

Investigations

by

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Thesis submitted to the Faculty of the

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

Master of Architecture

Approved:

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William Galloway, Chairman

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December, 1998  
Blacksburg, Virginia



Investigations

by

Matthew Miller Smith  
William Galloway, Chairman

College of Architecture and Urban Studies  
Department of Architecture

(Abstract)

This thesis is an investigation into the relationship between two objects on a hillside and the implications of those objects being a church.

dedicated to my daughters

Della and Addie

and to my wife

Brenda

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## introduction

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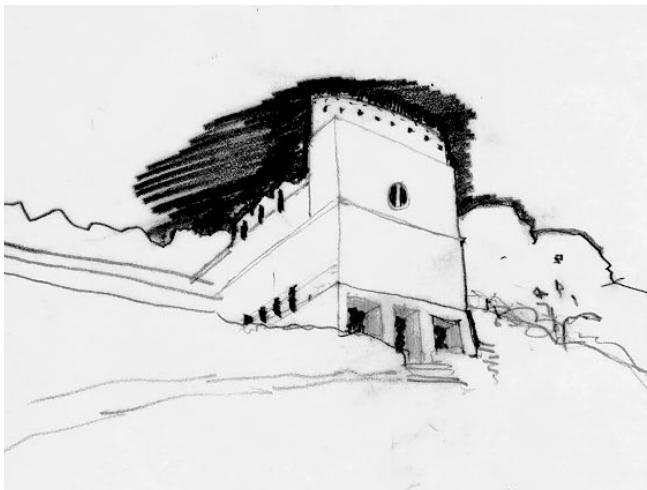
### *Anecdote of the Jar*

I placed a jar in Tennessee,  
And round it was, upon a hill.  
It made the slovenly wilderness  
Surround that hill.

The wilderness rose up to it,  
And sprawled around, no longer wild.  
The jar was round upon the ground  
And tall and of a port in air.

It took dominion everywhere.  
The jar was gray and bare.  
It did not give of bird or bush,  
Like nothing else in Tennessee.

Wallace Stevens



*study for a church*

The qualities of the jar - its autonomy, its ability to order its surroundings around itself, and its location which coincides with the location of my final investigation - make the poem an appropriate epigram for the thesis.

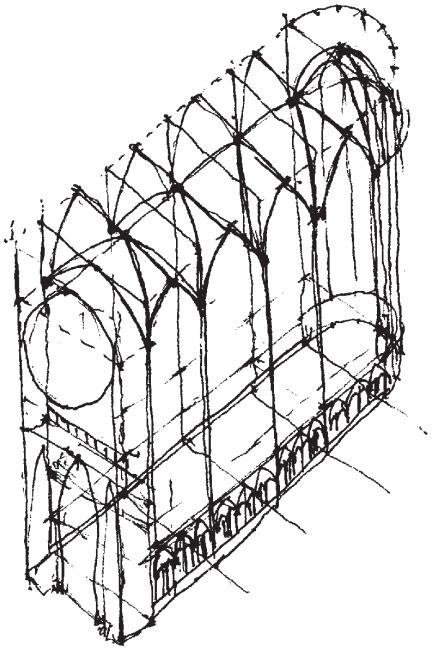
First, the thesis book is an object which gathers together the 'sprawling' fragments of thoughts - the sketches. Through the process of ordering the images into a narrative, the priorities of my work become evident.

Second, Stevens' poem speaks to the quality of the buildings that I draw - their somewhat autonomous, discreet presence.

Third, the process of sketching orders my thoughts. In it I prioritize the multitudinous aspects of the place, deciding what to include or exclude, thereby arriving at a focus for architectural investigation.

Finally, the final investigation, a church on a hill in Tennessee, seeks to order the proceeding work by incorporating these prior ideas or investigations to itself.





influences • europe sketches

Through the sketching of an object, the concerns of the artist manifest themselves unselfconsciously.

The decisions made regarding content and priority are a record of the artist's intentions. Through the sketch, the artist is able to attain an understanding of a place which he carries with him everywhere and which informs his work.



*trajan's marketplace, rome*

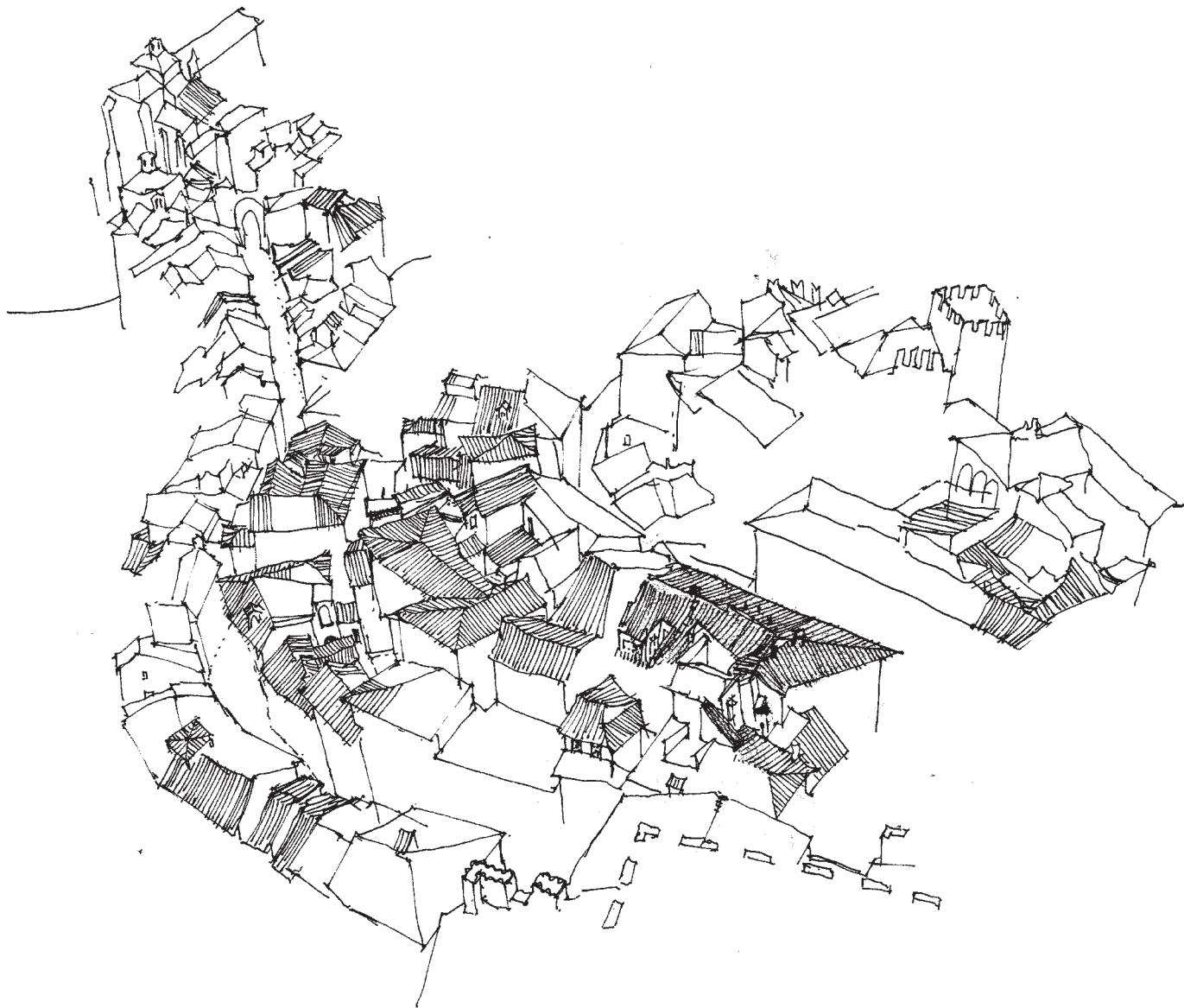
The Italian urban landscape yields limitless material for study through the sketch. The subjects - the Medieval street, the Italian piazza, and the courtyard - provide a record of certain priorities: the space in-between objects; the figural qualities of the object; and the relationship between topography, buildings, and street - manifested principally through interplay between stair and wall. These conditions are the focus of the following sketches.





*florence*

The 'continuous narrative' of the Medieval street invites one to sketch it from two vantage points: from within its labyrinth and from above. From above, the distance allows one to see that the path orders the buildings around it.



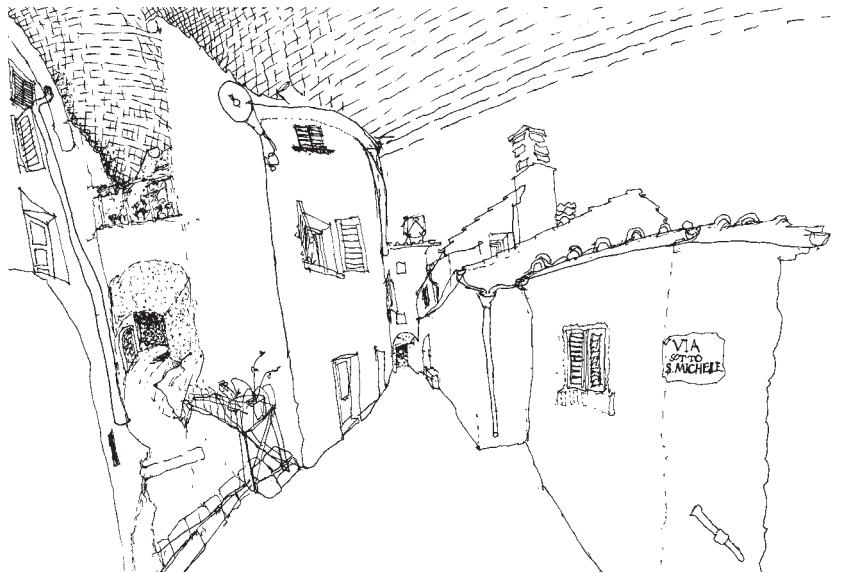
*siena*

Seen from the street, the push and pull of building against building is foremost - its contraction, expansion and movement.

