

ARCHITECTURE FROM ELEMENTAL PARTS

by

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in Partial Fulfillment of the Requirements for the Degree of

MASTER OF ARCHITECTURE

Hans C. Rott, Committee Chairman

Robert Schubert, Committee Member

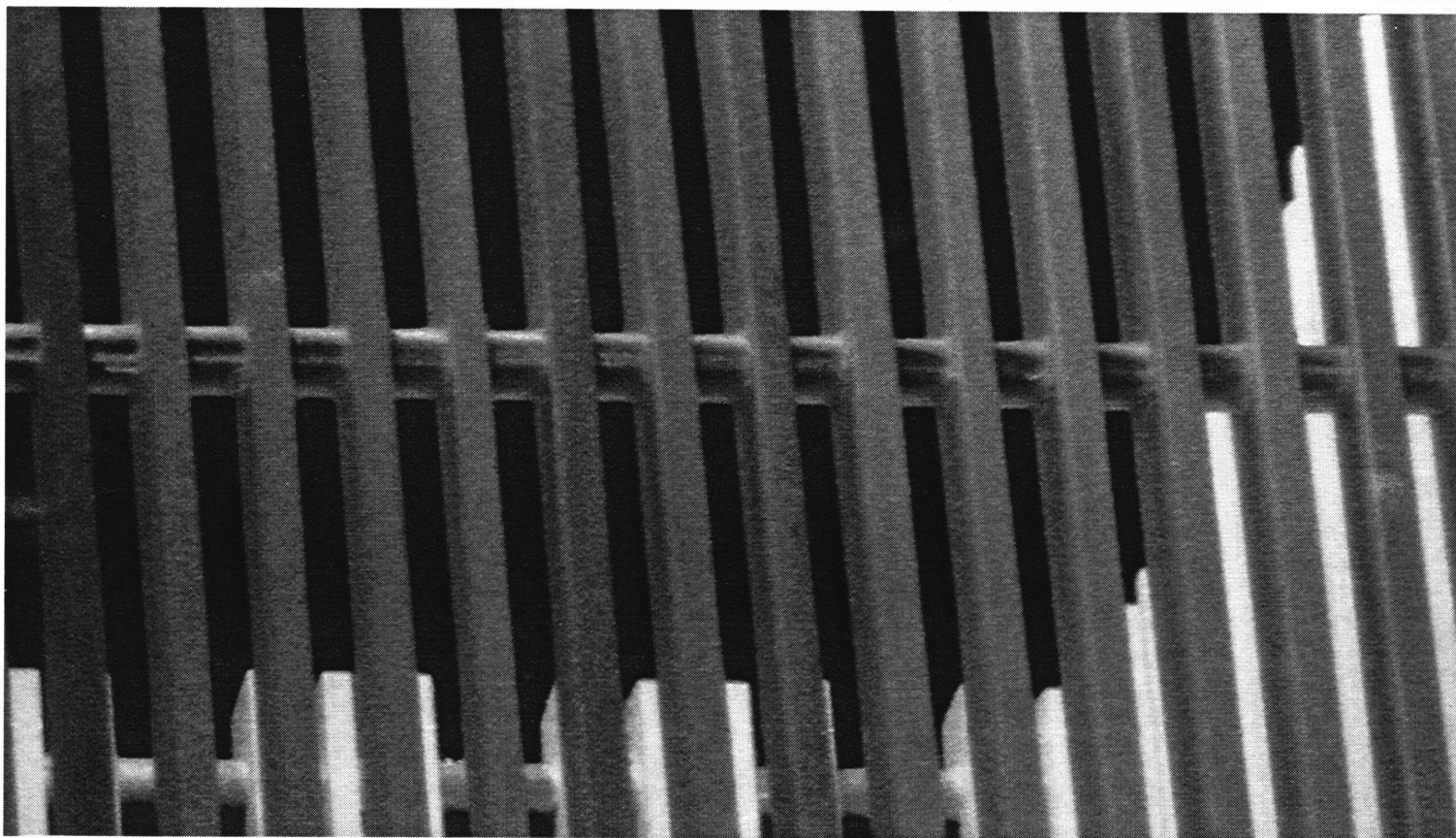
Heiner Schnoedt, Committee Member

ABSTRACT

A simple element that is repeated in a thoughtful, organized manner, can generate a whole that is greater than the sum of the individual elements. Conversely, a large ungainly project can be generated out of the repetition of smaller more manageable parts. This principle is explored in this thesis on a range of scales from town blocks to details.

"A module is not the repetition of a motif but the expression of an Architectural principle"

L. Kahn



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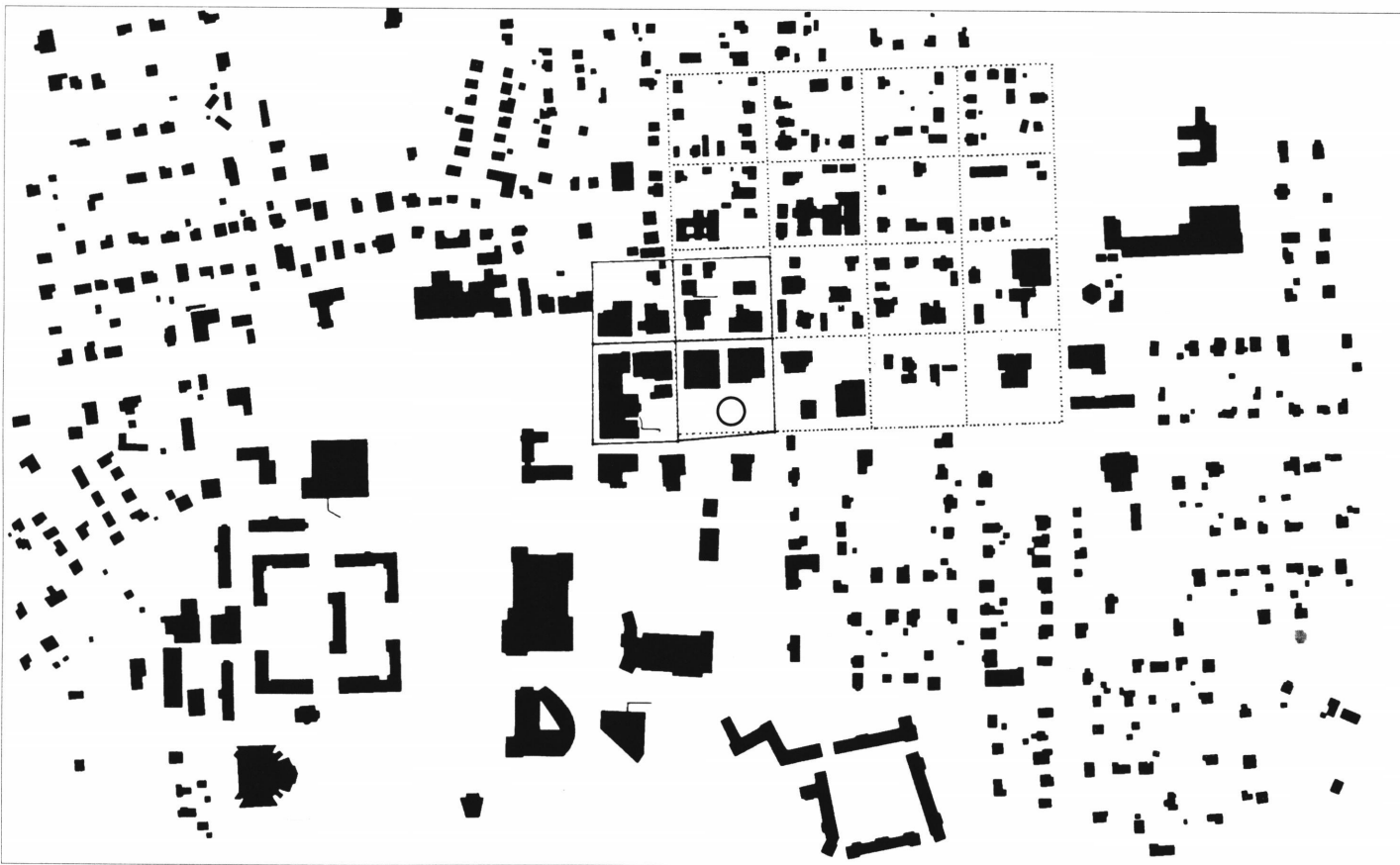
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INTRODUCTION

The town of Blacksburg, Virginia was originally organized as a square of sixteen blocks loosely bounded by streams and springs. The town has long outgrown these original blocks and it has gone through many phases of growth. The heart of downtown Blacksburg has, however, shifted only slightly from the original blocks, due mainly to the presence of the adjoining university that is now Virginia Tech.

For this thesis project, a small community arts complex is set into the heart of downtown Blacksburg. The motivation for this is to refocus attention towards the center of town which, due to outward development, is slowly fragmenting and losing definition. Such a large building relative to the scale of town can do much to define the physical character of a town center. Weaving this project into the downtown fabric also takes advantage of the existing infrastructure, allowing outlying areas to remain untouched.

By drawing people downtown throughout the day and evening, such a project can bring life to the entire downtown.

