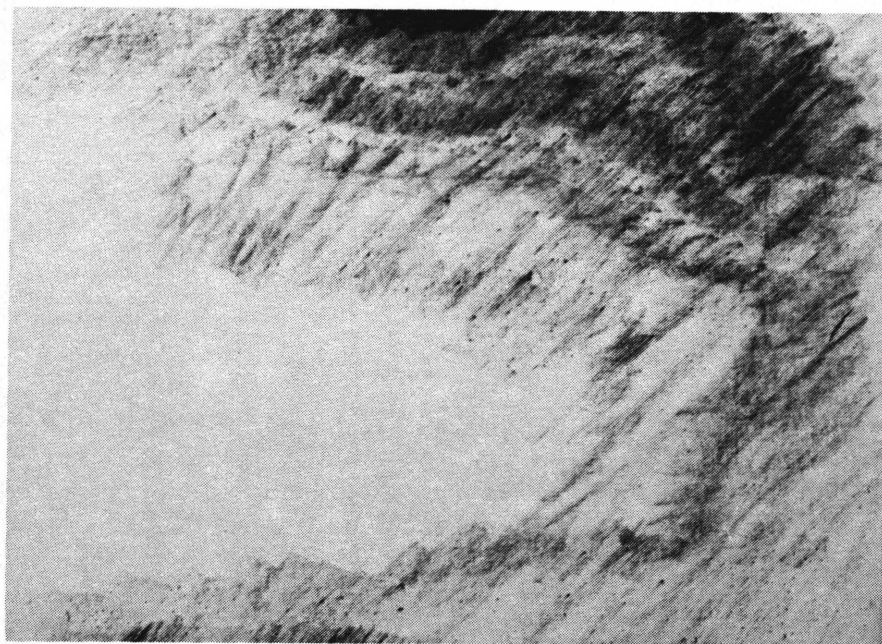
Martin Heidegger

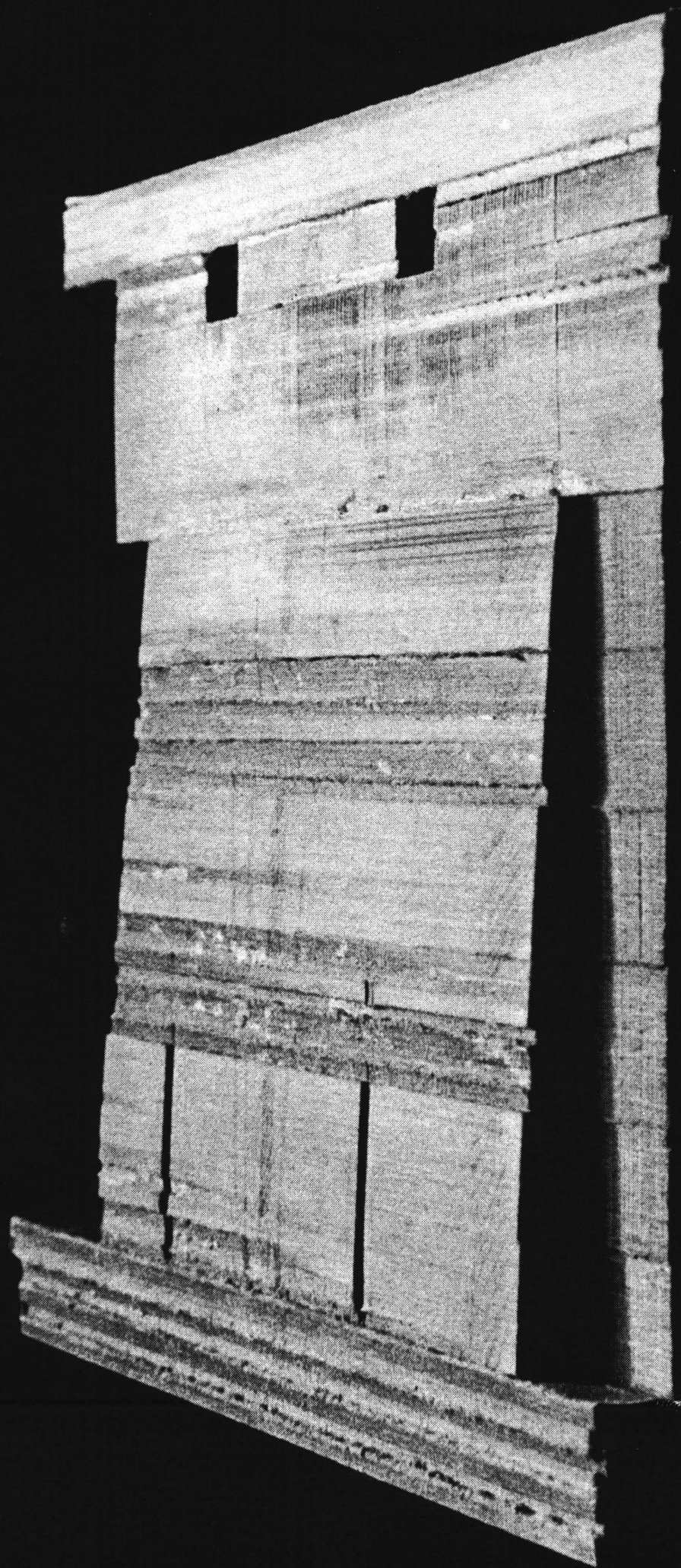












