MATERIAL, SPACE and ORDER

530
9

by

Matthias A. Schuster

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

Master of Architecture

Approved :

William W. Brown, Chairman

Jaan Holt

Günter M. Lehmann

Some great old buildings provide desirable spaces for inhabitants by showing ordered layers of materials.

June 1989
Blacksburg, Virginia

MATERIAL, SPACE and ORDER
ABSTRACT

by

Matthias Andreas Schuster

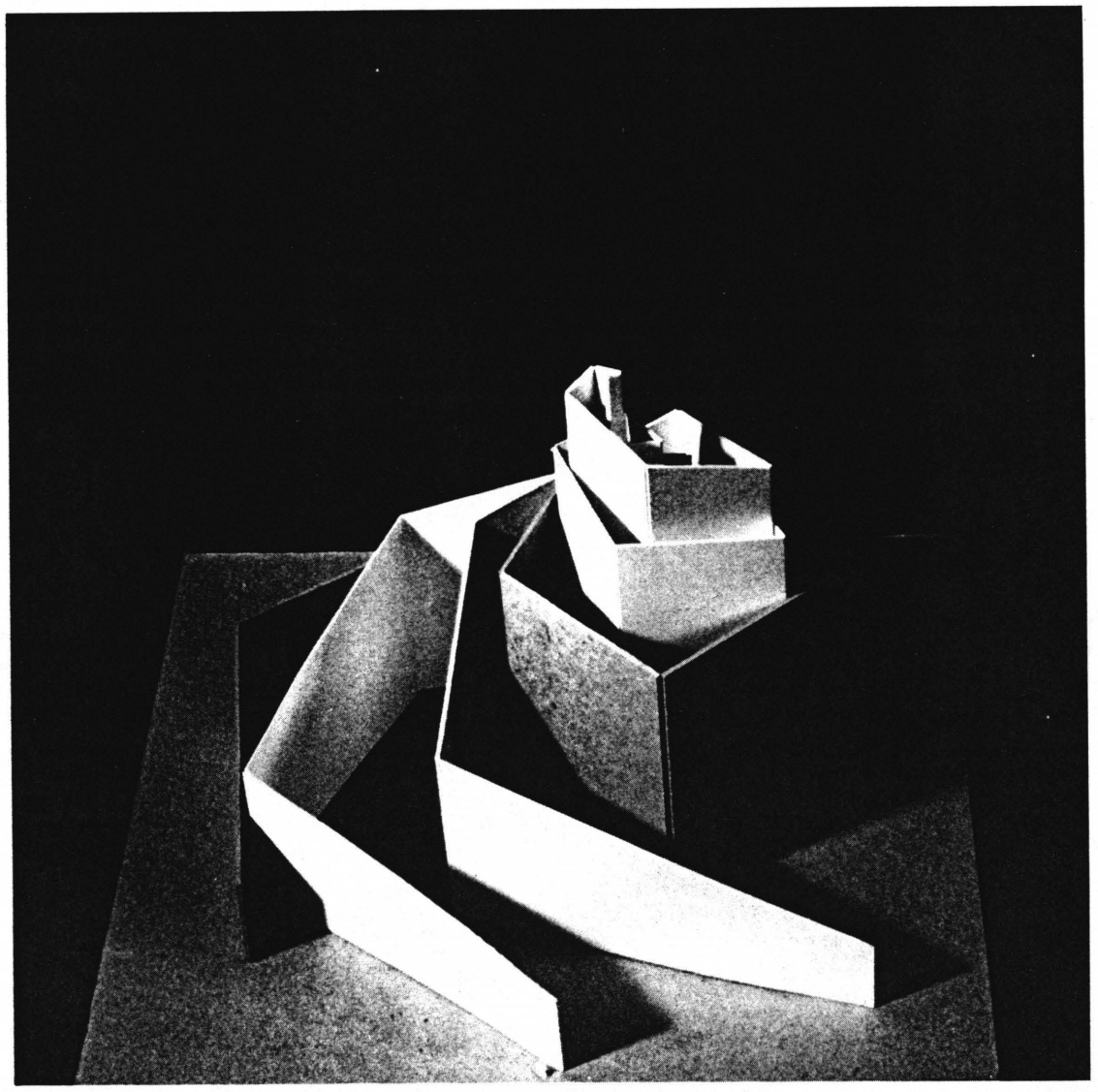
Committee Chairman :
William W. Brown, Architecture

(ABSTRACT)

The basis of any human existence is a space to inhabit to support that existence.

Space, given by nature or created by man is always determined by the "planes" by which the particular space is enclosed. The issue, (what kind of materials these planes are made of - a roof, a wall , a column), is most important for the impression the space creates on the inhabitants. Having layers of different materials create, articulate and order the spacial layout for a building is the central theoretical statement.

In order to translate this theoretical statement from the realm of the written words into the language of architecture - sketches, drawings and models examples of two designs are offered.



The very first model. An architect`s way of gaining abstraction.

ACKNOWLEDGEMENT

MY SINCERE THANKS TO

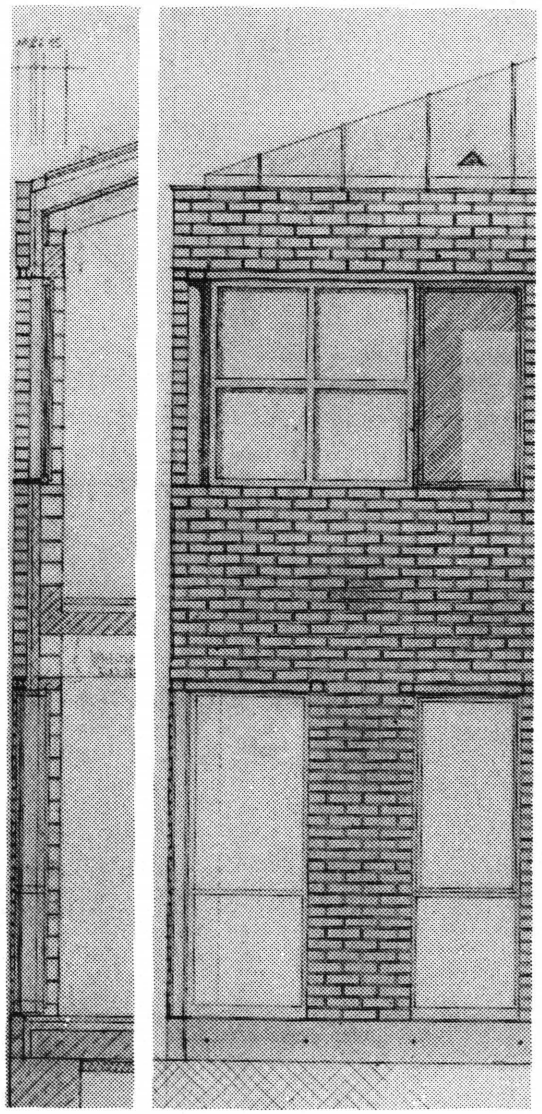
for the guidance which made me reach for my very own architecture ;
for the enthusiasm and ideas which kept me going ;
for the observations.

for his advice and his constant " das wird schon ...." .

My fellowstudents for their companionship.

My parents

For all they did for me. It made so much possible.



Earlier study of the elements of a wall : the maisonry, the windows, the steel lintels.

CONTENTS

Title i

Abstract ii

Acknowledgements iii

Table of Contents iv

I. FOREWORD 1

II. THE THESIS 2

THOUGHTS FOR A THESIS 3

III. THE PROJECTS : 8

A HOUSE FOR MUSIC 23

A HOUSE FOR BOOKS 39

Bibliography / Photo Credits 40

Vita 41

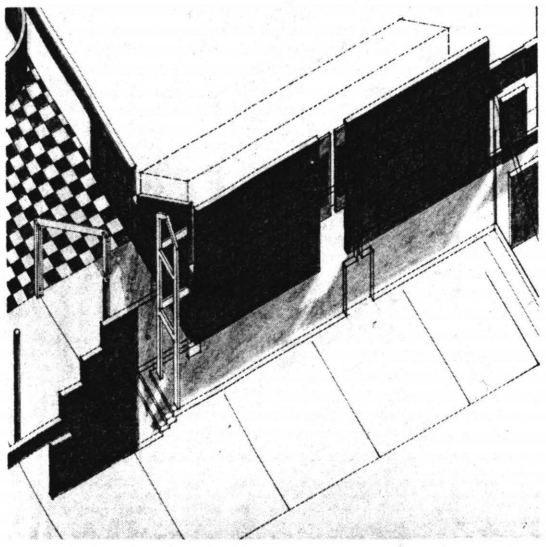
"You are averse to enclosing things in a single block, you leave everything open, everything distinct and separate. Basically you just want to study, jotting down whatever you have understood on the instant. Every day you understand a bit more, but you hate summing things up: as if finally it ought to be possible to express everything on a single day and in a few succinct sentences, for good and all. The constant desire is that this day arrive only at the end of your life, as late as possible".

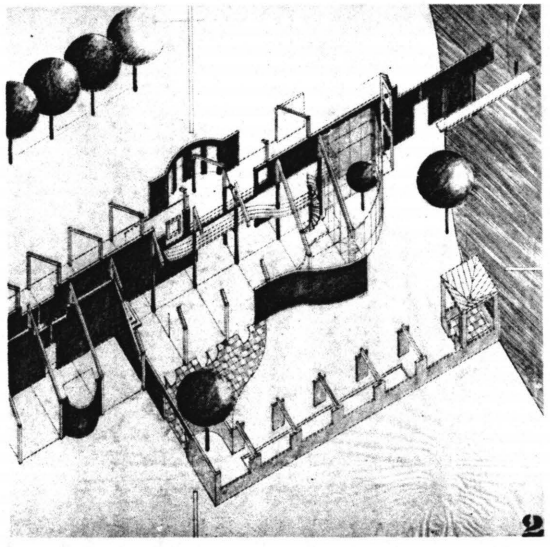
Elias Canetti

The quote by Elias Canetti describes my relationship to this thesis project, at this moment in time, where I am required to generate my book, and it might help to explain the character of the book.

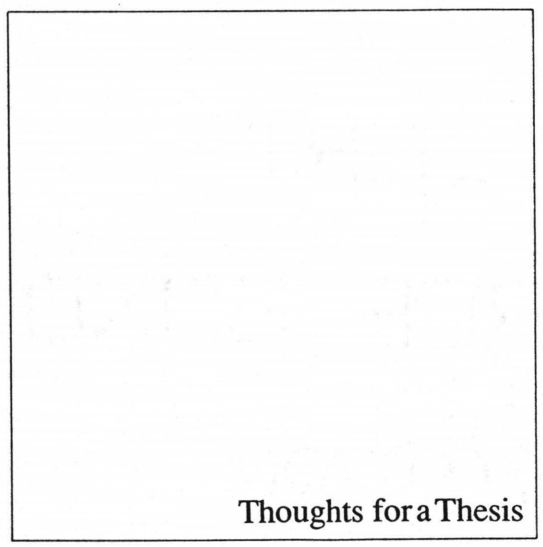
While working on the book I started to look at the book as an intermediate report about an architectural idea.

Instead of creating a book where the text and drawings are woven into an interacting form of presentation, I decided to split the material into a written and drawn part to emphasise the theory and design part.





Two drawings which piqued my interest and led me to study and research this theme.


Thoughts for a Thesis

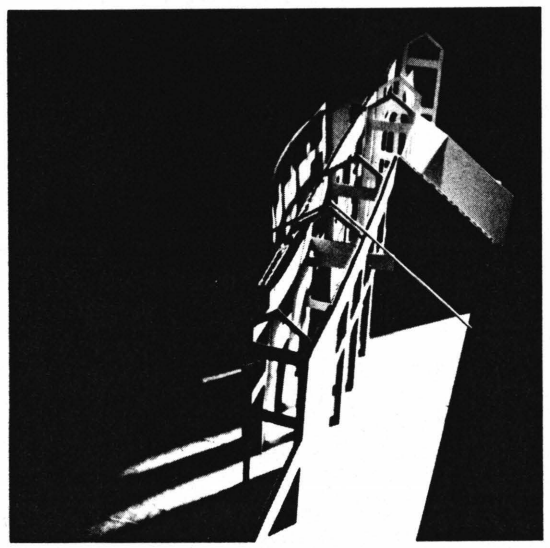
The spacial complexity of a built form and its relationship to the material it is made of will always be the basis for any search for form in architecture.

The space outside of a building is the realm of nature, the space inside the building is the realm of man created by architecture to give man his place on earth.

The unalterable fact remains that one always has to be "somewhere" in relation to a space. A building, either inside or outside creates an eternal design potential for architects. This most complex theme in architecture, proved to be the beginning point of this thesis. Through the layout of several layers of different materials, a higher level of three - dimensional expression by the help of light and view is achieved[1]. The idea to distinguish between inside and outside has been under investigation throughout architectural history.

In ancient Greek temples, the most holy part, the Cella, was separated from its surroundings by several rings of columns[2]. This space for worshipping was not enclosed by so many layers for protective reasons only but also to show in terms of architecture that there is a space containing a sanctuary of highest

1



2

beliefs. During the time of the Roman Empire, this idea was applied on more profane building types too[3]. Even in a regular house, the idea of layering became the basis for the layout of the buildings. In contrast to a temple, the walls with small openings were placed as the outer shell in order to house the rooms, while the inner layers were made out of columns to distinguish the "Perestyl" from the other parts of the house.

Architects of the modern movement like L. Kahn took up this idea when he

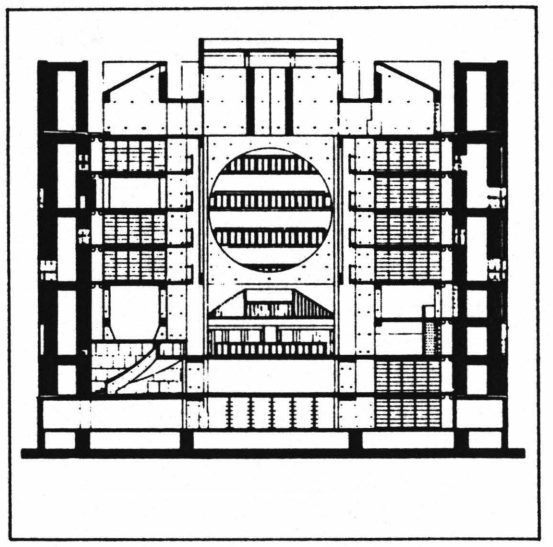
3

4

designed the Exeter library. In general, the building is expressed as a sanctuary of thoughts by his use of the idea of layering different materials. The outer ring was made of brick with small windows, the inner part to hold the books made out of concrete, with large openings toward the inner courtyard. This way of handling space and material established a clear distinction between inside and outside[4,5].

Whereas in Exeter he devoted both materials for the load carrying purpose, at the Yale center he made a structural

5



6

frame out of concrete for the entire building. This concrete structure stayed visible outside as well as on the inside. To fill the planes within the concrete structure he chose materials of a different textural quality. To articulate the idea of layering different materials with habitable spaces inbetween, the use of light and open views makes this concept clear to the inhabitants[6,7].

Other architects of the modern movement like Mies van der Rohe developed extended theories to diminish this dramatic spacial situation, trying to

7

8

connect inside and outside by the use of completely glassed buildings. Calling his own house "Glasshouse" P. Johnson made the most radical attempt to translate Mies van der Rohes ideas into architecture[8]. Nevertheless, practical demands forced him to place an extra space and layer of brick within the main space. The exploration of this idea is still in progress up to the present day. R. Meier and P. Eisenman pushed the idea of layering to the limit were it became almost a form of "architectural research". Working on a level of complexity using steel structures hidden by plasterboard,

9

they never progressed to a point of incorporating material as an architectural dimension in their design[9].

Layering of different materials needs to be defined through basic categories of architectural thinking. Material, space and order have been defined in terms of this idea.

Material

For the senses of man, material by its presence makes the existence of all things on earth real. Formed by an artist's hand material expresses his ideas of beauty in art. Through its almost endless variety in appearance of its surface, smooth - rough, brittle - soft, or by the way it receives light, materials are able to transmit almost any design intention in architecture[10].

A building material, treated in a way that its integrity is respected, will age in dignity instead of getting old and rotten. As time goes by material changes its color and texture. The degree of its patina is a measure of time, a scale for the fourth dimension in architecture. Through the denial of the recognition of the material's properties as an architectural dimension in itself, and its ability to order and articulate space, today's architecture has become an architecture of surface manipulation. In

10

contrast to the painted plasterboard architecture, only "true" materials were used for the design projects. The impression a room makes for its inhabitants will be created not only by its layout and the way it is lighted, but by the textural qualities of the material. The material itself provides the color.

In terms of the original intention to express the spaces in a house through different layers, materials helped to articulate this idea through their textural quality. As one progresses deeper into the building, the materials change from the rough protective quality of the first layer to a smoother and warmer textural quality of the inner layers.

For the articulation of the houses different materials were used to create one architectural element like a roof, a wall, a floor. In the case of the brick walls in the House for Music the question appeared how the larger openings could be bridged. Finding the appropriate material for the particular task, implied the usage of steel lintels over large openings[11].

Where the wall ends and support for the roof is still required, steel is used with its unique ability to handle large horizontal spans. Throughout the design, it was the intention to let every material

11

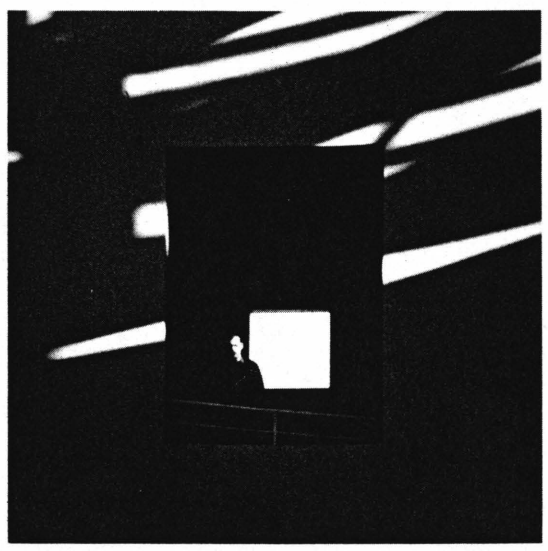
do what its unique qualities enable it to do.

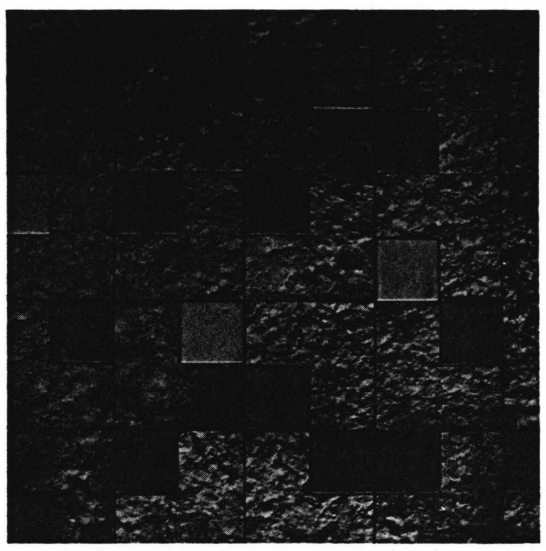
In the House for Music the "walls" were made of one layer providing an encloser and taking the load, in the House for Books a completely different approach was executed. Separating the two basic demands a wall has to serve; to provide structural strength to support the loads and, to shelter the inhabitants from the uncertainties of nature, two different materials were applied. Steel was chosen to make the structural grid. Through its strength, it is able to carry a high load in comparison to its small size. Wood formed in large sheets proved to be by its properties, the ideal material for the enclosure - the "wall" in its traditional perception. It is easy to handle, light of weight and formable to almost any shape. Through the steelframe, the enclosing wood wall is set free to be articulated in almost any manner[12].

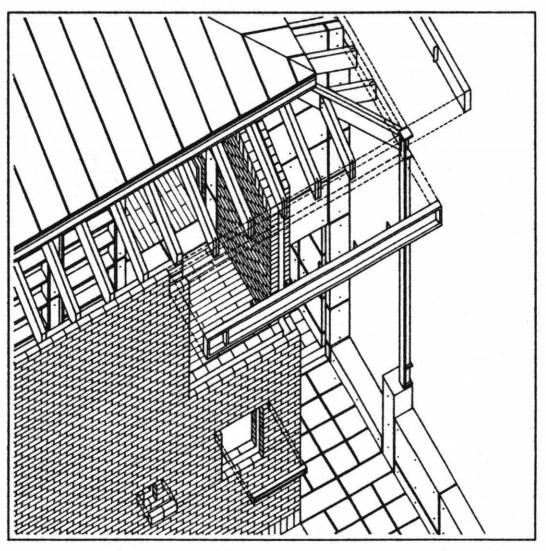
Space

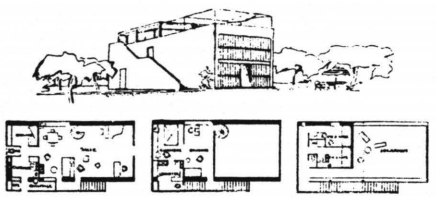
In the architecture of Mies van der Rohe the spaces had always been layered between two horizontal planes. Mies must have considered this limitation as the most important, since he never made an attempt to break these planes without an urgent functional reason.

12

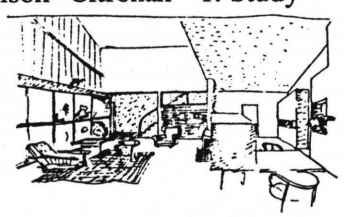








Maison "Citrohan" 1. Study

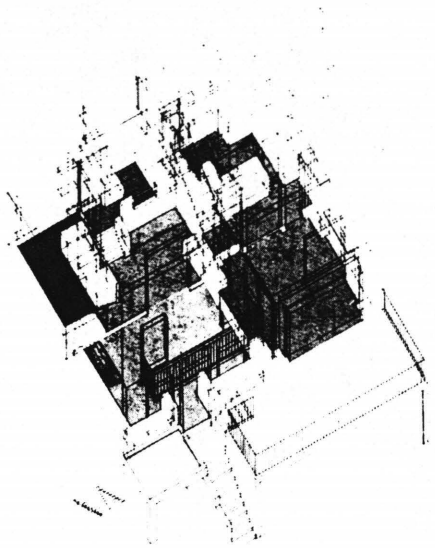


Maison "Citrohan" 2. Study

13

Other architects of the modern move - ment created a completely different approach to express the three dimensional quality of architecture. Cutting through the floors and the ceilings, Le Corbusier tried to develop a relation between the horizontal and the vertical layered spaces. In the studies he made for the "Maisons Citrohan" he took the first ceiling above the living room away and created a double high space - a courtyard within the house [13]. To make the inhabitants aware of the vertical quality of the new space offered, he placed the stair leading to the upper part of the house within the living room.