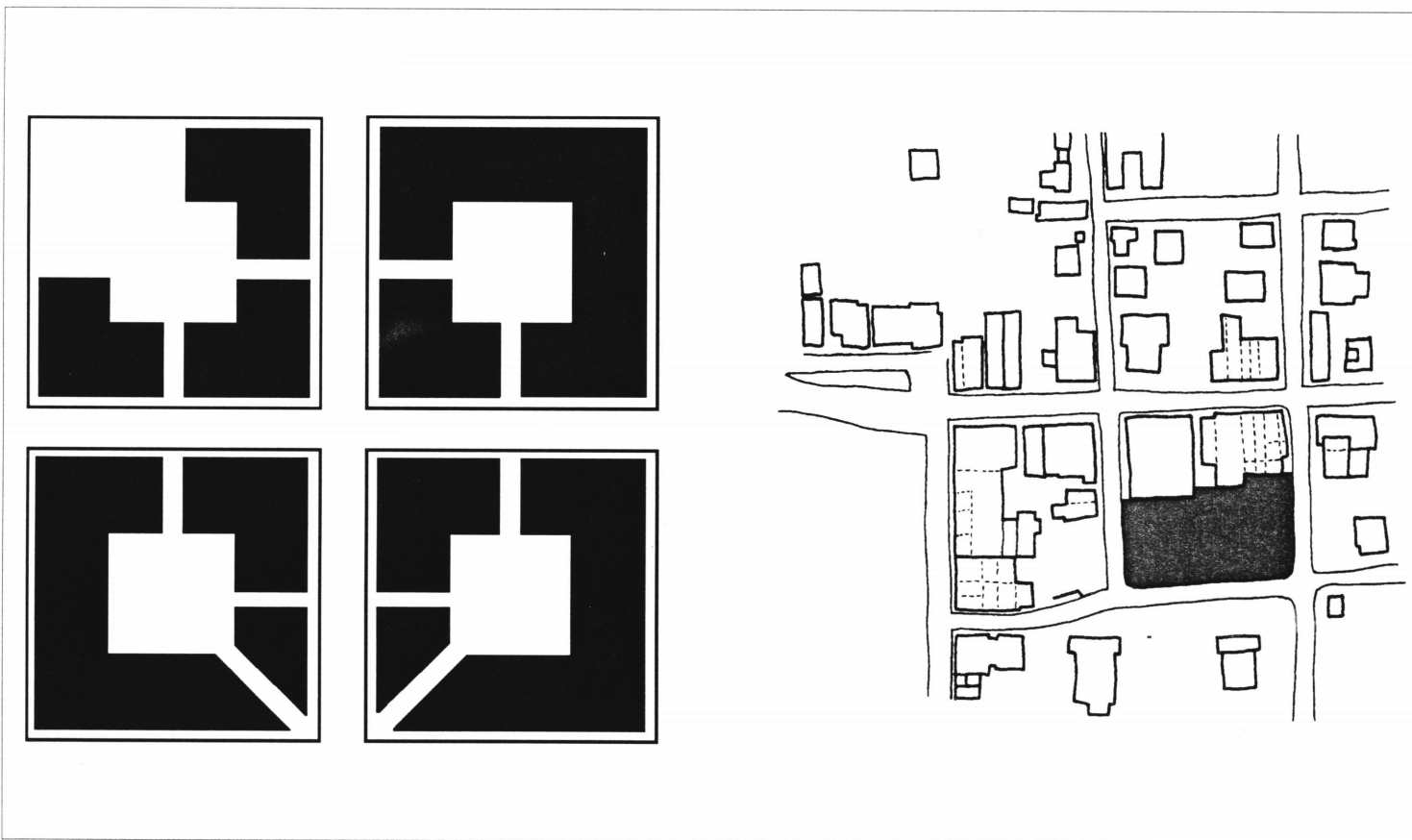


TOWN

Blacksburg is a typical small town. Its blocks are a collection of once tightly packed individual structures, whose formal facades line the streets. Gaps in the facades form alleys which allow pedestrians to move to the less formal back courts. Unfortunately both the alleys and backcourts are generally leftover spaces which have not been developed as assets.

A well defined alley system gives pedestrians a quieter alternative to Main Street. Filling in between the fragments in the facades can create defined interior courts which then can be used for outdoor cafes, quiet residential entries and off street public gathering. The graphic to the left presents such a possible future for the four blocks that form the heart of downtown Blacksburg.

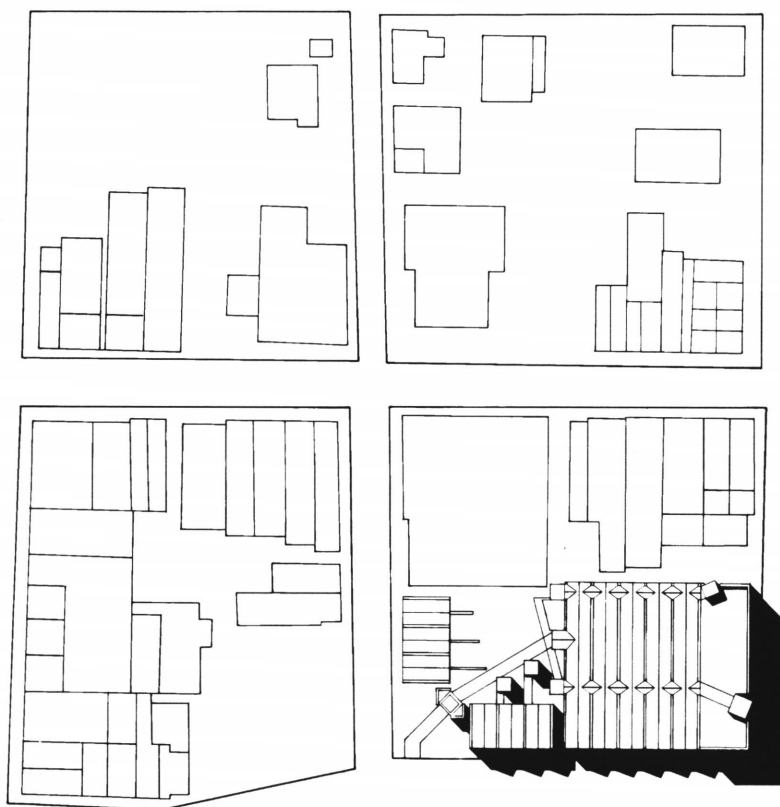
The proposed arts complex is designed to reinforce this model. It defines alleys and considers the enclosed, informal courtyard through its construction.



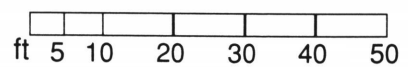
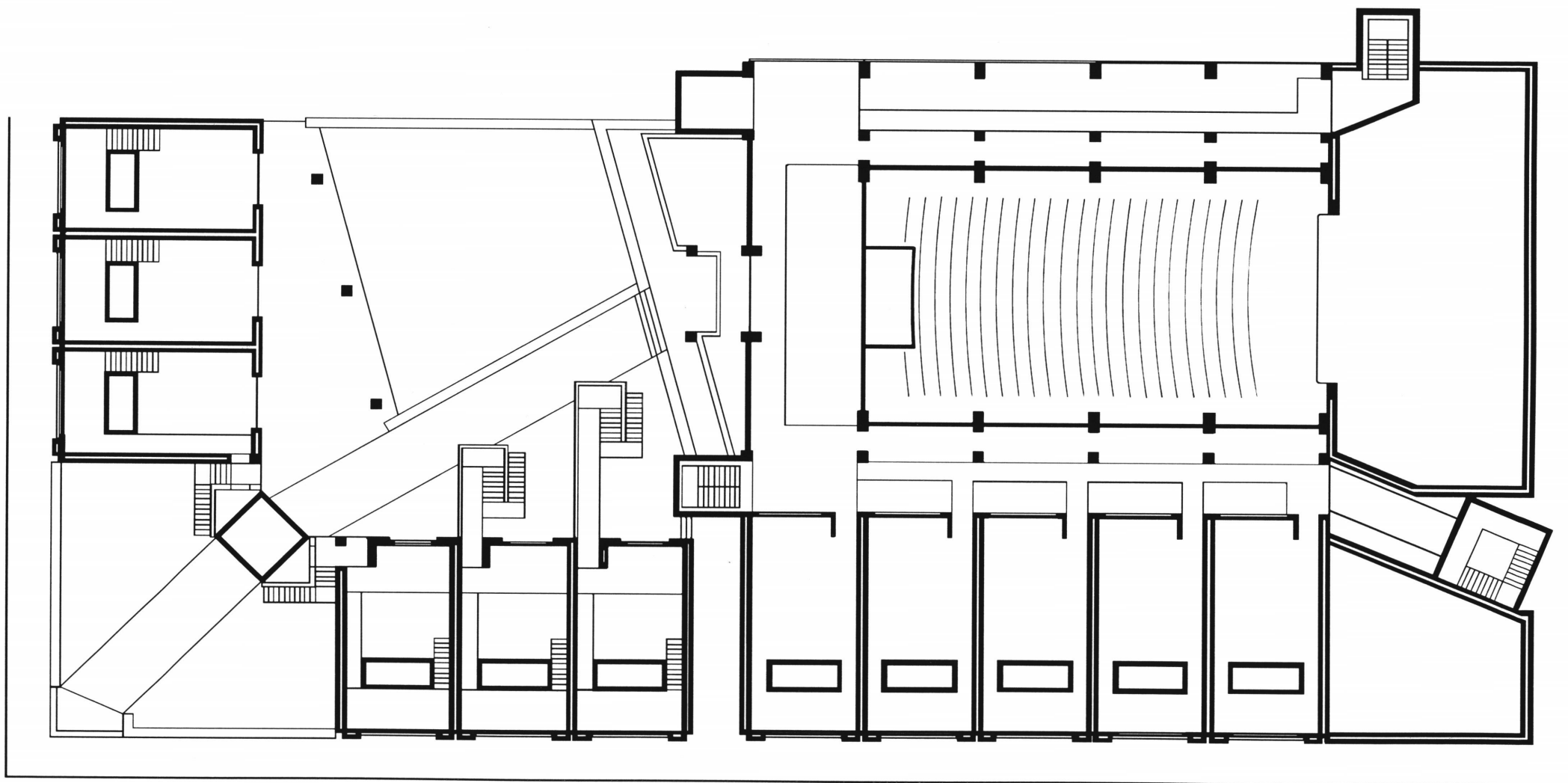
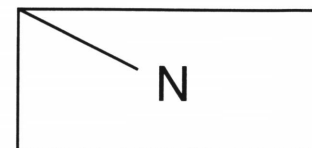
SITE

The arts center is located on the bottom right of the four main downtown blocks. It includes a small theater as well as studio spaces for local artisans and craftsmen to work, instruct and sell.