*venice*



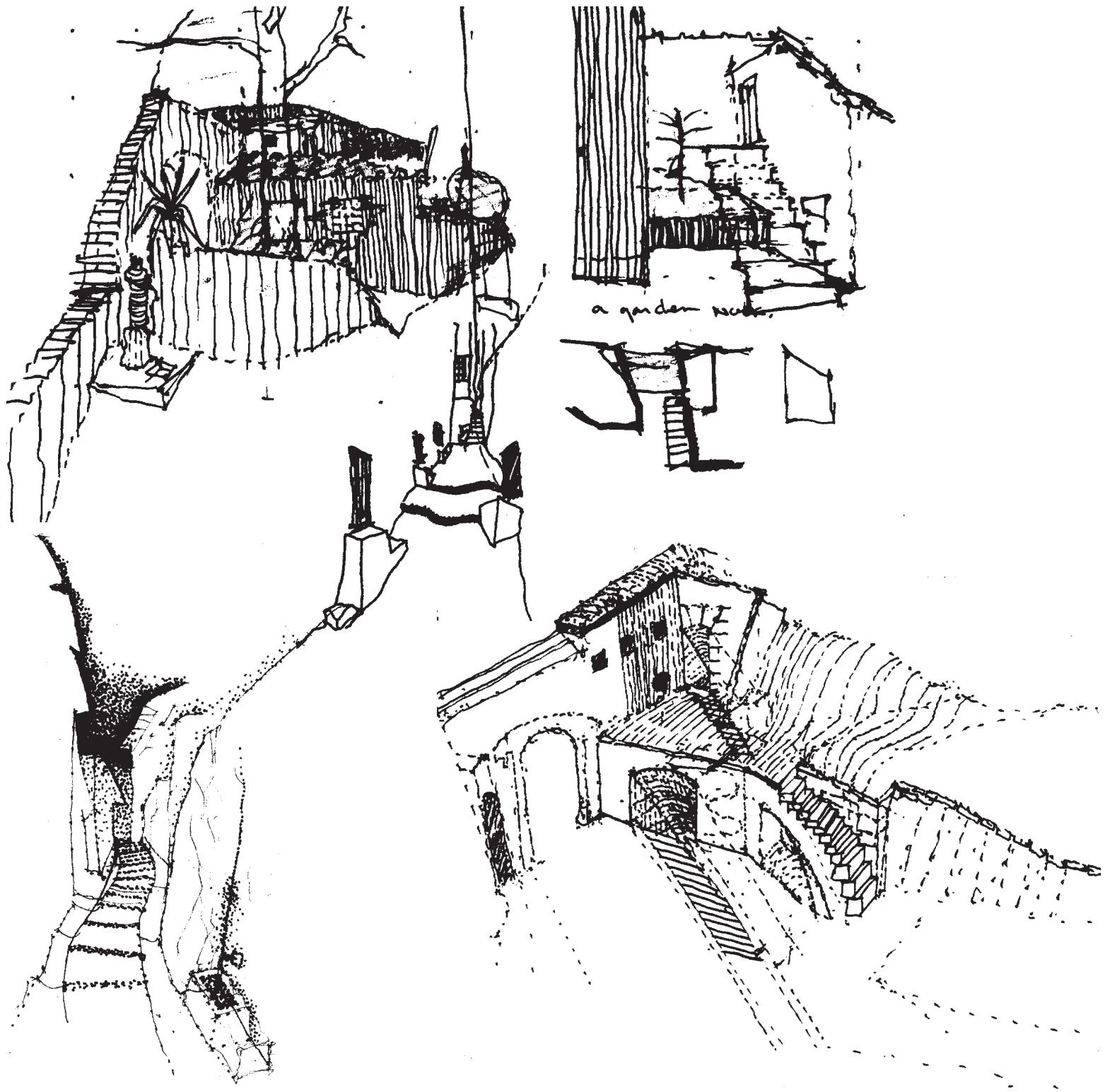
*rome*

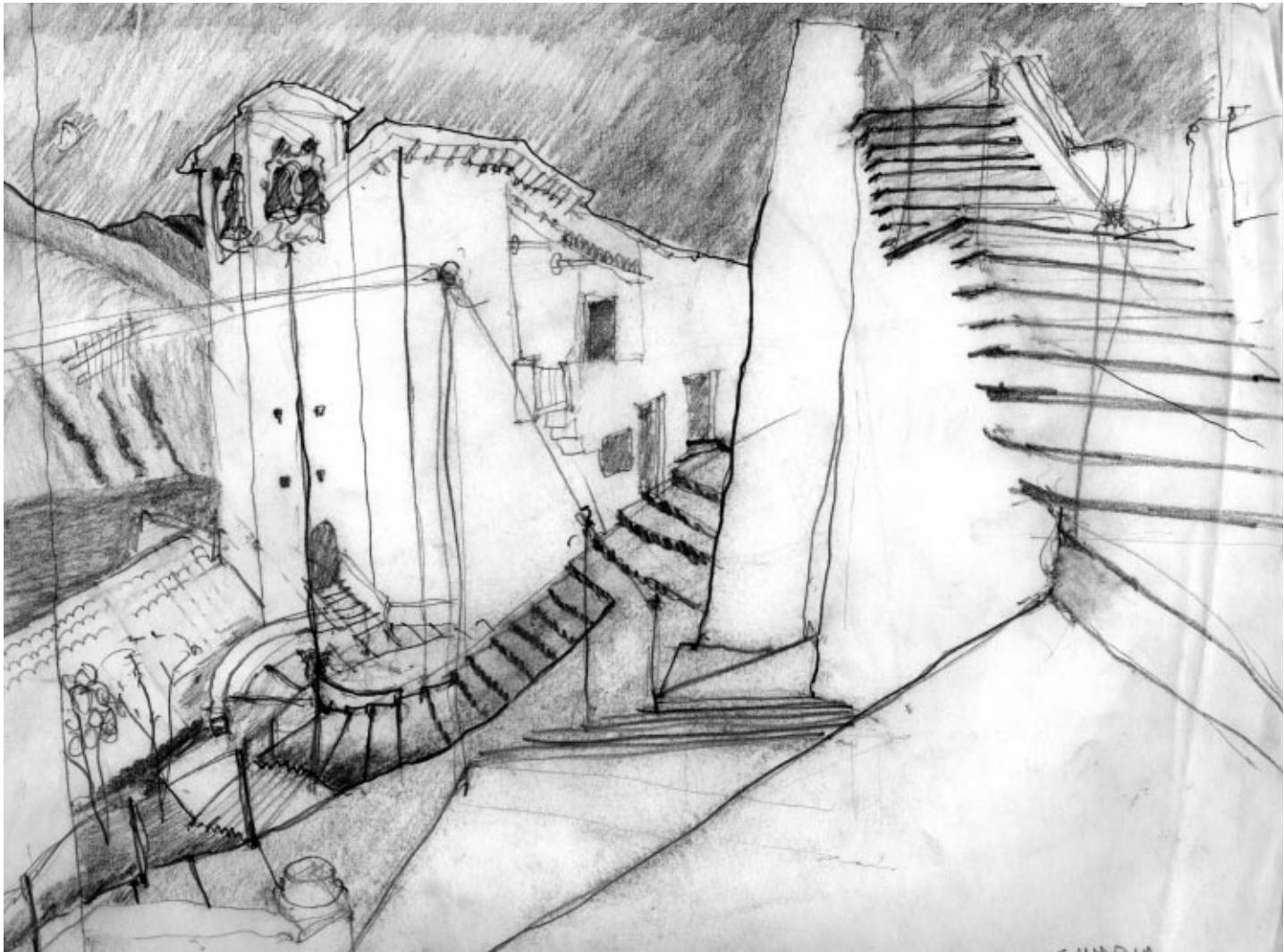


italian hill town

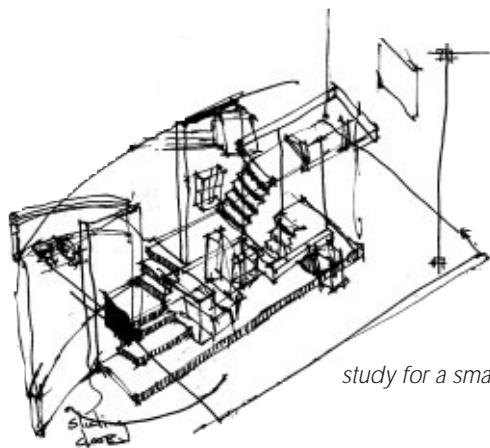


rome





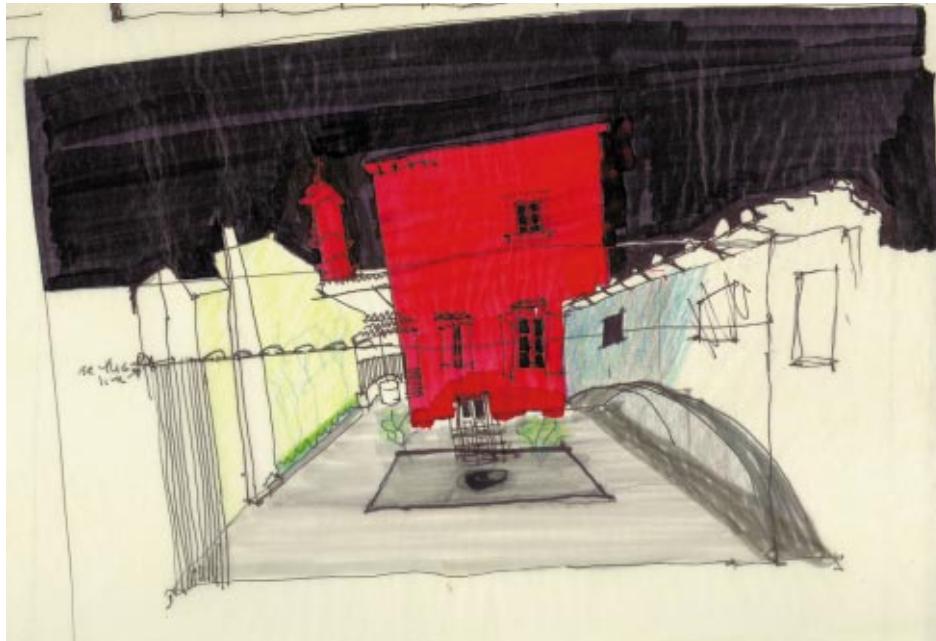
*gandria, switzerland*



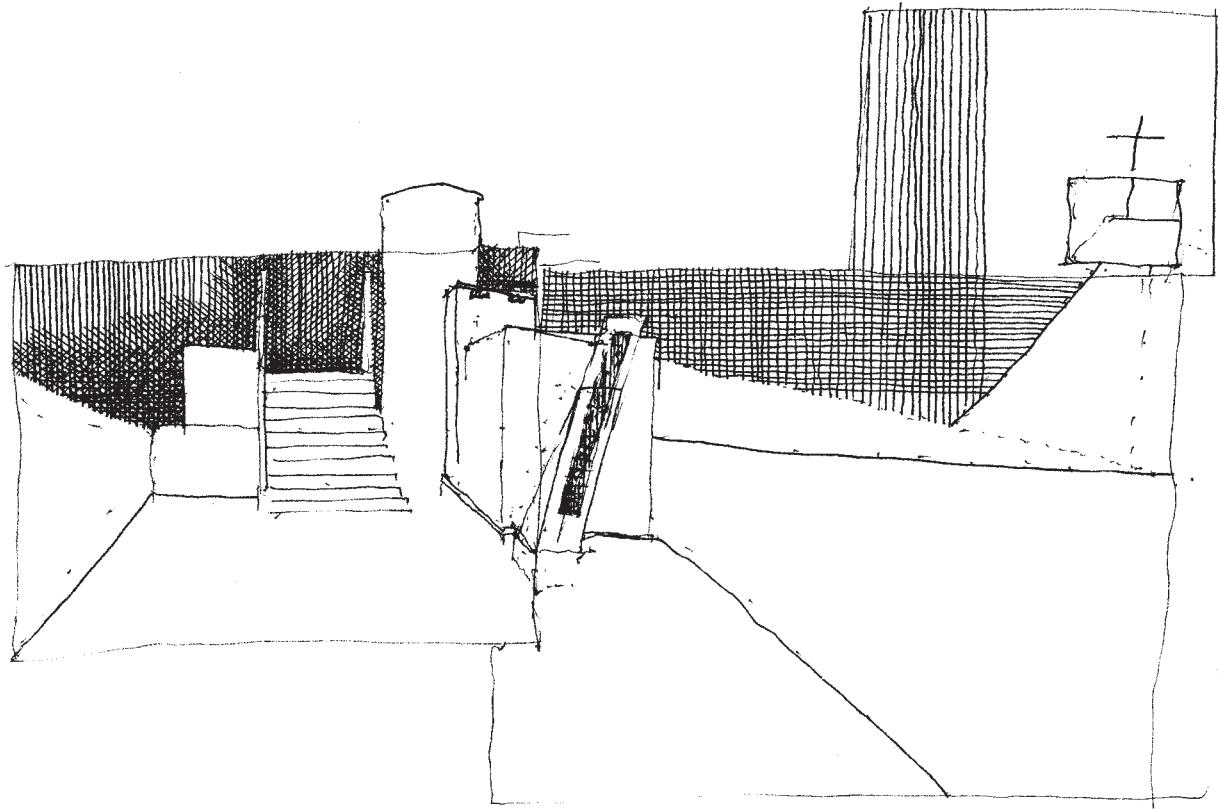
*study for a small house*

Stair and wall: Stairs are subtle or dramatic transformations of the terrain in accommodation of the buildings to the site. Here, the stairs narrow, widen and divide in a show of exuberance.

The figure: The following two sketches of courtyards are studies of the figural qualities of buildings and objects. In the image below, the relationship of the figure to sky and the extension of space to the side of the building are primary.



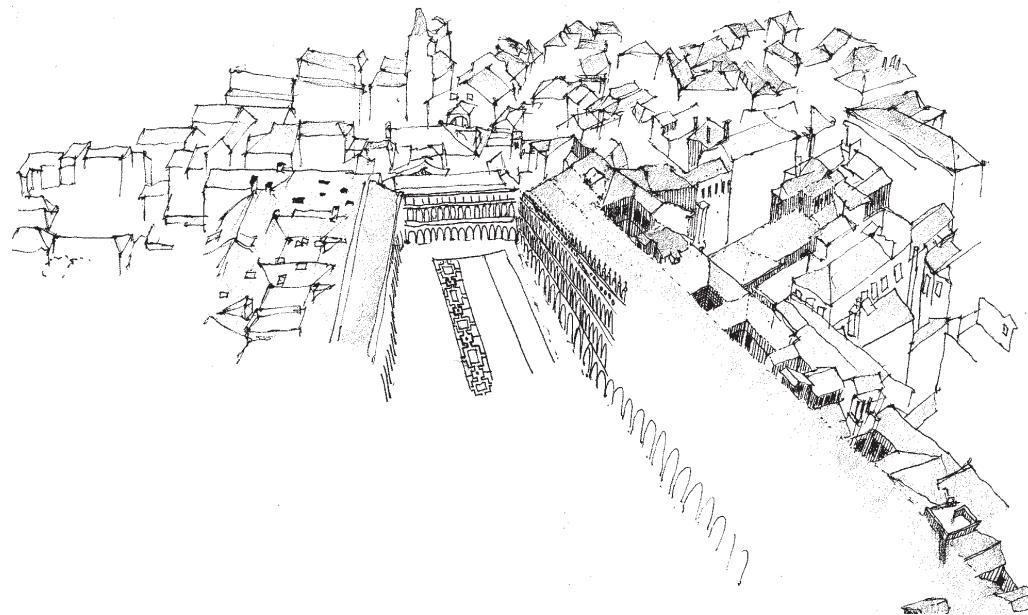
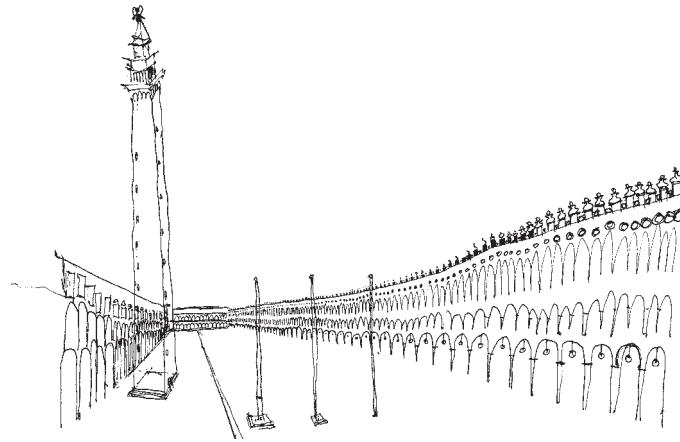
*monastery, tuscan*



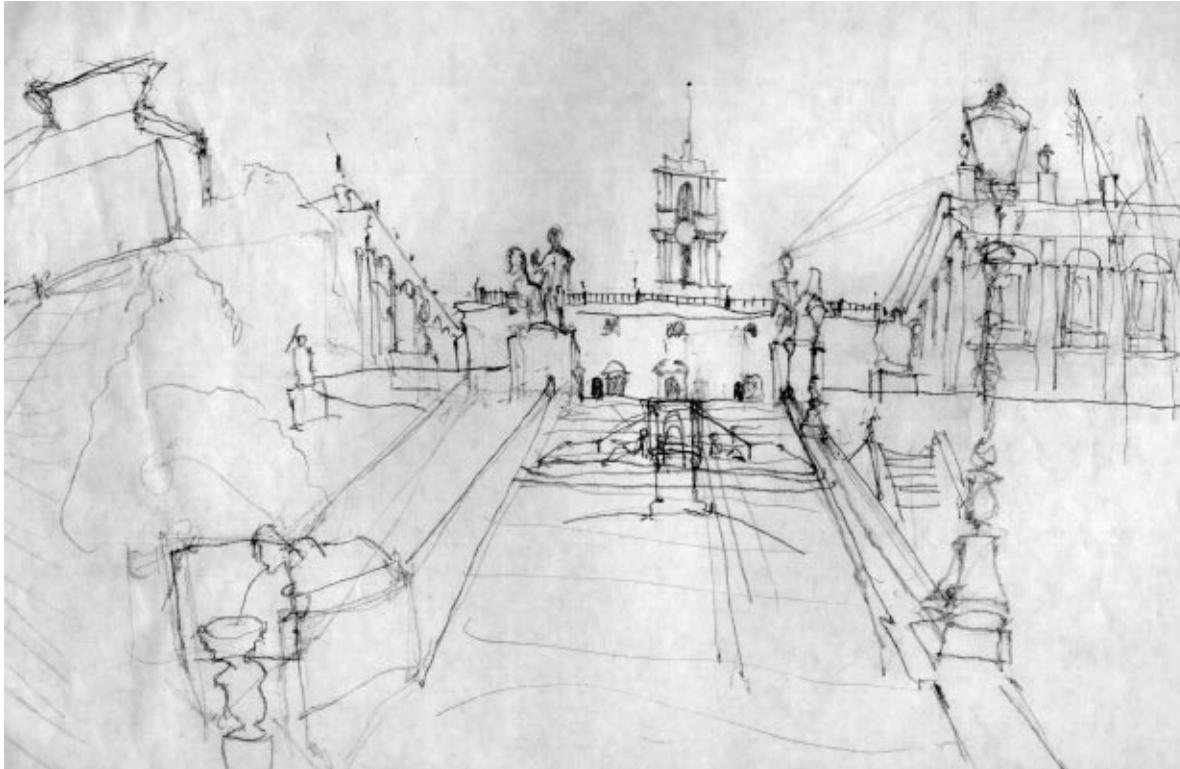
*rooftop, la tourette*

Translation of the Italian piazza: By placing the courtyard on the roof, Le Corbusier places the objects - evocative of the silhouette of an urban landscape with its towers, stairs and walls - against the expanse of sky.

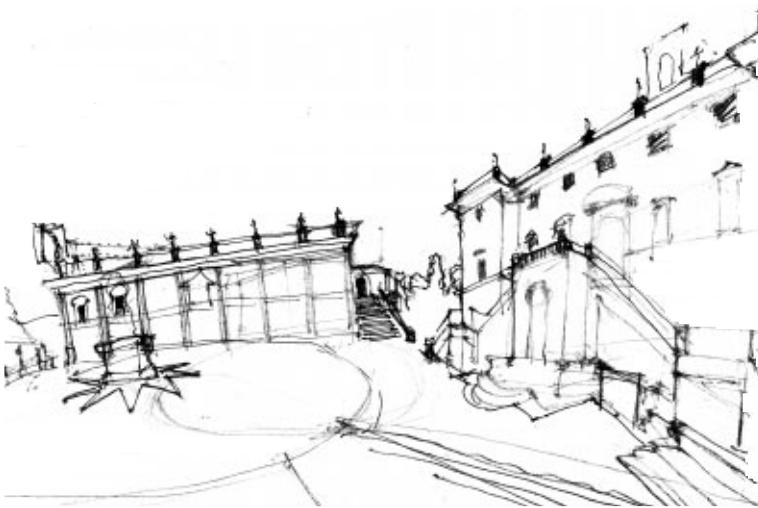
The piazza: Recurrent elements in the piazza are the colonaded stoa, the pre-eminence of a principal structure, and objects placed within the space, either to delineate a boundary, as do the flag poles in Piazza San Marco, or as sculpture, as in Michelangelo's Campidoglio.



*piazza san marco*

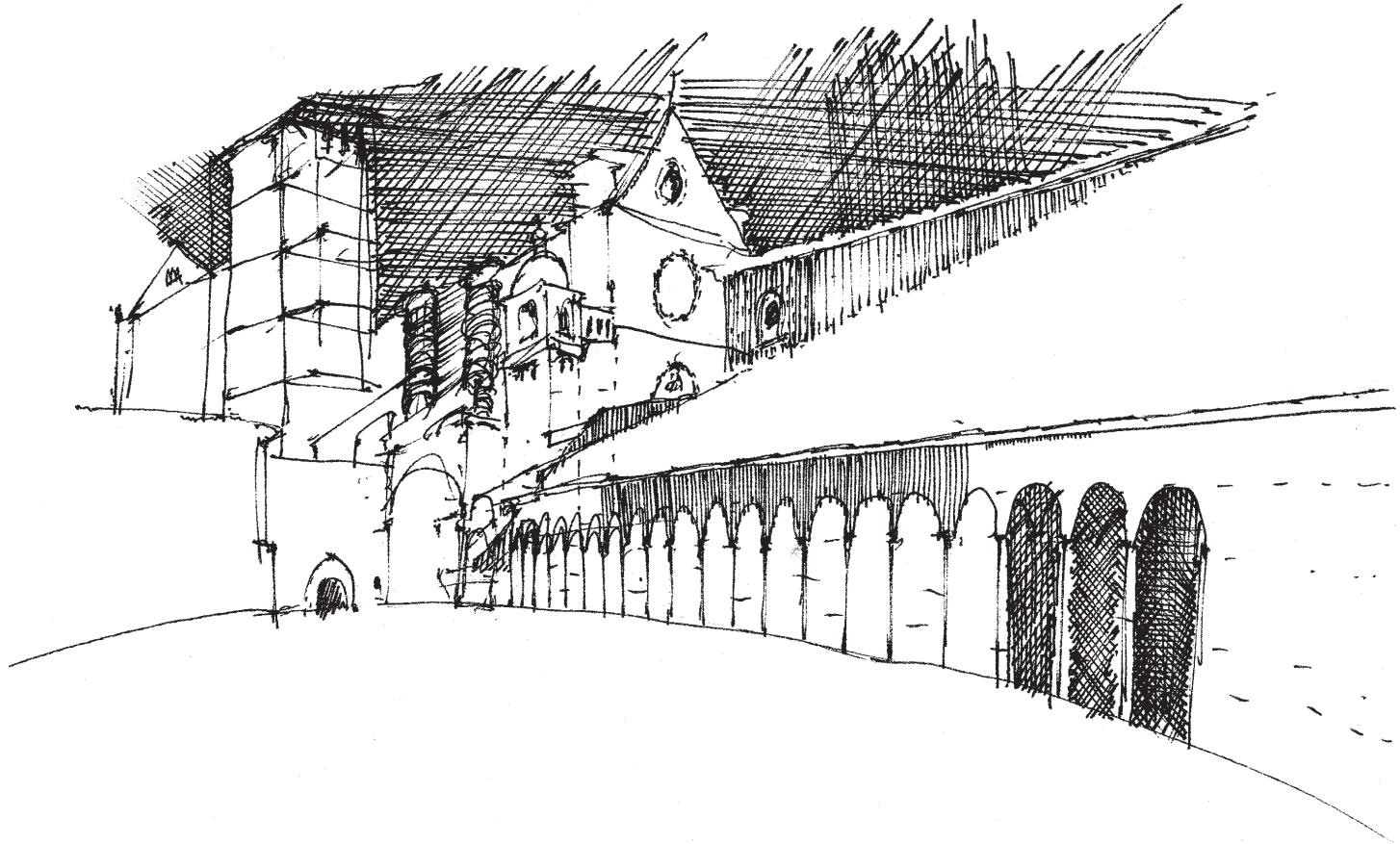


*view from street*



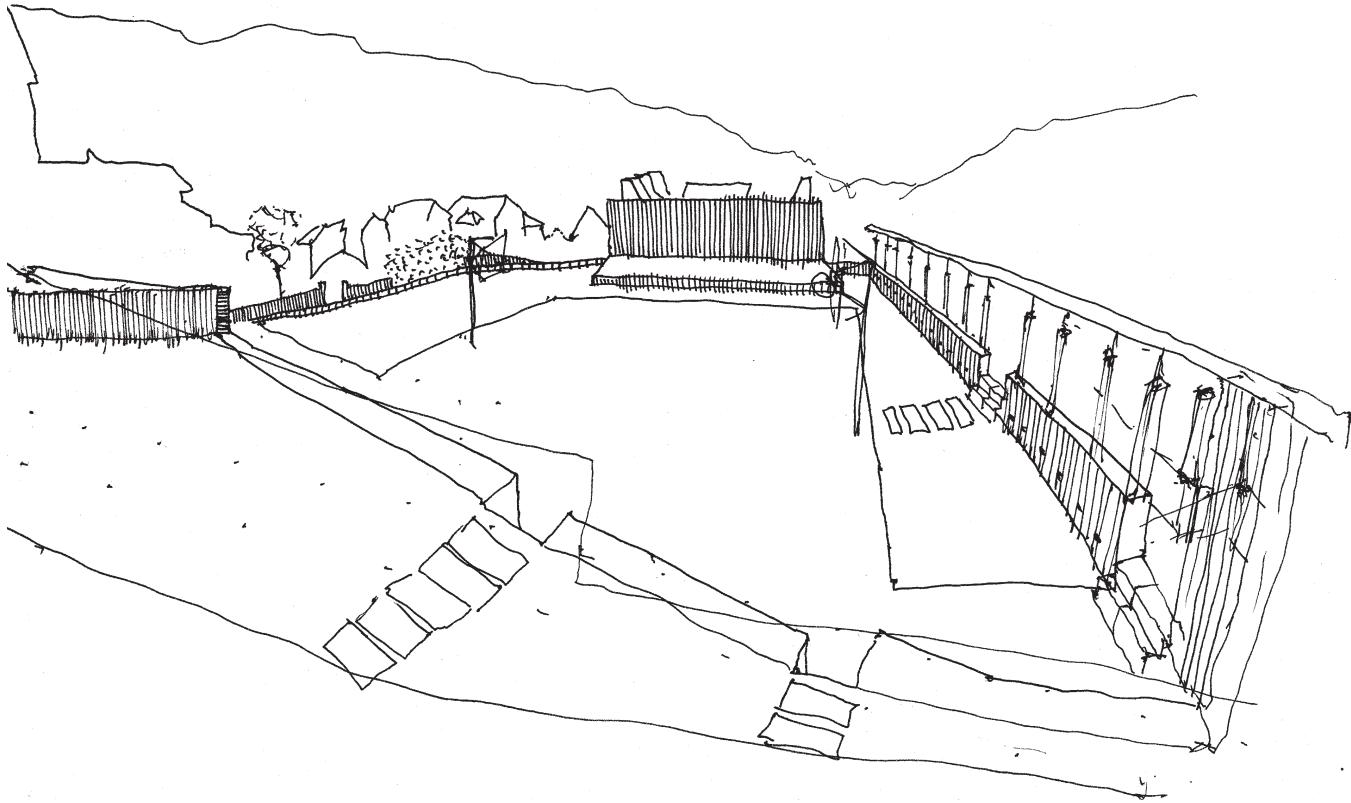
*view at piazza*

At Michelangelo's Campidoglio in Rome, the piazza is connected to the street below by the stair. The principal building, on axis with the stair and sculpture, gradually arises into view as one proceeds up the stair.