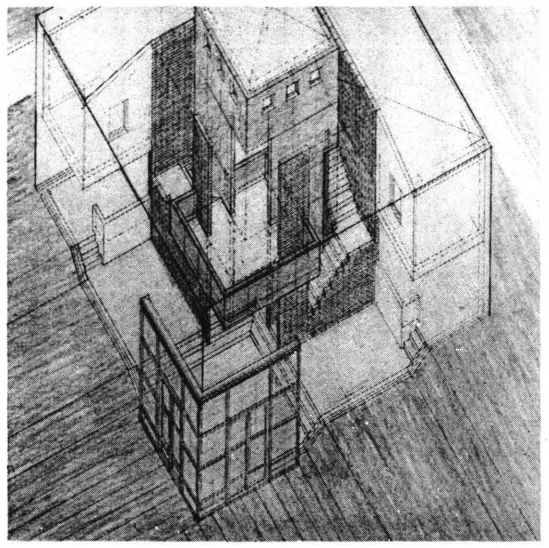
A decade later Adolf Loos developed, under the expression "Raumplan", a similar spacial approach out of his own ideas. Loos always criticized the way architecture was taught and designed at that time. From his point of view architects were thinking only in terms of two dimensional planes such as floorplans and elevations. Most of them handled even the section as two - dimensional drawings[14]. In his under- standing of producing and executing architecture, the architect has to be able to see the building in its three dimensional totality during the entire design process. Therefore he has to design all rooms of the building not on



14

their own but in relation to the other rooms and to the overall form of the building as well. Some English architects in the phase shortly before the dawn of modern architecture, (R. Shaw, B. Scott or the American architect H. Richardson) designed large halls with stairs with several landings in their country houses[15]. This might be regarded as early attempts to create a more three dimensional articulation on the inside of the houses. Similar to the "Maisons Citrohan", the halls are two storied and the rooms grouped around the hall have windows offering a view into the hall.

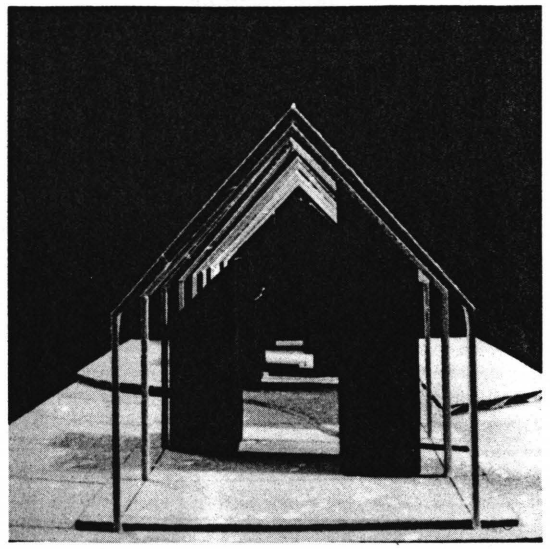
15



16

Loos compared this situation with a balcony in a theater. The visitor to the performance is only able to stand the narrowness of the box by being able to look into the large space of the theater. In Loos' idea it is necessary to make a difference in terms of height and size between the rooms of higher importance and the rooms which are devoted to service functions[16]. By differentiating the rooms in that way it is possible to place rooms of lesser importance above each other next to a two storied space of higher importance. Acknowledging this idea in the House for Music, small rooms like the study rooms, the dining place or the loft are reduced to the minimum size, but are designed in a way that they are able to participate in the large volume of the living room. By placing the rooms of lesser importantce at the periphery of the house, the layout of the large living room was made as a kind of plaza where all "streets of the house" end.

In terms of the basic design intention, not only the horizontal had been broken but also the wall of the inner layers allowing light and view to connect the single layers and spaces resting inbetween. Breaking both planes of the space, the horizontal as well as the vertical, a most complex spacial articulation of the inner layout of the



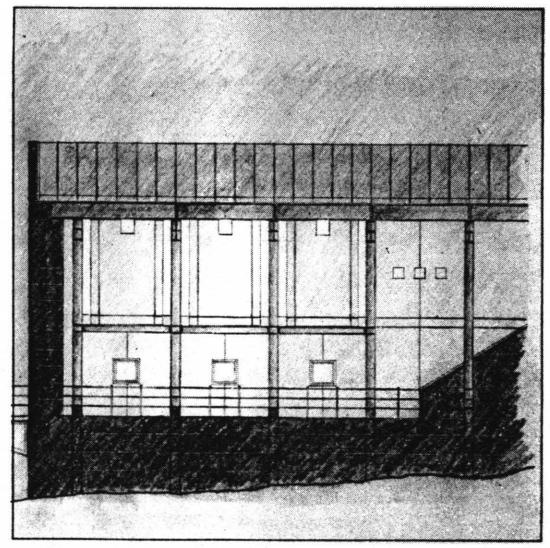
17

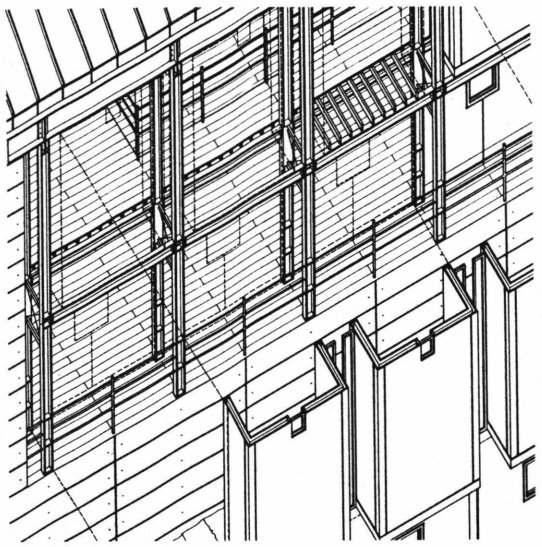
house was achieved. [see page 14]

By placing the rooms in the House for Music between walls made of different materials, the entire building was involved in the attempt to articulate the basic idea of the thesis. In the House for Books, the idea had been focused for functional reasons, on the wall itself.

To provide a large enough space for the amount of books, the living room was articulated as a two story high hall, to make each single book of the library visible. The design approach to break the

18

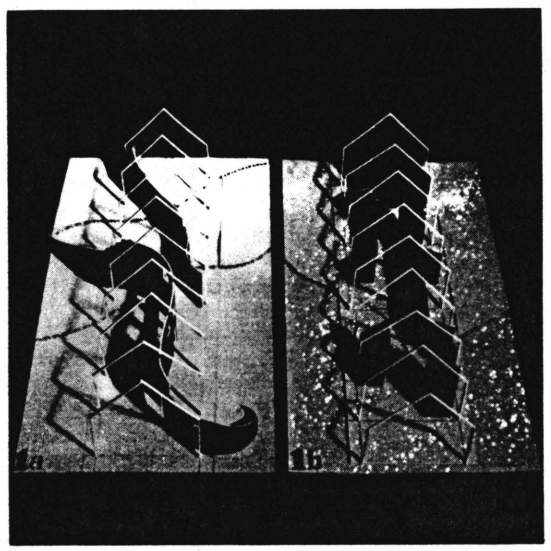




19

horizontal planes was applied to not only the horizontal planes but especially the "vertical planes" - the walls. Cutting away large parts of the outer plane constructed of concrete, made the inner shell of the building of wood visible. By shifting the upper part of the enclosing wood wall from the plane of the inner shell to the plane of the outer concrete wall, created "small rooms" for the books on the inside of the wall. Through this breaking and shifting of the outer and inner wall, the wall is articulated as a space itself[17,18,19,20].

20



21

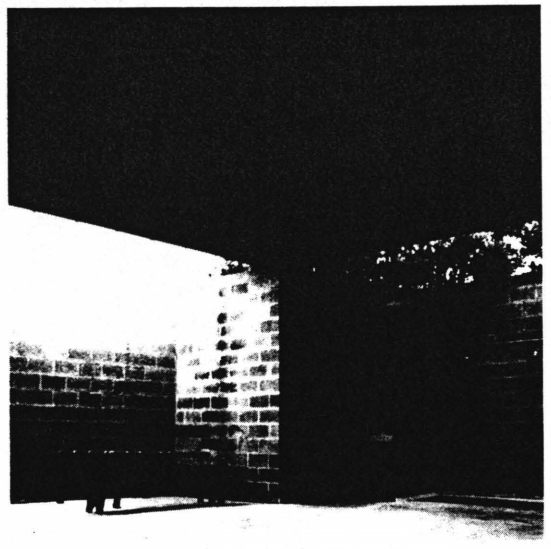
Order

Order was and always will be, because it gives what exsists its place in the universal system[21].

The treatment a material asks for creates the order in respect to the particular material. When Louis Kahn asked the brick what he wants to be, he was asking him what kind of order he is looking for. Respecting the integrity of materials and applying them to the particular task they are able to handle will create order because it makes the particular material appear only at places where the layout makes a task for it. For example, a steel lintel in a brick wall will only be there if a opening needs to be a bridge and the brick is not able to do it.

In the House of Music the roof structure was exposed to show the order of the whole layout, generated by the pipeorgan. [see page 14]. Resting on the outer walls and reaching to the center, the beams render the geometry of the square floorplan in the roof[22]. The visible points where the beams of the roof meet the walls, make the otherwise invisible order gravity is asking for, visible.

In the House for Books, the order of the structural system was generated by the large amount of books which had to



22

be placed in the house. Similar to a book made of pages and chapters, the single structural axis add up to a house providing a place for man and books. The comparision with a book provided the idea to make the order of the house visible. Placing the structural steel skeleton on the outside and expressing the presence of the library through the way the enclosing wood wall is formed, the inner content of the house is articulated.

In today's architecture the distortion of the built form reaches a point which

23

makes it necessary to consider the simplicity traditional architecture shows an order of form[23]. It was the design intention for both houses to keep the simplicity of the outer form, (which proved to be correct throughout history) and to incorporate a modern approach in terms of the spacial layout and the material used for construction.

Conclusion

Both the theoretical and the design part of the thesis proved to be a search and an attempt to define the general approach towards an architecture which tries to acknowledge the basic needs of man and nature.

During the time this thesis was in progress, the idea developed to formulate an architecture which tries to address all senses of man, and not just a rational architecture or an architecture relying on "good taste". Having outlined the basic approach in written words it was the challenge of the design projects to use this idea not as a dogma but as a basis from which all design work is derived. With that understanding both projects became vehicles to carry these ideas into the world of architecture. Projecting the idea to layer different materials on a very ordinary architectural problem such as a detached house, was considered a way to prove whether these ideas could generate real architecture.

The basic thoughts outlined in the previous pages, together with the requirements of the individual living in the house as well as attention paid to the particular buildings, to which they are applied, might be considered as a "three - dimensional array of thoughts" which converted into architecture, might generate an architecture of spacial complexity.

List of Illustrations

1 Matthias A. Schuster; Research model; 1985.

2 Poseidon temple in Peastum; Italy; ca. 500 B.C.

3 Roman house in Pompeji; Italy; ca. 150 B.C.

4 Louis I. Kahn; Exeter Library; Courtyard; Exeter Maine; 1967 - 1972.

5 Louis I. Kahn; Exeter Library; Exeter, Maine;Section; 1967 - 1972.

6 Louis I. Kahn; Yale Center for British Arts and Studies; New Haven, Conn.; Courtyard; 1969 - 1977.

7 Louis I. Kahn; Yale Center for British Arts and Studies; New Haven, Conn.; Elevation; 1969-1977.

8 Philiph Johnson; Glass house; New Canaan, Connecticut; 1949.

9 R. Meier; High Museum of Art; Atlanta, Georgia; 1981 - 1983.

10 Carlo Scarpa; Castelvecchio; Verona, Italy; Detail of Elevation; 1956 - 1973.

11 Matthias A. Schuster; House for Music, thesis project; Isometric; 1987 - 1989.

12 Matthias A. Schuster; Research model; 1985.

13 Le Corbusier; Maisons Citrohan; 1920 - 1922.

14 A. Loos; Villa Moller; Vienna, Austria; Isometric study; 1927. (Drawing by J. Spalt; 1964)

15 B. Scott; Two storied hall, project; ca. 1900.

16 Matthias A. Schuster; House for Music, thesis project; Isometric; (early study), 1987 - 1989.

17 Matthias A. Schuster; Research model; 1985.

18 Matthias A. Schuster; House for Books, thesis projects; Elevation, (early study), 1987 - 1989.

19 Matthias A. Schuster; House for Books, thesis projects; Detail of elevation; 1987 - 1989.

20 Matthias A. Schuster; Research model; 1985.

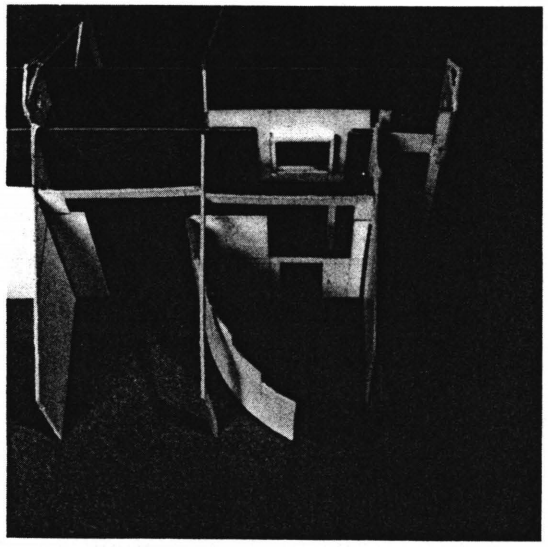
21 Matthias A. Schuster; Research model; 1985.

22 Louis I. Kahn; Bath House; Trenton, New Jersey; Roof structure, column; 1954 - 1959.

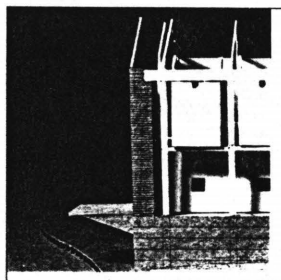
23 Barn, ("saltbox"); South Virginia;

24 Matthias A. Schuster; Research model; 1985.

24

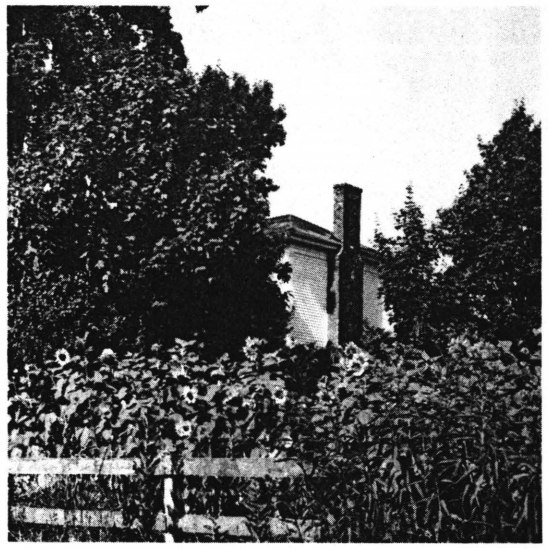


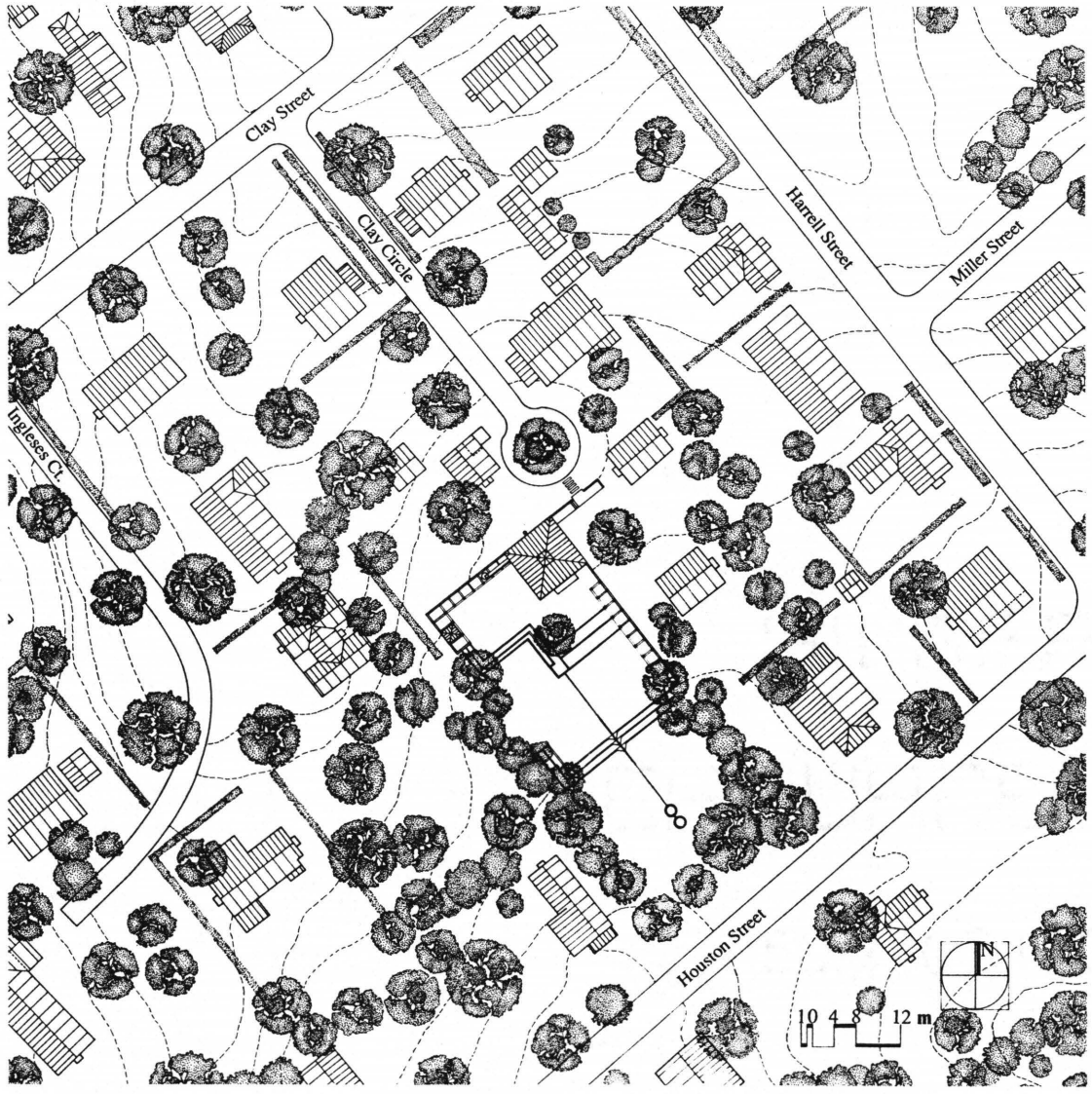
A House for Music

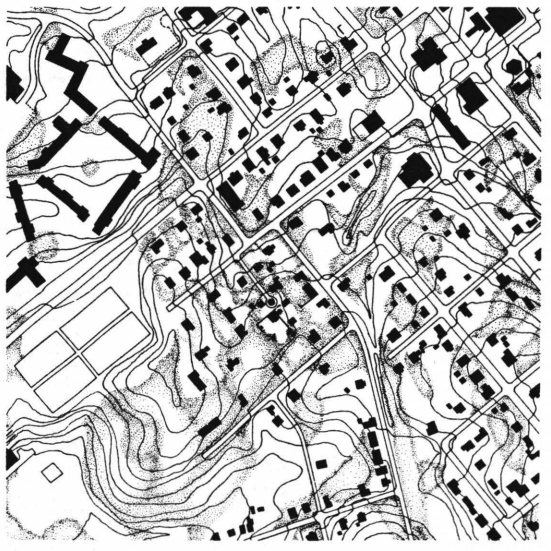


A House for Books

A HOUSE FOR MUSIC
THE SITE







The site is located in Blacksburg, Virginia. Blacksburg belongs to a special kind of "academic village" which started to appear all over the USA after President Jackson (1829 - 1837) created the "land - grant bill" in order to help establish more Universites.

Blacksburg consists of three main parts; The campus, the "old" part of the town (which was already there when the Military Institute was founded 1872) and the part where the faculty and the staff of the University started to build their houses as soon as the University started to grow. Most of the houses of the old part are wood constructions with wood siding. Perhaps to distinguish this area, the owners started to build maisonry houses to protect their exsisting wood constructions with a brick veneer.

For a man of higher aspiration in playing and composing music, and for a highly developed musical instrument which makes the world more beautiful for the man, a space is needed to support their existence. The instrument as a resonance box, needs a space to sound well. Man needs a place to call his own and a realm for his ideas. Musical composing methods become therefore a source of inspiration for the thematic design approach.

In its general shape the house is sym - metrical, with the organ in the center. The layout of the floor plan breaks this symmetry as do the elevation. Each elevation becomes a theme on its own - articulating whatever happens behind it - within the overall form of the house. To have symmetry and asymmetry, (seemingly contradictory elements) in one house prompted the decision to make the two walls out of two different materials. Adding two different musical forms to one "symmetrical" theme is a method of gaining more dramatic expression in music. In the layout of the house, this idea was expressed by building the two symmetrically configurated walls from two different materials - brick and concrete.

Walls, gathered under the roof creates a

place for man. Stretching them out into the garden makes a connection between the realm of men and the realm of nature.