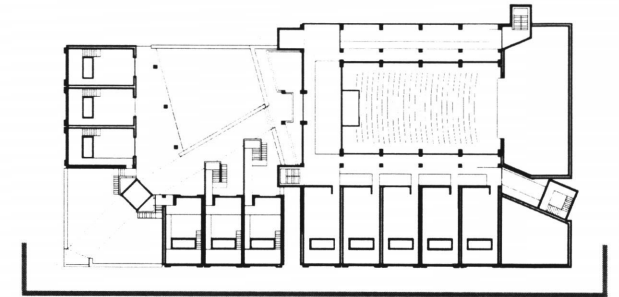
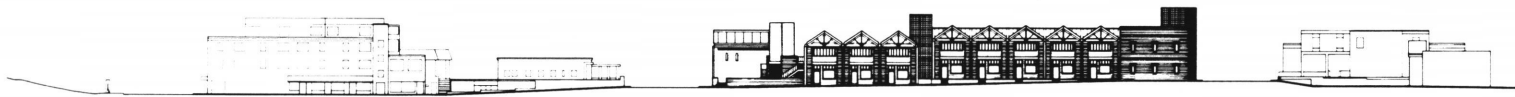
This large complex works within the scale of the town because it is created through the repetition of smaller individual units. The basic unit is a 20 by 40 foot two story bay which on its own operates as a single studio. Ten of these bays stacked together with walls removed make a space for a 500 seat theater. Placed side by side they create a rhythmic street facade. A gap in the rhythm creates an alley allowing passage to the less formal world behind the facades. Omitting two bays on the corner leaves room for a special place, as the main entrance, or just a place to retreat and watch the street scene. Turning the corner with other bays closes the block generating a formal front and an inner court with a life of its own.



2nd FLOOR PLAN

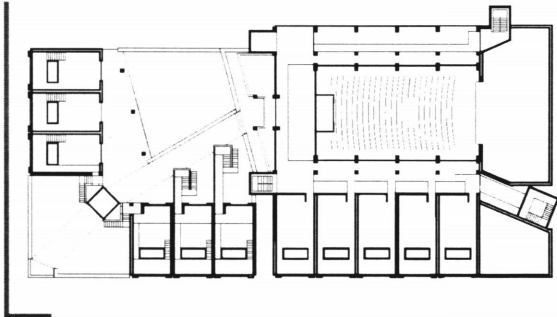
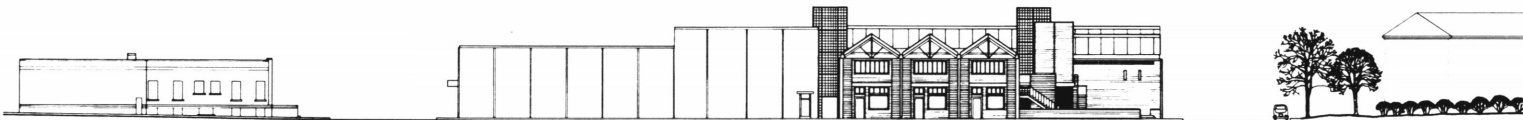


SOUTHWEST ELEVATION



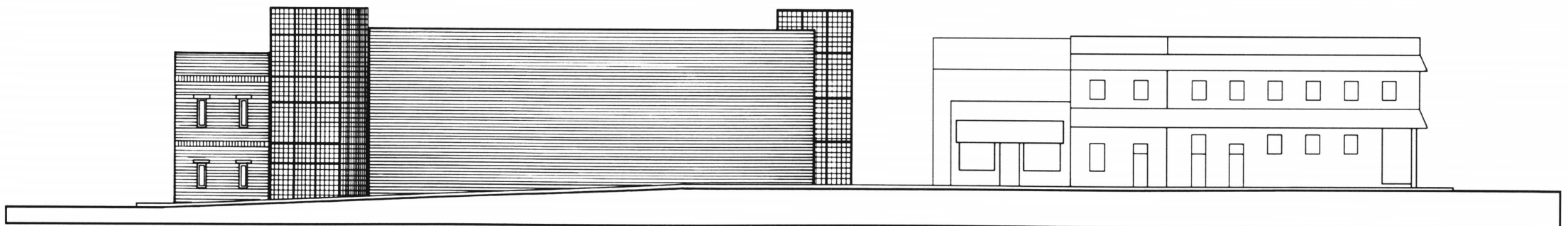
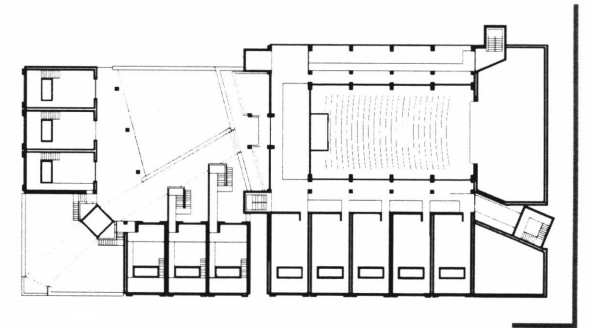
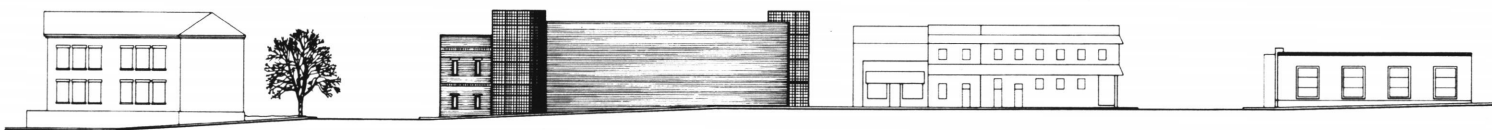
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NORTHWEST ELEVATION



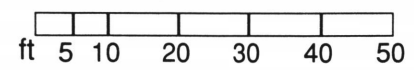
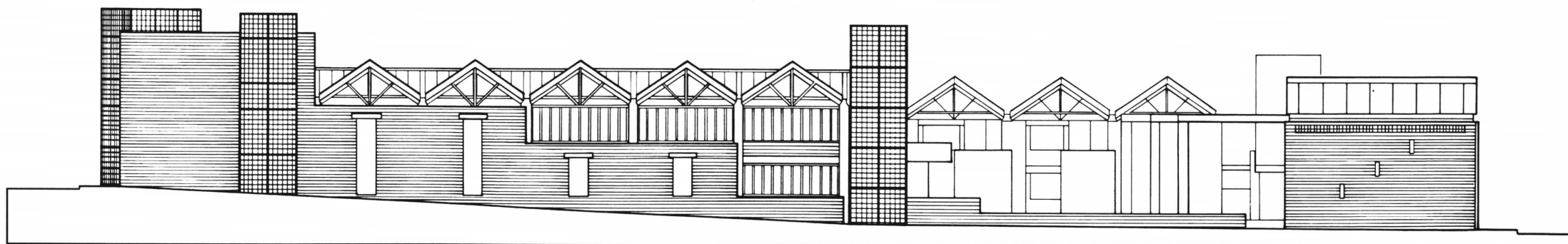
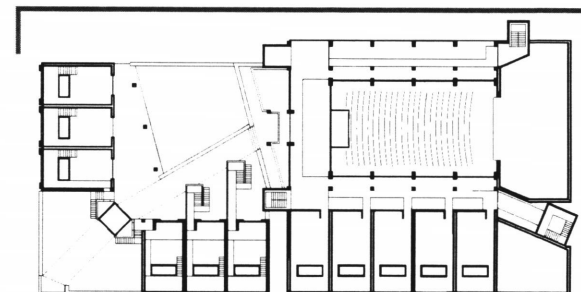
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SOUTHEAST ELEVATION