*assisi: lower piazza, view from entrance gate*

At Assisi, a low wall at the edge of the precipice marks the edge of the piazza. The sketch shows another aspect of path and goal. By its placement obliquely and behind the stoa, the church in effect draws the person up the path behind the stoa to the upper piazza at the main entrance.



*monte carrasso, switzerland*

With a completely different program and scale, Luigi Snozzi composes the standard elements of stoa (changing rooms), principal building (gymnasium), and piazza (basketball court).



## meditations

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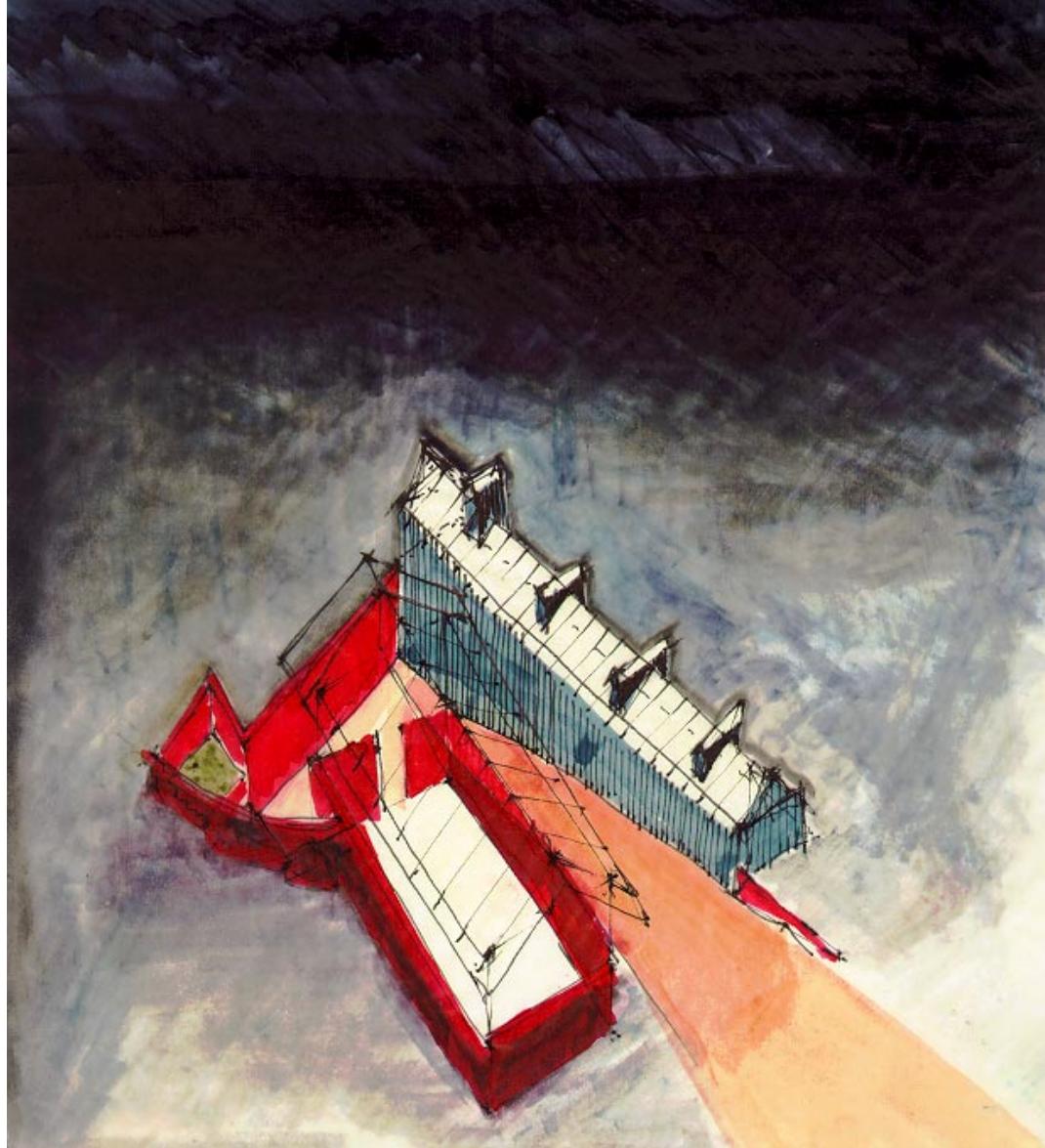
The following drawings are meditations on the Europe sketches: the autonomous nature of the buildings, the relationship between slope and wall, the memory of the stoa, expansion and contraction of space.

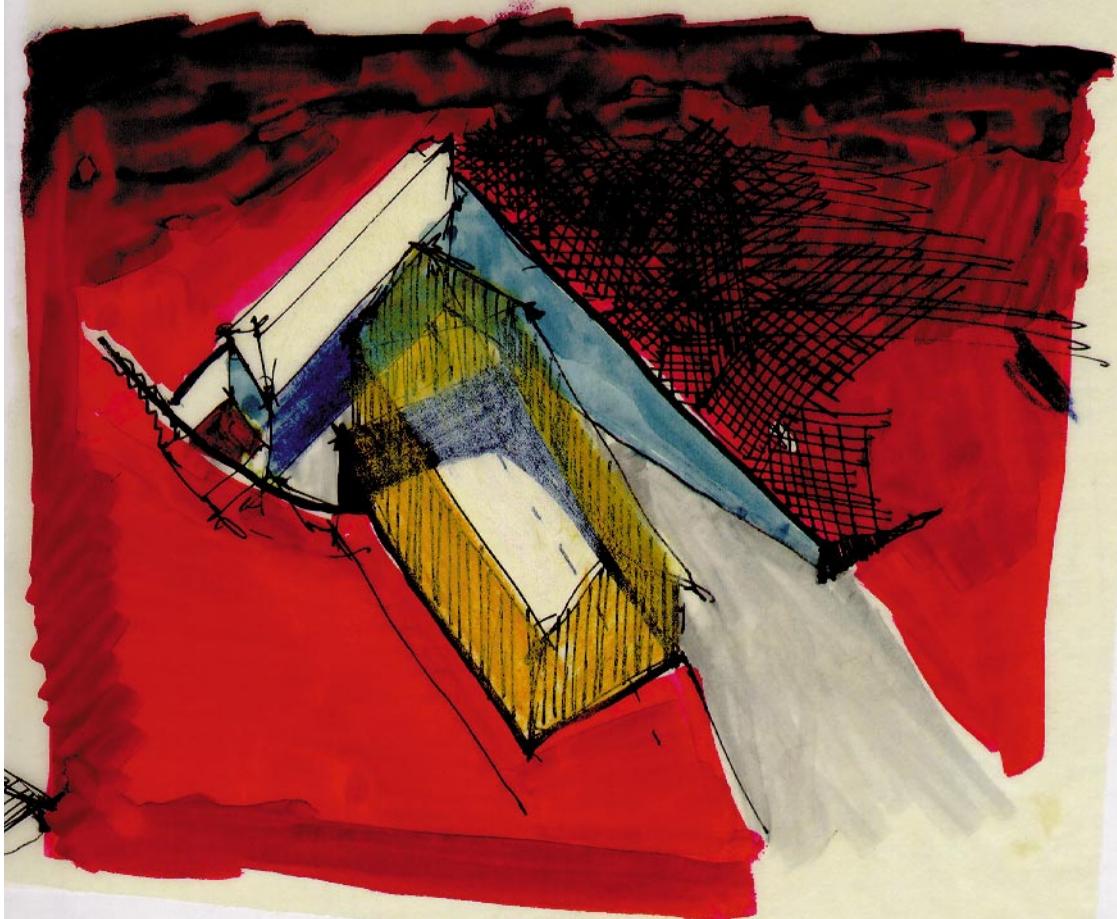
The assemblage of buildings is inwardly focused with no outside point of reference. Each building has a discreet presence, the space in-between being a constituent element.

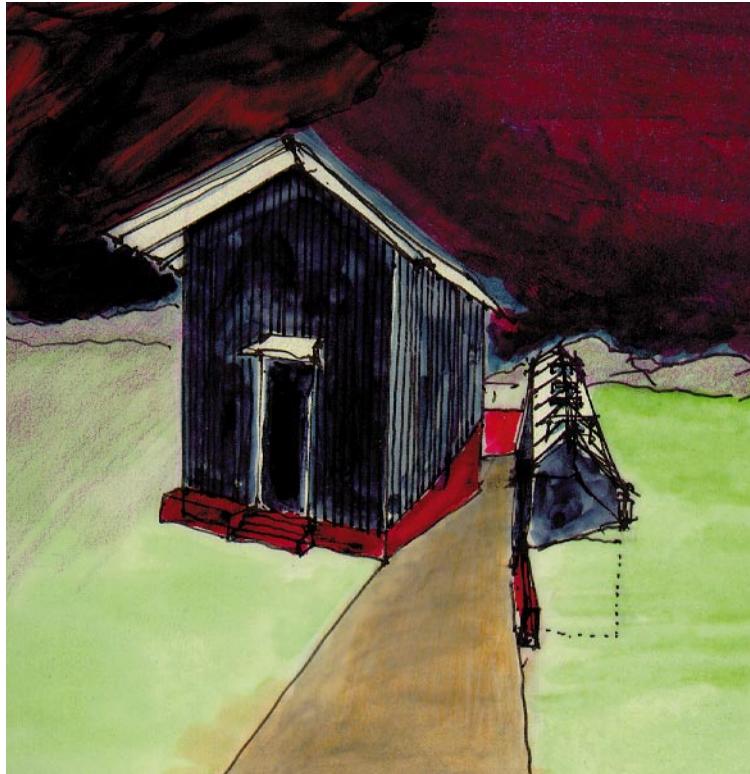
The meditations provide the focus, energy and schematic basis for subsequent studies.

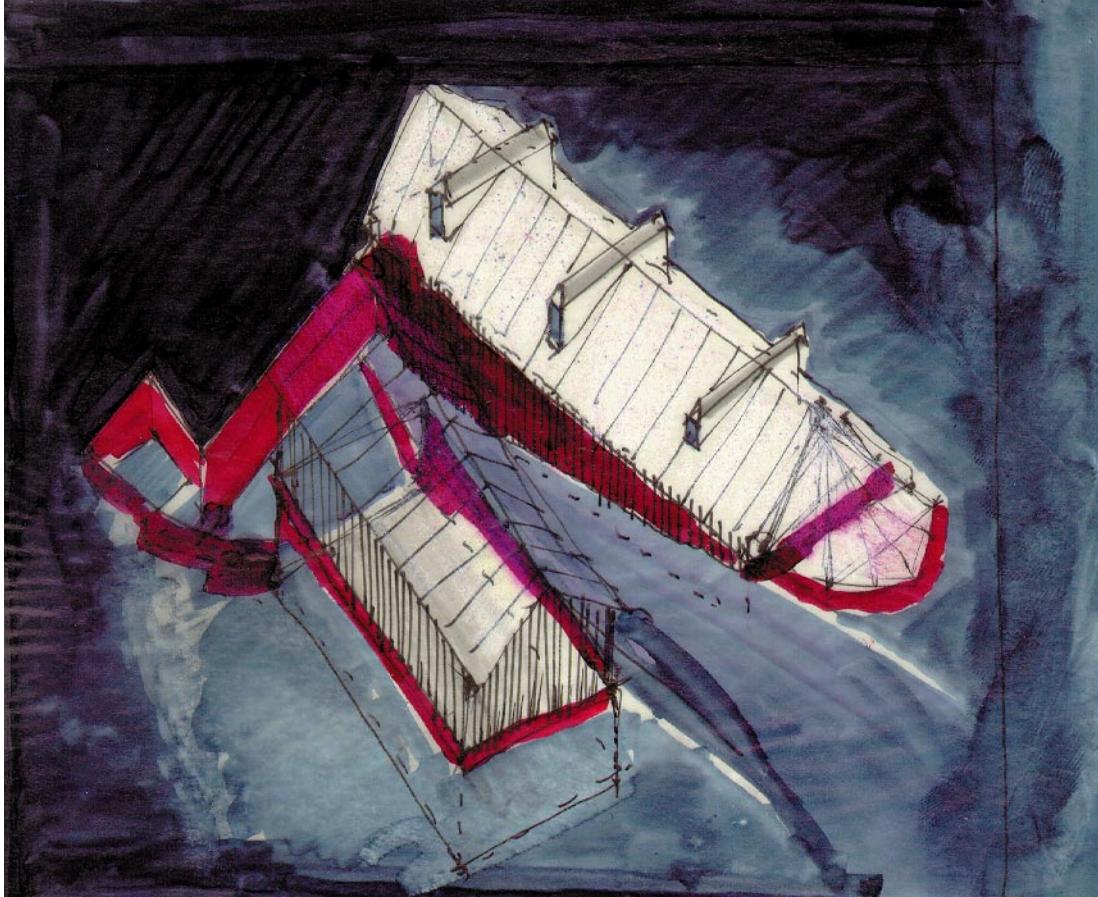












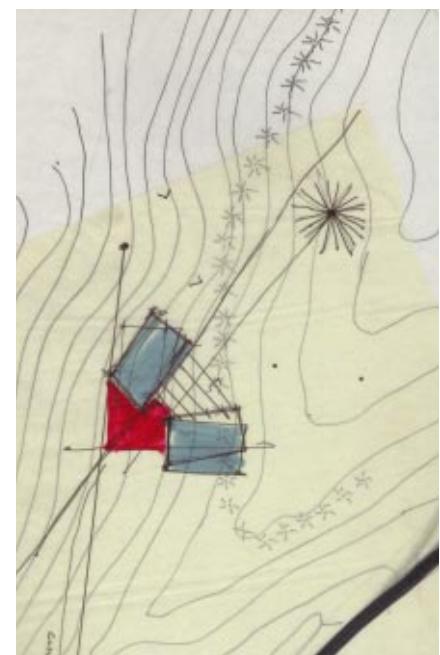
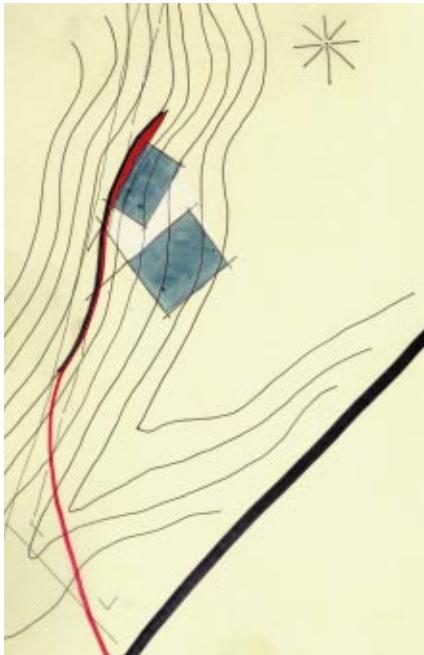




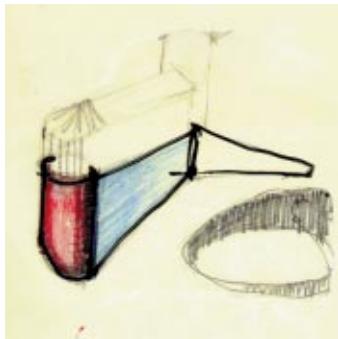
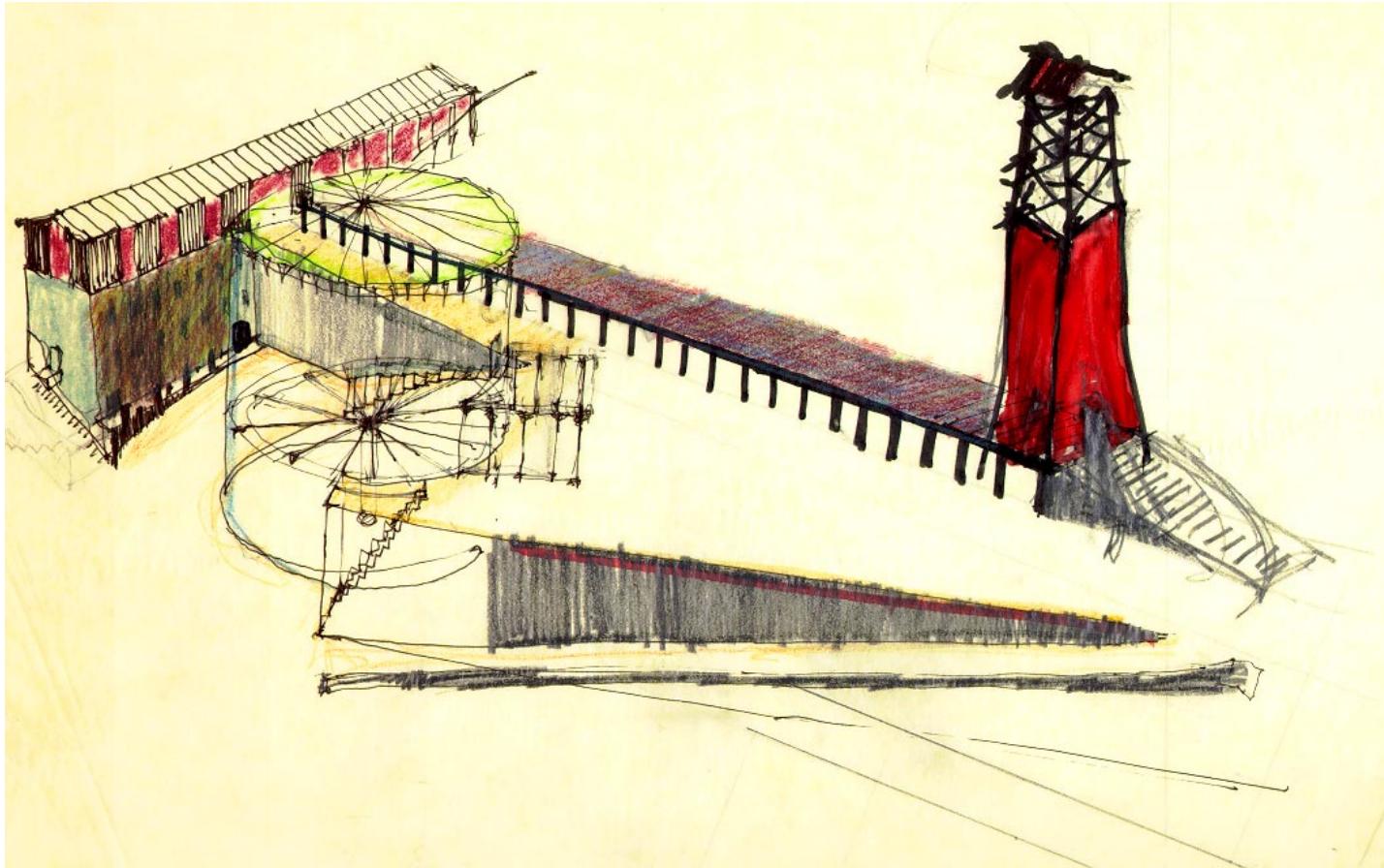
## studies