Forming a Beginning Point

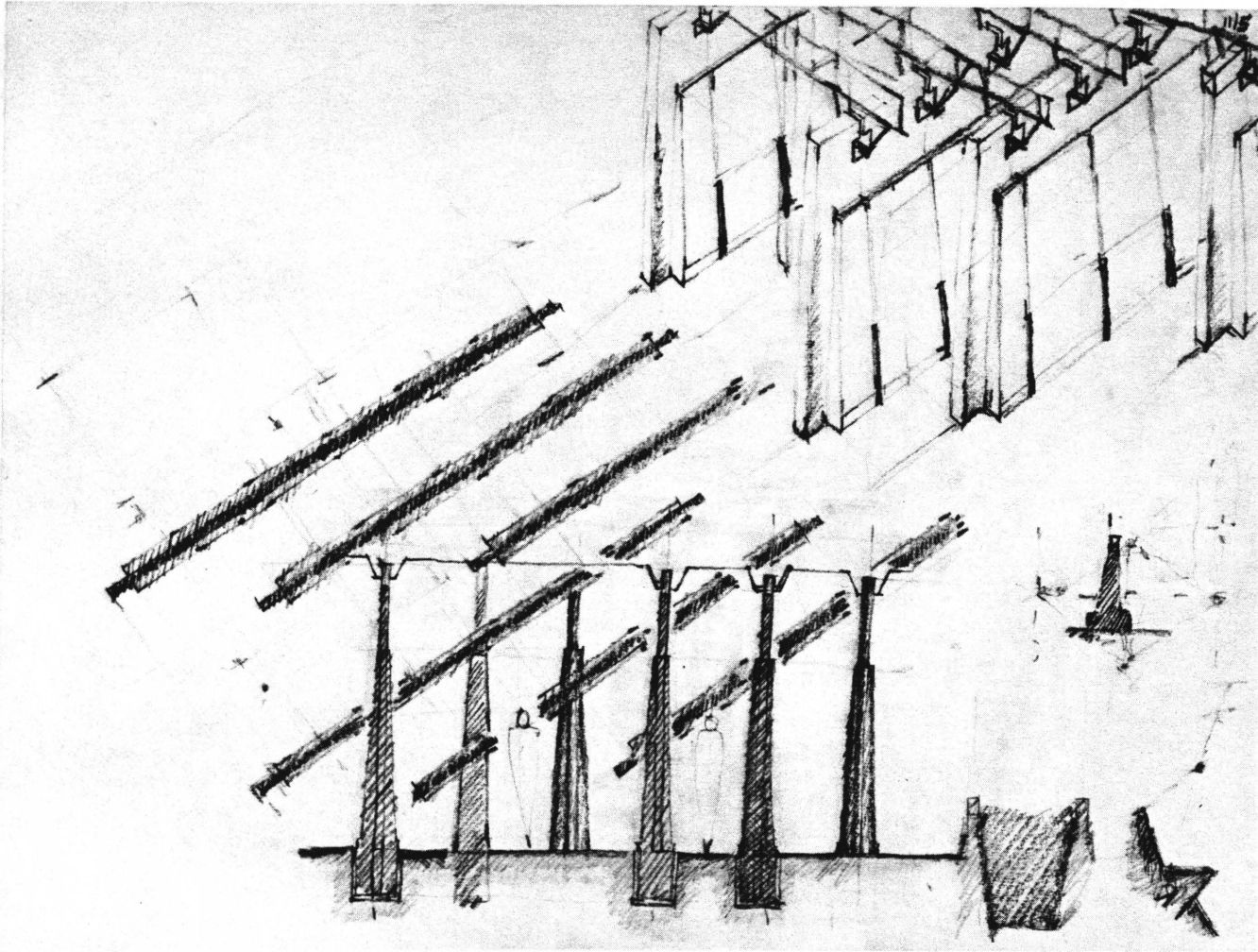
“Particularities out of which the universe is made.”