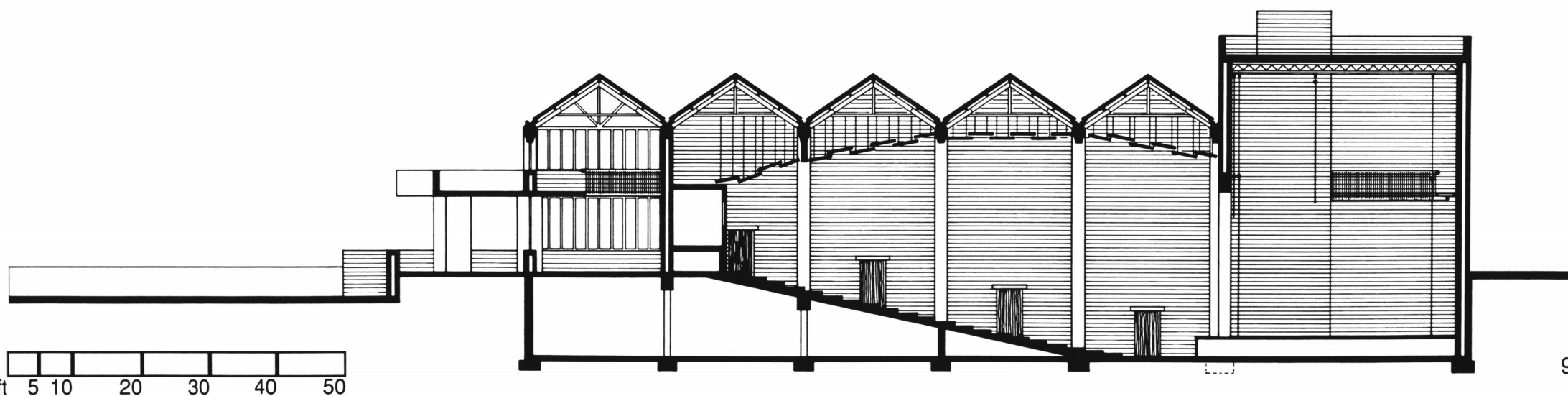
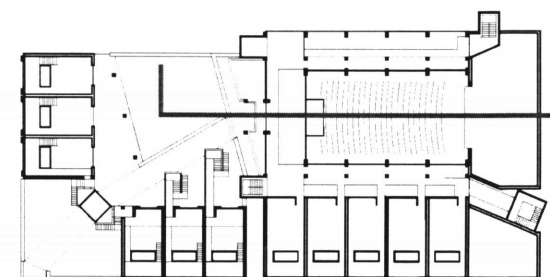


ft 5 10 20 30 40 50

NORTHEAST ELEVATION



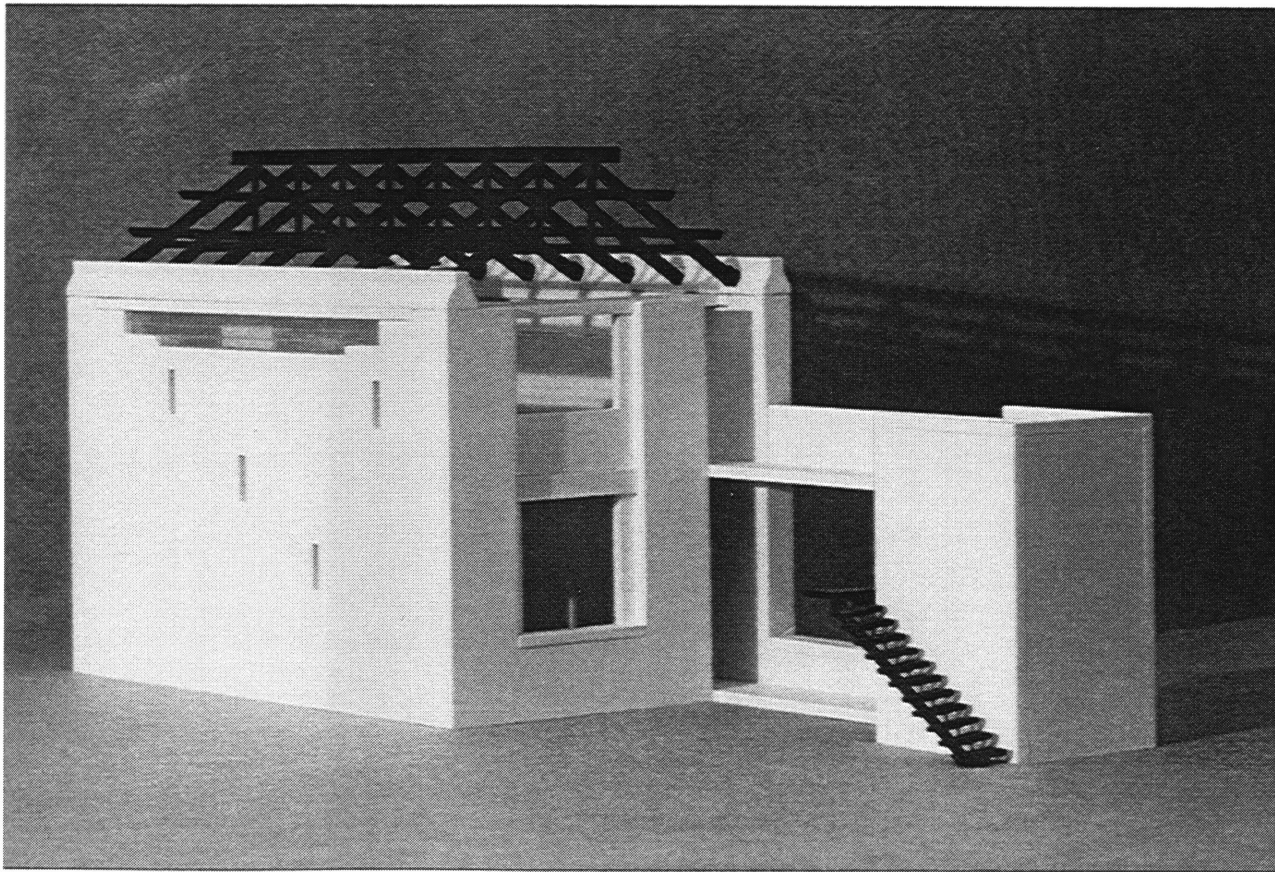
THEATER SECTION



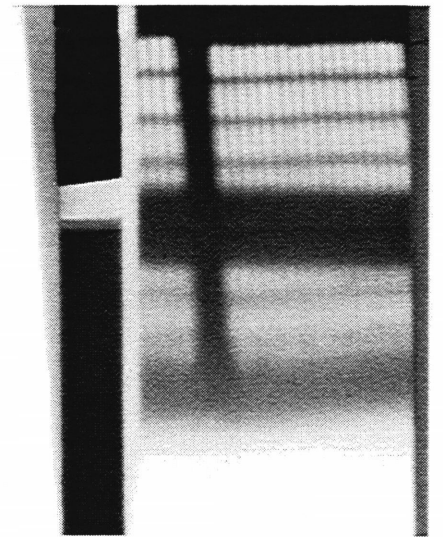
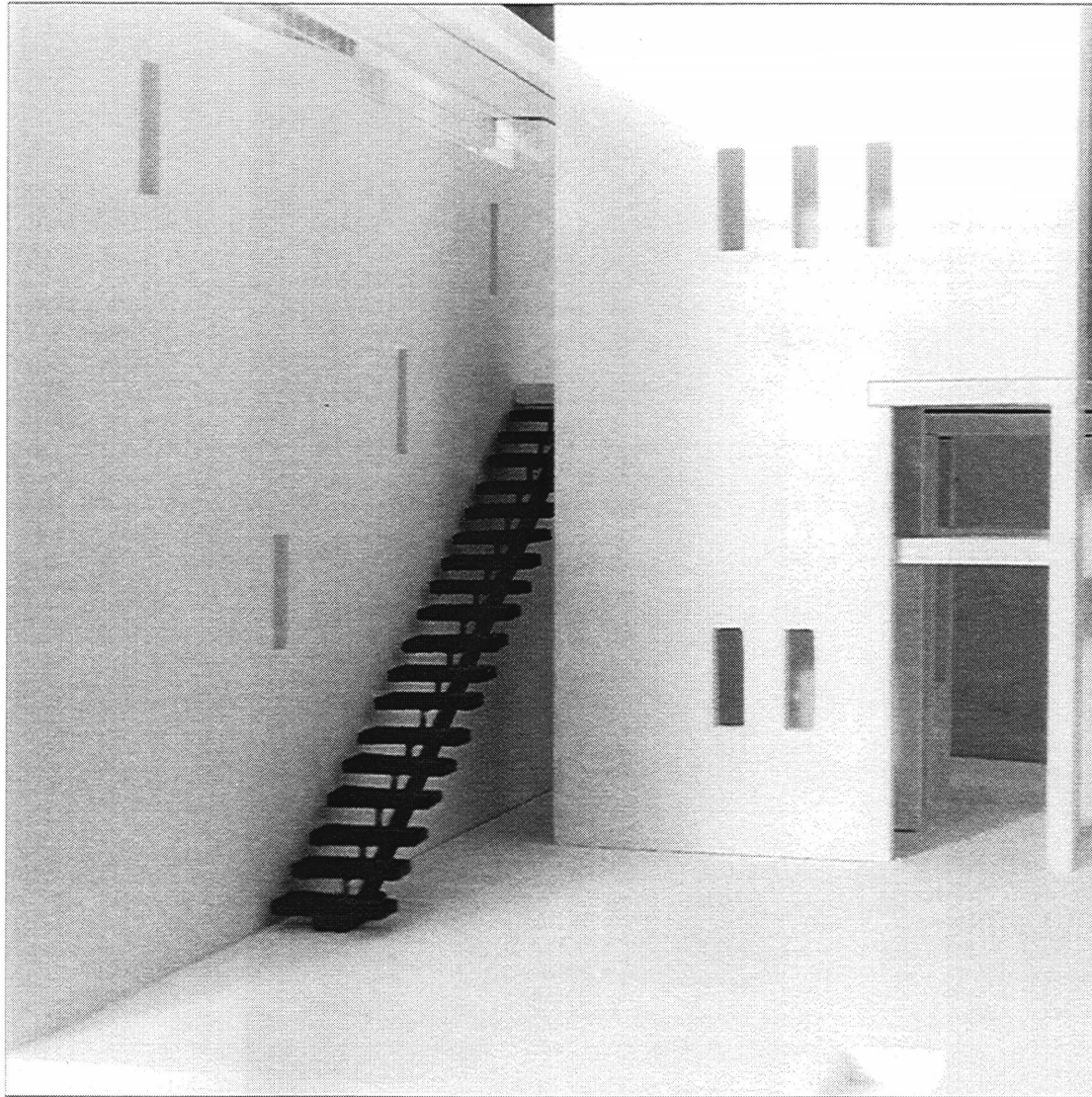
STUDIO BAY

Though part of a greater whole, each bay is still autonomous. It can be a space for three or four artisans to work and hold workshops. Its spaces range from an open two story workshop to a small office and allow for a variety of activities. The bay can be customized for changing needs without destroying the integrity of the complex. Light, heat and ventilation can all be controlled by the bay's occupants.