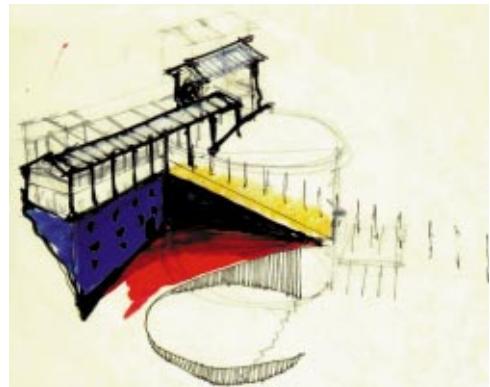
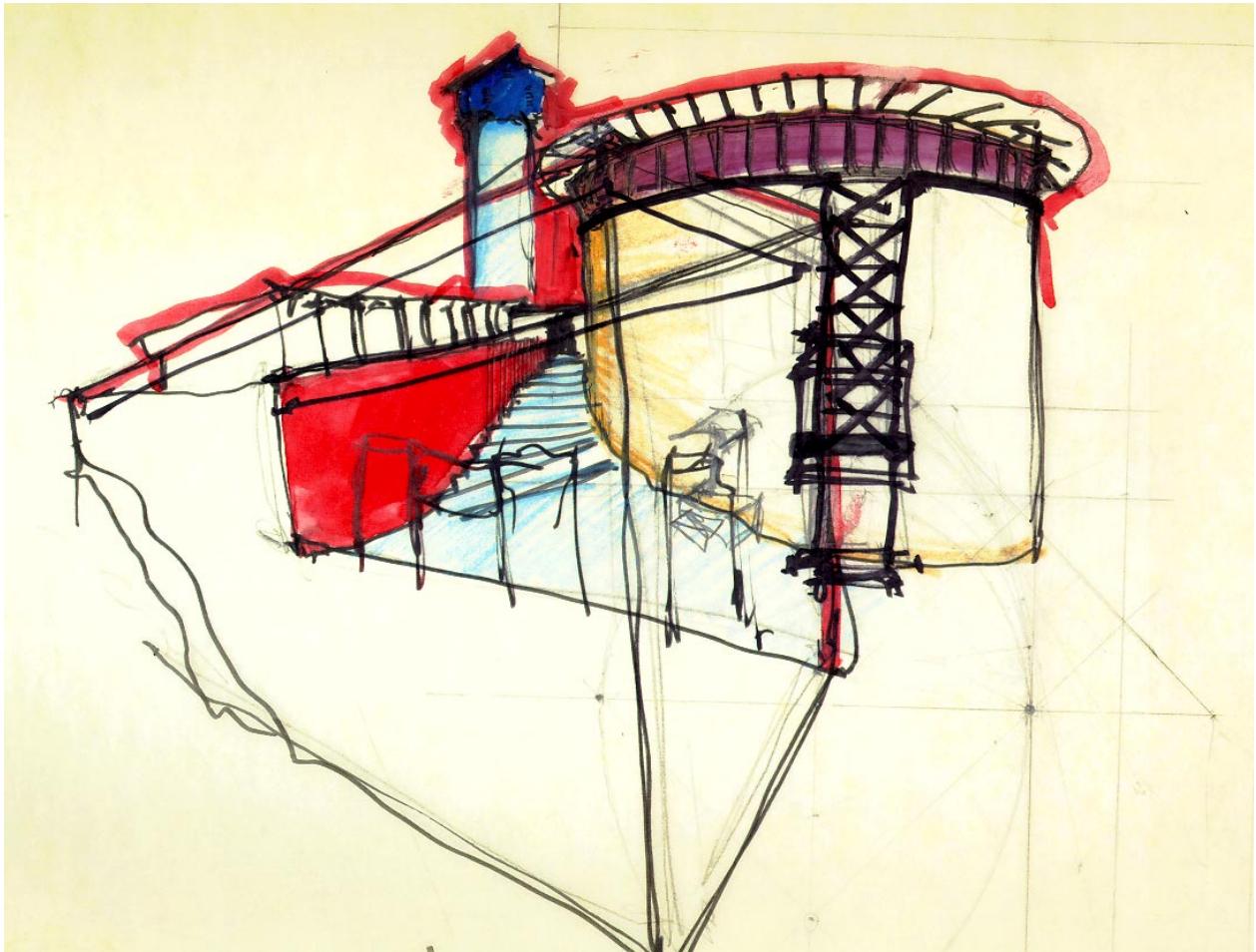
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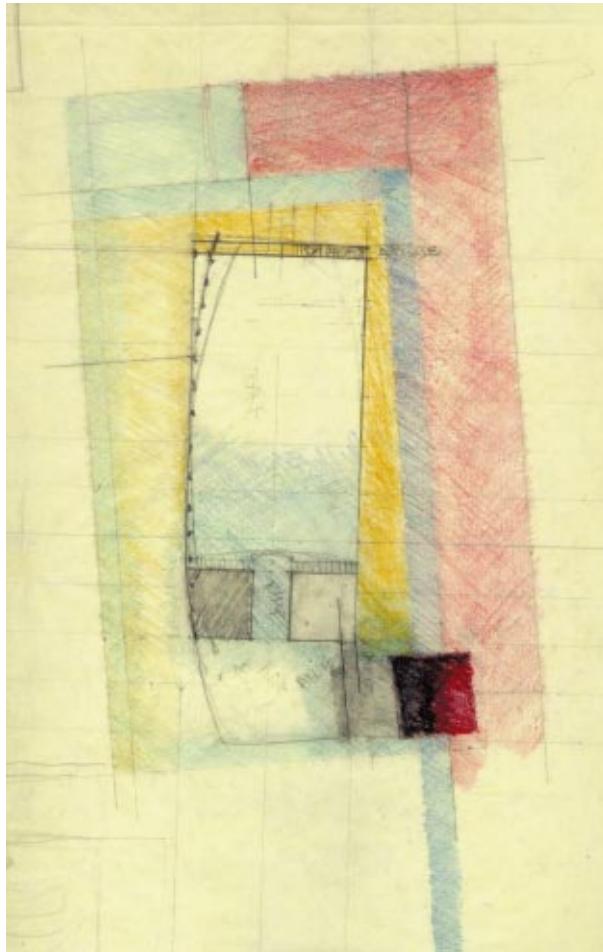
The placement of a church on a rural hillside is investigated: a progression from the abstract quality of the meditations towards a project with a program. The principal focus of the studies is the arrangement of elements with regard to the space in between and to the hill.

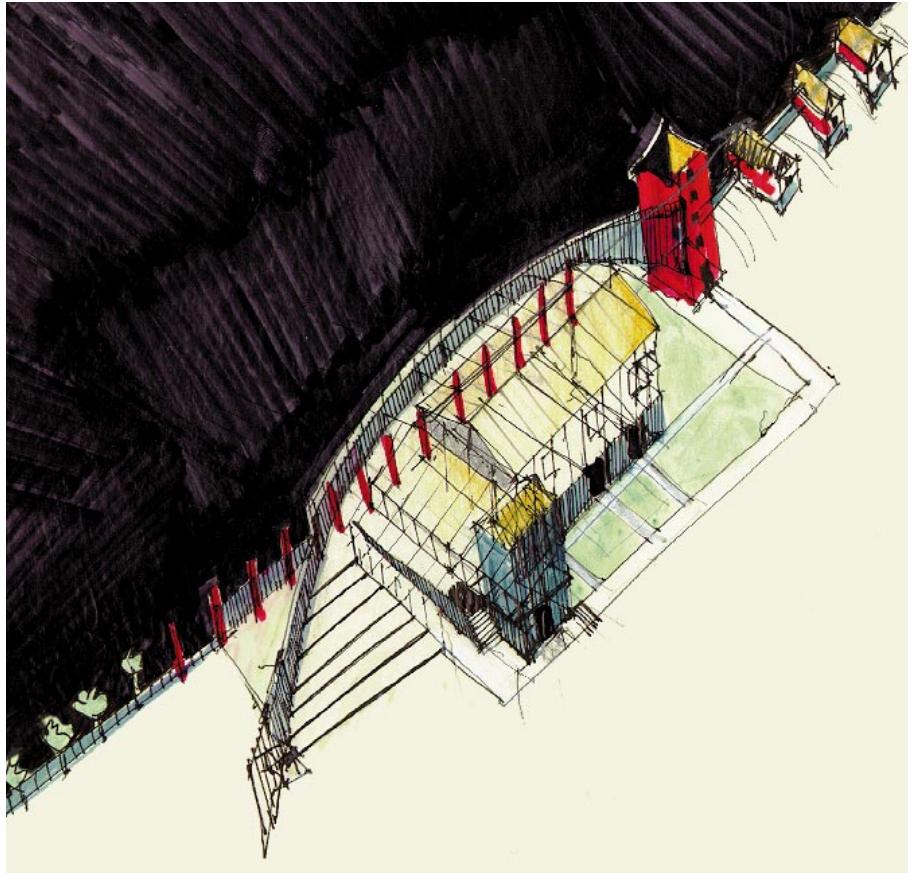


*site studies of figure ground relationships*

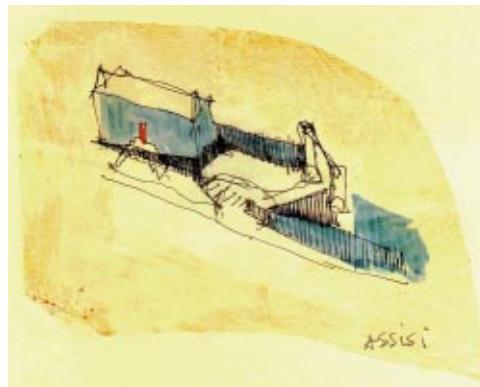
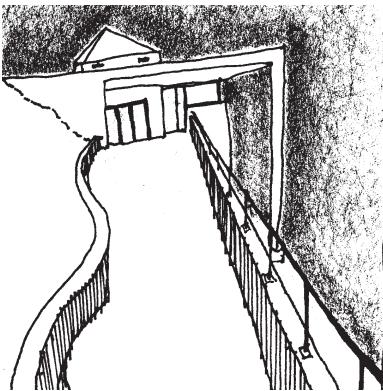


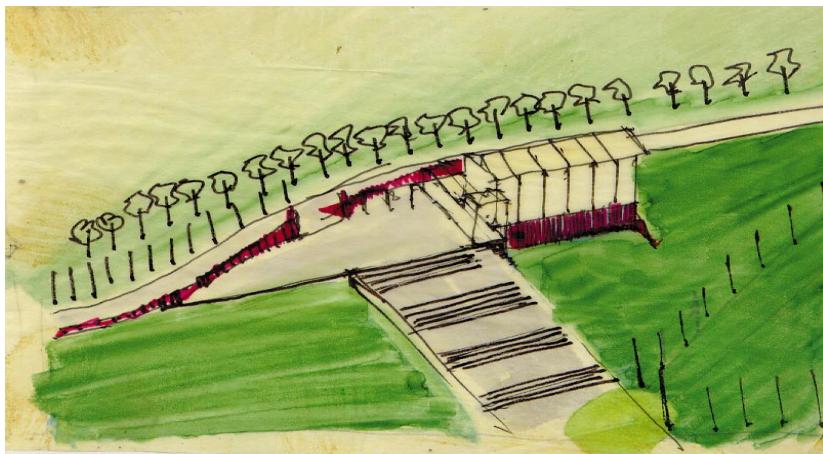
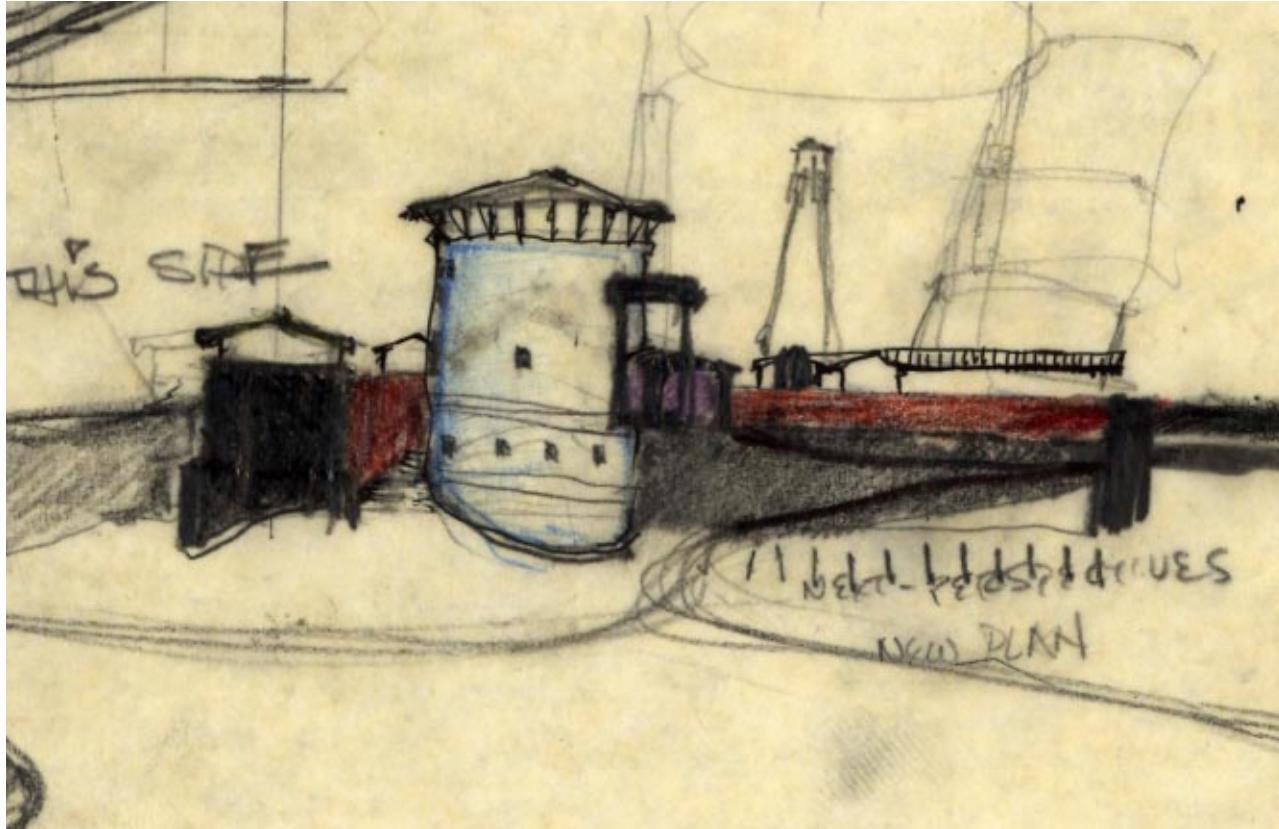


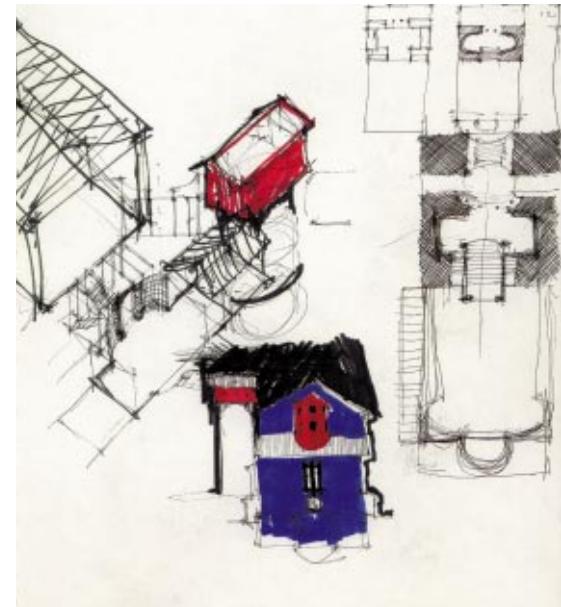
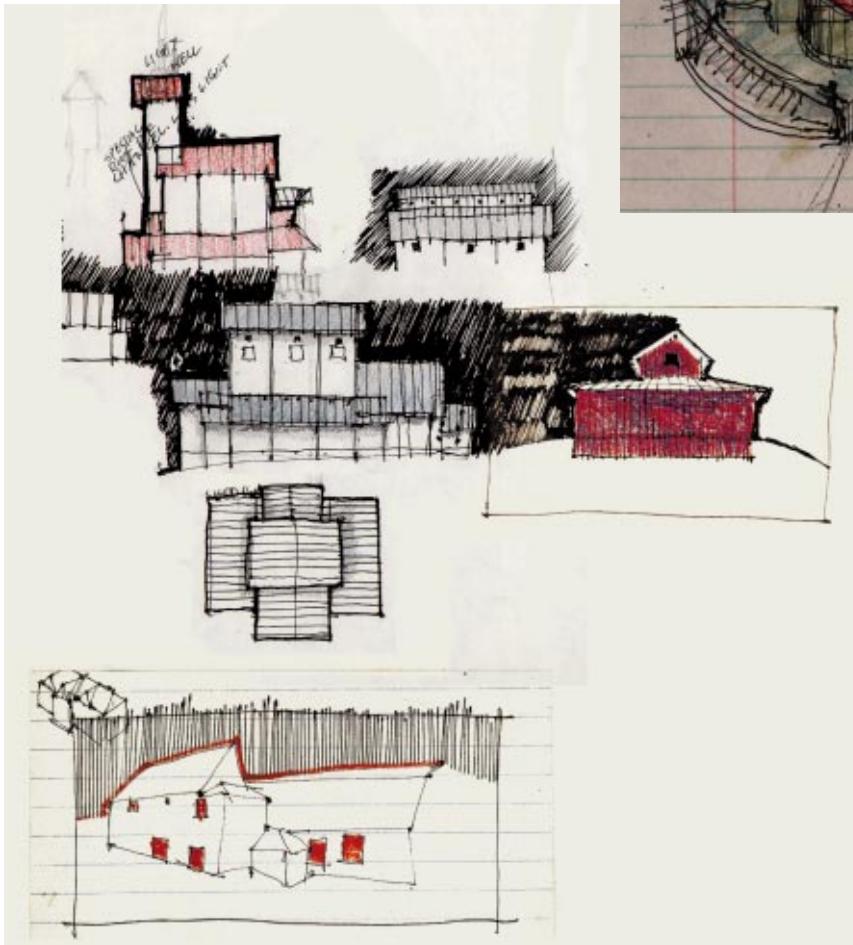
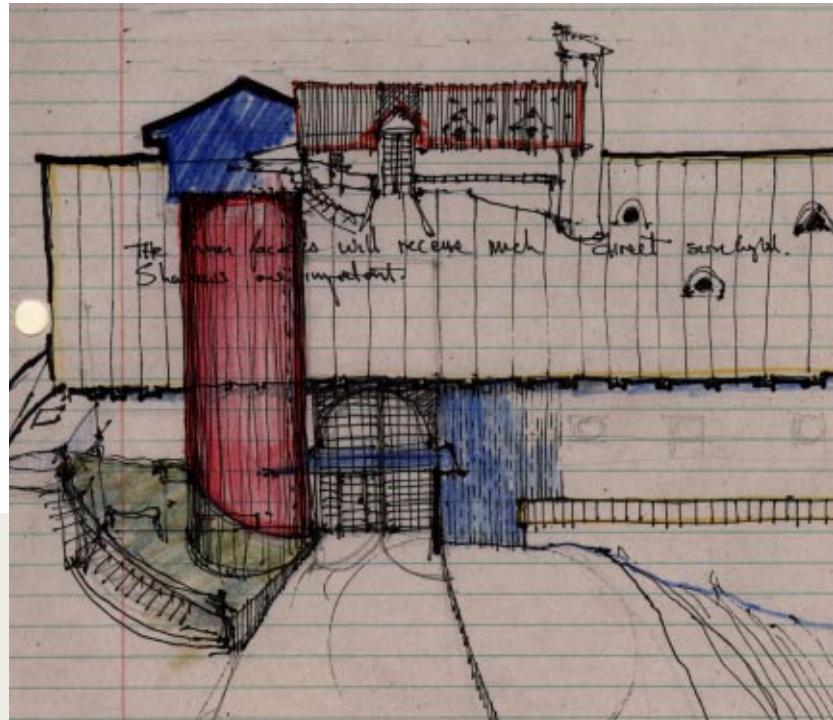