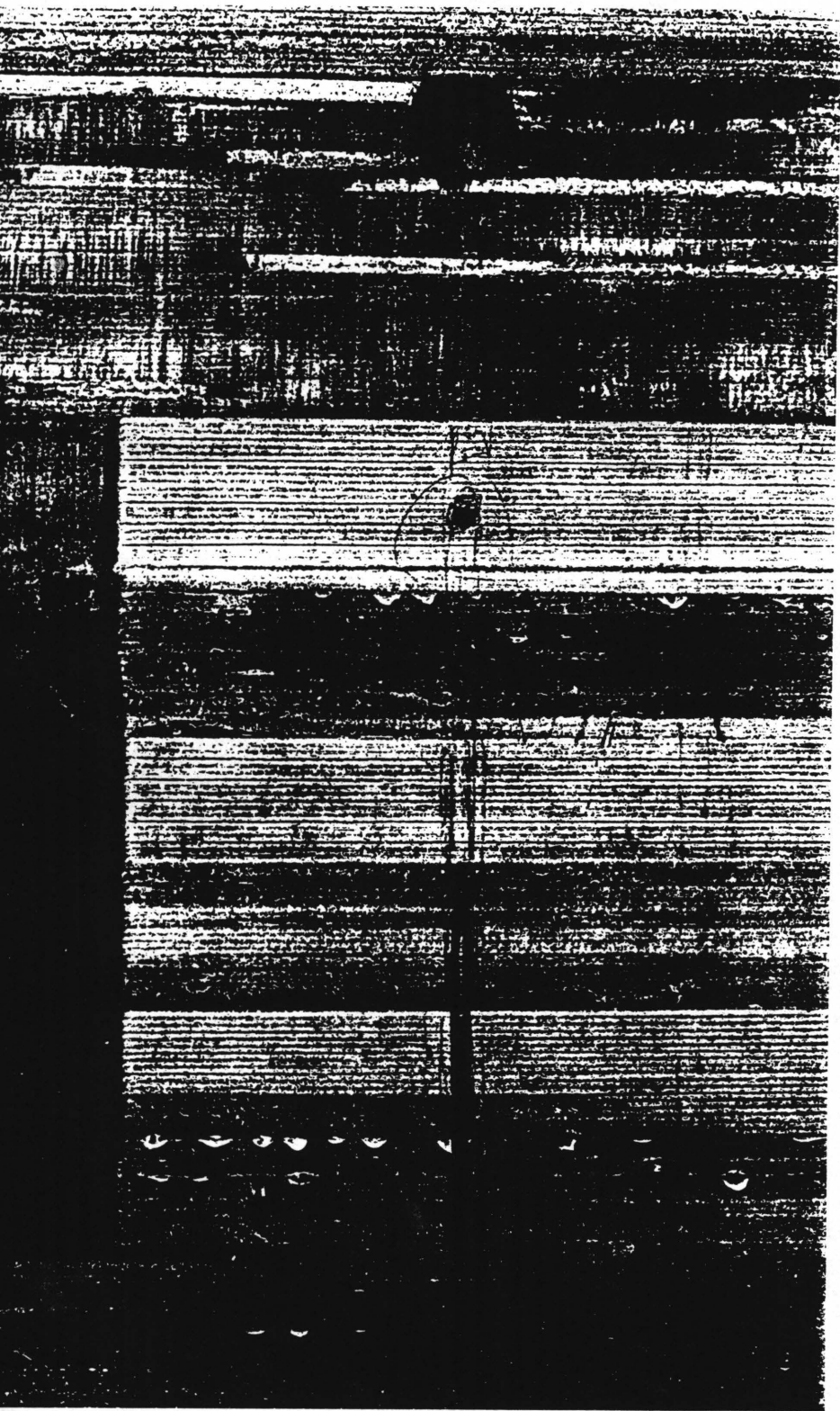
Alvaro Siza

A beginning point, first principle, may be formed from the characteristics manifested in the construction of an element as a thing itself. The wall chosen for further analysis is the ‘*chipboard*’ wall, it is the only essay which addresses the wall as a thing, having physical properties which express a dialogue with an individual. The quiddity of the wall, is not its ideas rather it is the properties which define it. As M. Merleau-Ponty states *“That looking for the World’s essence is not looking for what it is as an idea once it has been reduced to a theme of discourse: it is looking for what it is as a fact for us before any thematizations.”* Beginning by describing the properties of a thing.

The wall constructed of chipboard began with observations of the section and mass, construction, texture, and its reference to the body, by studying the walls of Kahn, Scarpa, and of Anasazi. These studies defined the point from which the wall could be explored developing its own course, through its expression of ‘*to harbor*’ and ‘*to bring forth*’.

The beginning point of a work does not occur in isolation, rather as Heidegger writes it occurs in the ‘*stillness of an earlier childhood, and that in the stillness of another.*’ The work builds adding another layer as learning builds upon what is known furthering the development while distancing itself from the original.





Ending With a Question

What is the observation or reflection which locates the site of the work? The observation establishes the datum that structures the elements of the work, moving from a collection of fragments, to an organization of parts which develop its own course of development.

Appendix

Thesis: To Know an architectural thing.

To begin by challenging an education, stripping it to the essentials, to reveal the principle which directs one's quest to learn, and to begin again, this is where one makes their true discoveries.

Preliminary investigations of the nature of an architectural thing, wall, to protect and harbor as a theme. Which have lead to challenging the roles and dialogue between act and thought (object and idea, doing and thinking), and at the forming of a first principle through a question which locates the site of one's work.