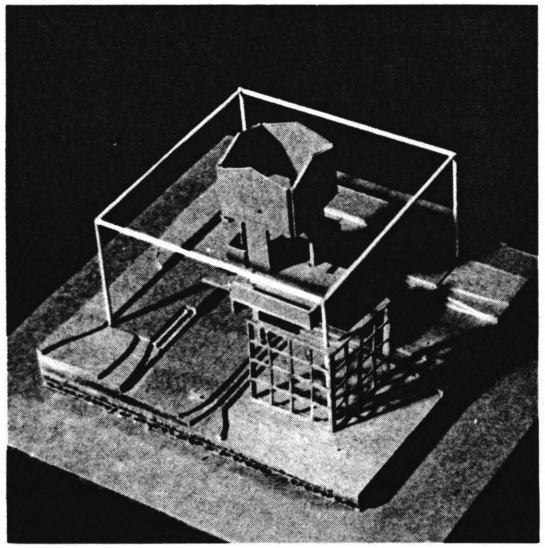
By means of tempi and volume of sound in music hierarchy, this method is used to articulate the composers ideas. Understanding the drama of the hierarchy, the spaces in the house were differentiated in terms of their size and the way they receive daylight. The living spaces and the space for the organ have been expressed by double height in contrast to the secondary and service rooms which are of normal height and have all the same width to show their less importance. Following the understanding of A. Loos "Raumplan" a highly efficient use of the space is made by stacking rooms of a lesser importance above each other.

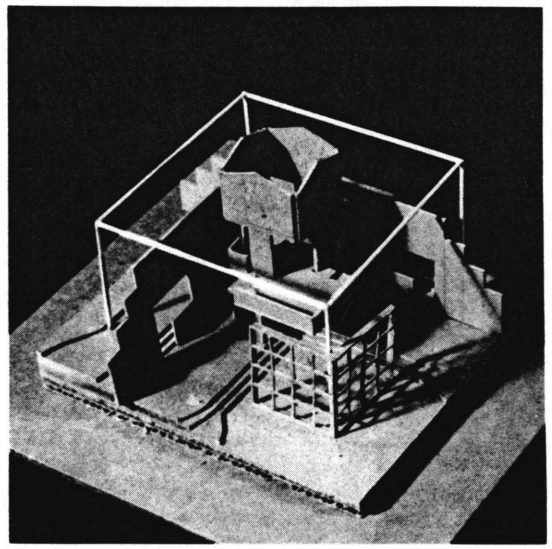
To enlarge the impression of hierarchy, the platform the house rests on was moulded in a way to obtain different levels. The entrance marks the lowest level, the position of the organ the highest. In order to show the heaviest emphsis on the pipeorgan it receives light from above and is the only space in the house that does so. Musically speaking; molto allegro, molto fortissimo.

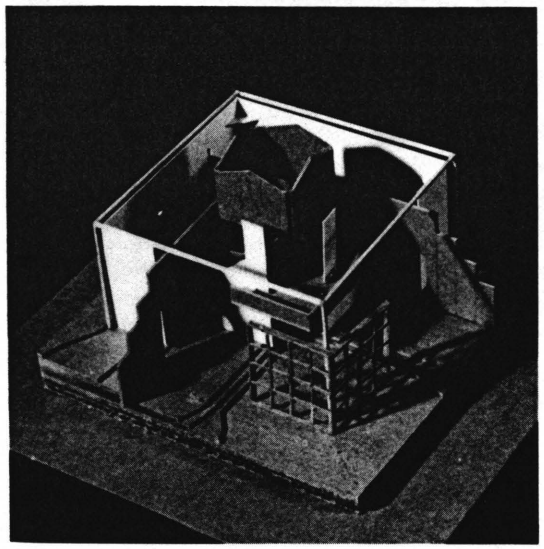
Similar to a case for a violin, (stable on the outside but clad with soft velvet on the inside), the materials change from the rough surface of brick and concrete used for the first layers of the house to a warm and smooth wooden surface as soon as the layers reach the wooden body of the pipe organ.

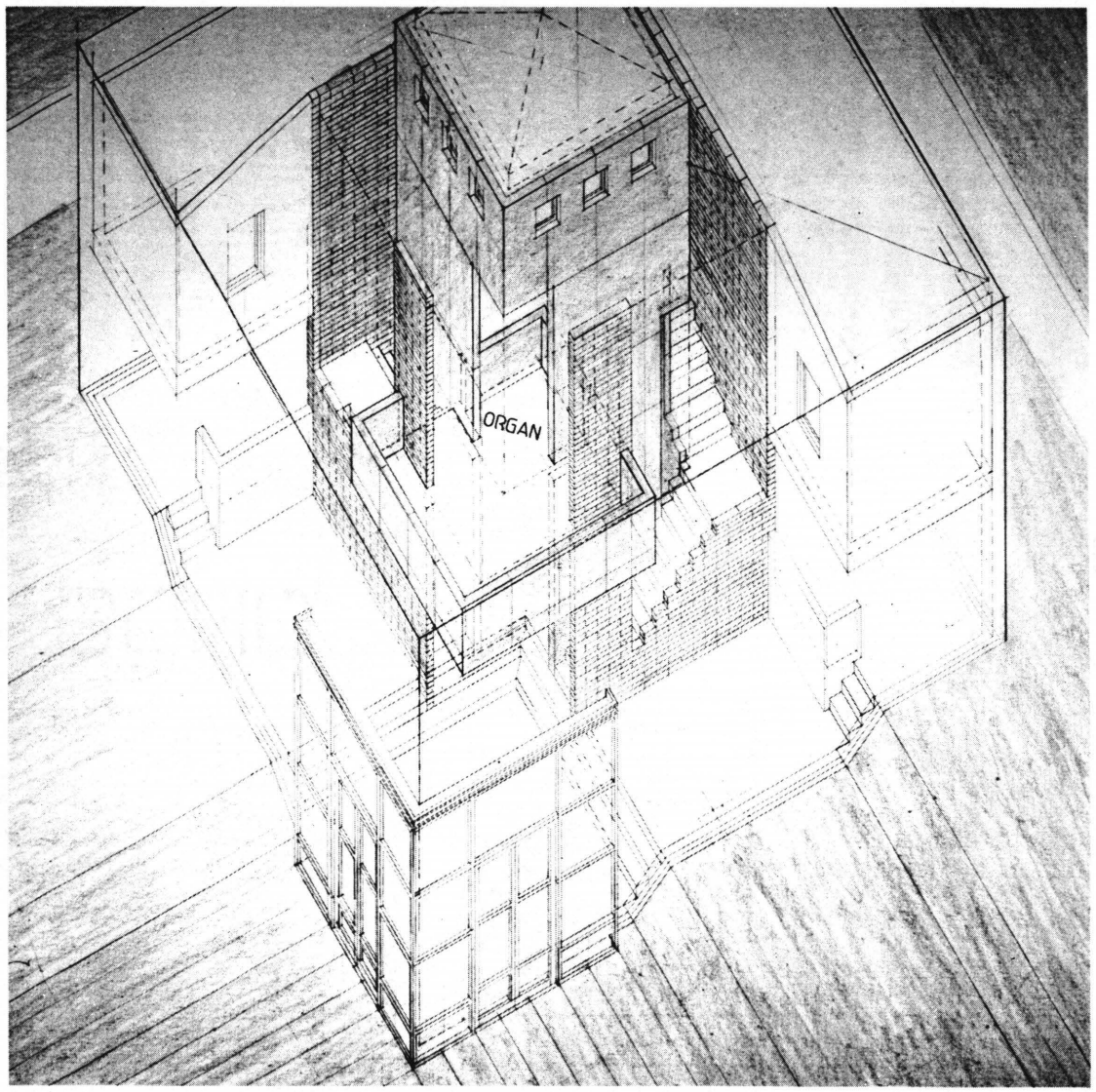
This almost philosophical concept in - fluenced the form of the house as much as a careful investigation of the building context in terms of scale and architectural elements - roofs, walls, windows, materials - and craftmanship.

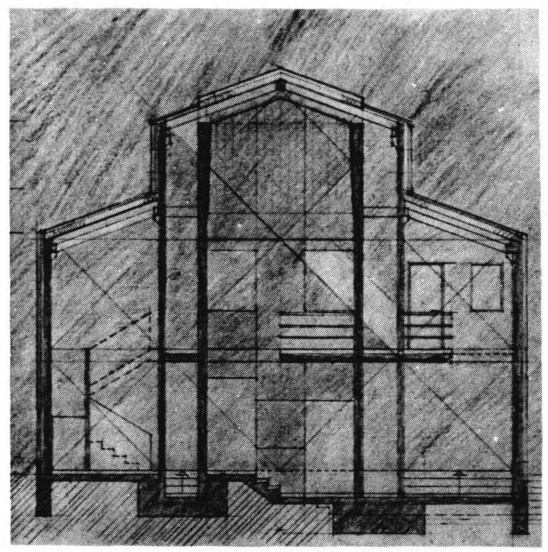
A HOUSE FOR MUSIC
THE SEARCH

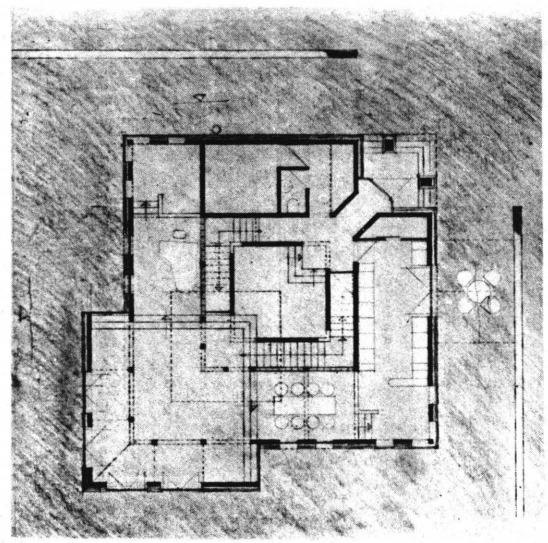


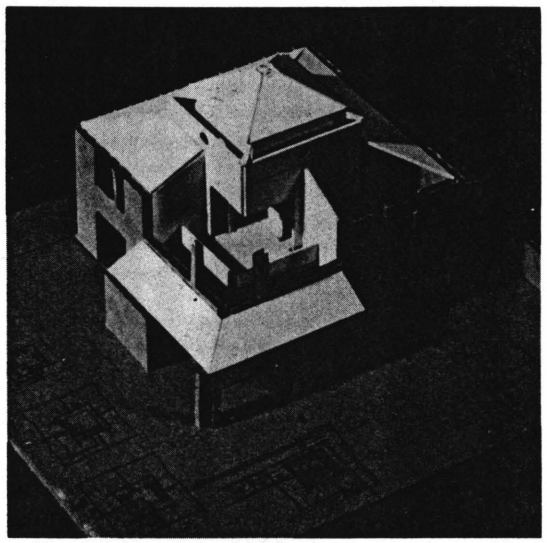










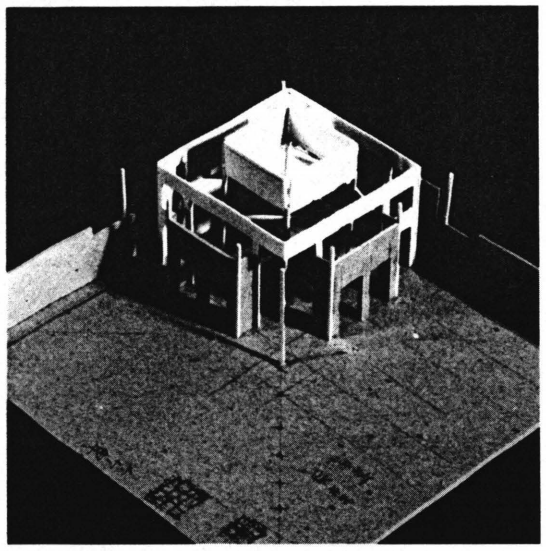


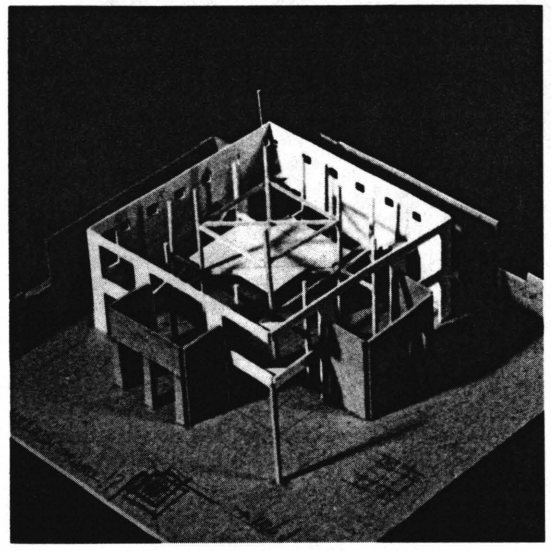
The search started out from the perception of the old churches where the organ was placed in the upper part of the main space, resting on a balcony accessible by an extra stair. Establishing the house around a courtyard stretching through the entire height of the building with a skylight above was thought to work as a resonance box for the organ.

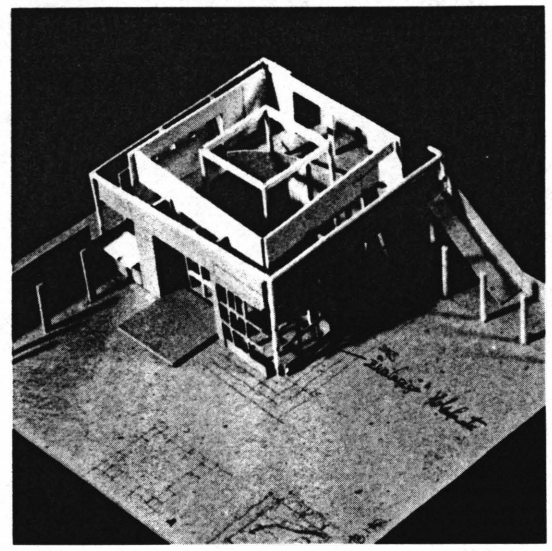
As the isometric shows, the idea of layering different materials ended in a way which left the different layers disconnected to each other and was barely readable for the owner. Particularly what did not show was the idea to have the more protective material on the outside and the smooth materials on the inside. The layout of the house did not allow an architectural device like a wall to make a connection between the house and nature. By placing the organ on the balcony above the living area, it was not as much present in the house as it is present in the life of the owner.

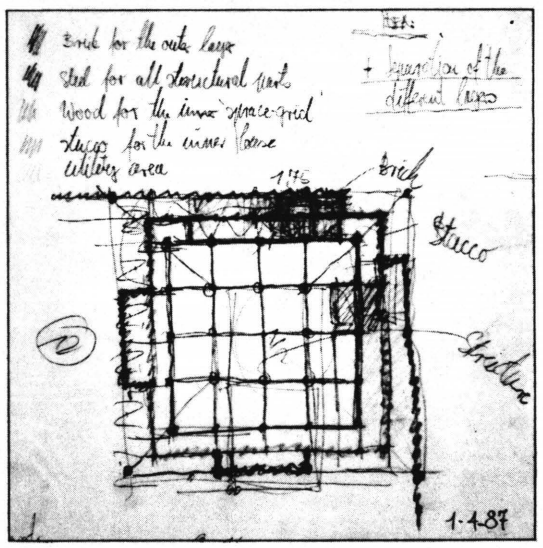
These criticisms prompted the decison to stop focusing on the layout of the house and concentrate on the more basic ideas.