*the path and wall order the site*





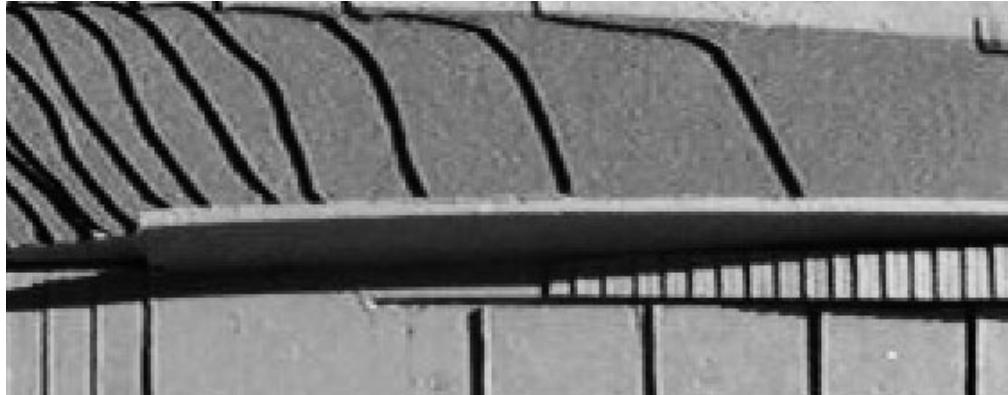


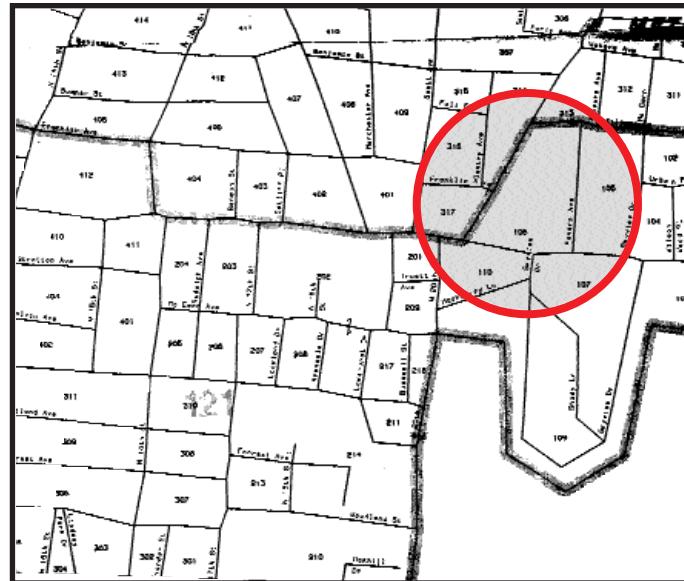
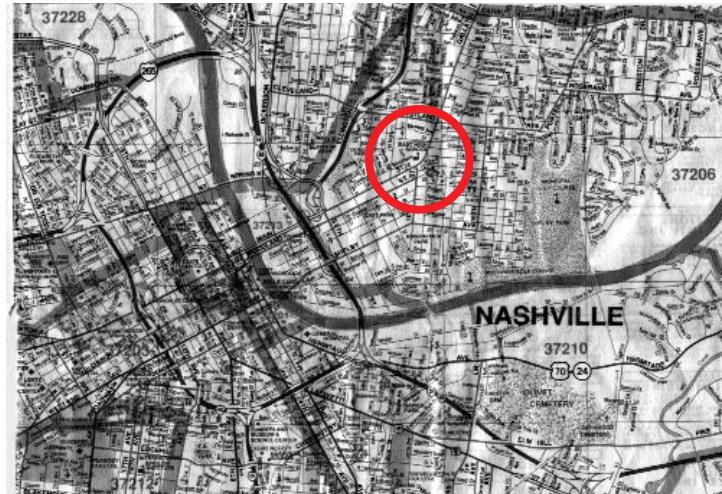


## final investigations

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The final investigations continue to develop the relationship between the sanctuary and education building on a specific site. The wall and the path continue to order the project. Thoughts regarding the implications of the program - a church - are incorporated into the study.





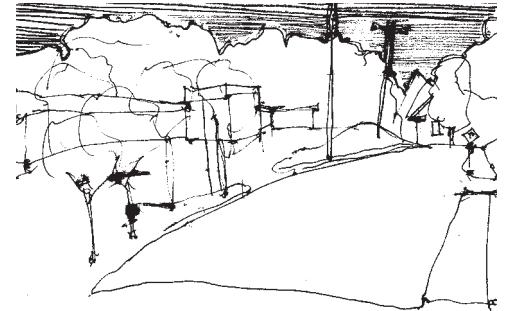
The site lies in an established residential district in Nashville, Tennessee, approximately two miles from the downtown district. Most of the structures in the neighborhood are forty to seventy-five years old. In the older sections, small commercial structures and churches mark the corners.



A

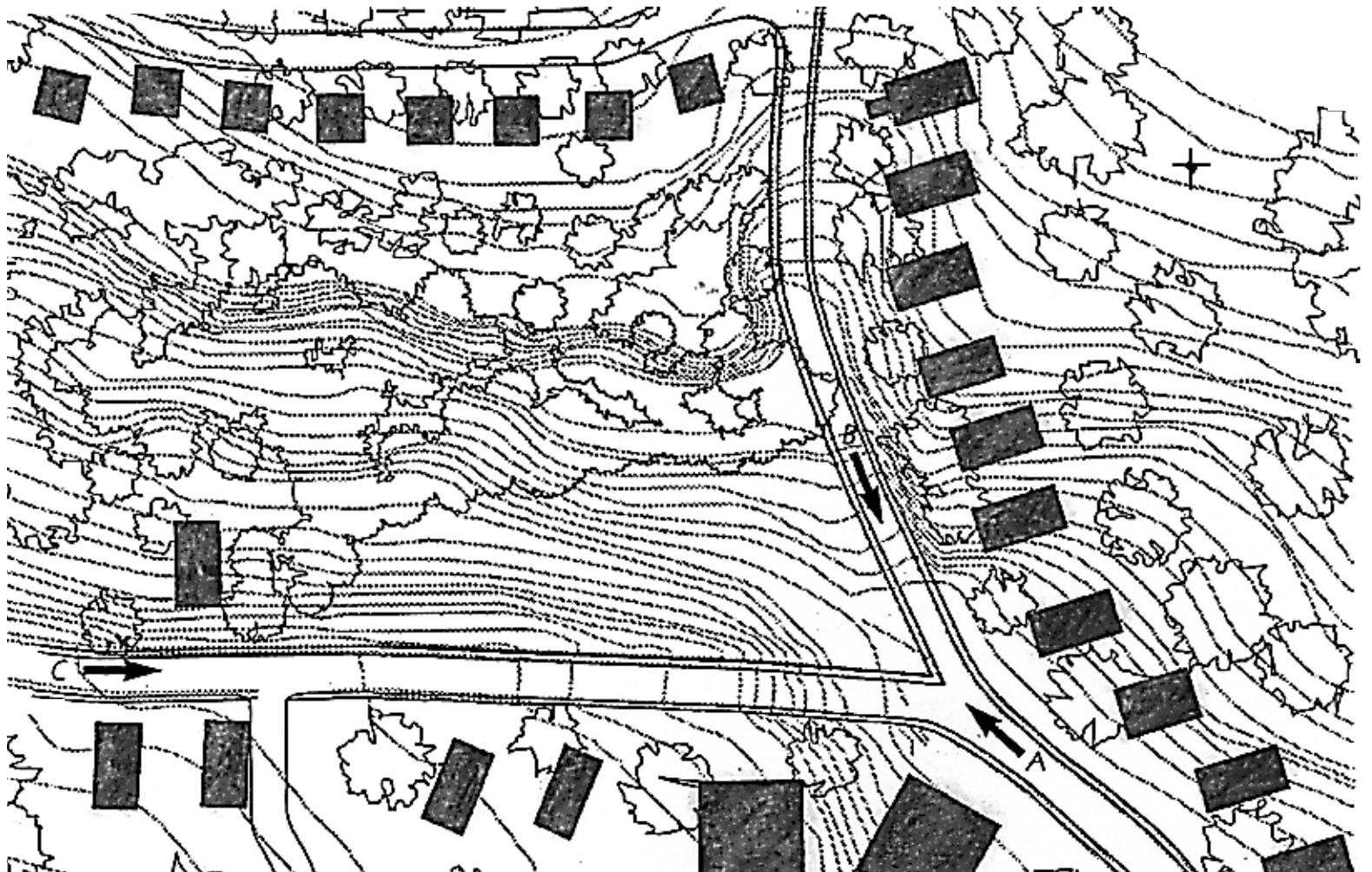


B



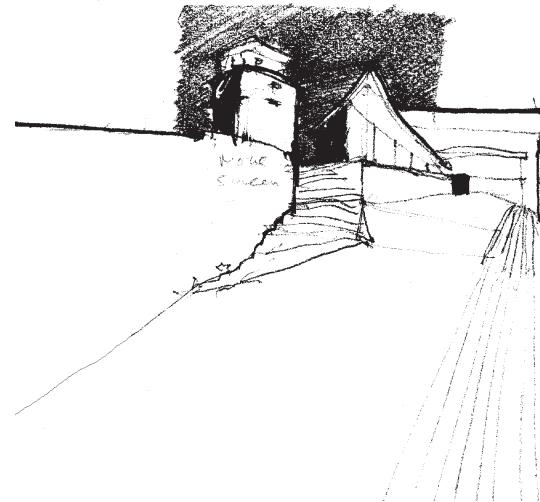
C

*approaches*

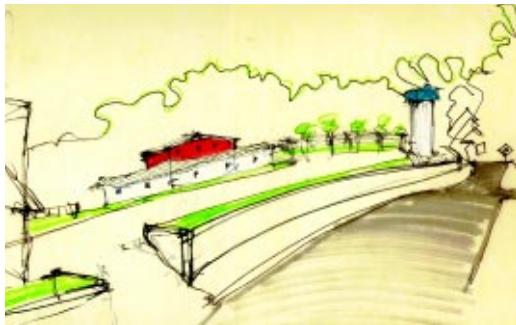
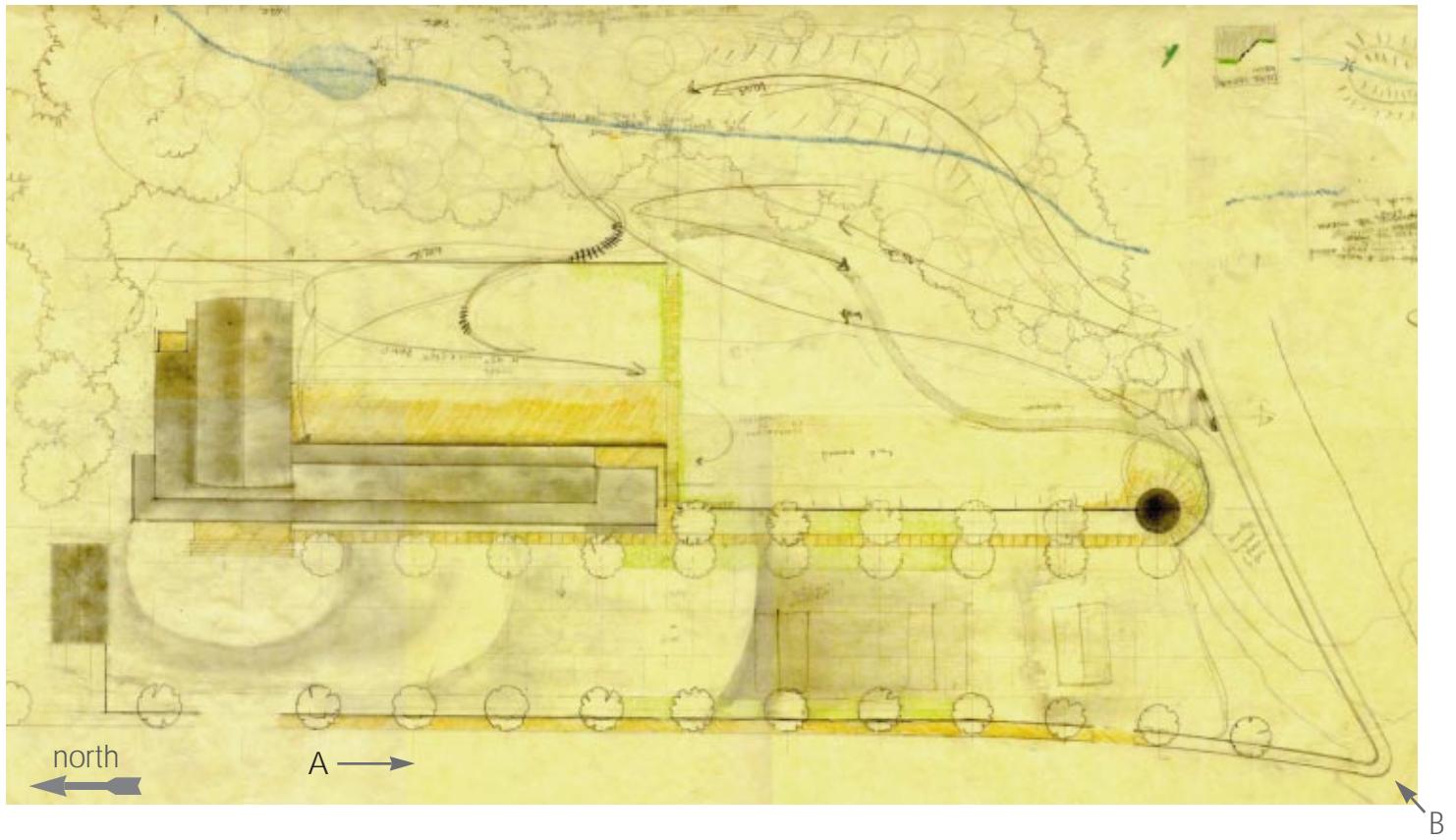


Two street grid systems converge at this forked intersection creating an unusual corner condition further individualized by the thirty foot drop from west to east. The diverse approaches and urban context offer greater resistance than the rural setting of previous studies.

The church: The qualities of silence and refuge define the character of the church. Accordingly, the church faces the interior of the site creating a courtyard or piazza. The buildings are lower than the principal street grade, inverting the typical relationship of church to street.



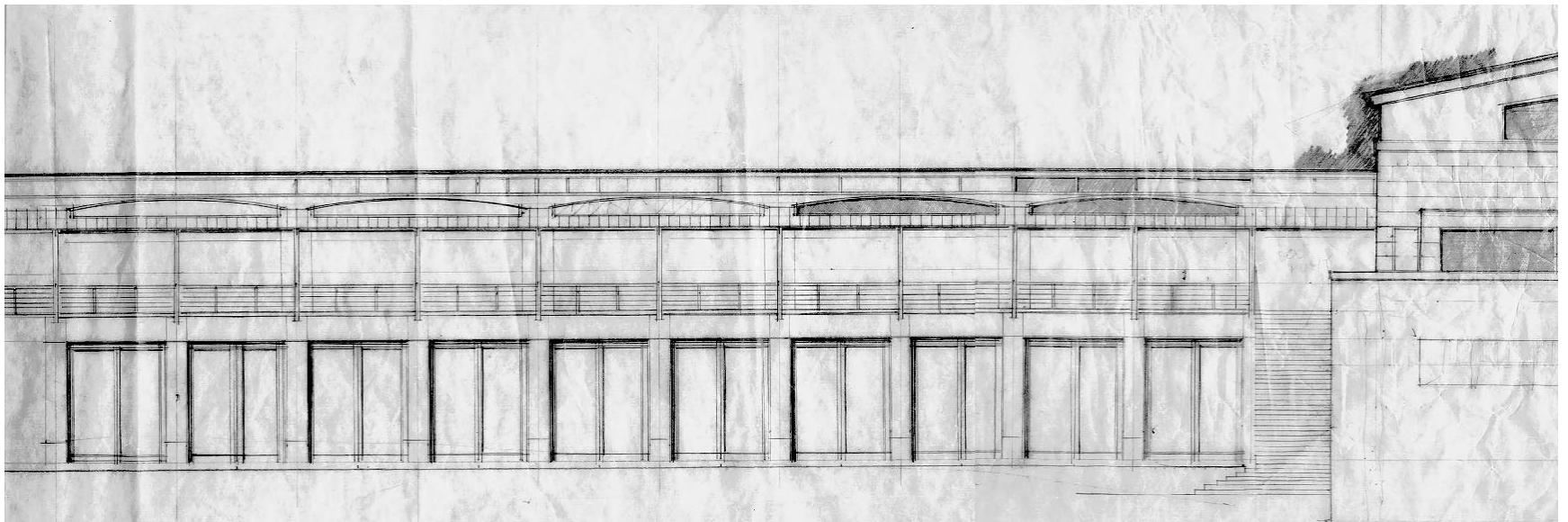
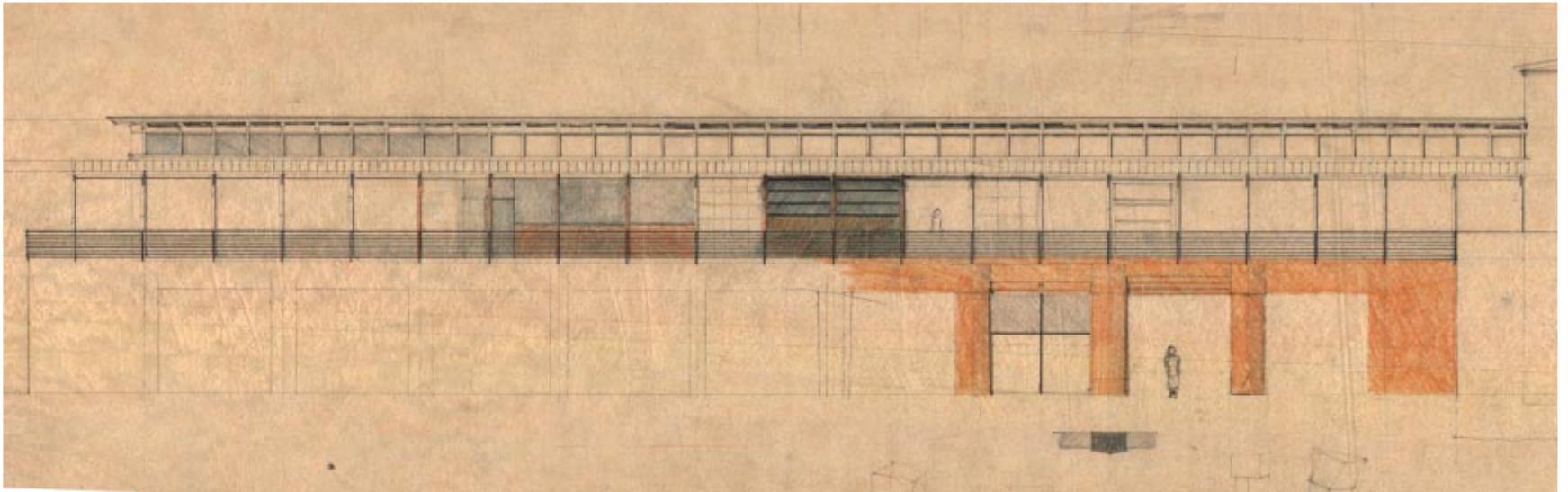
The first investigation on this site: the sanctuary and education building are joined.