To form a 'first principle'

'Spiral' dialogue between learning and materiality. (fact and thought, thought and act)

I. Learning: to know

to know the nature of things

A. Challenge: previous education

1. process: linear sequence of design
 - a. translation through generators and grids
 - b. production: not thinking
2. Behaviorism: abandons concepts of mind and consciousness.
 - a. objective study of behavior
 - b. detachment of context

B. Re-evaluate: beliefs

1. role of thinking: 'use' of philosophy
 - a. to begin with ideas of reason
 - b. translation: of an idea into architecture
2. role of play: act, feeling, imagination
 - a. to begin with a thing, Aalto
 - b. investigations: discoveries design

C. learn: act, not process.

1. begin with act, senses, and imagination, internalized
 - a. simple observation, reflection combination of simple to complex -Locke
 - b. to know nature of things: way abstractive and discursive intellect draws from sense and imagination judgement, reason. -Aquinas
 - c. to educate through imagination, senses, act explore properties to a thing, first act in single faculty of knowing the architectural object.
2. Knowledge of the individual
 - a. balance between experience and theory: experience knowledge of individual, theory knowledge of universal, actions productions are knowledge of the individual -Aristotle
 - b. thinking and poetry: thinking informs poetic indirectly.

Possibility of interference of thinking with poetic -Heidegger

II. Things themselves: -Aristotle

A. Materiality: releasing into its own

1. confronts man; as a solitary object marking the landscape, as a set of objects which enclose
 - a. will it change my perception?
2. Uton - As an architect one can dream of creating a good hedgerow. We know these hedgerows from the winter landscape where they stand naked, trees and bushes thick and intertwined, softening the fierce force of the winter wind. Then comes spring and the time to bloom. The yearly wonder as the hedge awakens and is alive, rich in color.