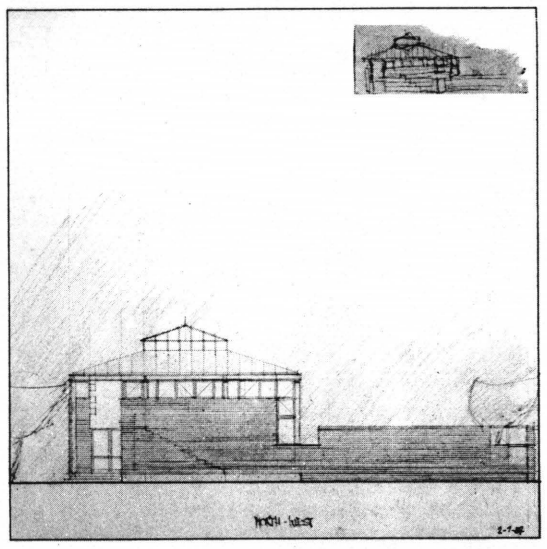
A HOUSE FOR MUSIC
THE SEARCH

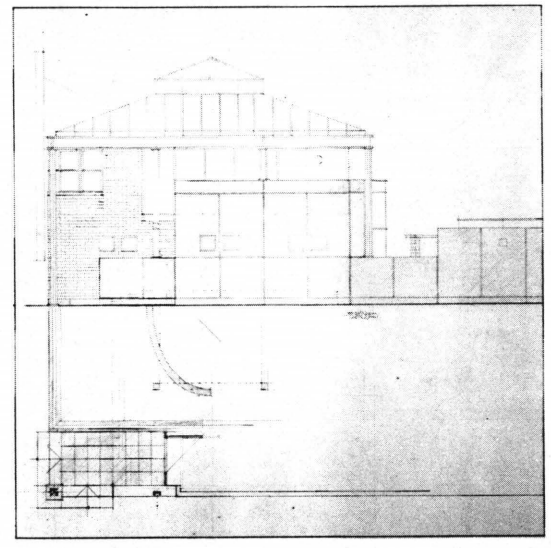


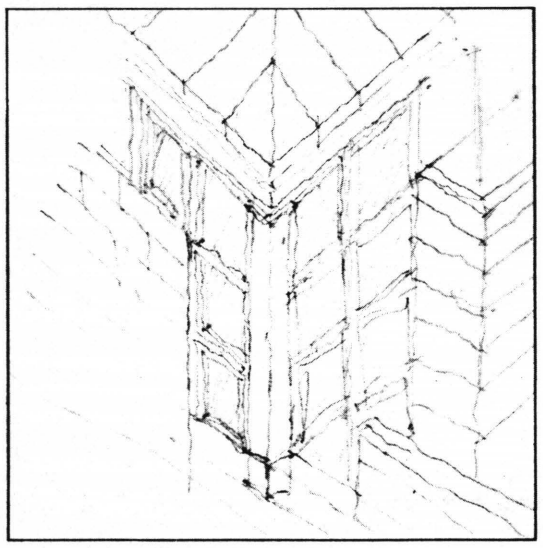


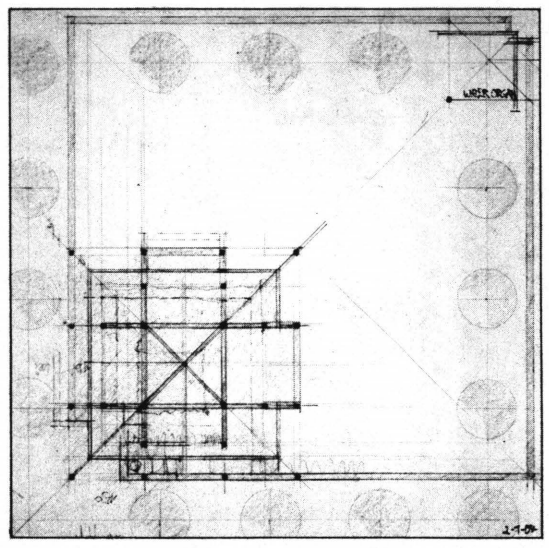


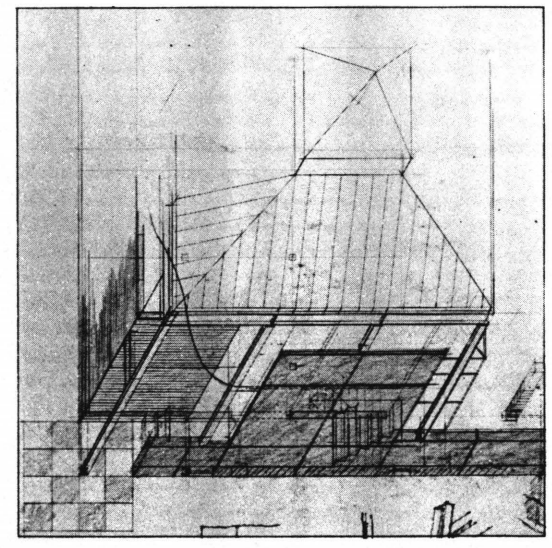


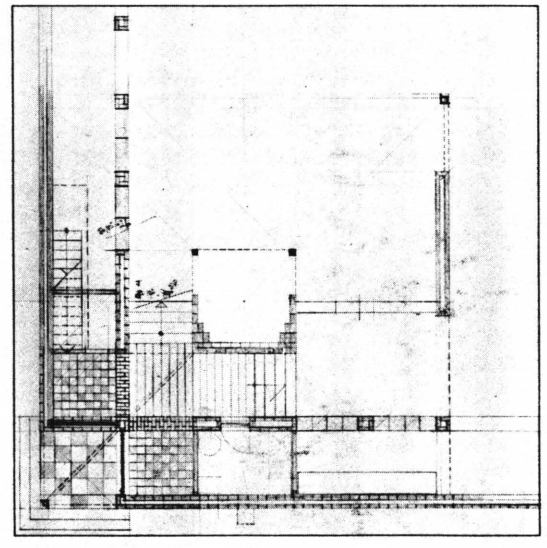








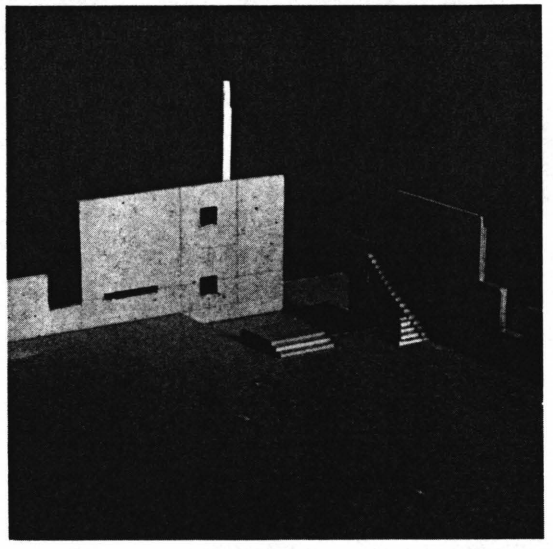
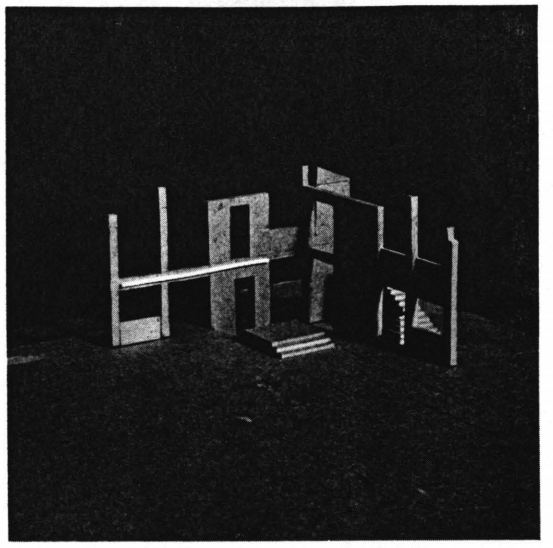
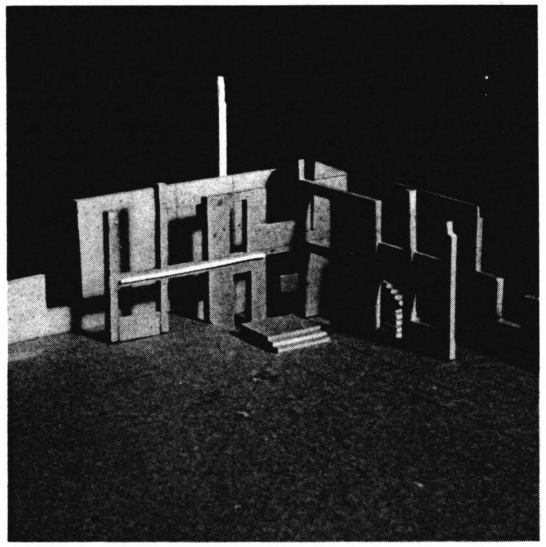
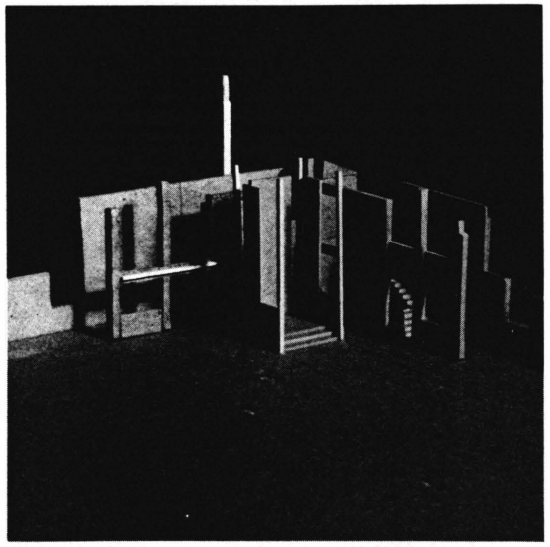
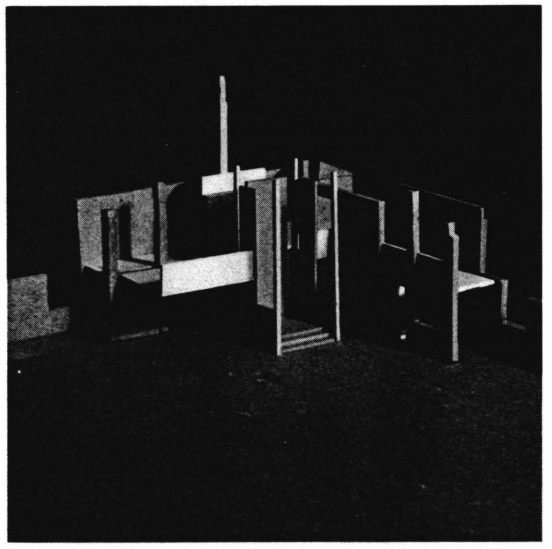


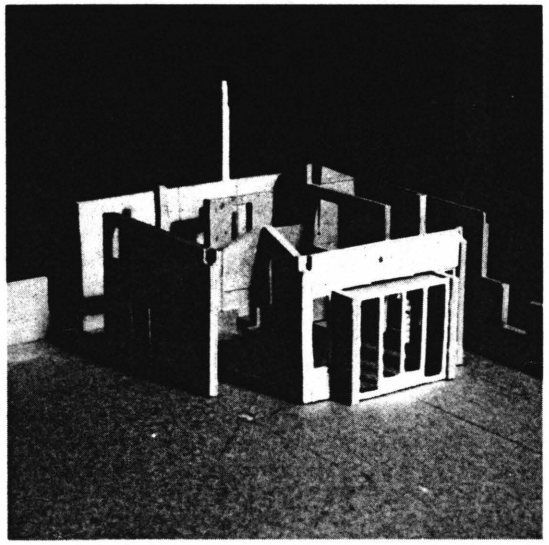
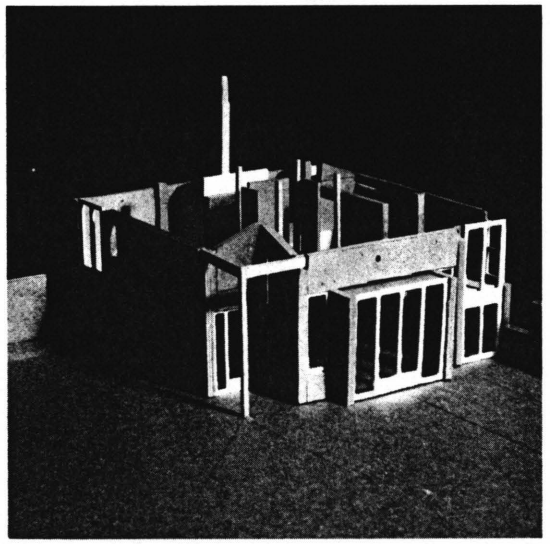
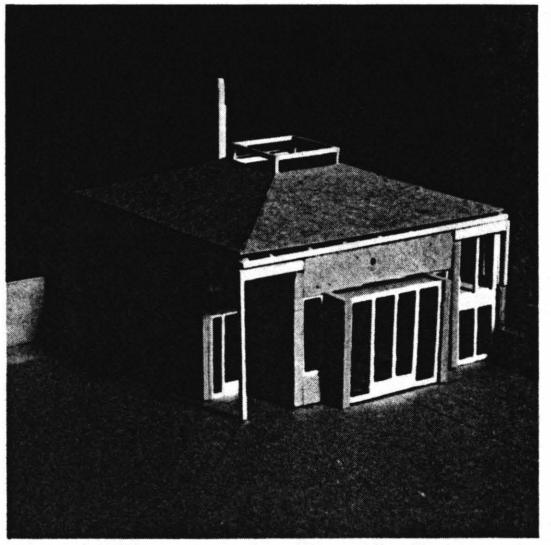


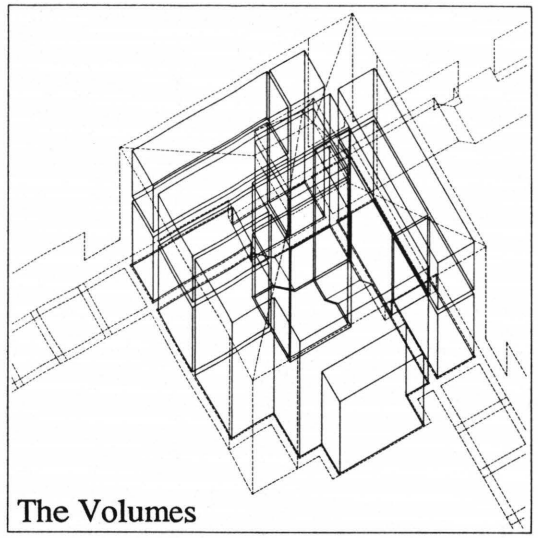
In the beginning the focus was directed on making a functionally and well proportioned house, recognizing the special demands of incorporating a large pipeorgan. Immediately the focus developed into following the basic ideas as outlined in the theoretical part of the thesis.

The models show a larger attention to the single elements, which gathered under one roof, create the shape of the building form. Subsequently, the idea about layering different materials with habitable spaces in between became more visible. By not only placing one layer after another (like the famous Russian dolls) but reducing them to fragments of walls, light and views had a chance to connect the single layers, and spaces nested within produced one readable whole.

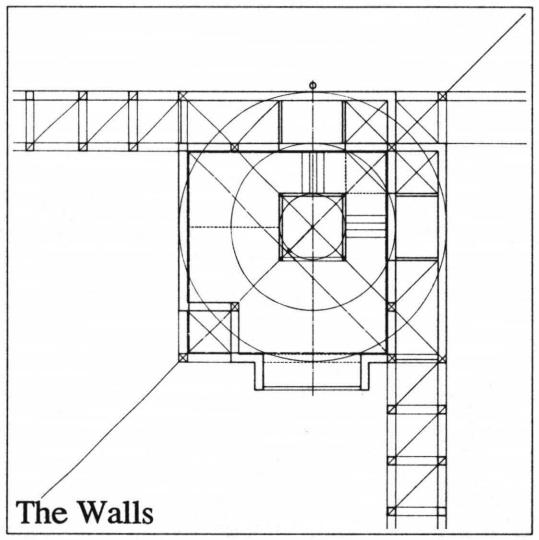
Layering materials on the inside and making the order readable from the outside, created a new impact on the design in the form of negative corners.

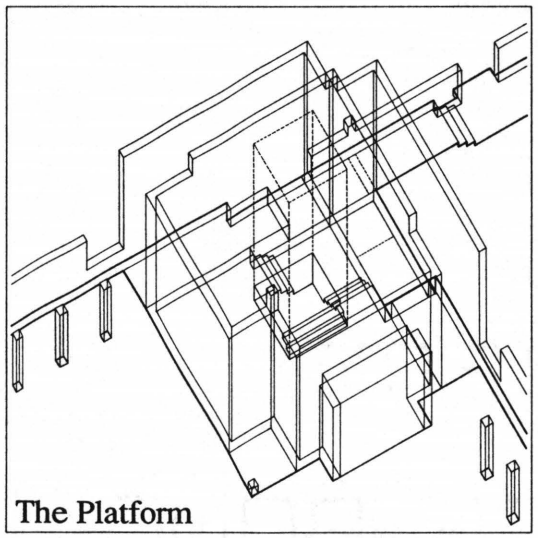






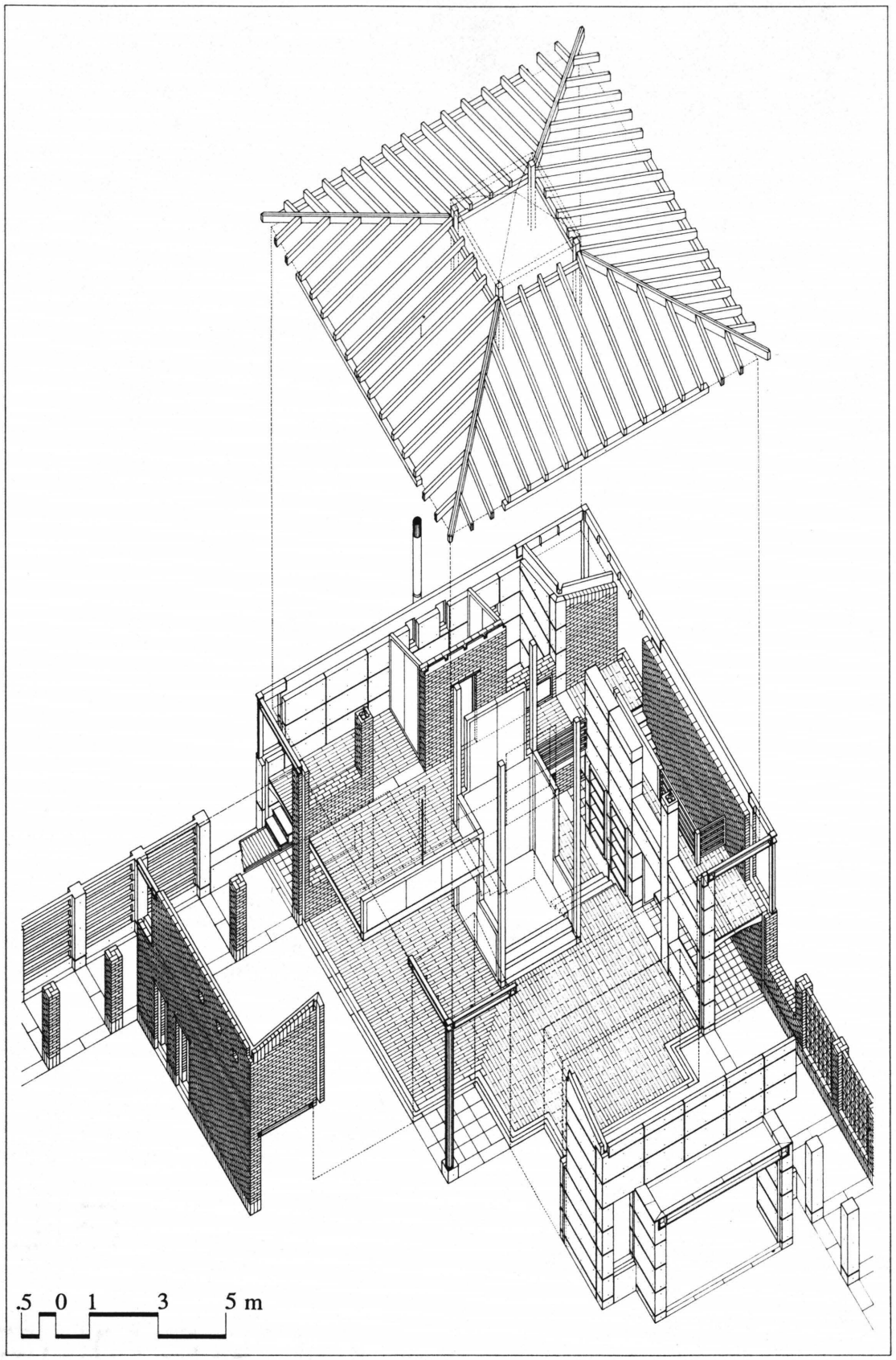
The Volumes

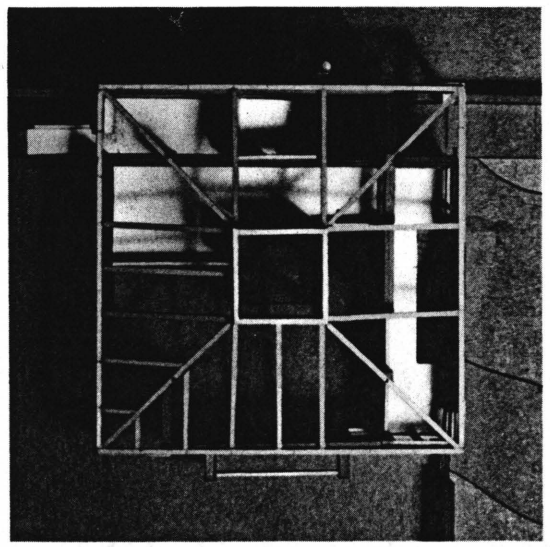


The Walls

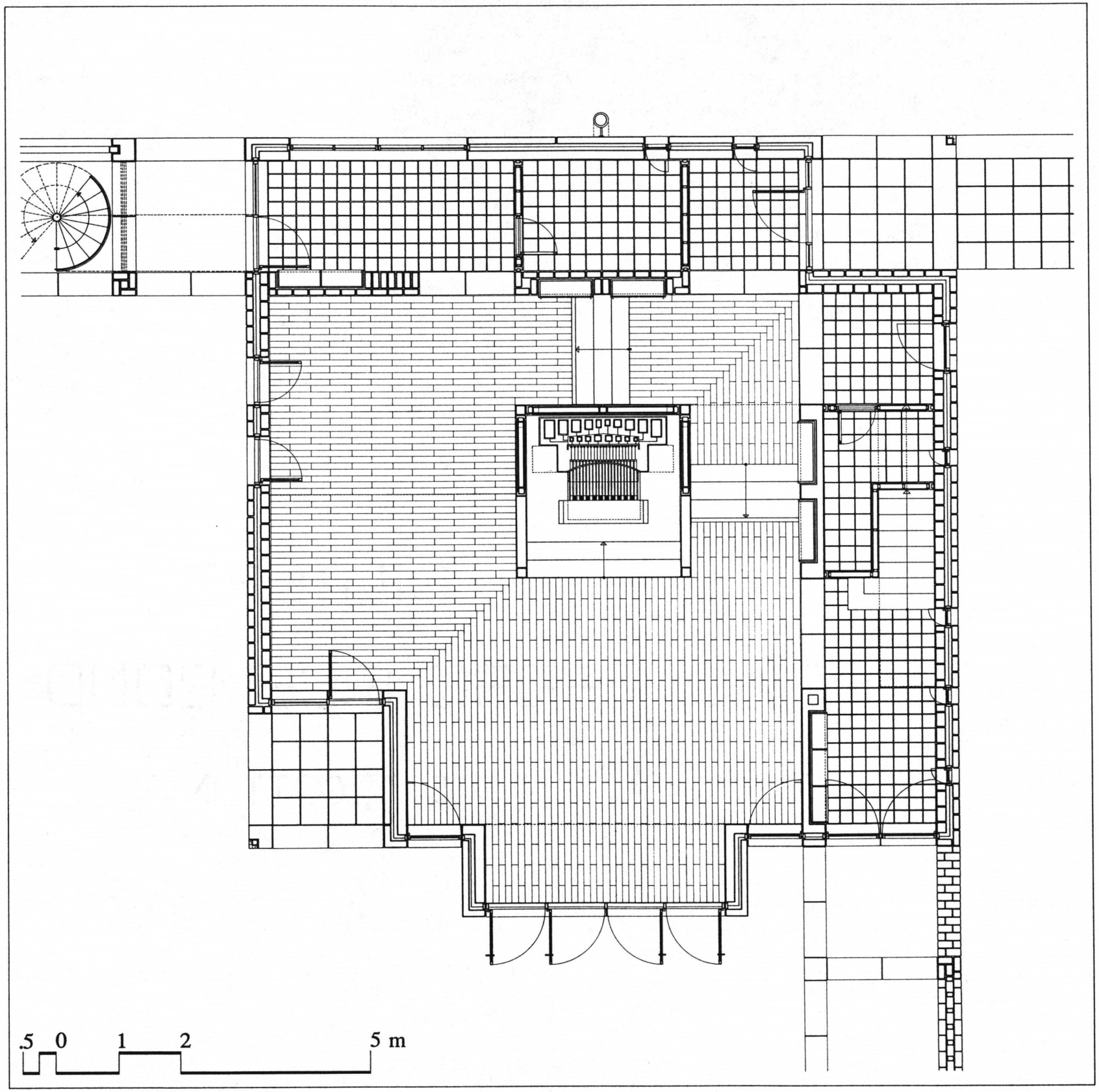


The Platform

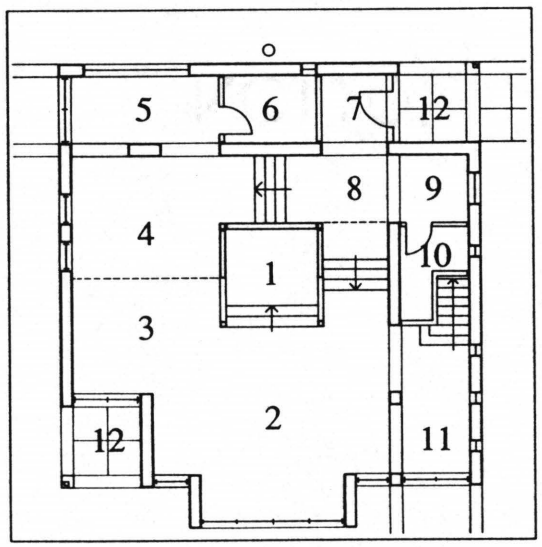




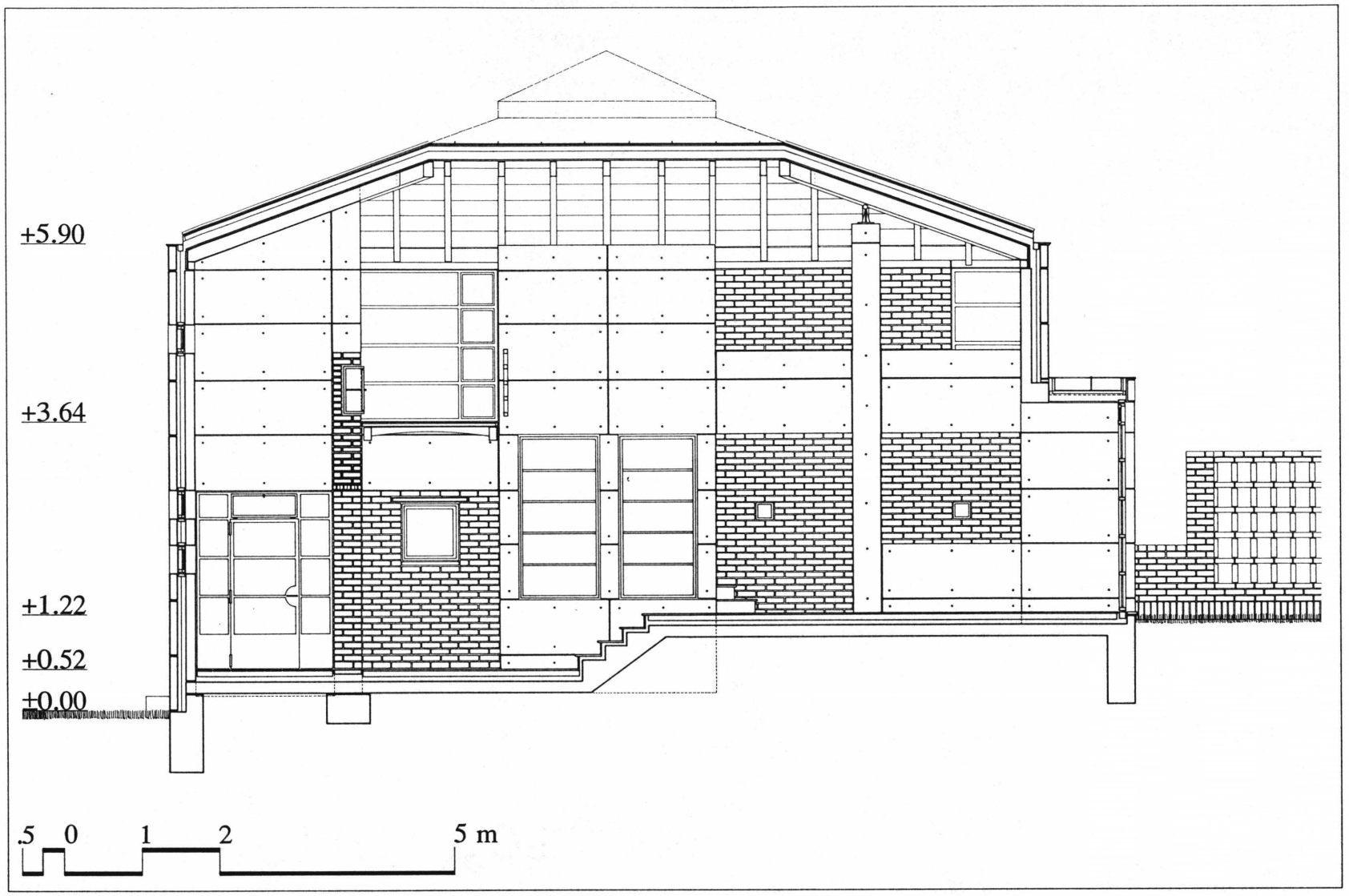
A HOUSE FOR MUSIC
FIRST FLOOR

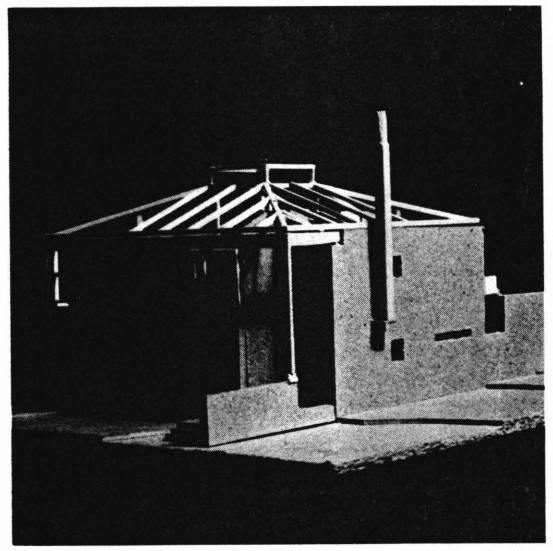


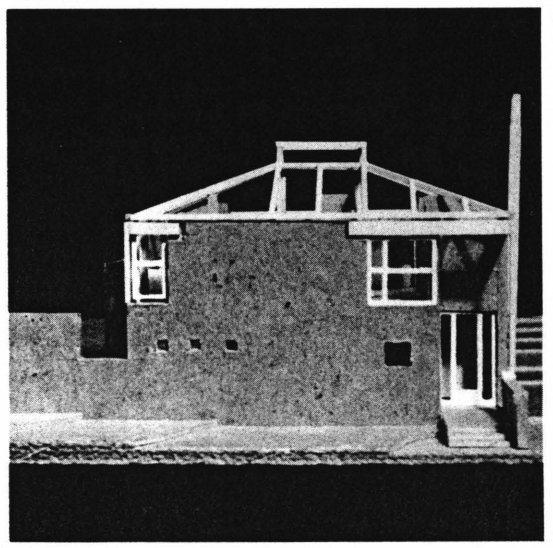
1 Organ
2 Living room
3 Grand Piano
4 Dining room
5 Kitchen
6 Utility
7 Entry
8 Hall
9 Cloak
10 Vanity
11 Study
12 Porch