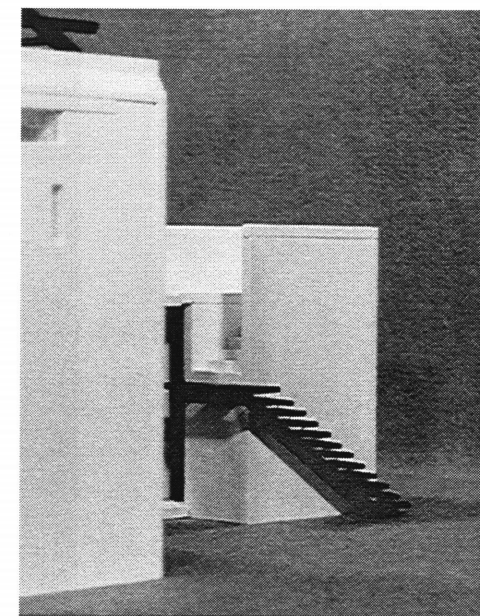
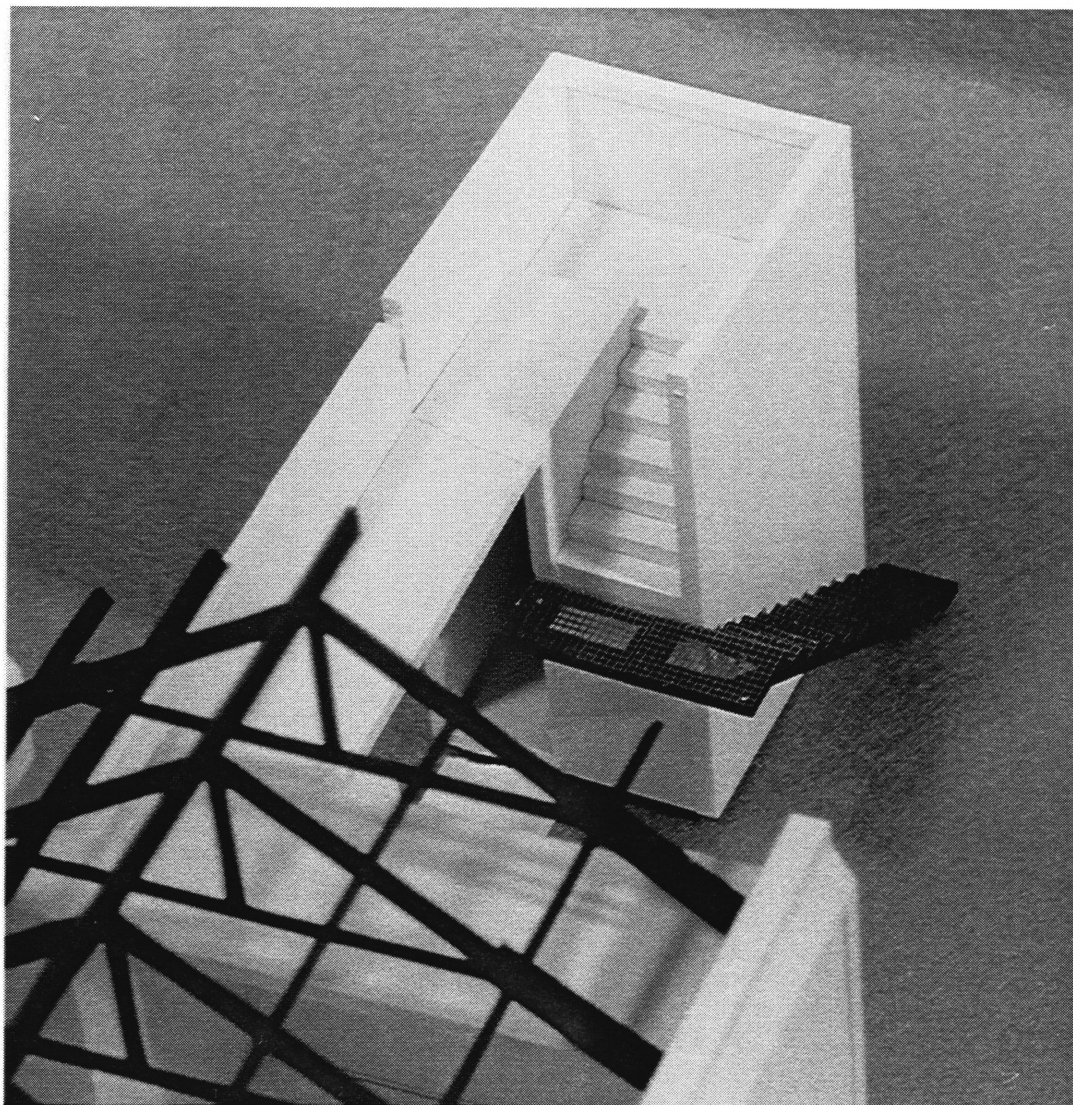
While the upper and back rooms are private work spaces, the front room is a window to and from the street. It allows passersby a selected view of the changing world inside. Indirect light passing through the gable windows penetrates the bay forming a connection to the outside world. No cloud will be able to pass over the sun without changing the mood of the entire bay.



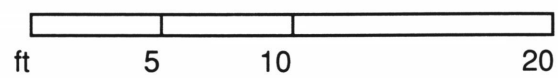
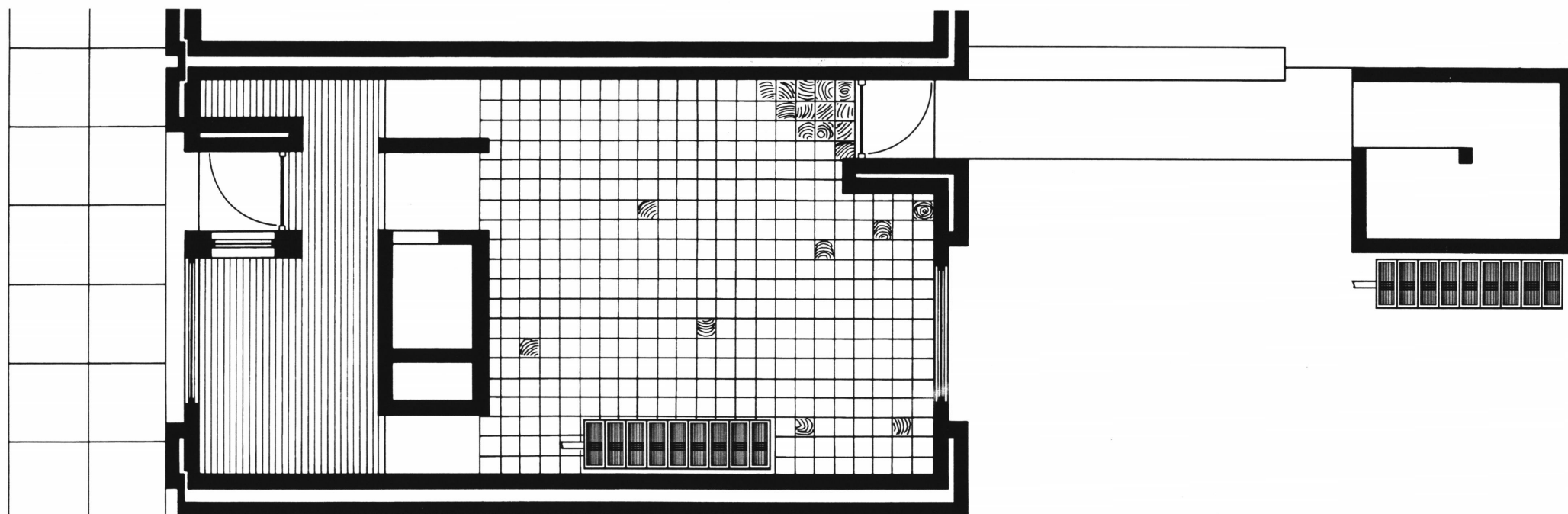
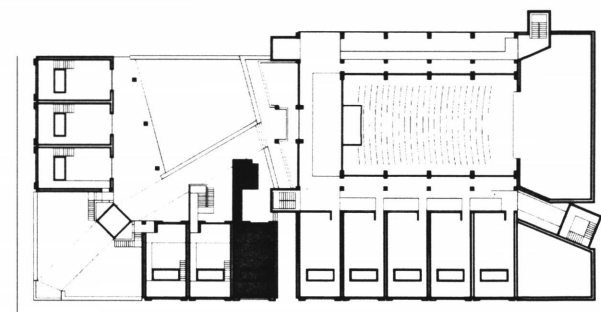
BAY INTERIOR