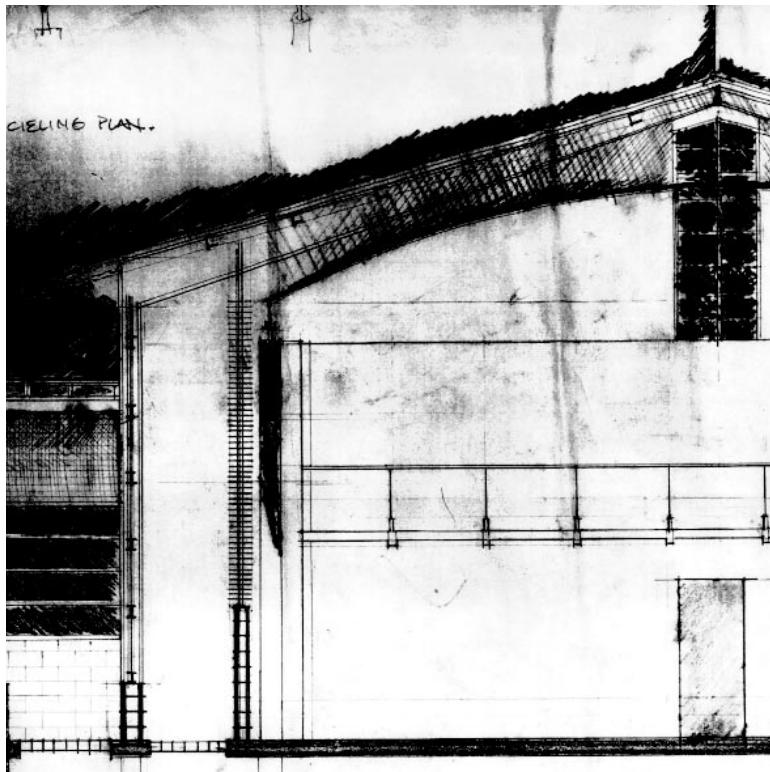
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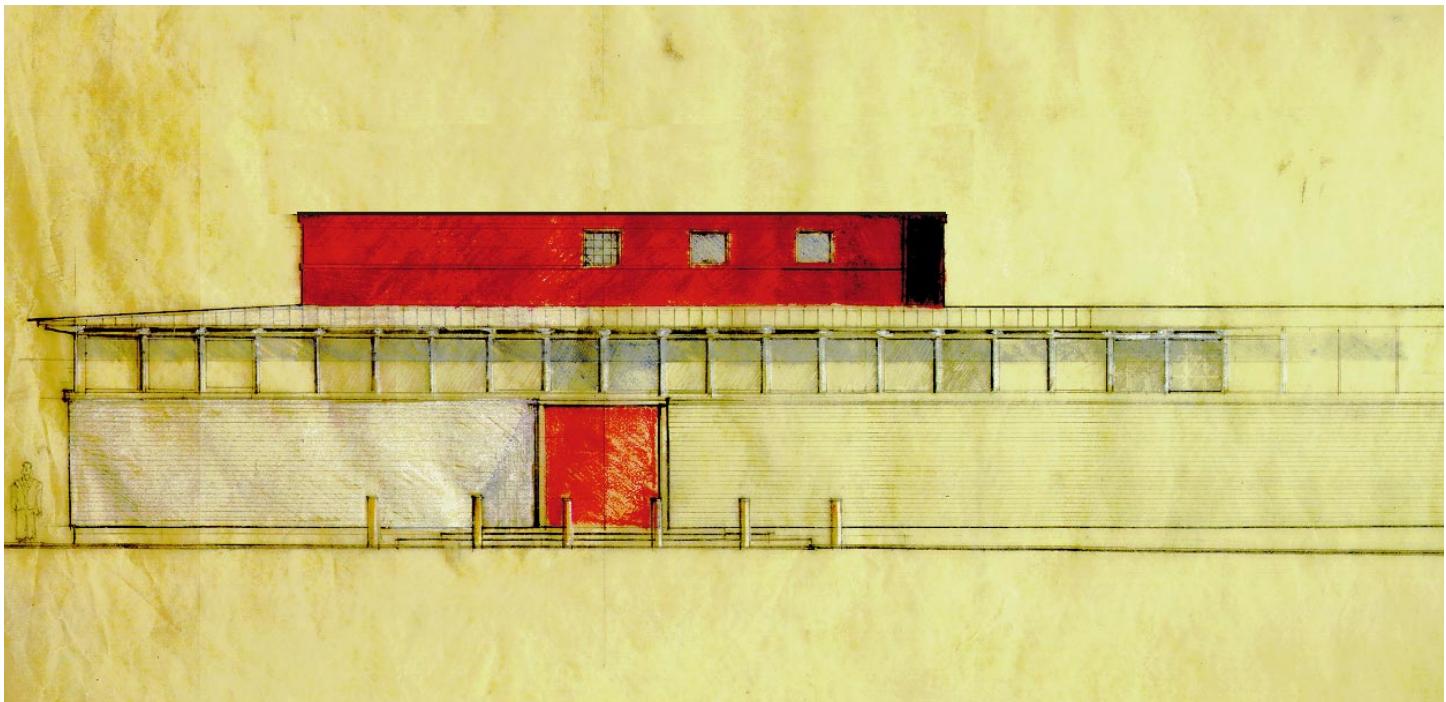
B



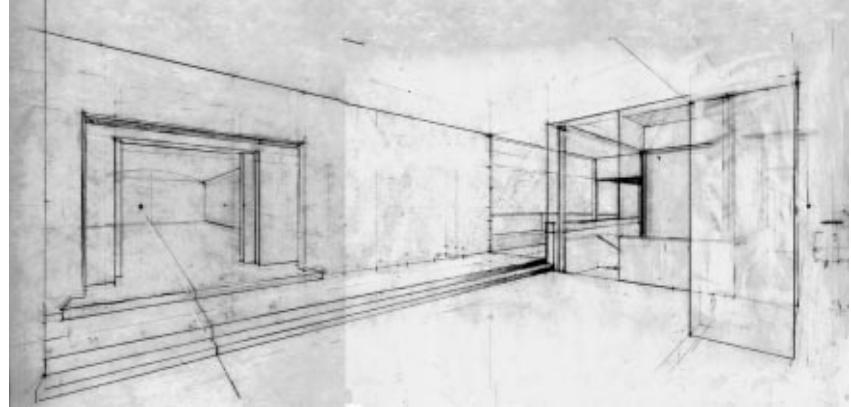
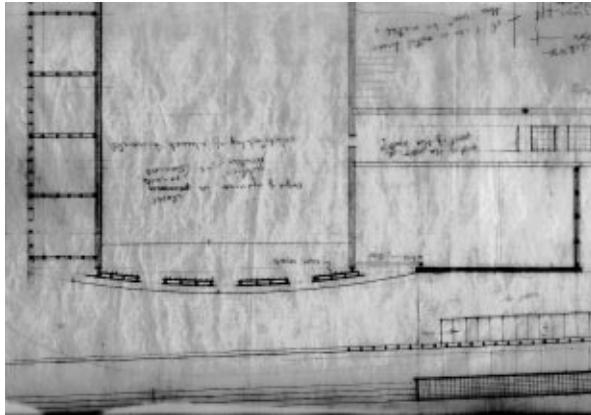
*studies, east elevation*



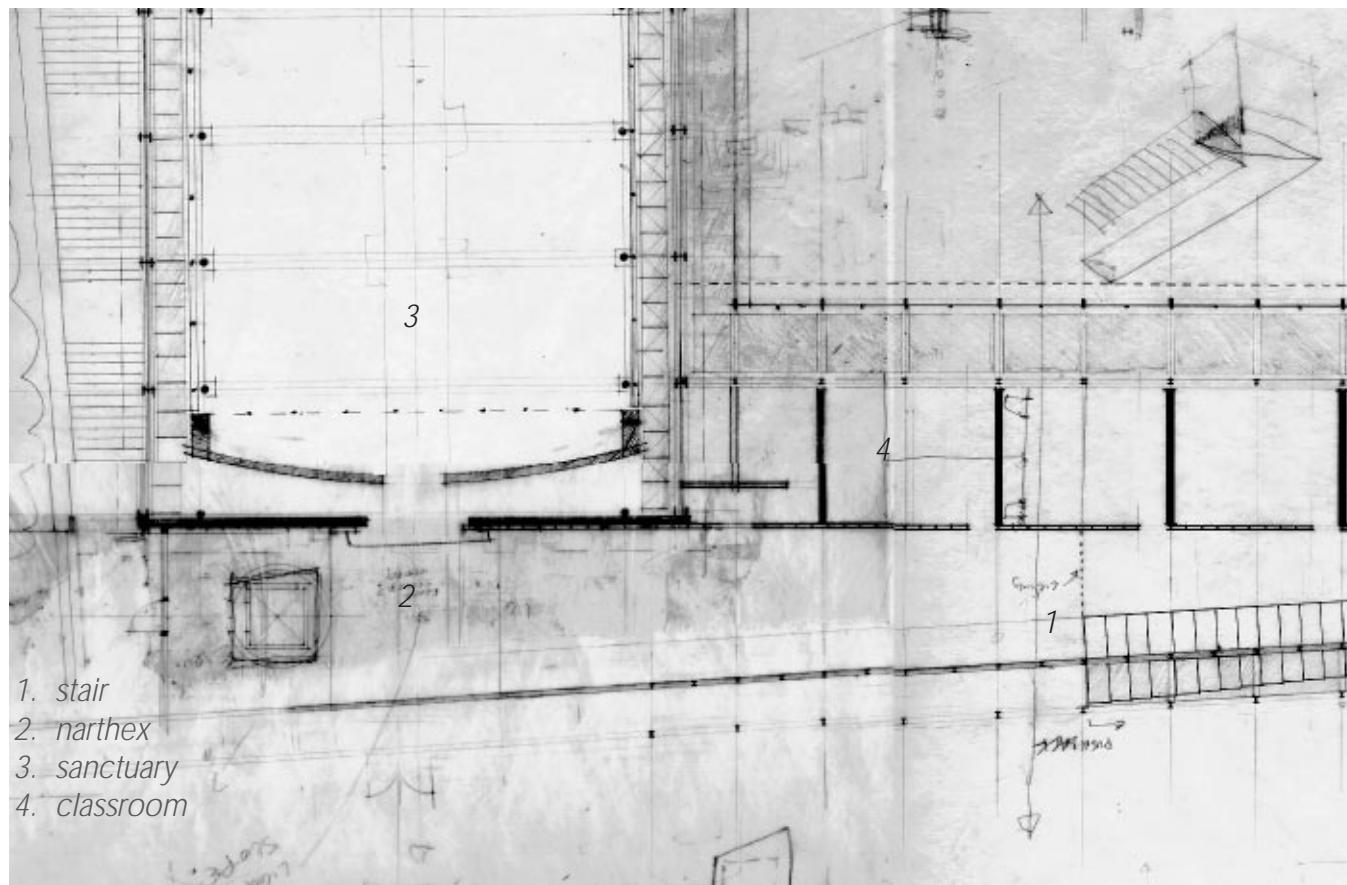
*section at sanctuary*



*west elevation - street level*

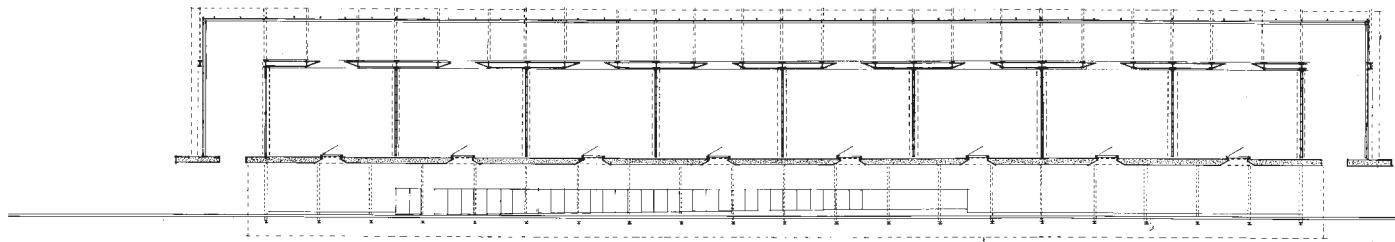
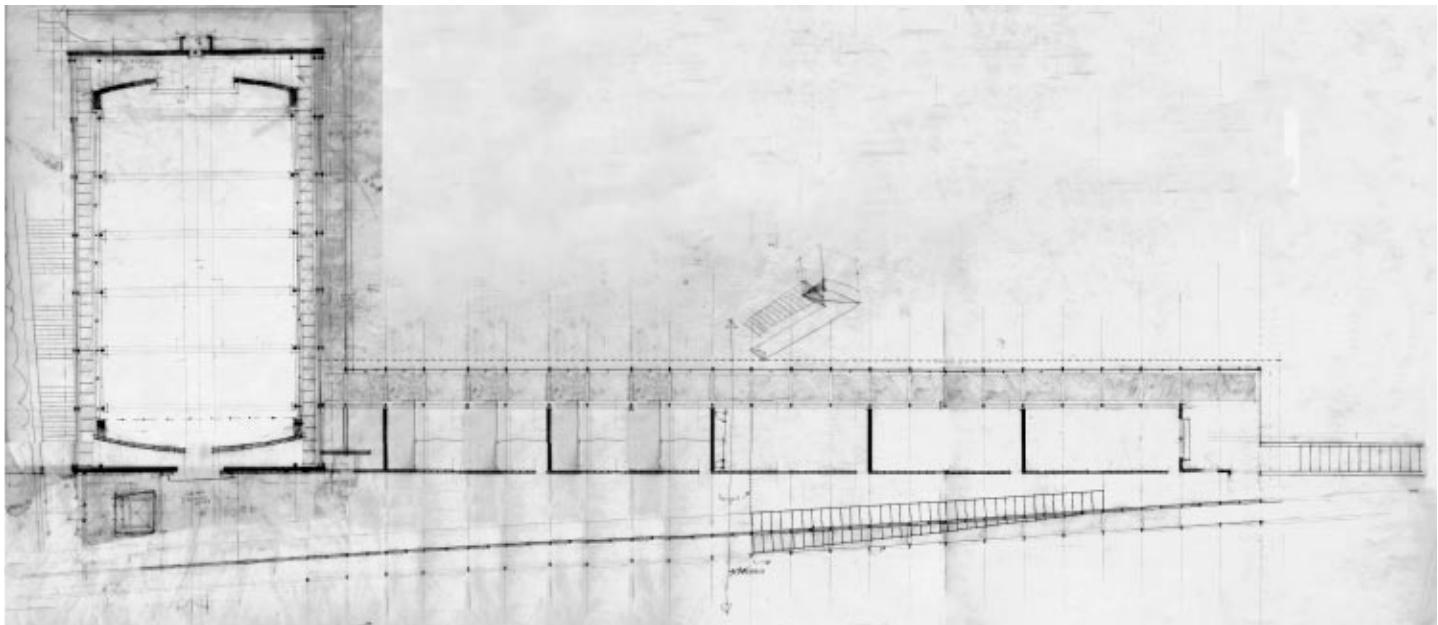
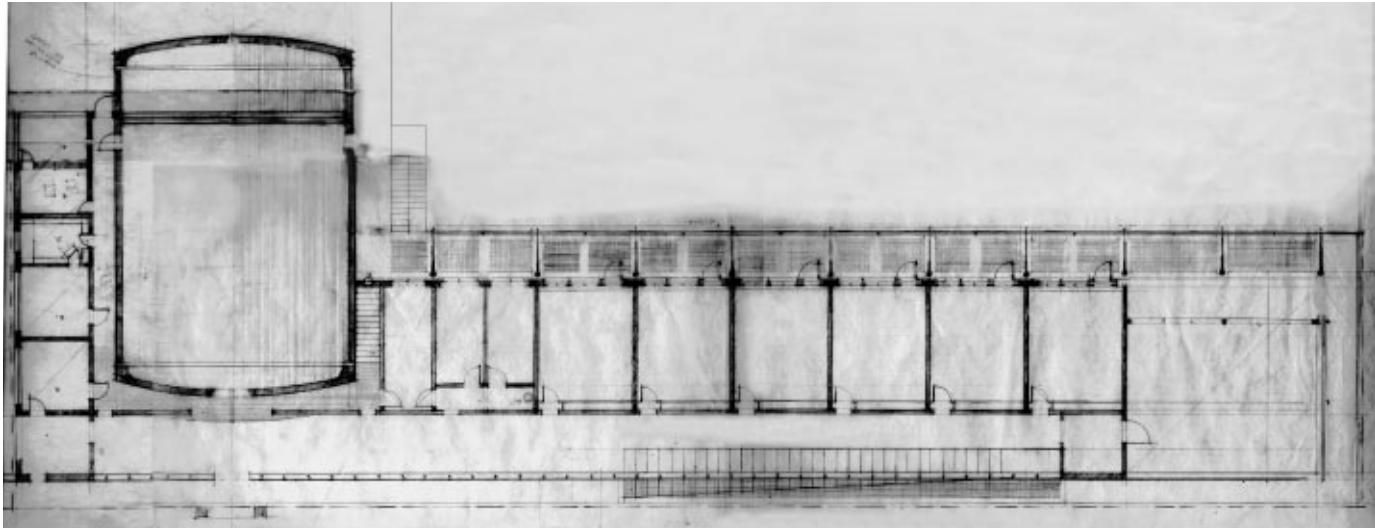