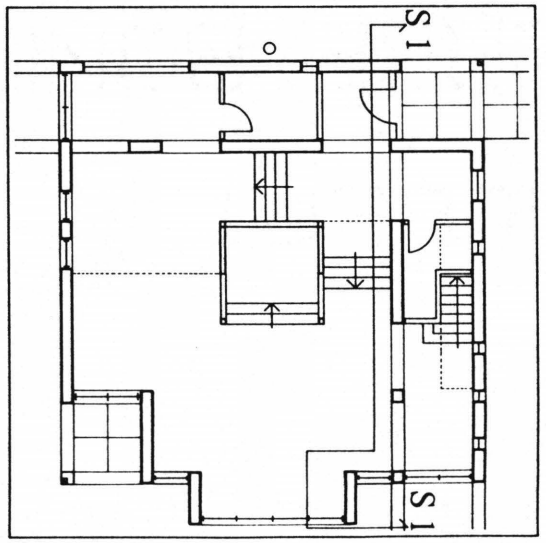


A HOUSE FOR MUSIC
SECTION S 1 - S 1

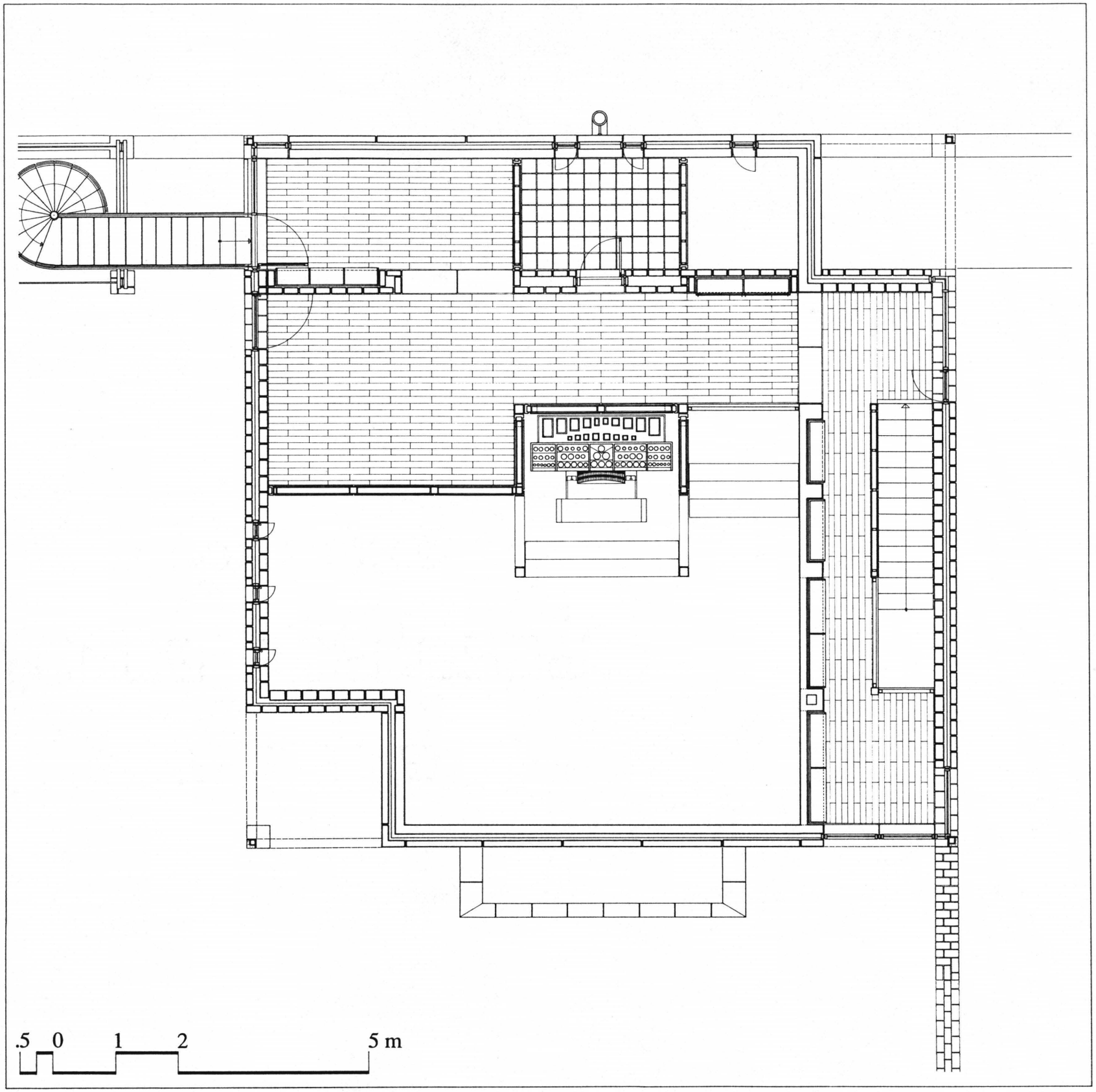




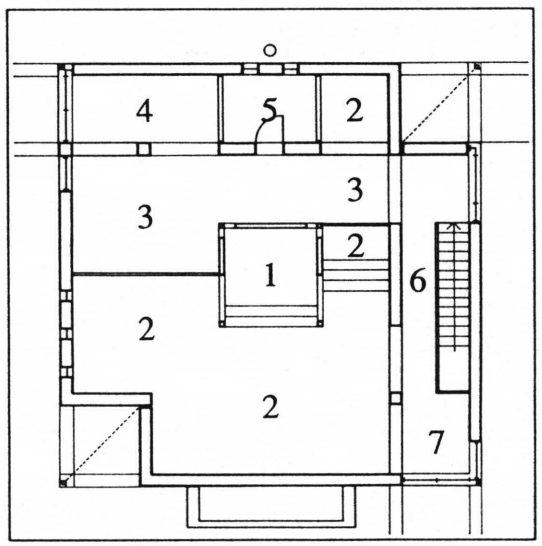




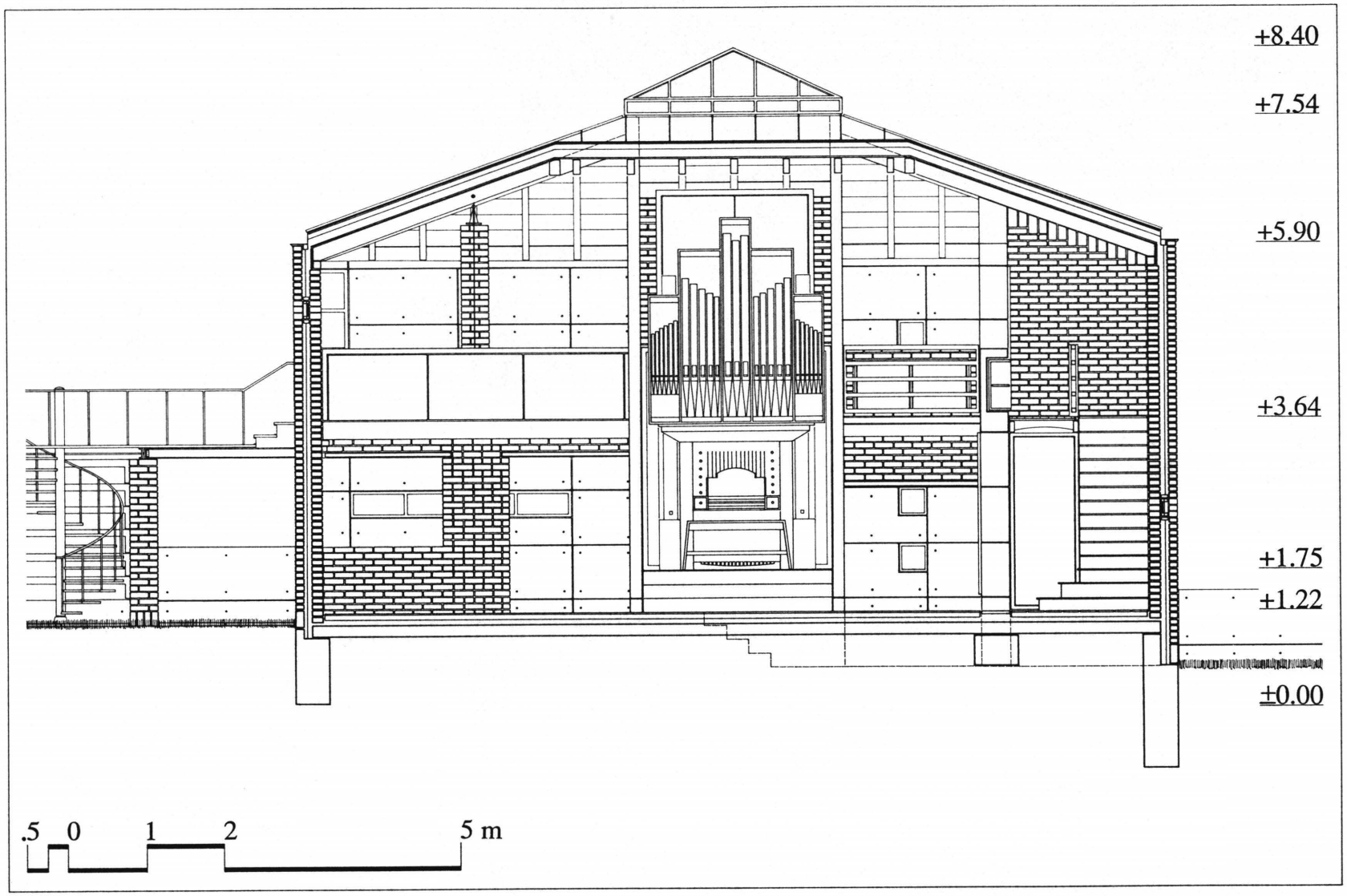
A HOUSE FOR MUSIC
SECOND FLOOR

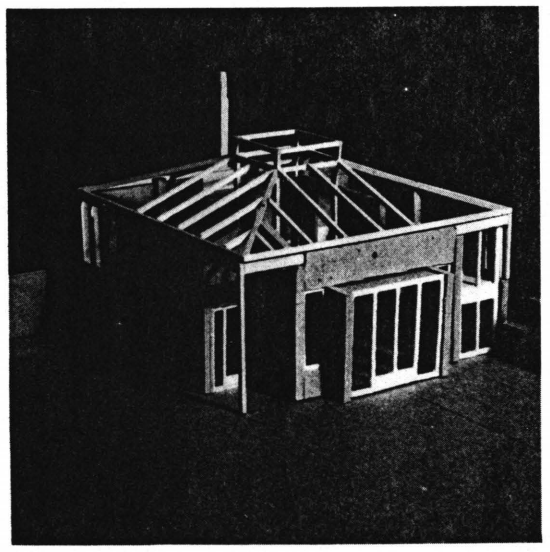


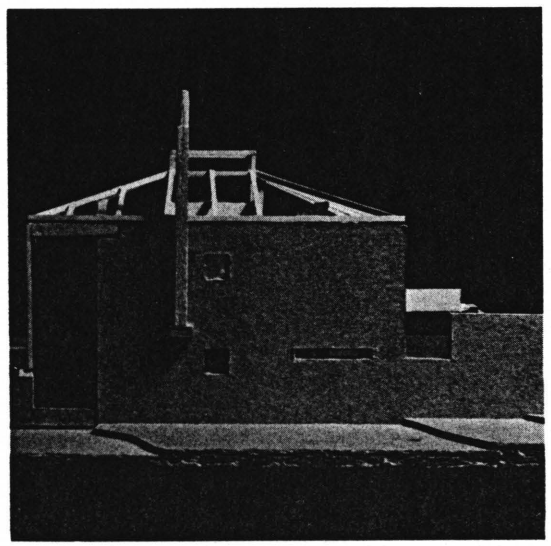
1 Organ
2 Void
3 Loft
4 Dressing room
5 Bath room
6 Library
7 Study