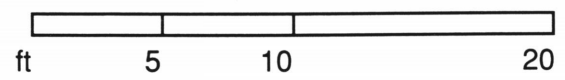
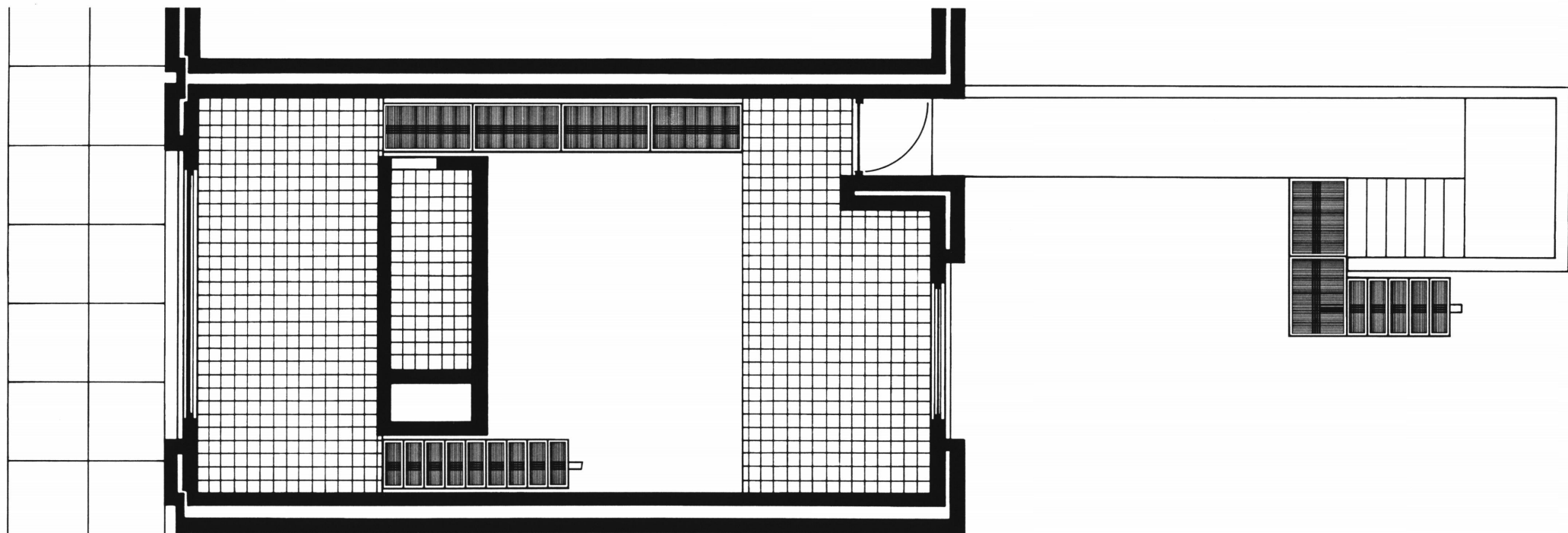
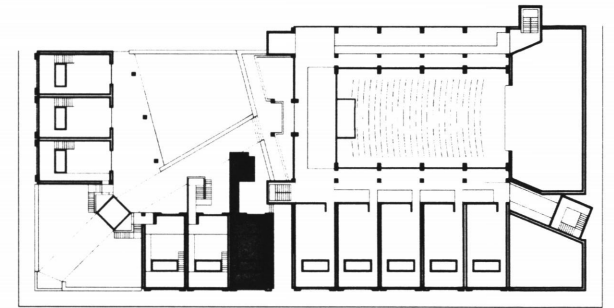
STAIR TOWER



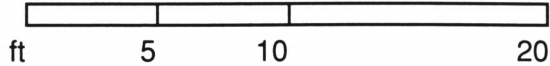
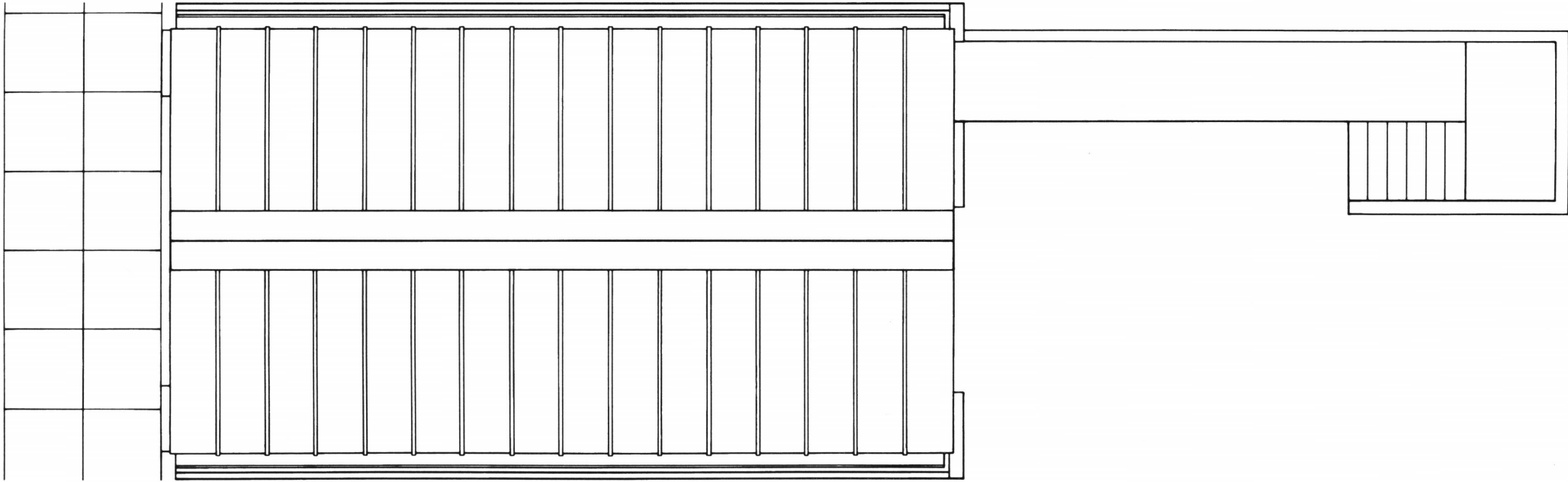
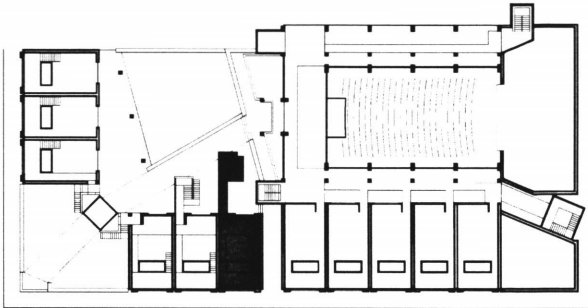
GROUND FLOOR PLAN



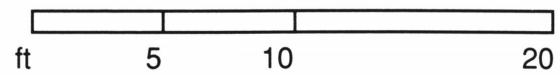
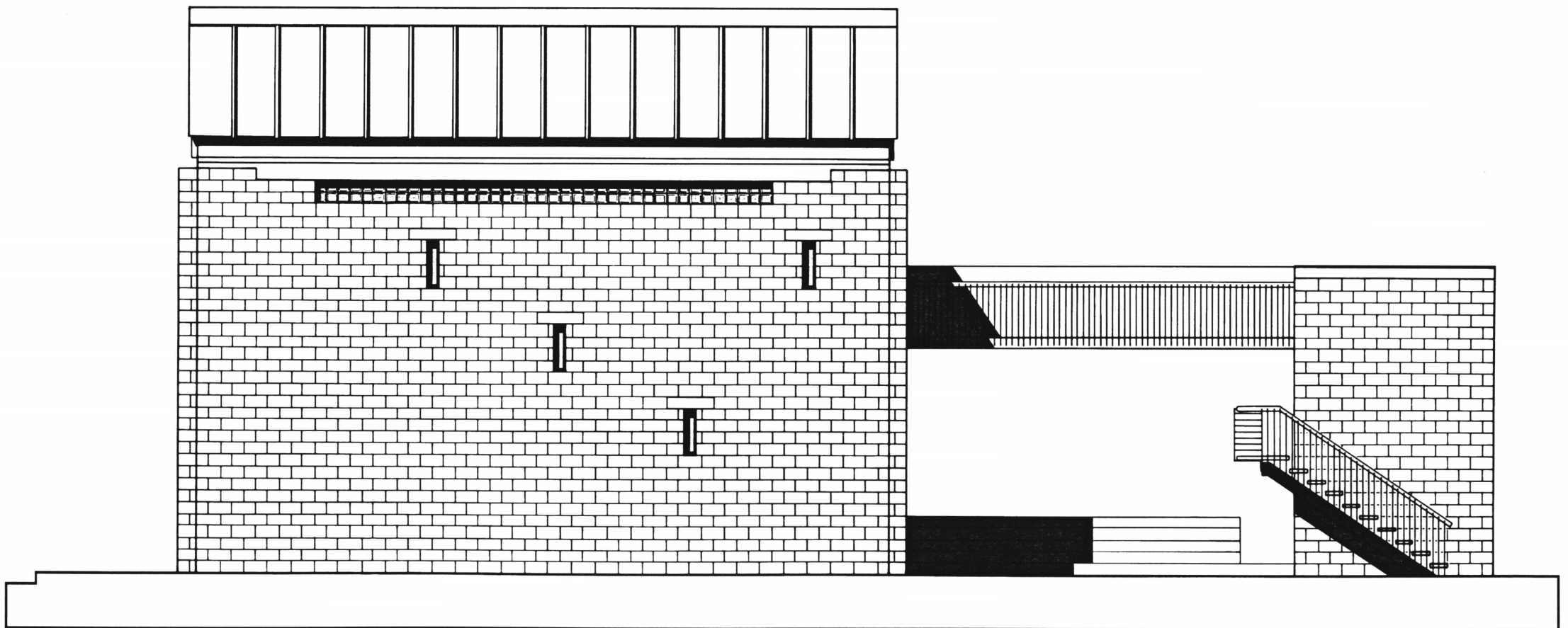
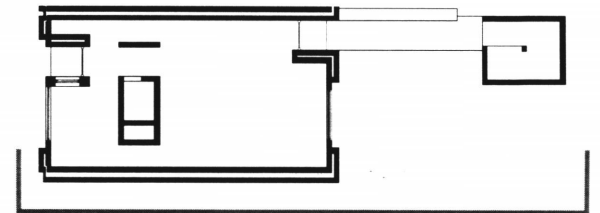
SECOND FLOOR PLAN