3. things themselves
 - a. Aristotle
 - b. Goethe: "significant roughness"
 - c. Frampton: Laconic: spartan: speaking or writing with spartan brevity, curt, terse undemonstrative, pithy, or concise expression.
- B. To protect and harbor as a theme
 1. Wall: as an interval between 2 dissimilar institutions of man, protects and fortifies each; to divide, to defend, to protect, to bring forth.
 - a. place within a wall - individual
 - b. place surrounded by walls - society
 - c. parts of a wall, rampart, beam, pole, wickerwork.
- C. Location of the work
 1. Site: Heidegger - Site a place in which everything comes together, is concentrated. The site gathers onto itself, supremely and in the extreme. Its gathering power penetrates and pervades everything. The site, the gathering power, gathers in and preserves all it has gathered, not like an encapsulating shell but rather by penetrating with its own light all it has gathered, and only thus releasing it into its own nature."
 - a. Two sites: physical and intellect.
 2. Tradition: Merleau-Ponty: For I alone into being for myself (and therefore into being in the only sense that the word can have formed) the tradition which I elect to carry on, or the horizon whose distance from me would be abolished since that distance is not one of its properties - if I were not there to scan it with my gaze.
 3. limits: arbitrary in purpose; limitations enable to distinguish.
 - a. relative/absolute: how does an object change towards the relative movement of changing limitations
 - b. fixing an expression of first principle in a particular form
 - c. knowing limitations is instrumental in giving form.

End with a question. Architecture to harbor and protect, to relate and separate man.

Readings

- Bourke, Vernon J. Ed. "Knowledge and Method" The Pocket Aquinas. New York: Washington Square Press, 1960, (8-43).
- Arendt, Hannah. The Human Condition. Chicago: University of Chicago Press, 1958, (pg 51).
- Kaplan, Justin D., Ed. The Pocket Aristotle. New York: Washington Square Press, 1958, (2-26, 340-379).
- Aristotle. Poetics. Chapel Hill: University of North Carolina Press, 1986.
- Blanchot, Maurice. The Space of Literature. Lincoln: University of Nebraska Press, 1982.
- Bruner, Jerome. The Process of Education. Cambridge: Harvard University Press, 1960, (pg 52).
- Bruner, Jerome. On Knowing: Essays For the Left Hand. Cambridge: Harvard University Press, 1979.
- Heidegger, Martin. On a Way To Language. New York: Harper and Row, 1971, (pg 159).
- Merleau-Ponty, M. Phenomenology of Perception. New York: Humanities Press, 1962, (ix).
- Strauss, Claude Levi. Savage Mind. Chicago: University of Chicago Press, 1966.
- Strauss, Claude Levi. Structural Anthropology. New York: Basic Books, 1963.
- Whitehead, Alfred North. Aims of Education. New York: MacMillan Co., 1972.
- Frampton, Kenneth. "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," The Anti-Aesthetic: Essays on Post-Modern Culture. Port Townsend, WA: Bay Press, 1983, (16-30).
- Frampton, Kenneth. "Place, Production, and Architecture," Modern Architecture and the Critical Present. London: Architectural Design Profile, 1982, (28-59).
- Frampton, Kenneth. "Alvar Aalto and the Nordic Tradition," Modern Architecture: A Critical History. New York: Thames and Hudson, 1985, (pg 198).
- Panofsky, Erwin. Idea: A Concept in Art Theory. Columbia: University of South Carolina Press, 1968.
- Ando, Tadao. Buildings, Projects, Writings. New York: Rizzoli, 1984.
- Ahlén, Jame. Sigurd Lewerentz. Architect. Cambridge: MIT Press, 1985.

Loos, Adolf. Spoken Into The Void. Cambridge: MIT Press, 1982.

Saariinen, Eiel. The Search for Form In Art and Architecture. New York: Reinhold Publishing Corp., 1948.

"Alvaro Siza: 1954-1989," A&U Extra Edition, June 1989.

Siza, Alvaro. "Porto" Architecture and Body. New York: Rizzoli, 1988.

Moller, Henrik Sten. "Jorn Utzon on Architecture" Living Architecture. 8, (168-173).

Utzon, Jorn. "Platforms and Plateaus: Ideas of a Danish Architect," Zodiac. 10, (112-140).

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A MOVEMENT FROM FRAGMENTS TO THE INCOMPLETE

by

Robert William McKinney

**Committee Chairman: Frank Wiener
Architecture**

(ABSTRACT)

In an education it is necessary to re-evaluate those principles which are the foundation of how one learns. Only by challenging these basic principles is it possible to prevent stagnation and to cultivate discoveries. The discoveries of this work focus on the architectural object/thing and fundamentally how it is conceived, constructed, and thought about.

This work challenges the previous education by not relying on a program, building type, human needs or context. The work attempts to apprehend and understand a basic notion about architecture. The premise is that exploration of an architectural element will lead to thinking thoughtfully about concerns which were previously believed to be 'generators.'