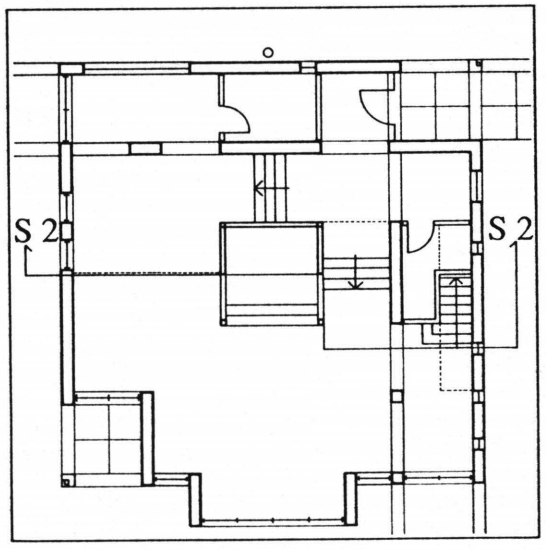


A HOUSE FOR MUSIC
SECTION S 2 - S 2

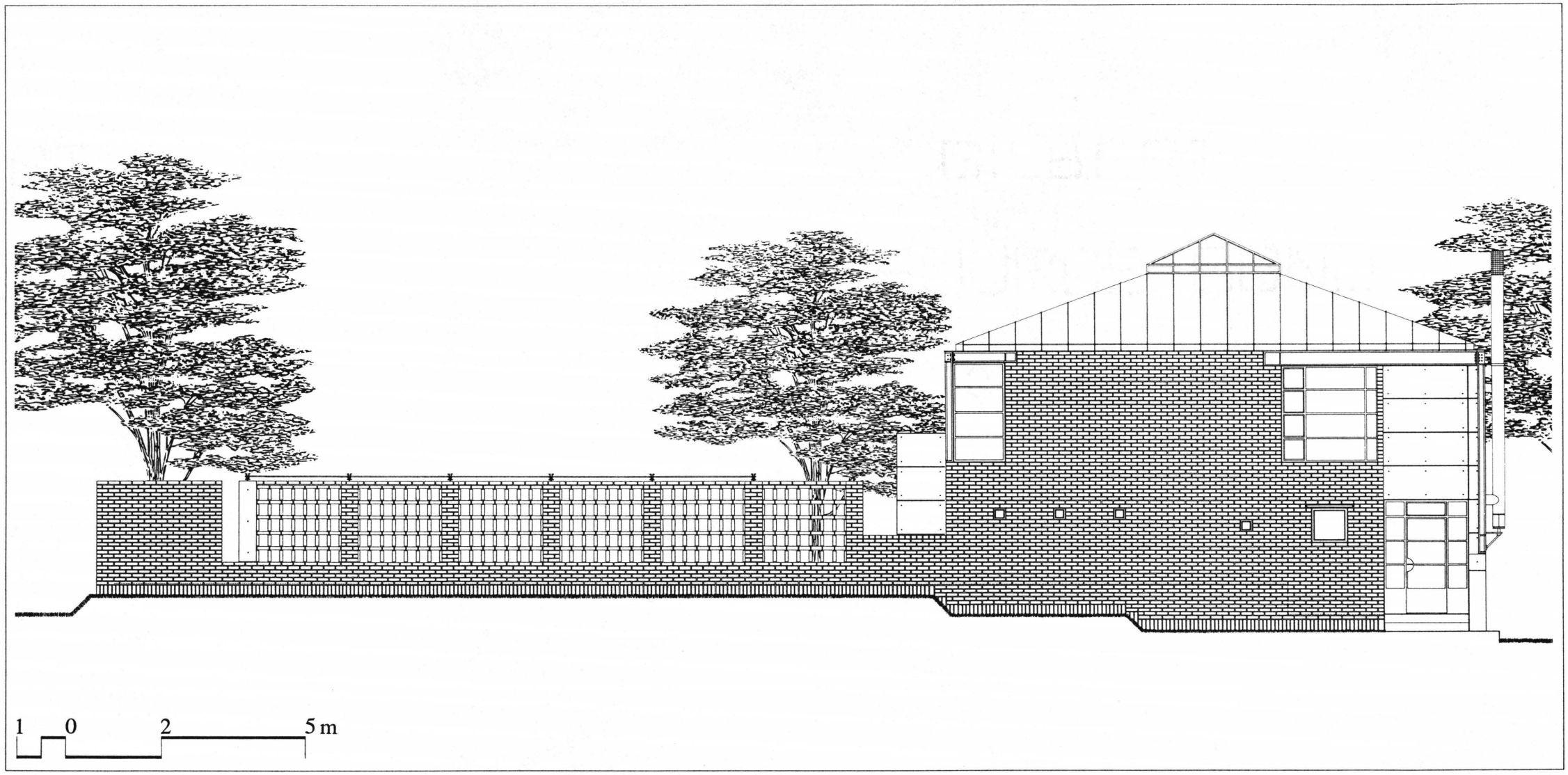


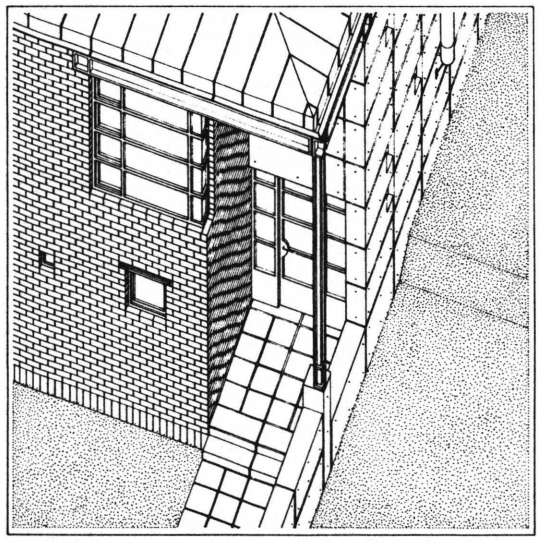


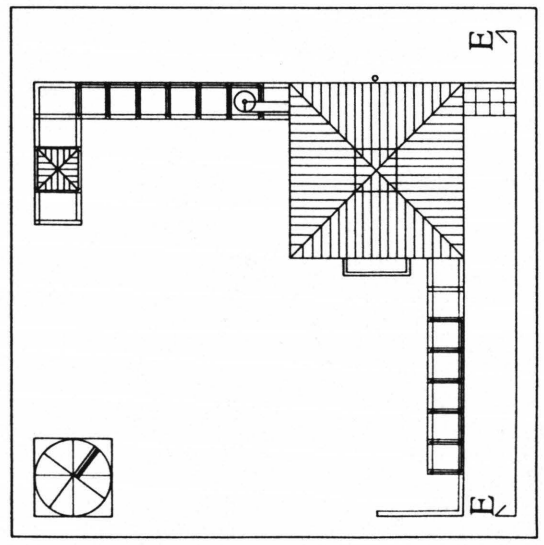




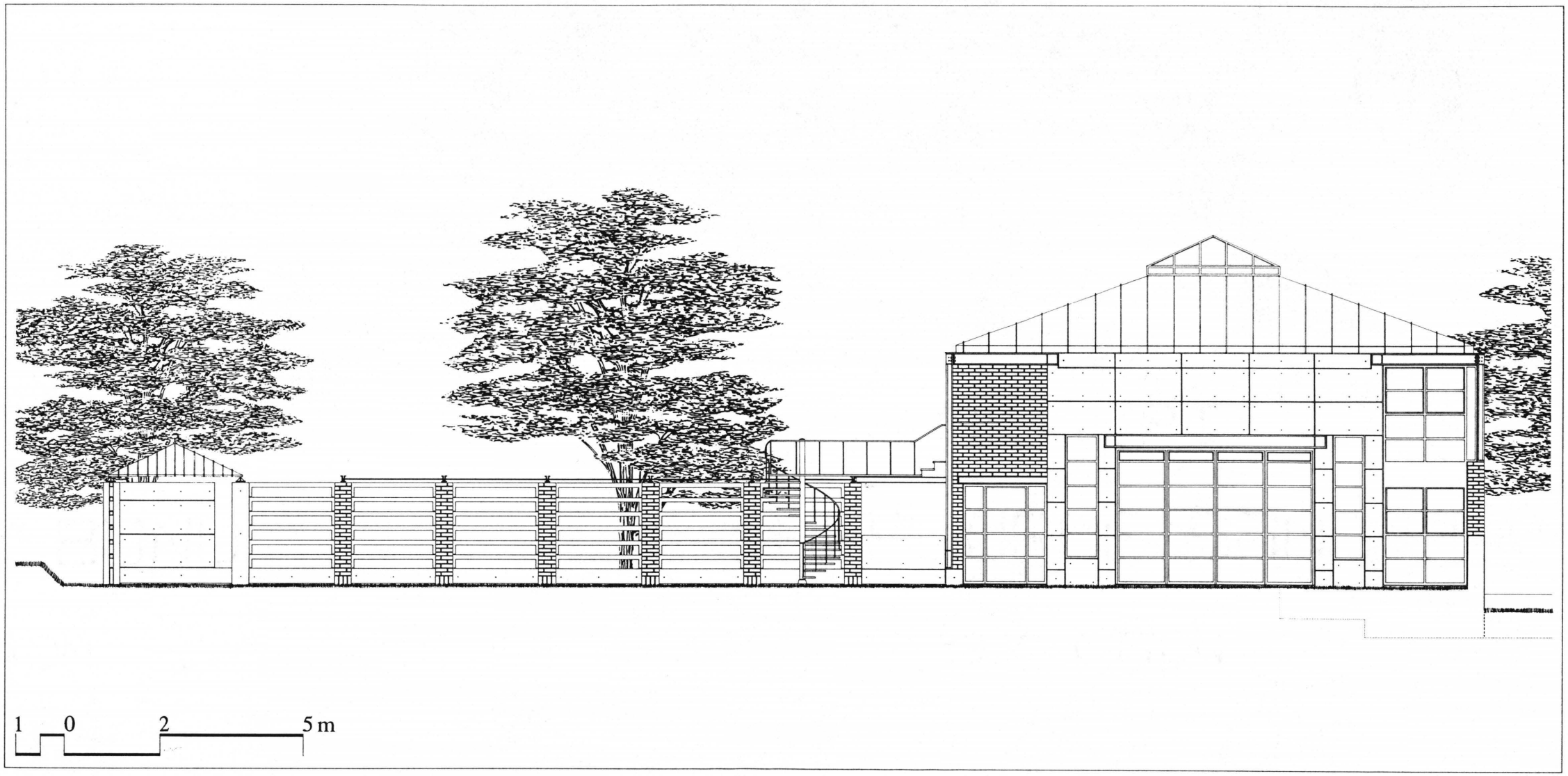
A HOUSE FOR MUSIC
EAST ELEVATION

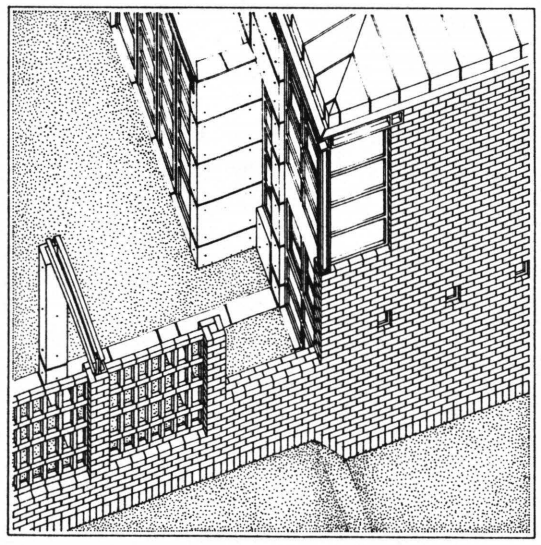


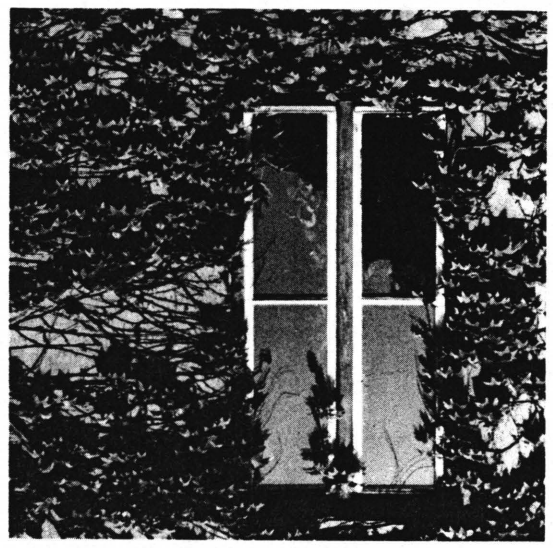


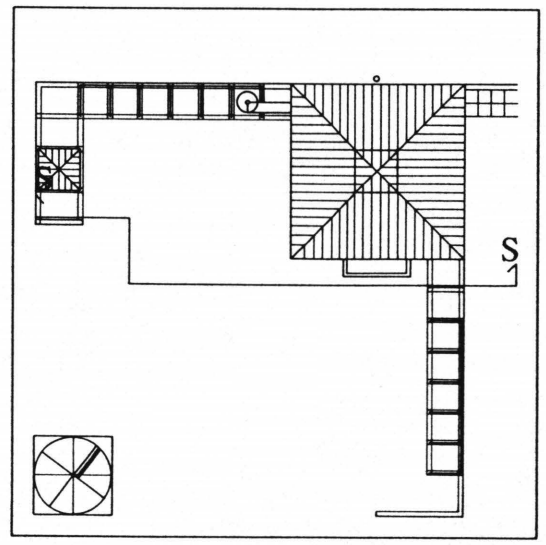


A HOUSE FOR MUSIC
SOUTH ELEVATION

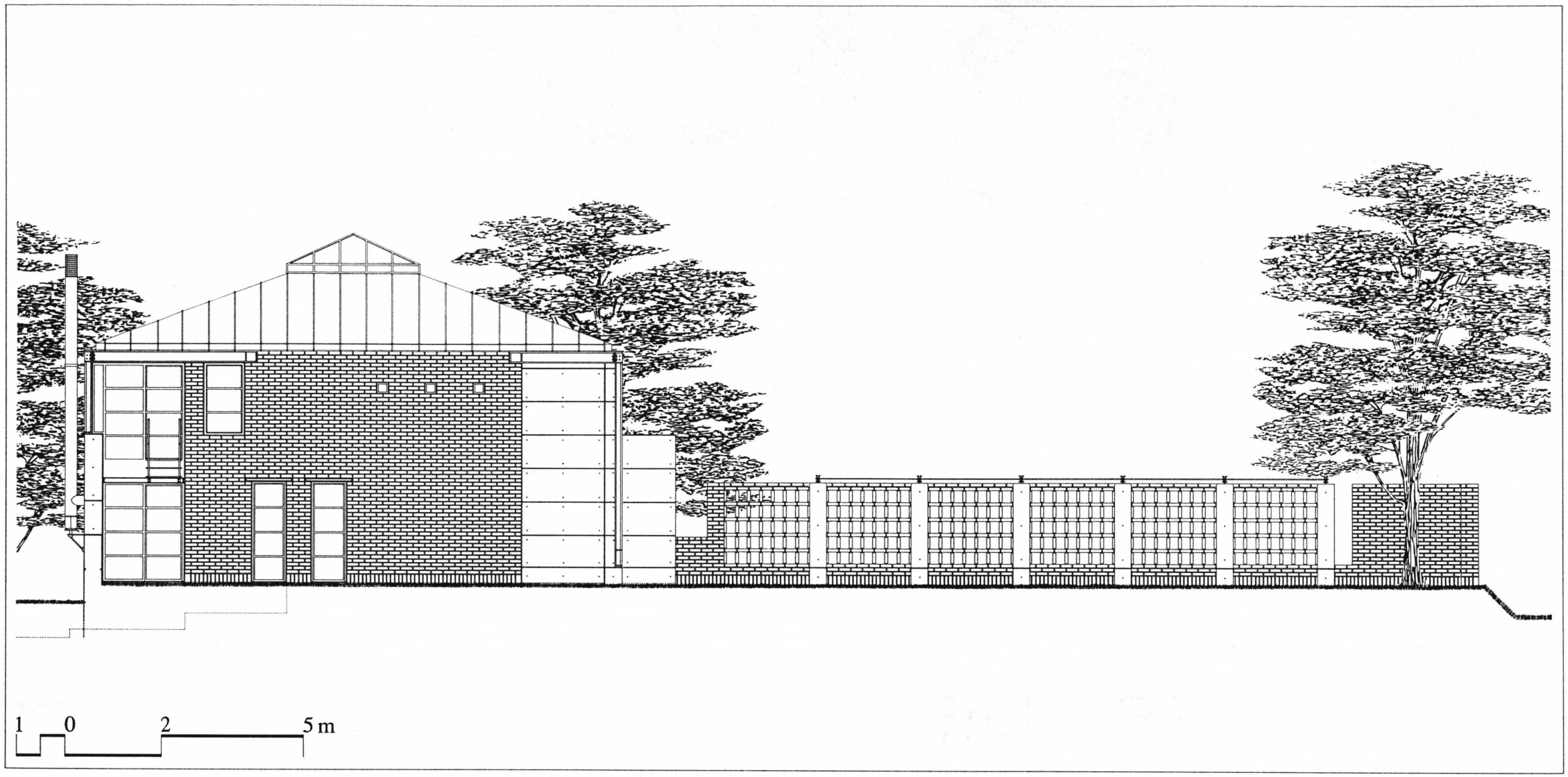


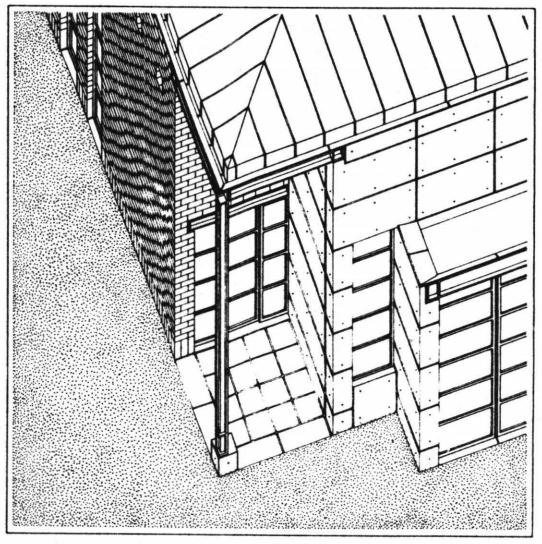


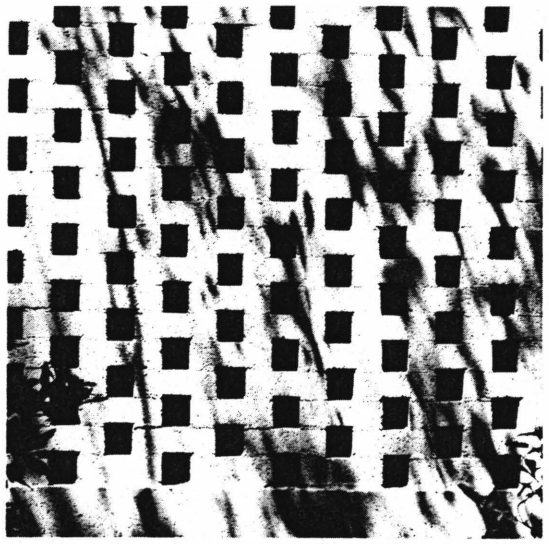


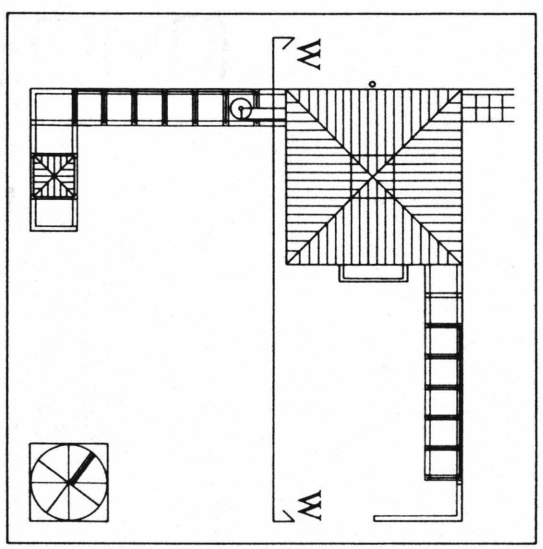


A HOUSE FOR MUSIC
WEST ELEVATION



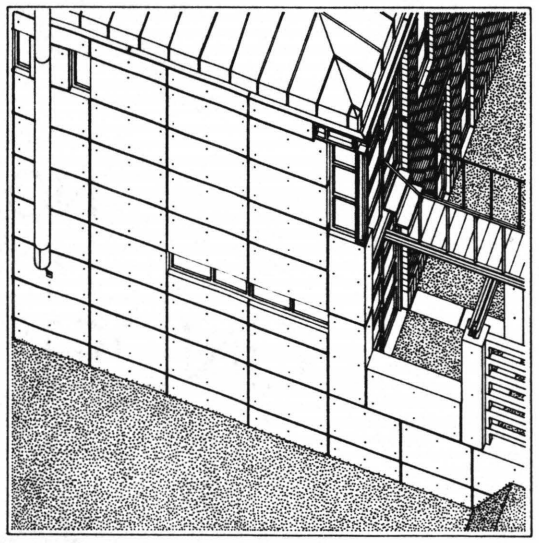


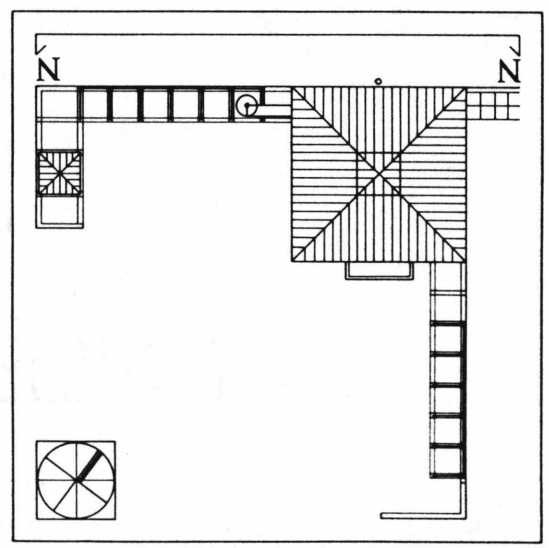




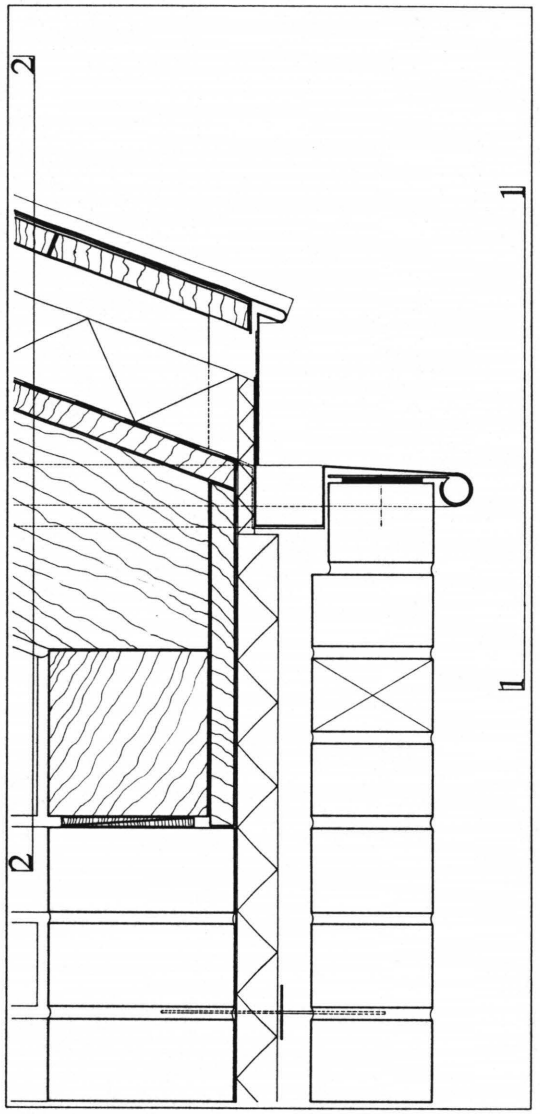
A HOUSE FOR MUSIC
NORTH ELEVATION

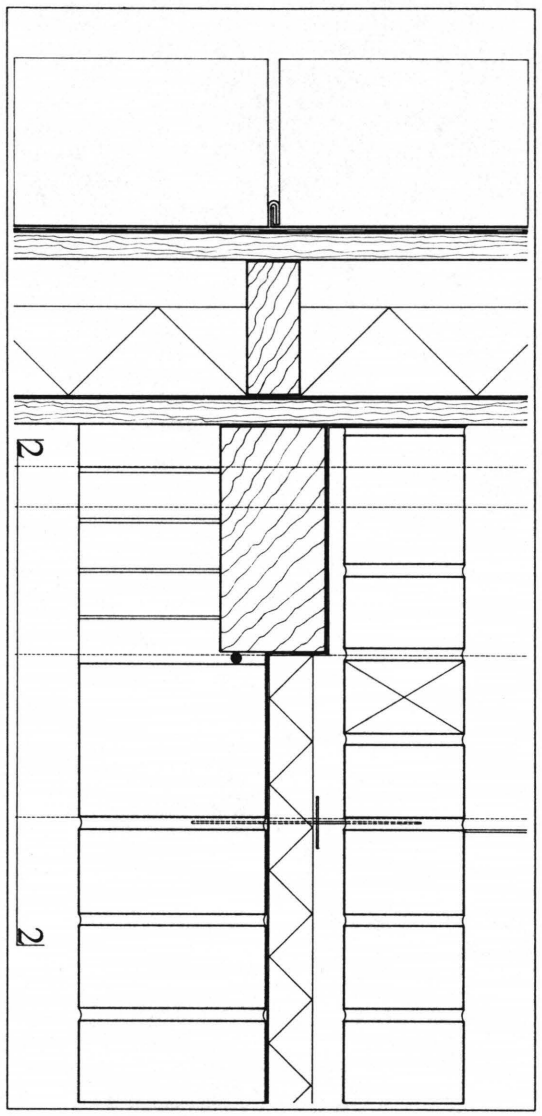
1 0 2 5 m

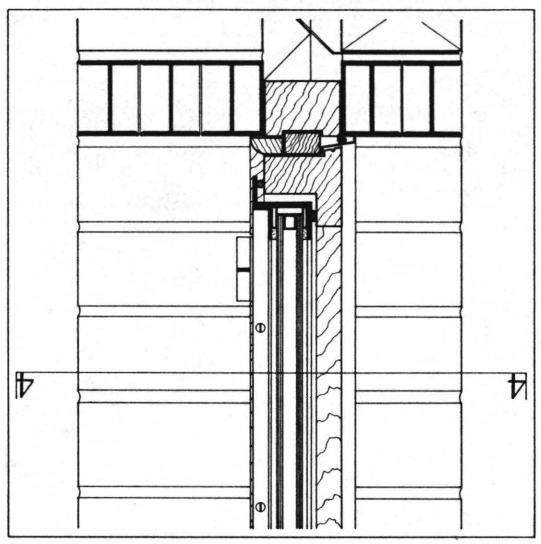


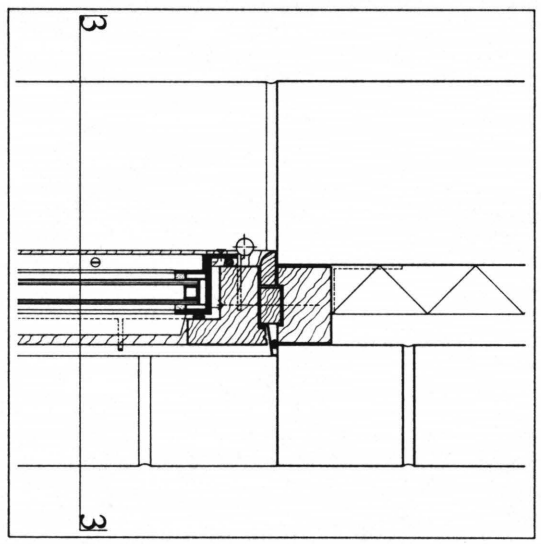


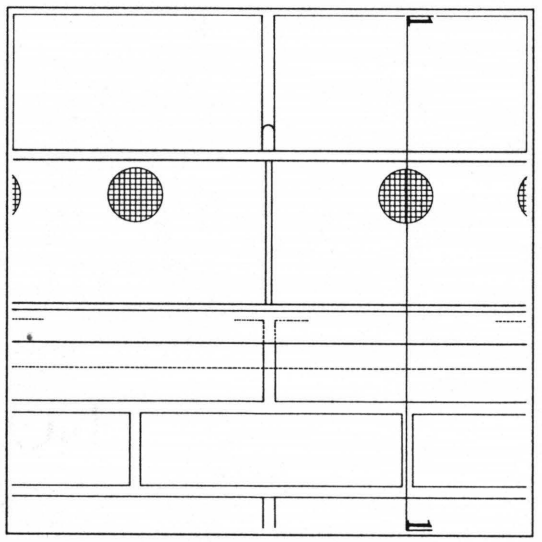
A HOUSE FOR MUSIC
DETAILS

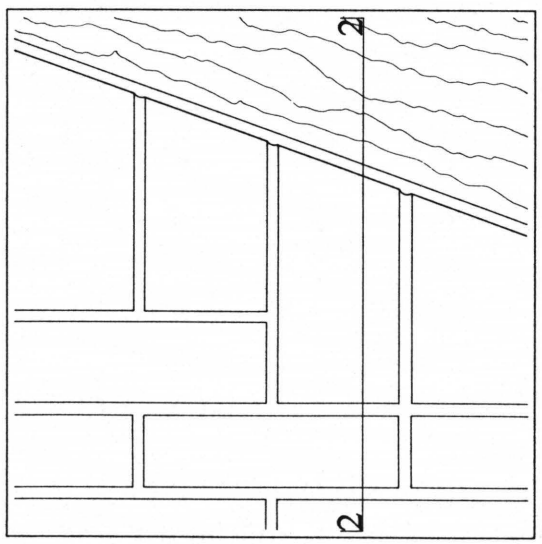


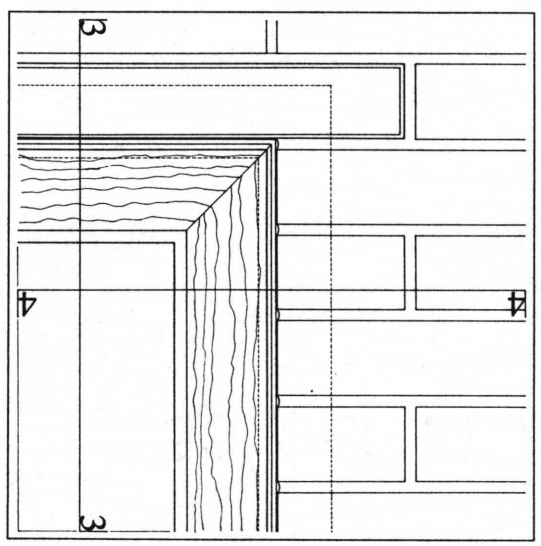








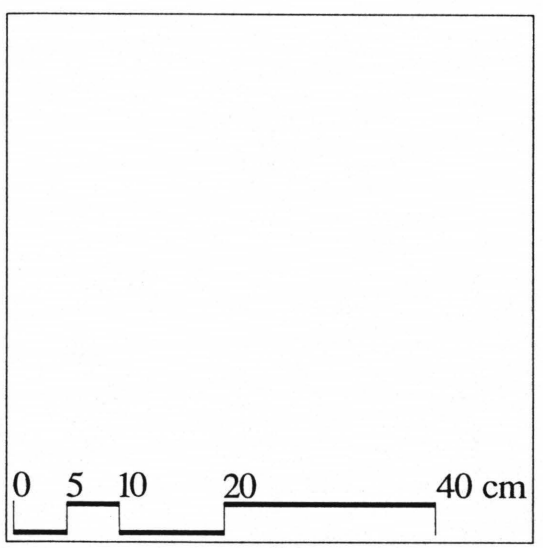




Separating the single elements of the building and maintaining the integrity of the different materials where they meet became the basic idea for the layout of the details.