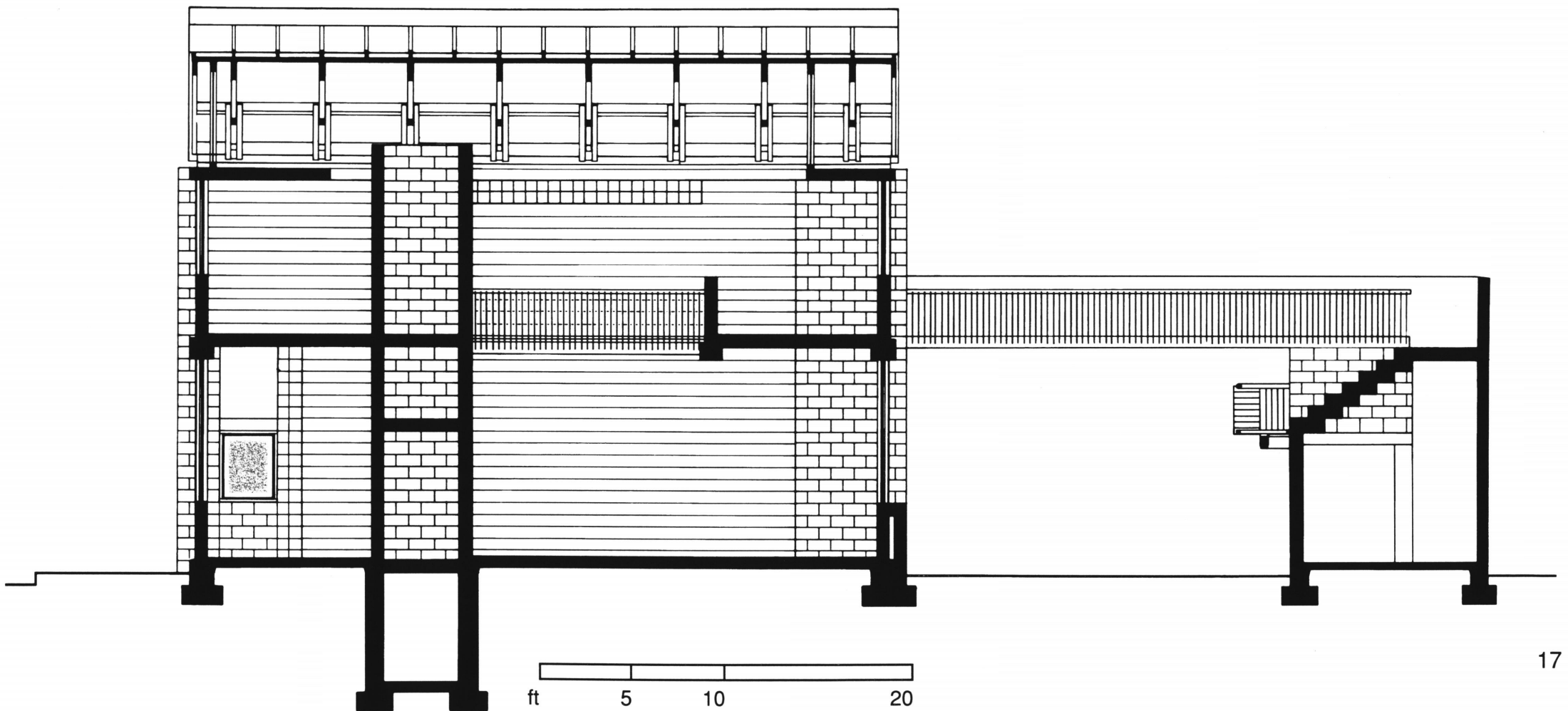
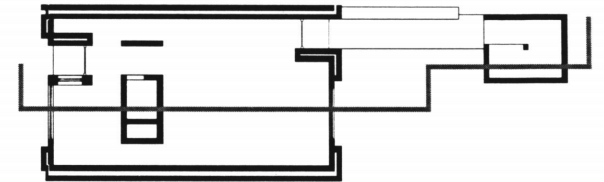
ROOF PLAN



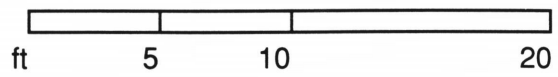
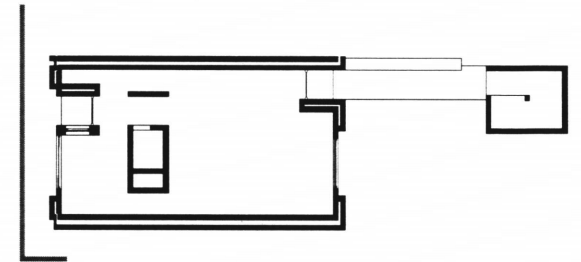
SIDE ELEVATION



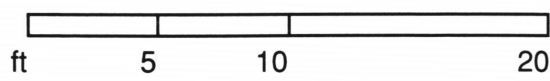
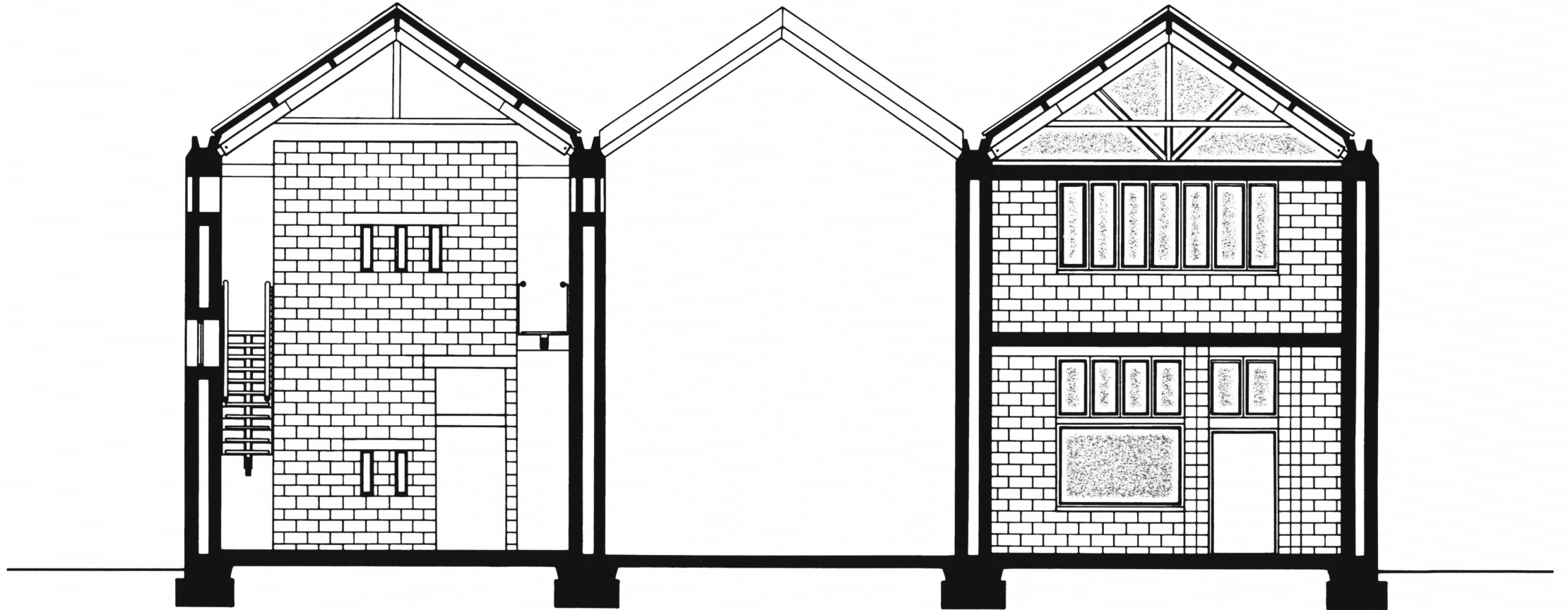
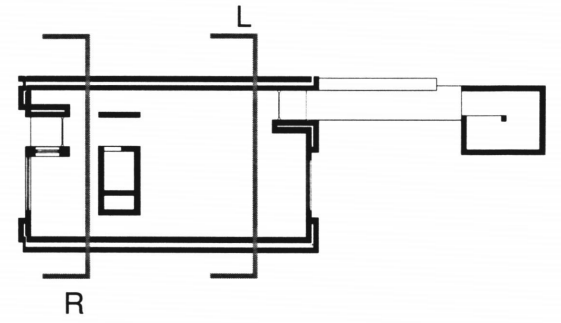
LONGITUDINAL SECTION