*narthex*

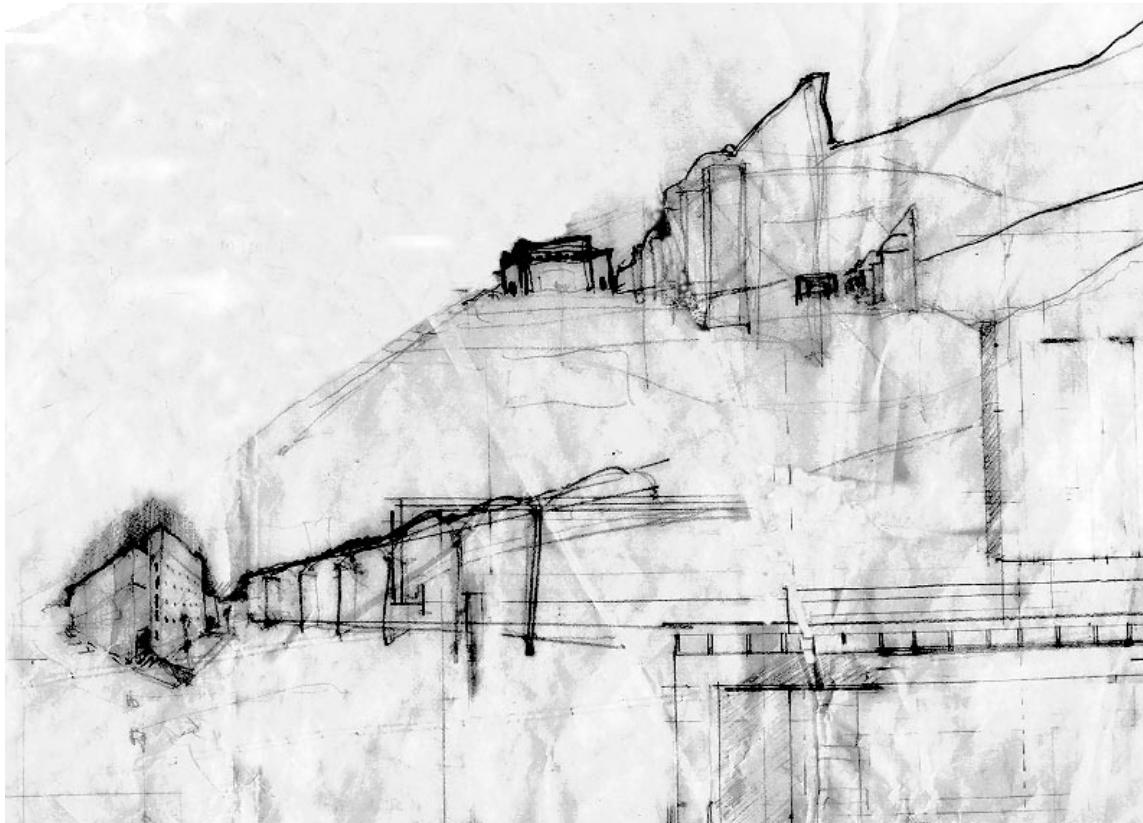


*studies: hall as narthex*

Through this investigation, the interiorized path under the roof's continuous canopy proved unsatisfactory at the turn into the sanctuary. Also the stair was subsumed by the education building. This impasse was the impetus for developing separate elements of stair, wall, sanctuary, and education building.

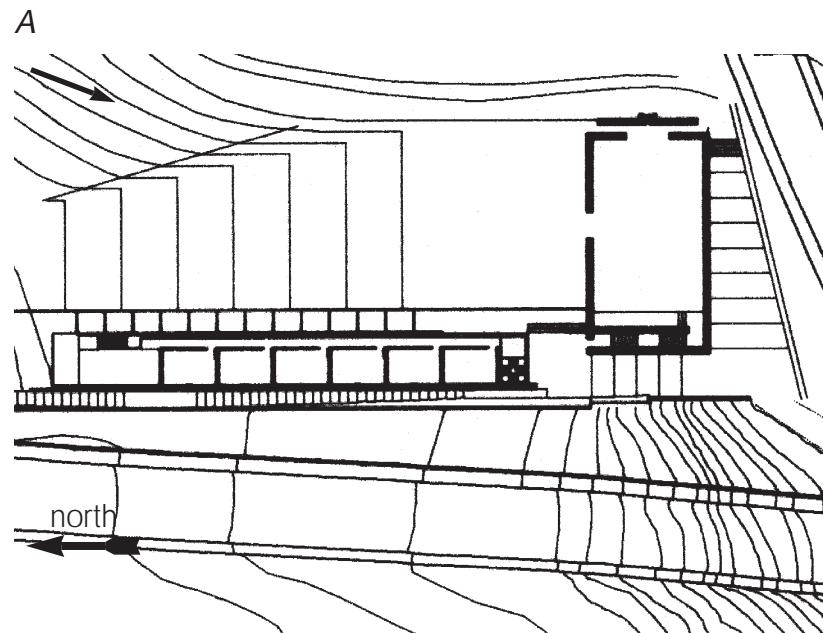


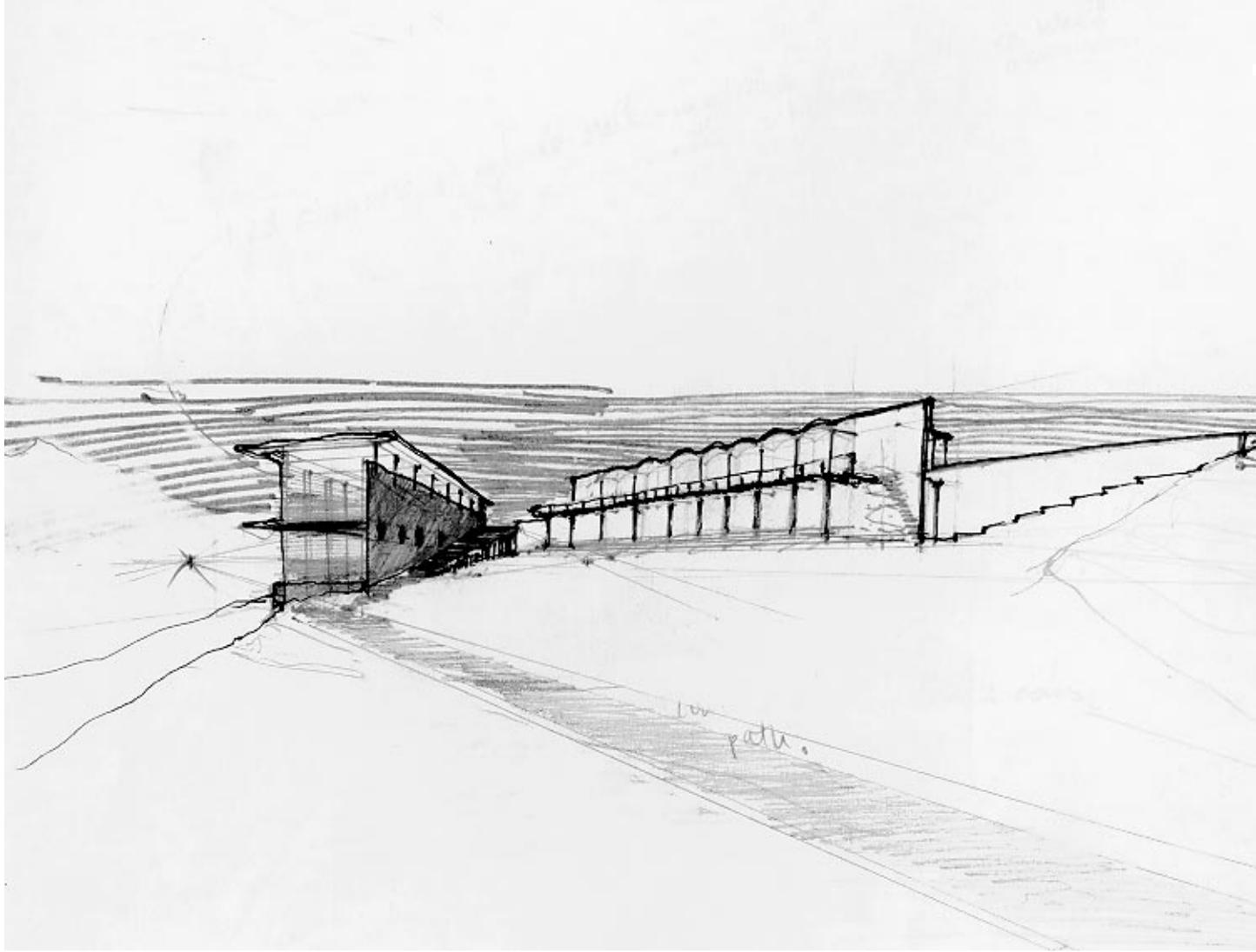
*plan studies*



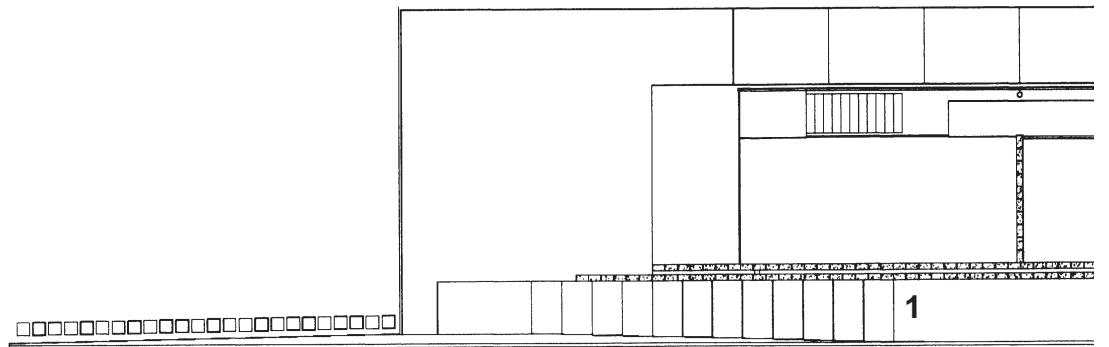
A

The final investigation on this site: The buildings are separated and the sanctuary is moved to the site's corner. This decision creates a more clearly defined edge at the street.



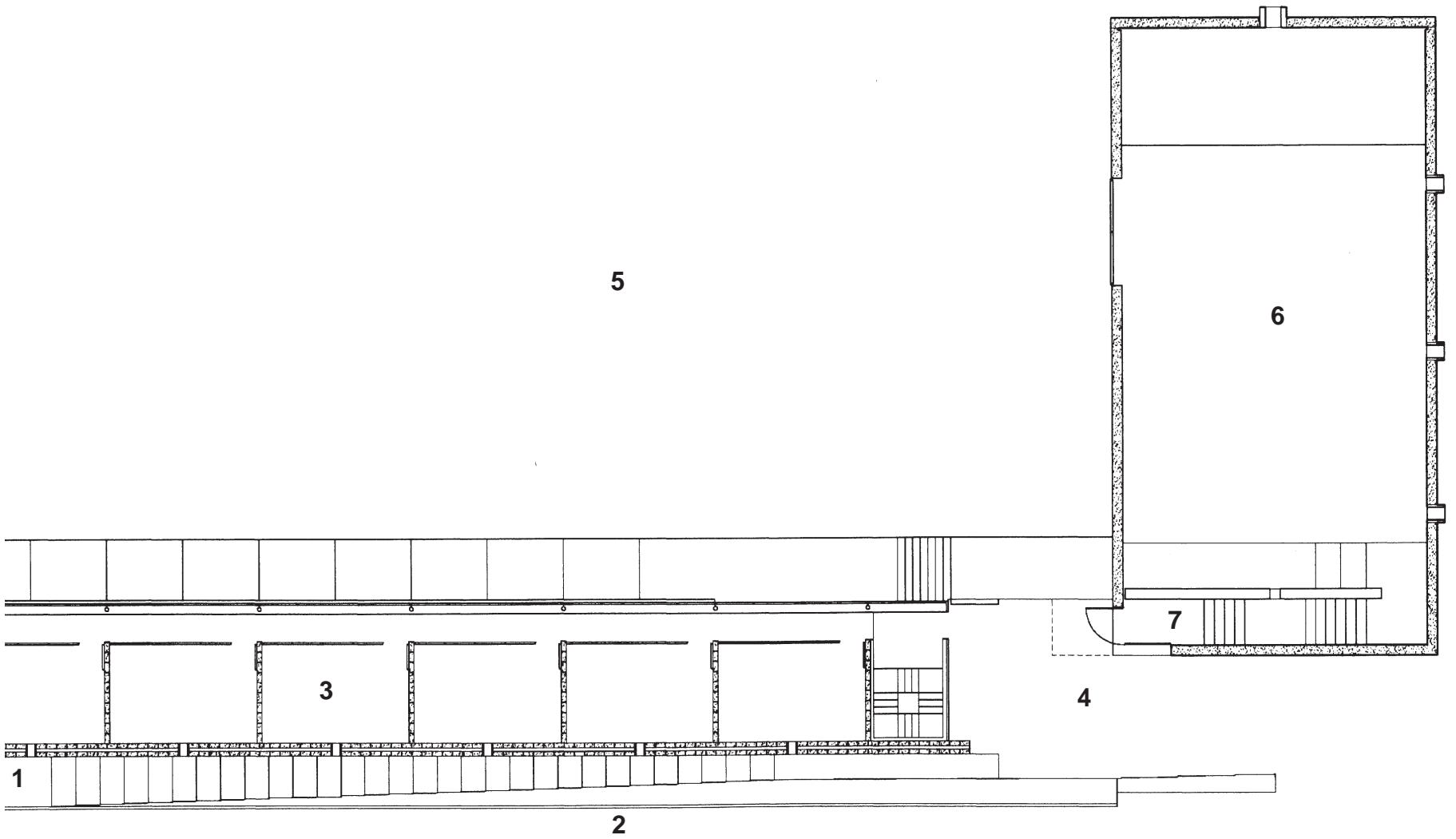


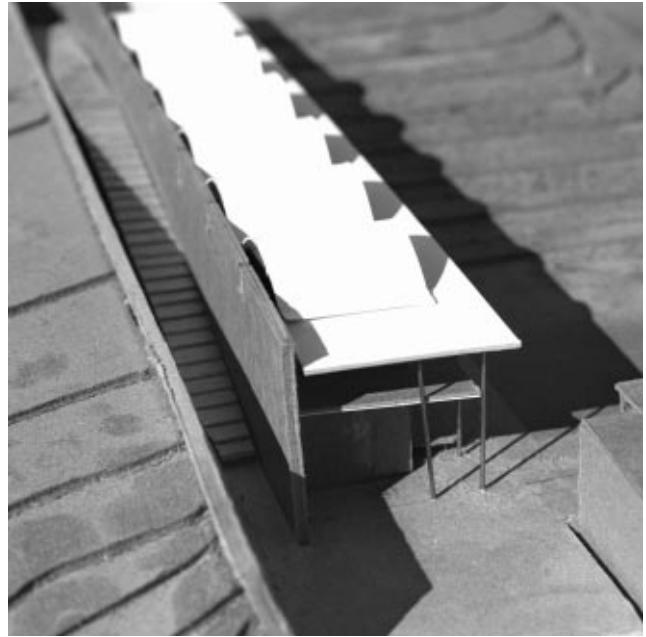
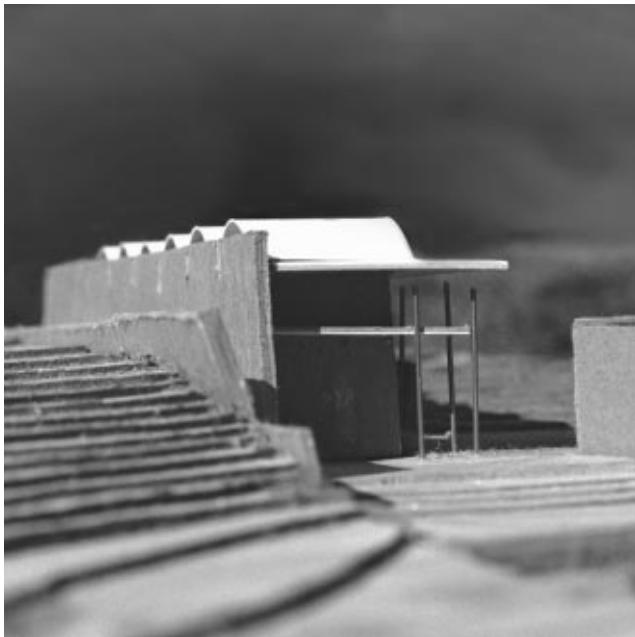
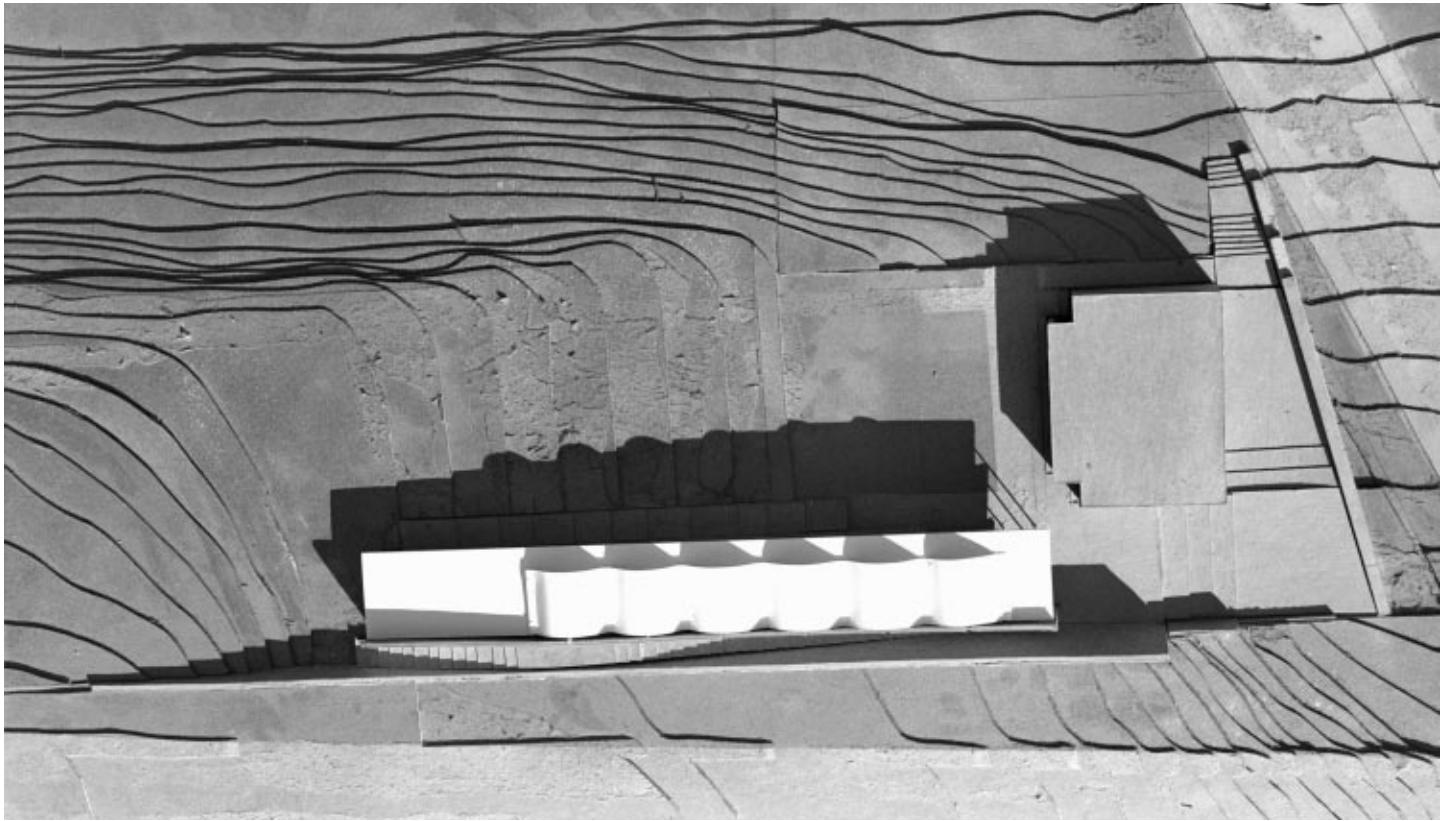
A