The connecting points (where the wooden roofstructure, the doors and the windows meet the brick or concrete walls), are precisely separated and rejoined by the help of a visible joint.

Separating the elements might be con - sidered not only as an aesthetic approach but also as an alternative in contrast to today's construction method of baloon - frame and plasterboard architecture.



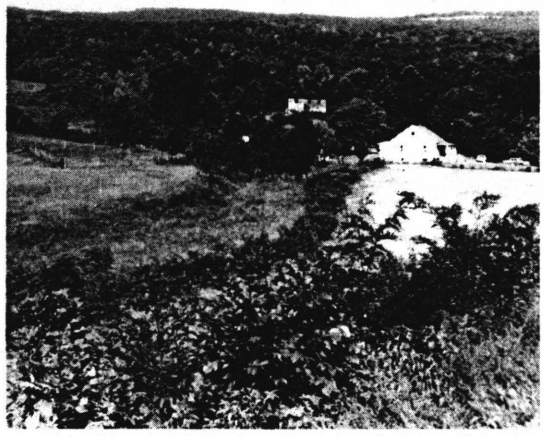
A HOUSE FOR BOOKS
THE LANDSCAPE

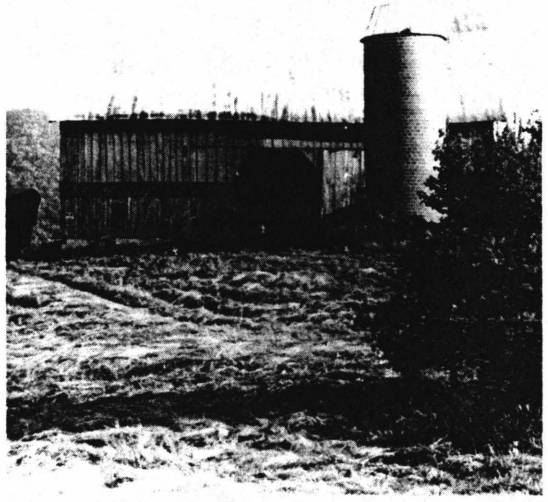
The site is located in the middle of the Blue Ridge mountains next to the county line of Montgomery and Roanoke County between the Greenbrier Mountains and the New River Valley, South Virginia.

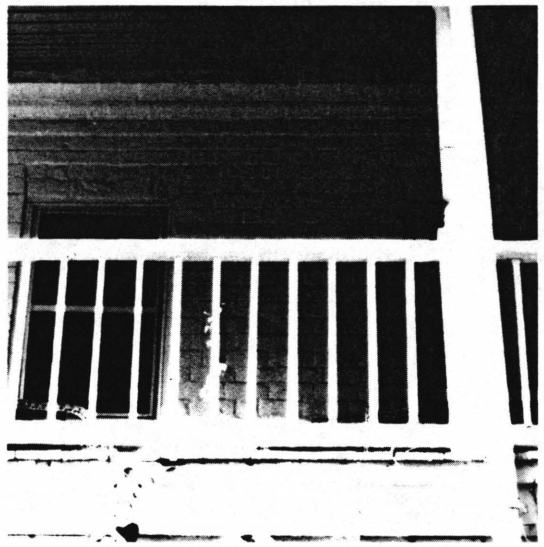
In the valleys, the altitude is approxi - mately 1000 feet, on top of the mountain ridges it may reach up to 3000 feet. The valleys are mainly used for farming and cattle breeding, the woods covering most of the mountains are untouched by agricultural activities and are preserved as a wildlife reserve. Trees and shrubs make up most of the natural vegitation. The most common species are oak, beech and maple trees.

Being formed by the collision of the North American and Atlantic plate, the landscape does not have the soft rolling contour as the eastern areas of South Virginia, but has a more clear cut edge softened a bit by the dense foliage covering of the trees.

The buildings of the area are mainly of venecular style. Both the barns and the traditional houses show a similar construction; a stone base, with a wooden structure on top and a roof made of steelsheets. All buildings in the area are constructed suggesting the simple "saltbox" with some additions like baywindows. To cope with the local summer climate, one or two storied roofed porches and loggias are added.



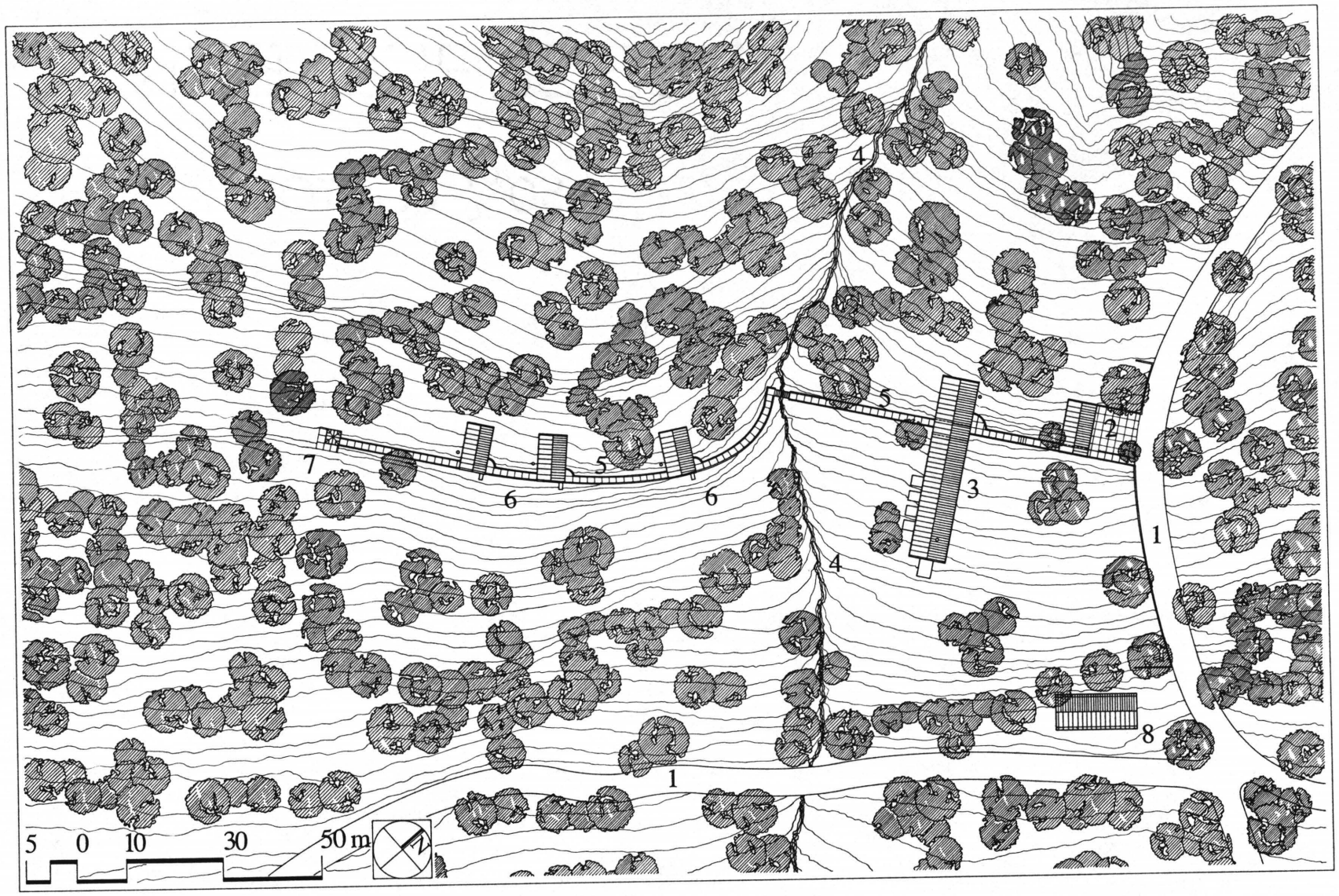




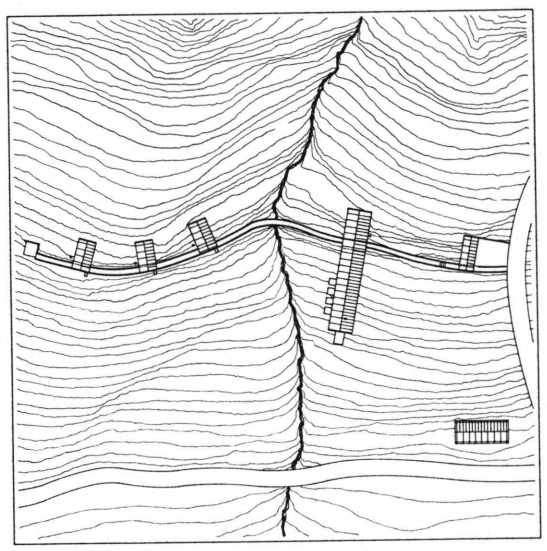
The other architecture to be found in the area is determined by the people who do not live there constantly. They come from the cities for recreation to the Greenbrier Mountians.

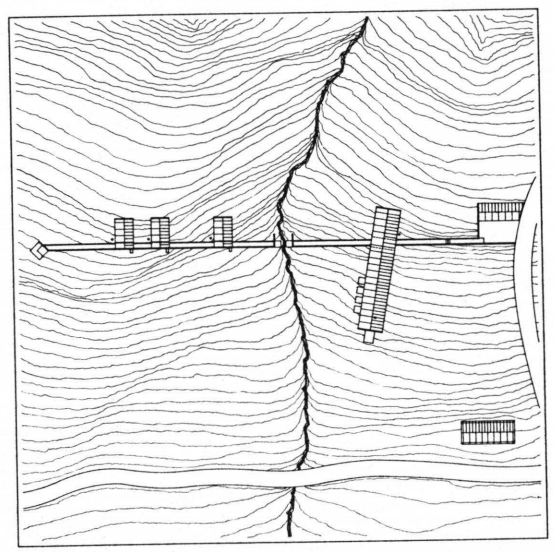
With them comes representative archi - tecture demonstrated in terms of scale and the use of architectural elements like columns copying of greek capitals.

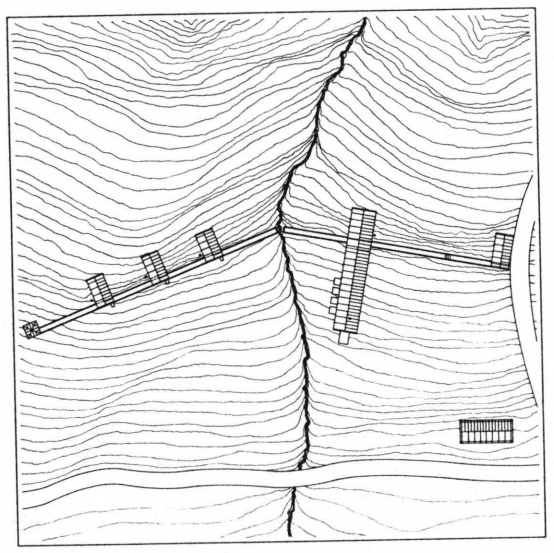
Ironically as the extensive use of large fabric shades demonstrates, the hot summer climate made even these architects change their more "intellectual approach" to building.

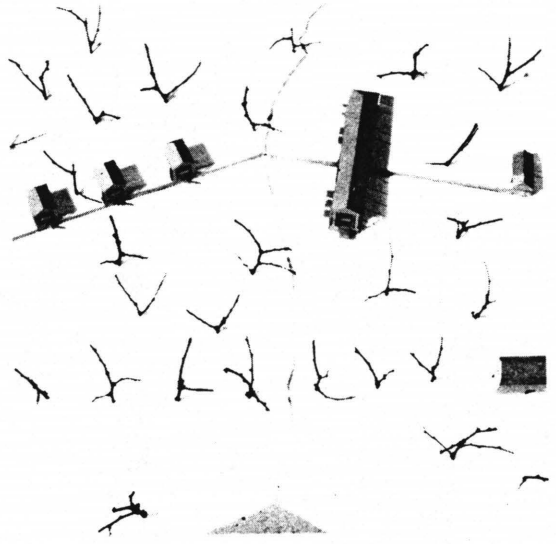


1 Access road
2 Car port
3 Main house
4 Creek
5 Footpath
6 Writer`s houses
7 Pavillion
8 Existing barn





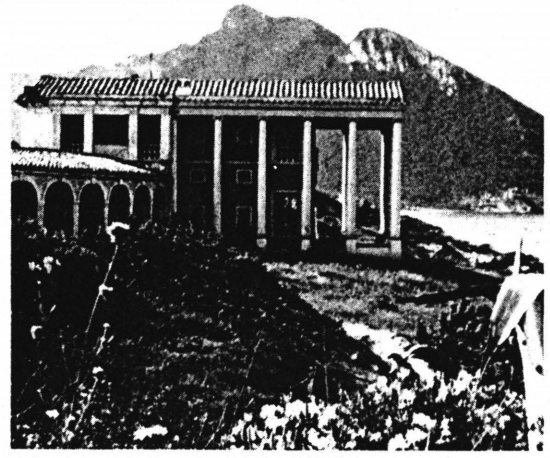


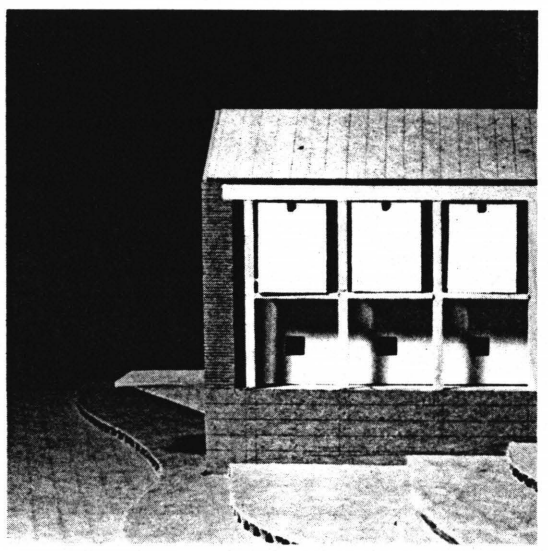


Besides studying the local area, classical examples served to answer basic architectural questions.

The cloister of Monsélice is a fine example of how to place a group of buildings along a slope.

Old libraries like the library of the Trinity College or the Provinzial Bibliothek Neuburg express by their layout, the demands which are raised by a large number of books needing to harmoniously reside alongside man. Questions like the proportion of space needed for a large number of books or whether to have the books placed along a two story wall accessible by a gallery, had their impact on the design of the house.





A special place in nature created by architecture for people and books to meet. A group of houses for a man of literature and his literary friends. A special house for a man collecting books and publishing literature who over the years became the lucky owner of a selected library of more than 30,000 volumes.

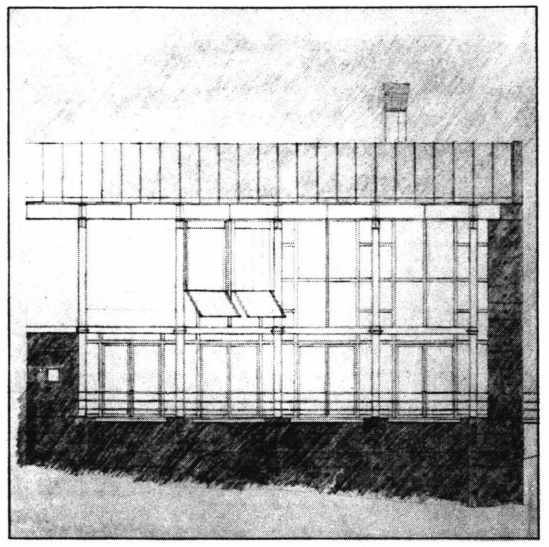
The question of how people who come from the metropolitan area relate to the landscape and to nature becomes of interest in terms of how to place the buildings on the site and how to find the appropriate general form for the houses.

Being subject to the surrounding nature by making a living from the soil might be a farmer's understanding of his relationship to the landscape. People not making a living by serving the soils, but by a pure product of their minds are not any longer subject to the uncertanties of nature. They might see themselves as "objects" in the environment, observing and analysing whatever comes to their minds. This different kind of under - standing of their relationship to nature, provoked the idea to look at the houses as a fleet of ships swimming freely on a giant landscape wave, instead of as a group of farmbuildings clustered around a courtyard in close contact with the earth. Similarly to a large ship that puts

one right in the middle of the sea, but gives one barley a chance to get in touch with the water it is floating on, the house is lifted off the ground by one story, putting the inhabitants in a position of one who observes and understands but does not have to get involved with the environment on which the house sits.

The examination of the area, as pointed out in the previous pages, shows by the use of vernacular houses, the idea of the simple box, whereas in the resorts of the area the idea of architectural represen - tation is articulated by the use of rows of large columns. Most of these columns were of purely decorative purpose and were structurally useless to the building itself. Throughout time more and more of the simple vernaculare houses had column carried porches added, not only for functional reasons but to mark different parts of the buildings like entrances. These additions may have been for purely showoff reasons, but they also served to introduce a certain scale for the small houses in relation to the spacious landscape.

During the research for this project, the idea arose that by placing these houses in a different way on their site and in the way the construction is treated, could be an indication that there are "different

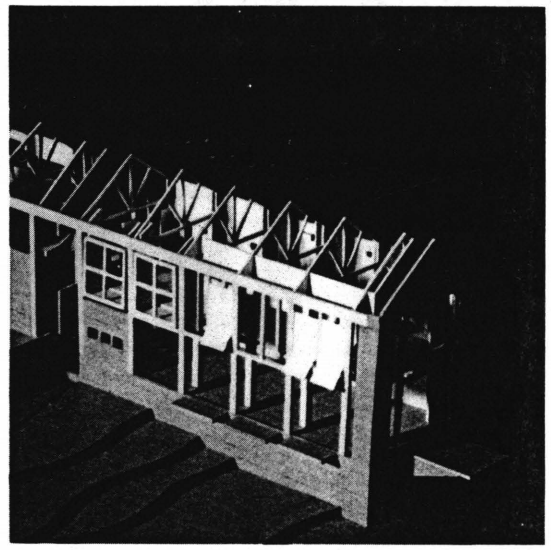


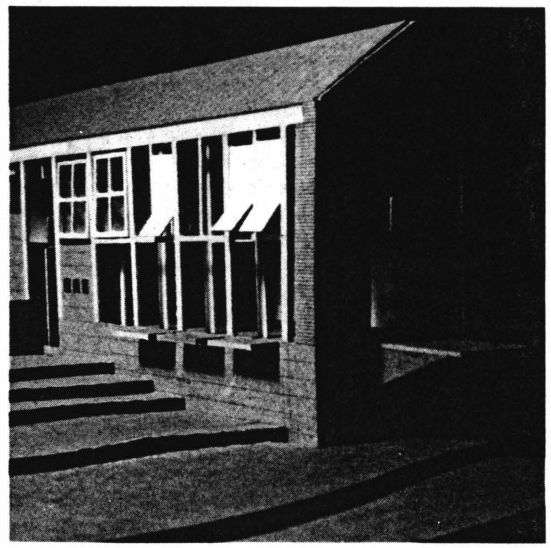
kinds" of people living in these houses. The design of the house seemed to be right in keeping with the simple form of the vernacular houses but, a change in the materials and method of construction could suggest this "difference". Changing the construction in a way that the structural grid becomes visible on the outside of the elevations, the columns are now an essential structural part, and not just as added decorative element.