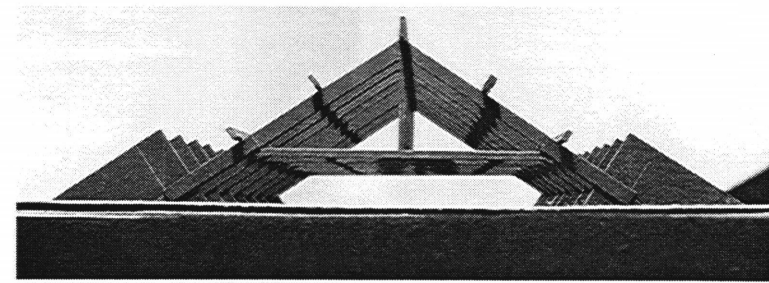
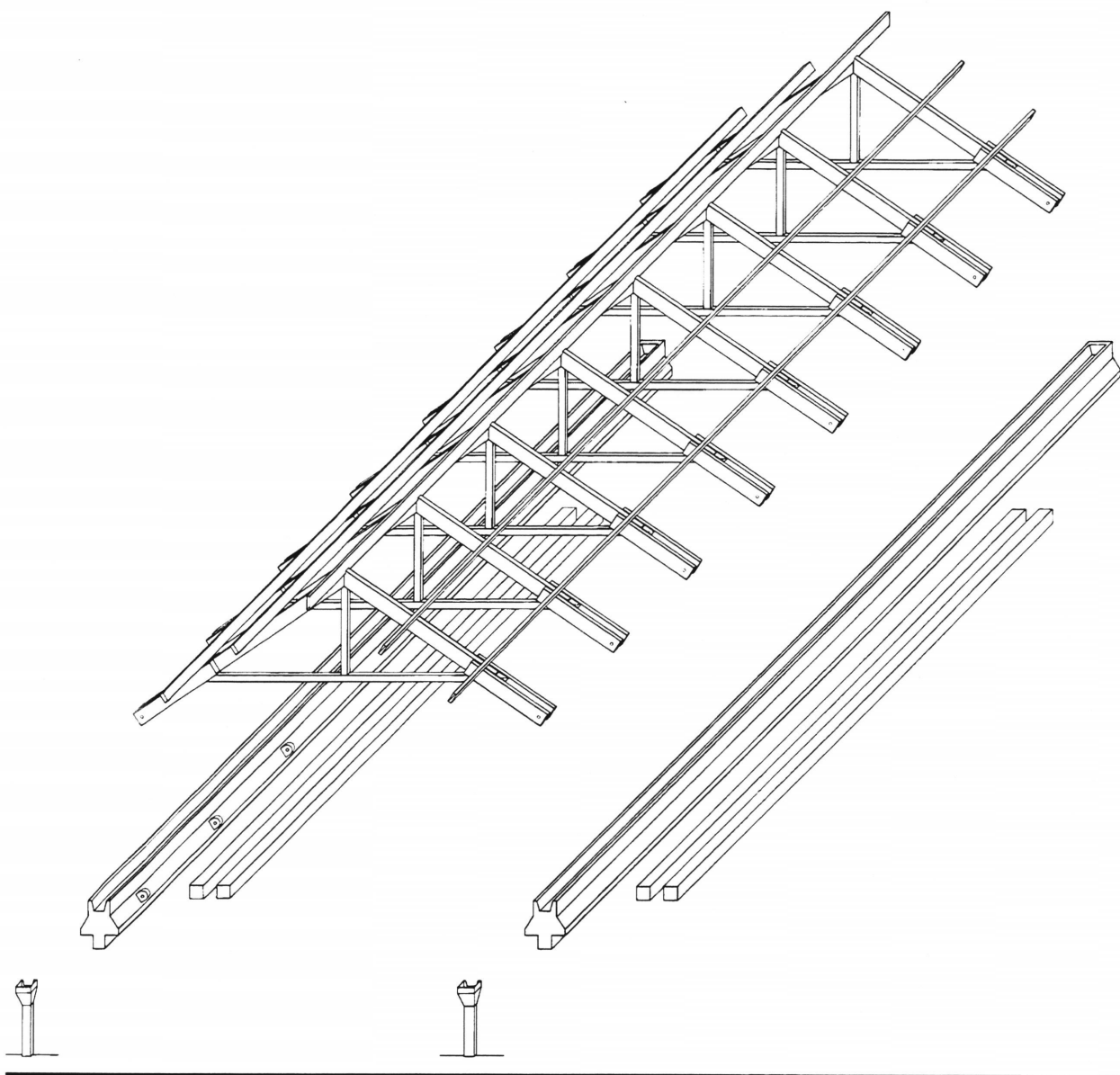
FRONT ELEVATION



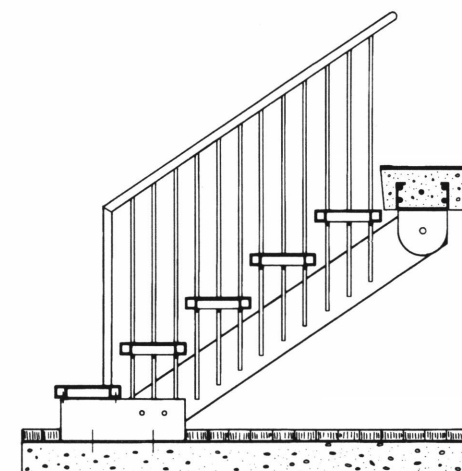
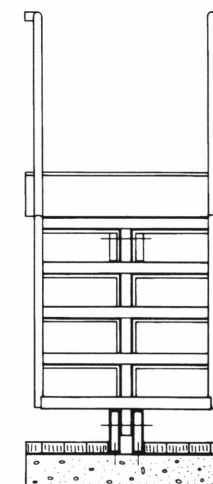
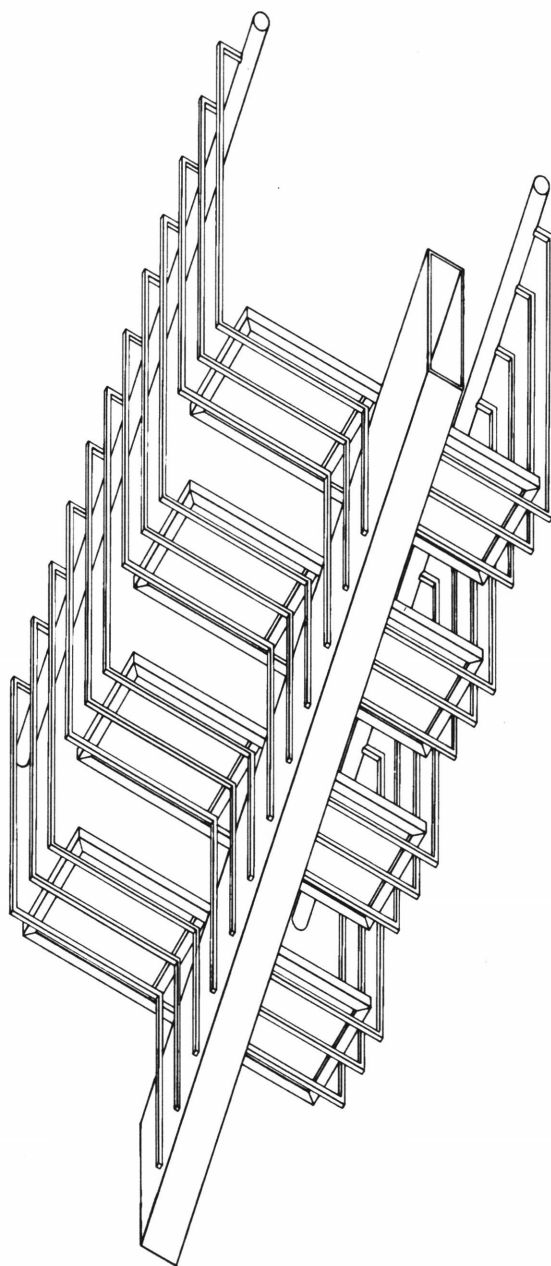
TRANSVERSE SECTIONS



ROOF TRUSSES

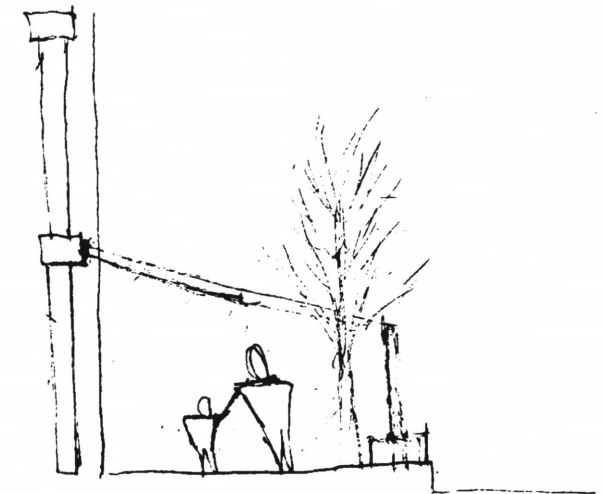


STAIR DETAILS



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"When you have all the answers about a building before you start building it, your answers are not true. The building gives you answers as it grows and becomes itself."

L. Kahn