north  
←

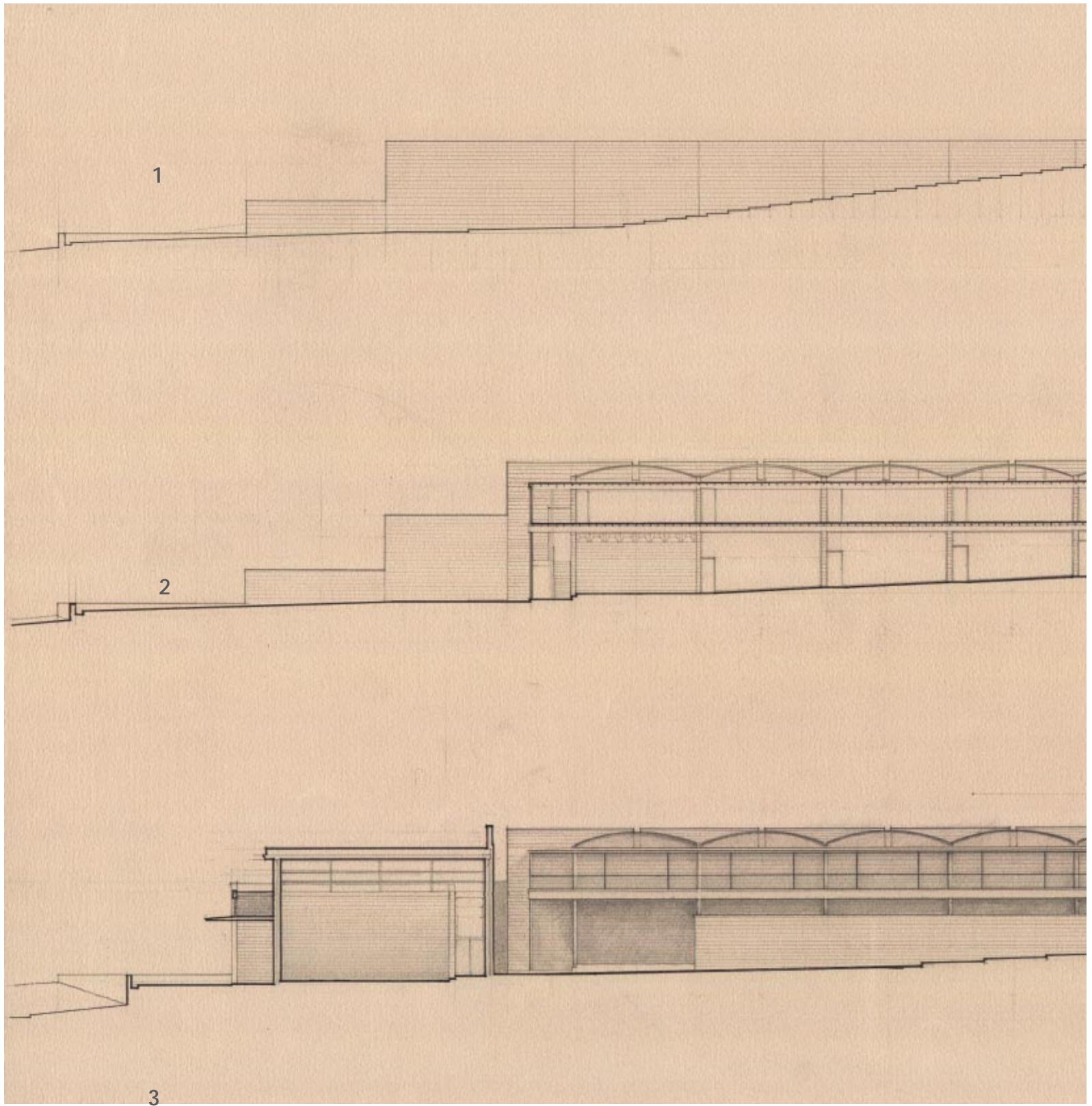
1. exterior stair 2. retaining wall 3. classroom 4. exterior narthex 5. courtyard 6. sanctuary 7. interior stair



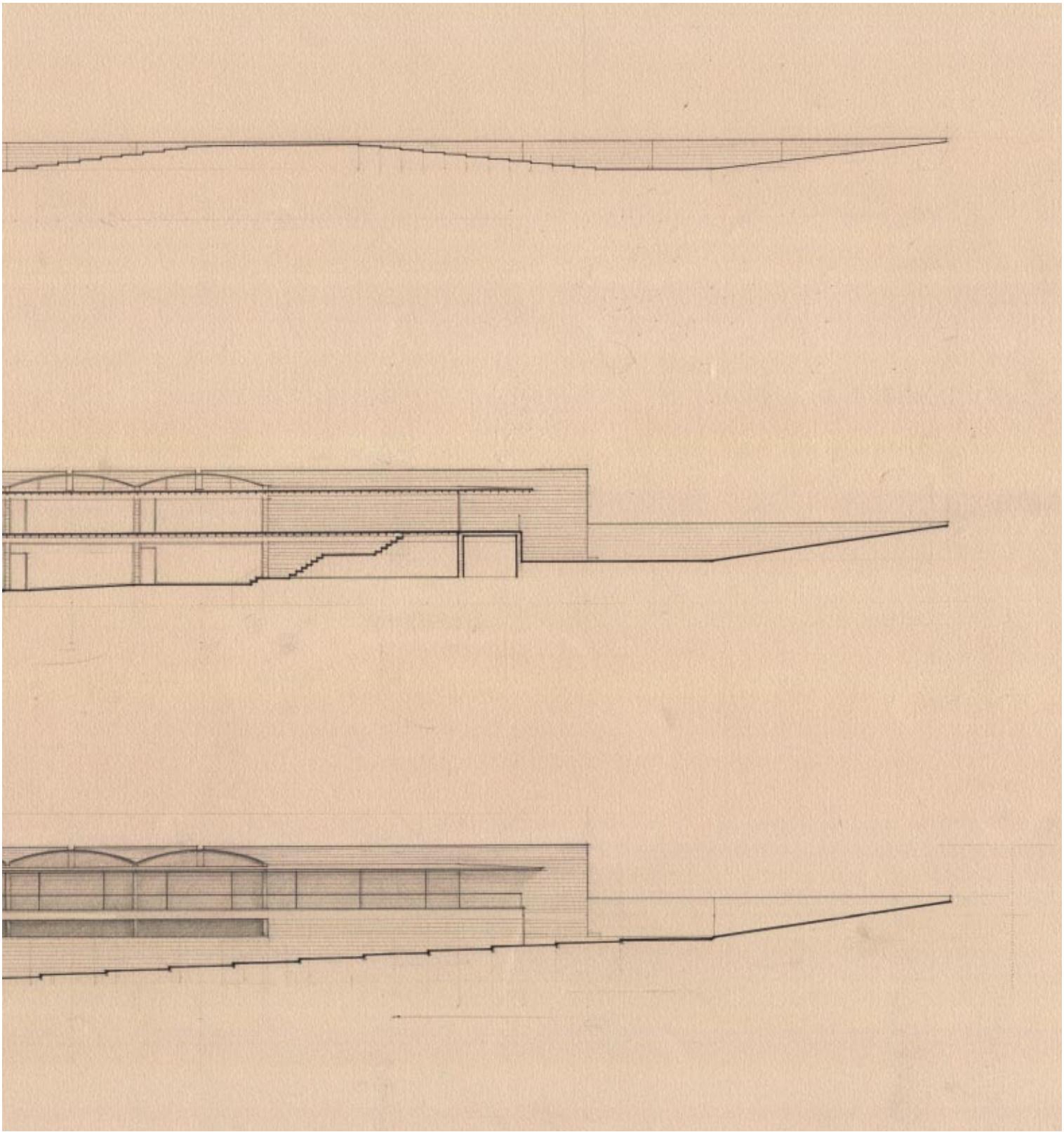


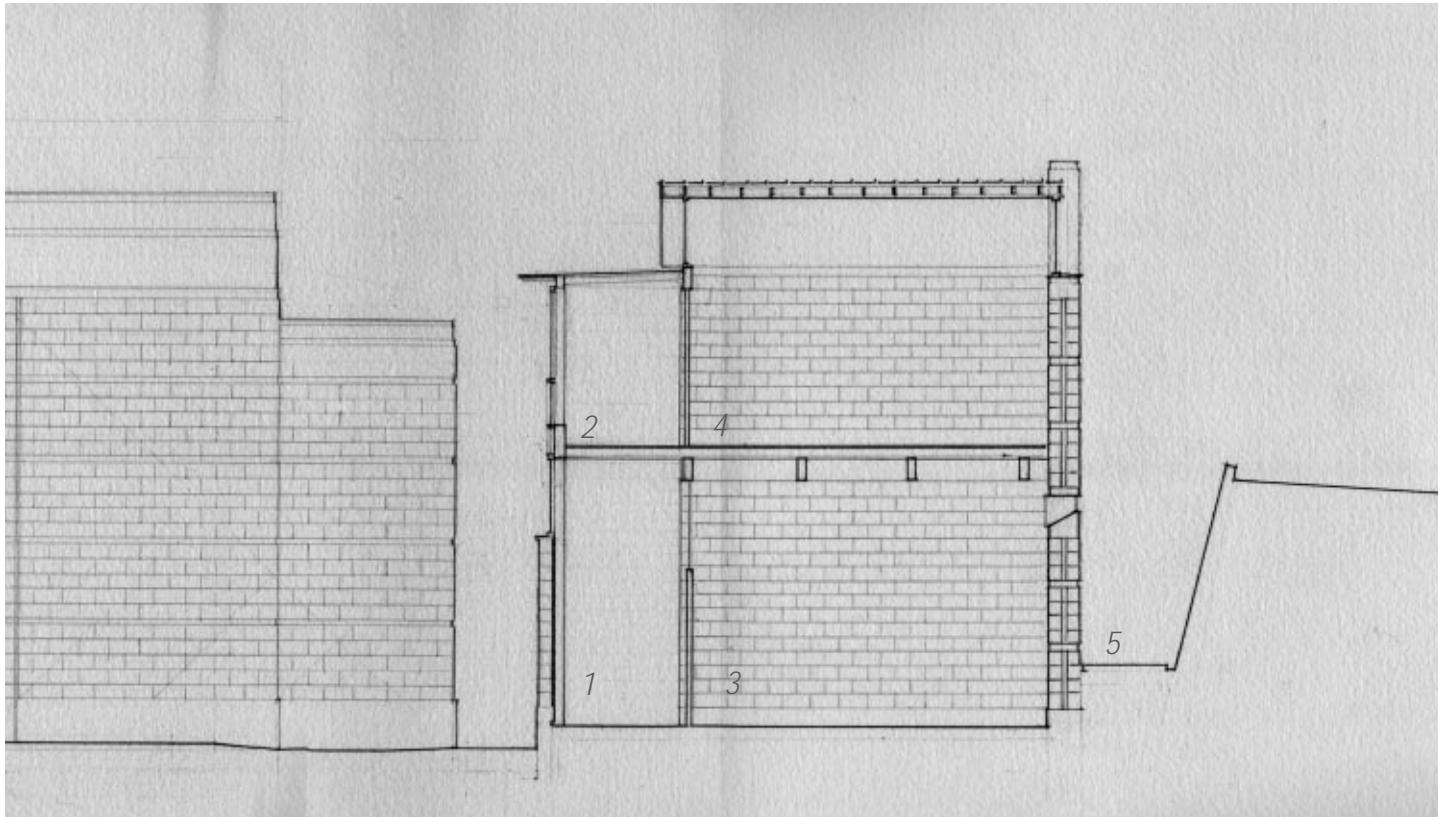
*primary elements*





1. section at stair 2. section through classrooms 3. section through sanctuary and west elevation of education building





*section through education building and north elevation of sanctuary*

- 1. interior corridor, ground floor*
- 2. interior corridor, second floor*
- 3. classroom, ground floor*
- 4. classroom, second floor*
- 5. stair*

The stair occurs in the space between the two walls; 1) a retaining wall, leaning into the hill holding back the earth and 2) the classroom wall, forming the 'spine' for the classrooms. A compression of space occurs as one proceeds down the stairs. The path becomes narrower due to the slope of the cast-in-place concrete retaining wall contrasting with the rectilinearity of the opposing masonry unit wall.



This way of bounding space is a memory of the Medieval street. Expansion of space occurs at the base of the stairs as the courtyard comes in view, providing an opportunity to pause and choose between entering the sanctuary or the education building.

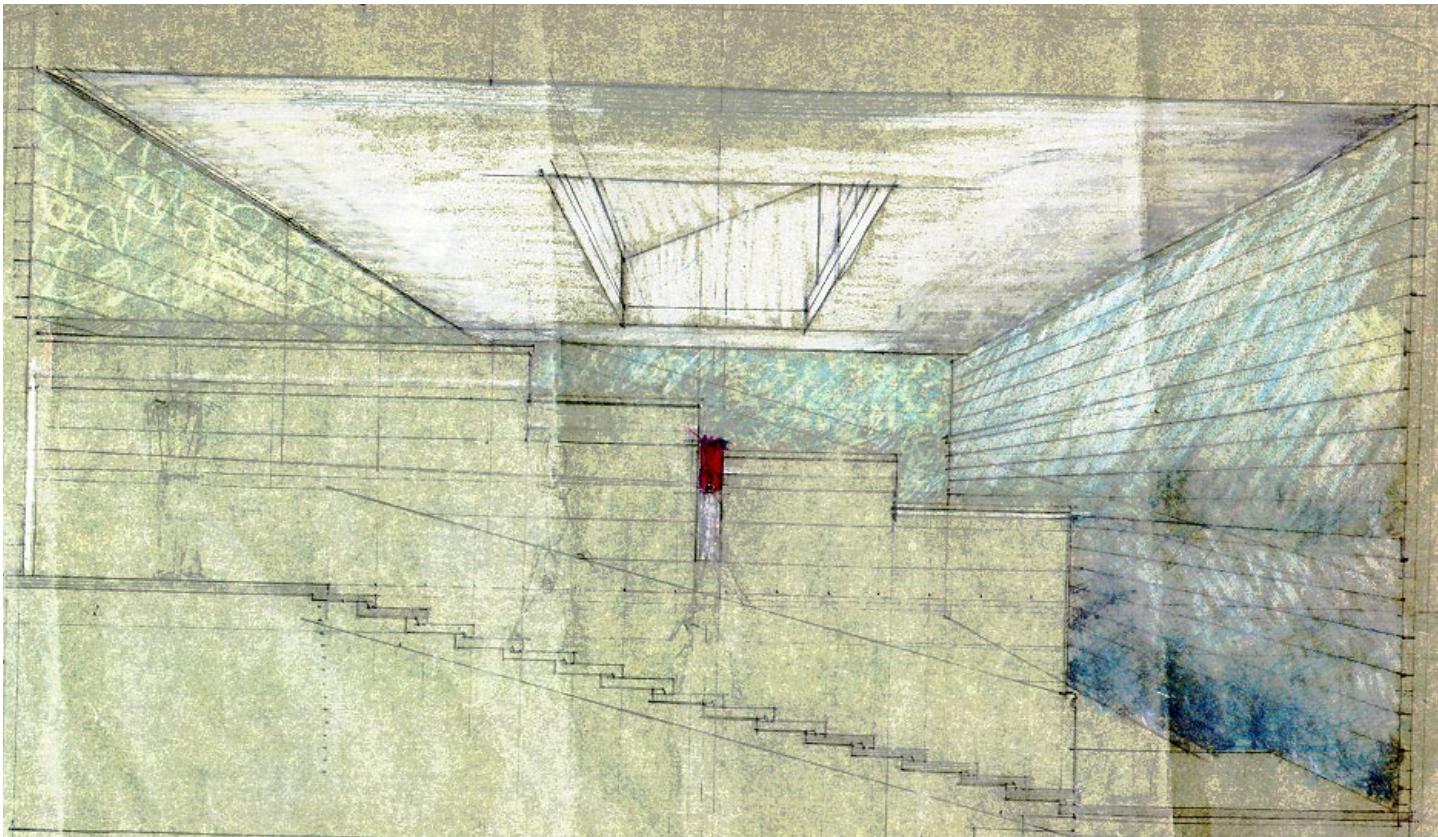


*stair and wall: the retaining wall and the classroom wall make a place for the stairs*



The classrooms achieve a more delicate character as a result of their distance from the hill. The series of perpendicular walls against the long wall reveals the contents of the building.

In the final version of the sanctuary, the turn along the main axis of the church occurs inside the sanctuary rather than in the narthex. Entry into the church is a solitary endeavor; for by definition the act of assembling implies a prior state of separateness. Worship achieves a physical and spiritual unity in the fellowship; therefore the large double doors, containing in them the memory of the great cathedral doors, open to the lower piazza at the conclusion of the service.





## conclusion

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The conditions treated in this study - the space in-between elements, the figural quality of the element, the relationship between topography and building, and the path as an ordering device - will continue to form the direction of my future work. By way of their open and inquisitive nature, my sketches will encounter new issues as I continue along these lines of thought. .

As suggested in the poem *Anecdote of the Jar*, which begins this thesis, the jar is an epigram of my sketches and thesis book which orders my thoughts. However, the more direct meaning of the poem also applies here - man's actions, whether good or bad, take "dominion everywhere". Having been endowed with this power, the architect must realize that he is a steward over the community and nature. Every one of his acts of making should carry with it a sense of purpose, order, and beauty. It is hoped that this present study, which is a foundation for my future work, will help to accomplish this.



## Vita

Matthew Miller Smith  
1420 Benjamin Street, Nashville, Tennessee 37206  
Born November 30, 1962, Pontiac Michigan

### Education:

Bachelor of Science in Business Administration, 1985  
University of North Carolina, Chapel Hill

Master of Architecture, 1998  
Virginia Polytechnic Institute and State University  
Blacksburg, Virginia

### Professional Experience:

Deal Cain and Company, Architects and Engineers  
Franklin, Tennessee  
1998 to present

Hawkins Development Company  
Nashville, Tennessee  
1996 to 1998

Cochran Ferguson Smith, Architects  
Nashville, Tennessee  
1993 to 1995