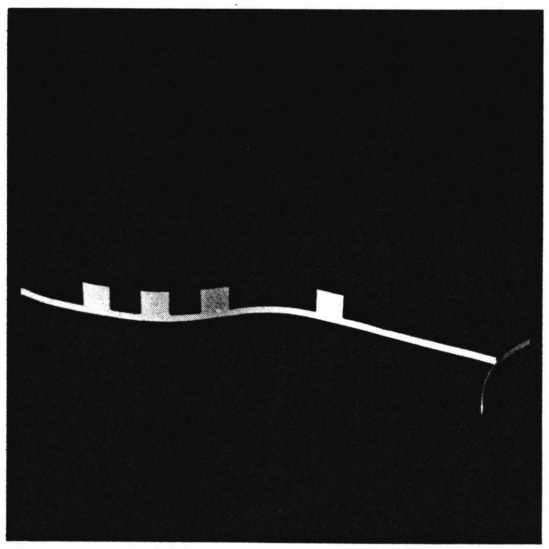
As one approaches the building, you first recognize the simple overall form with the pitched roof. As one comes closer the details like the constructive grid of the steelcolumns and the bookcabinets will provide additional information for the visitor. By doing so the construction and the articulation of the wall on the inside and outside, determines not only the interior scale but also a scale for the space of the landscape.

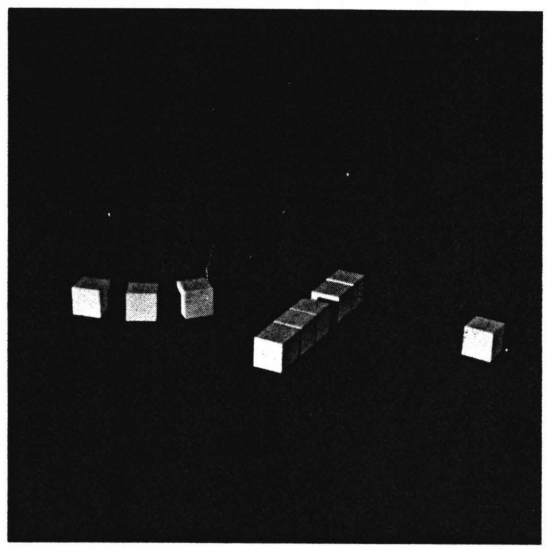
By placing the whole load carrying structure on the rim of both sides of the building and spanning the roof structure over the whole width of the building, the large interior two - storied space is made possible. The size of the space and the large number of the books work in a kind of simbiosis. While the books make the scale for the space, the volume of the space makes it possible to live constantly with all the books. The long stretched configuration of the living space make it possible to have each single book visible by its spine and therefore available to the eyes of the owner.

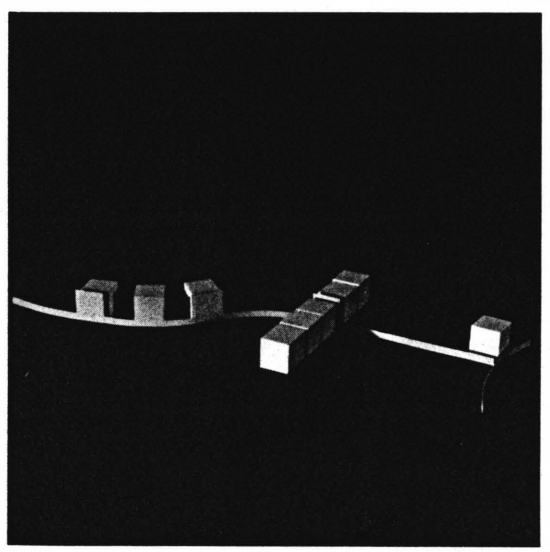
In the House of Music the whole house became part of the concept to layer different materials. In the House for Books, the walls had to serve only as an enclosing skin which could be therefore articulated in a way to be a space for books and men, as the walls were no longer necessary to carry loads.

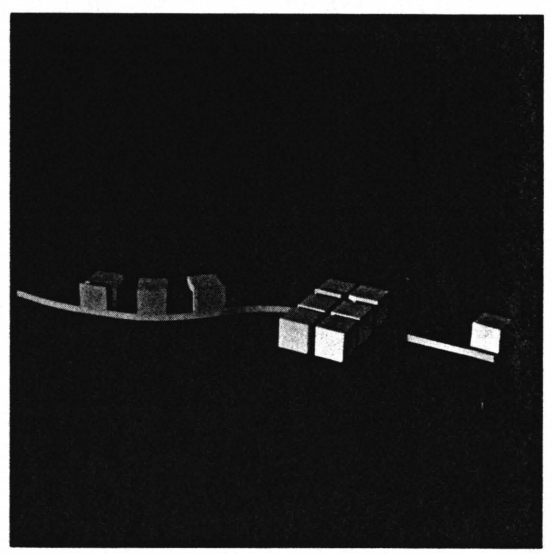




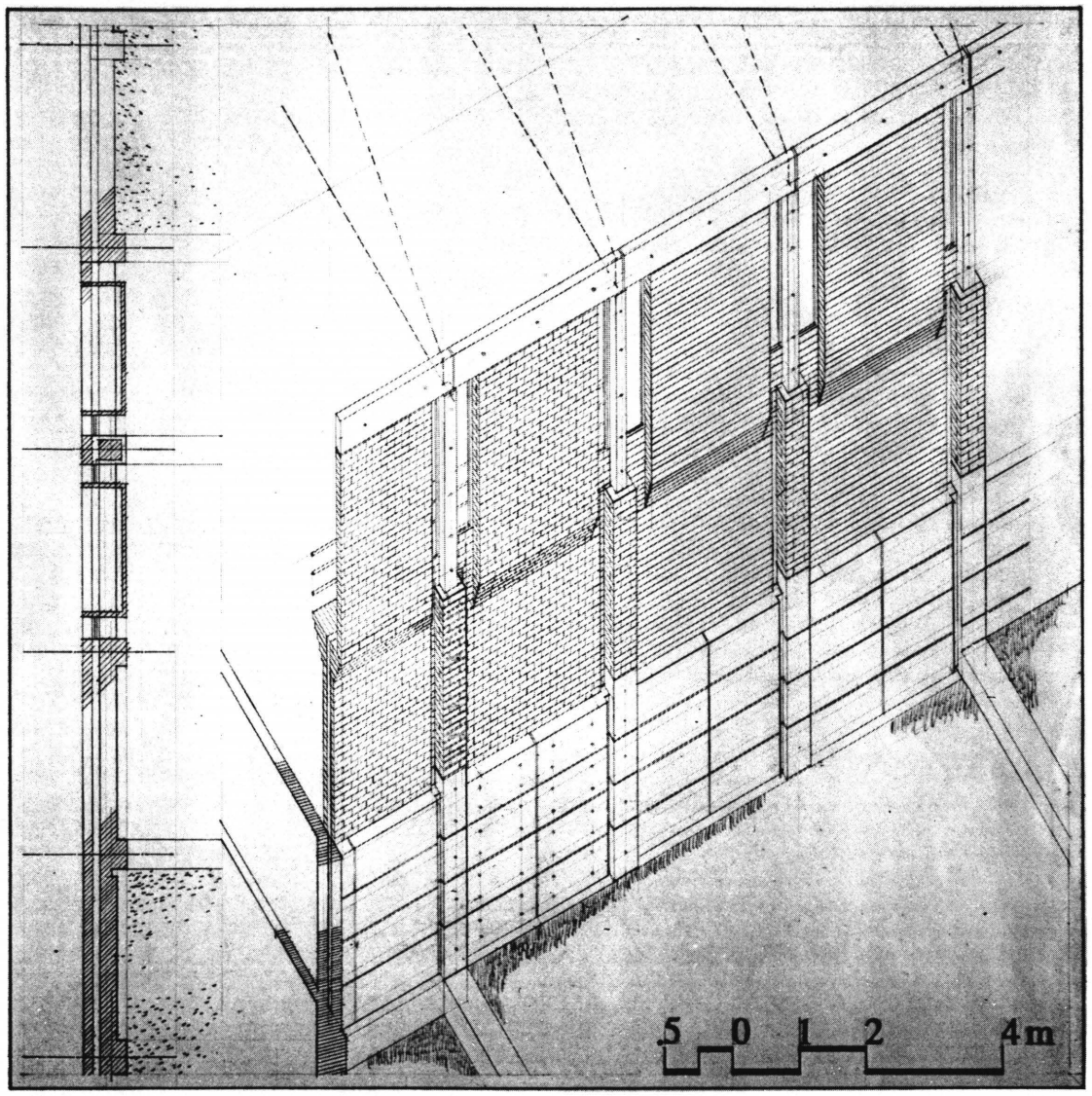








A HOUSE FOR BOOKS
THE CONTEXT

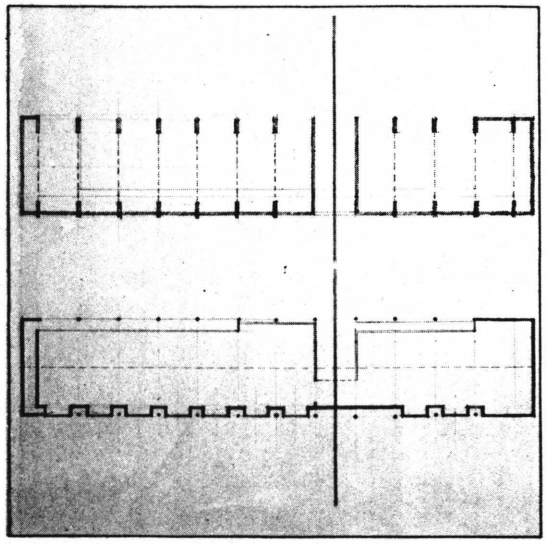


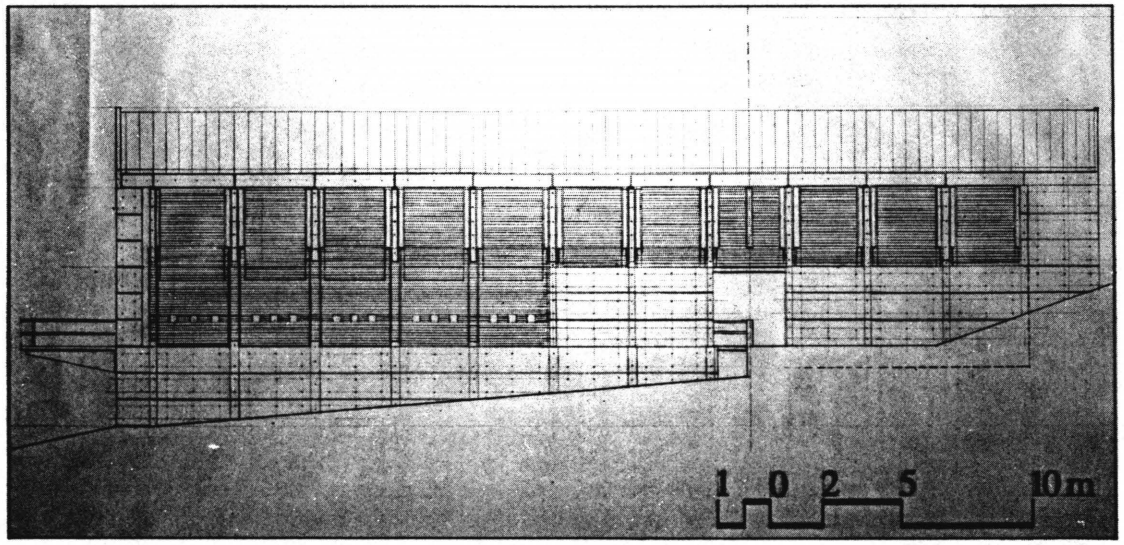
Having found a design solution which was considered basically sound, it was a part of the basic research to investigate in which way the design intentions could be interpreted with other combinations of materials.

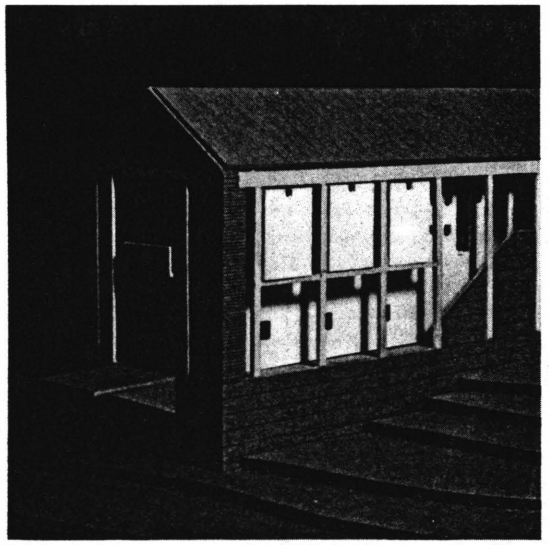
Combining brick and concrete showed some potential for further development, but in the end it was determined that keeping the desired form and respecting the integrity of the material was not possible simultanesly.

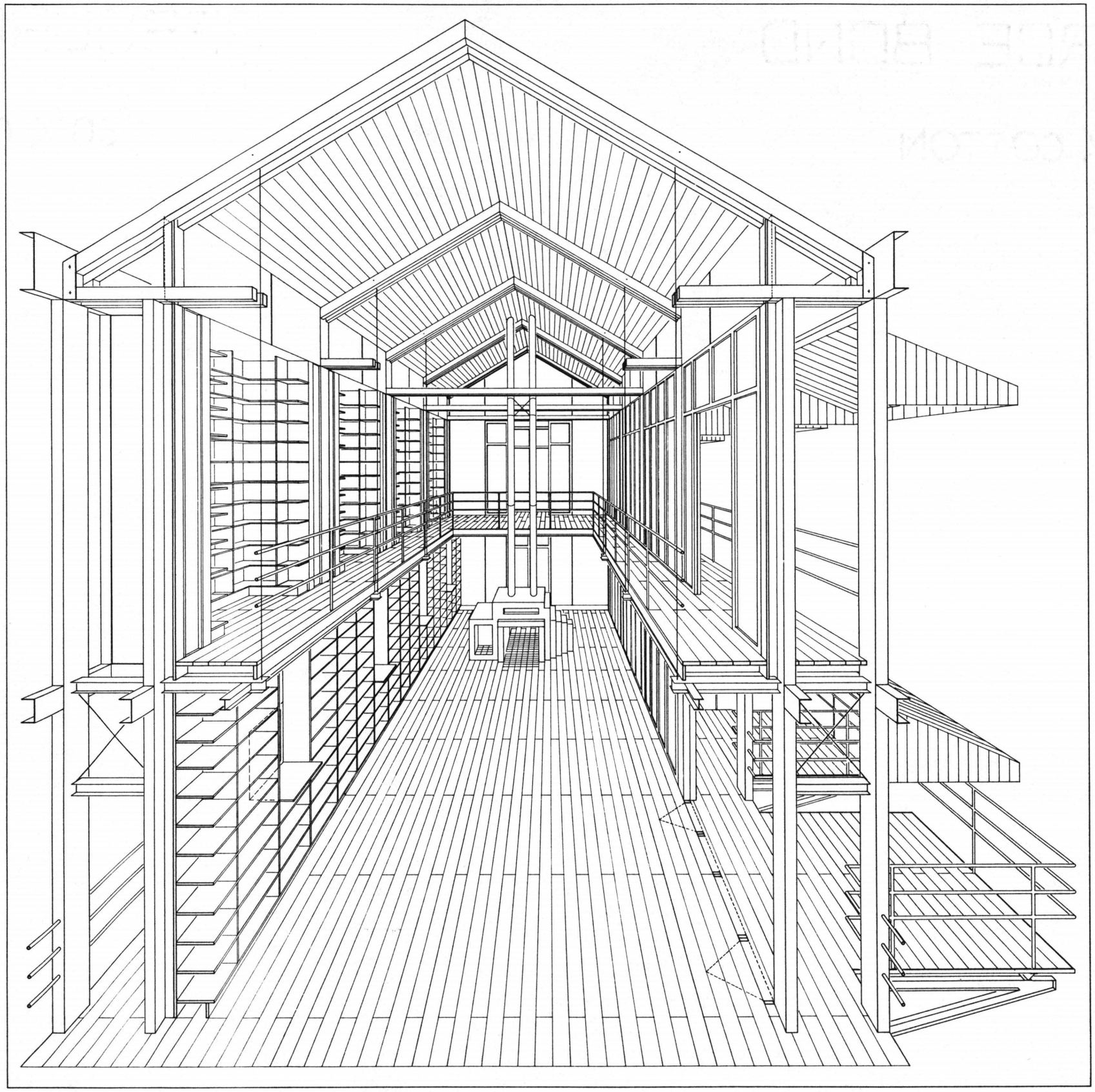
In contrast to the indigenous method of construction in the area, brick and concrete contained too much of a massive urban - like expression, where the vernacular buildings (especially the barns) are made of a light weight "skeleton and skin" construction.

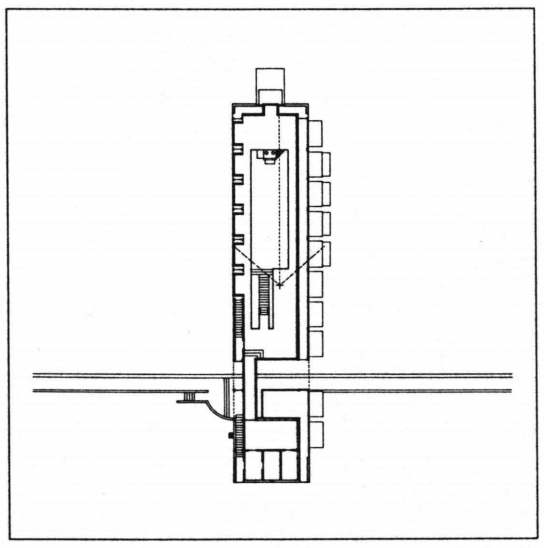
In the final design solution a combination of wood and steel was suggested. The steel structure as the load carring framework, the wood to provide the enclosing skin.



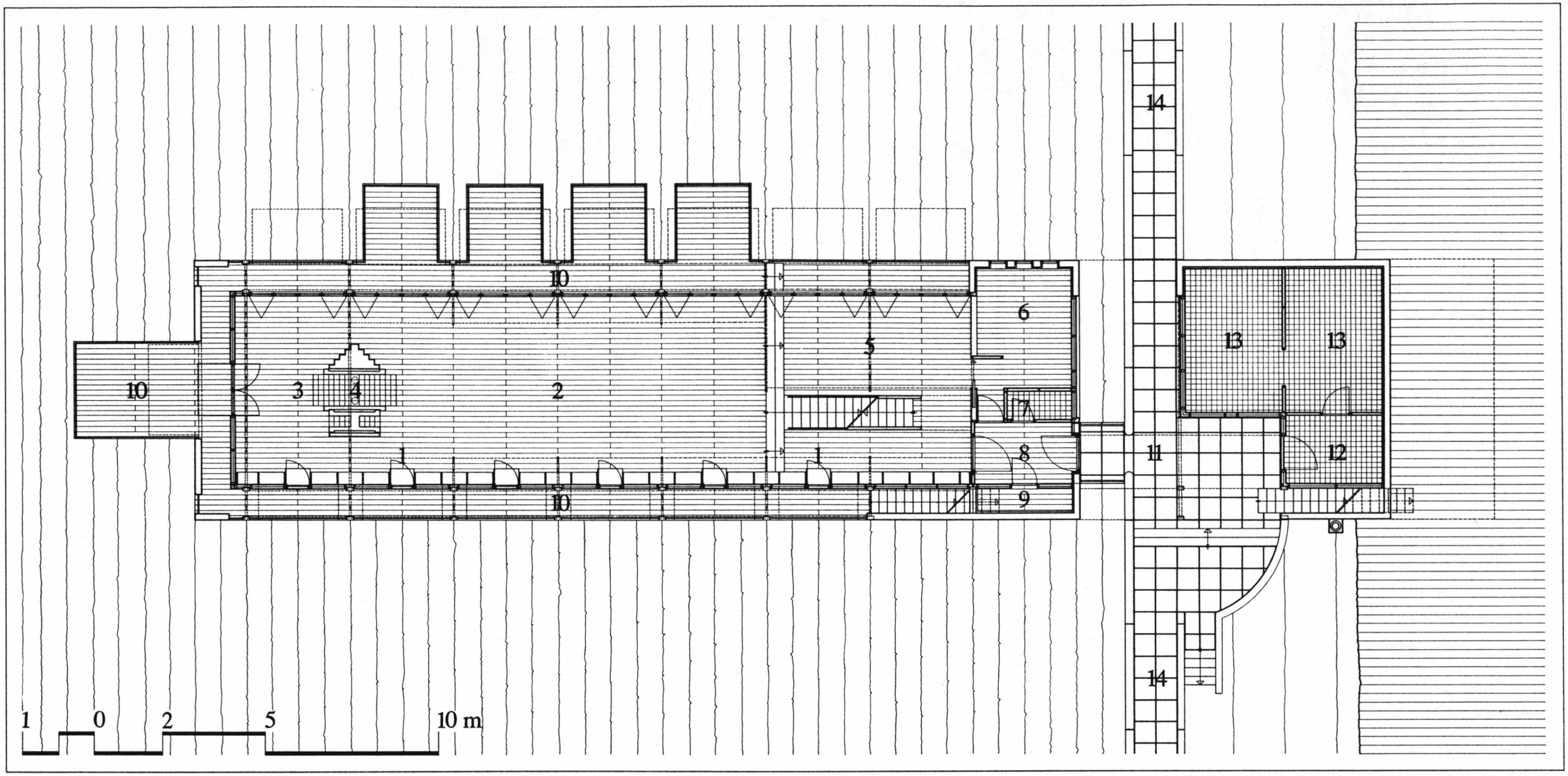




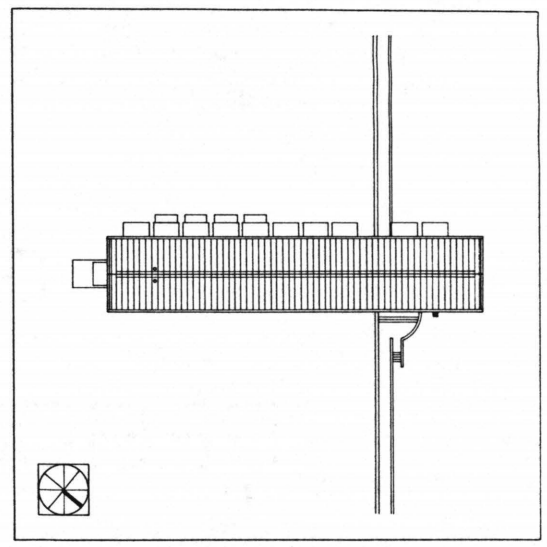




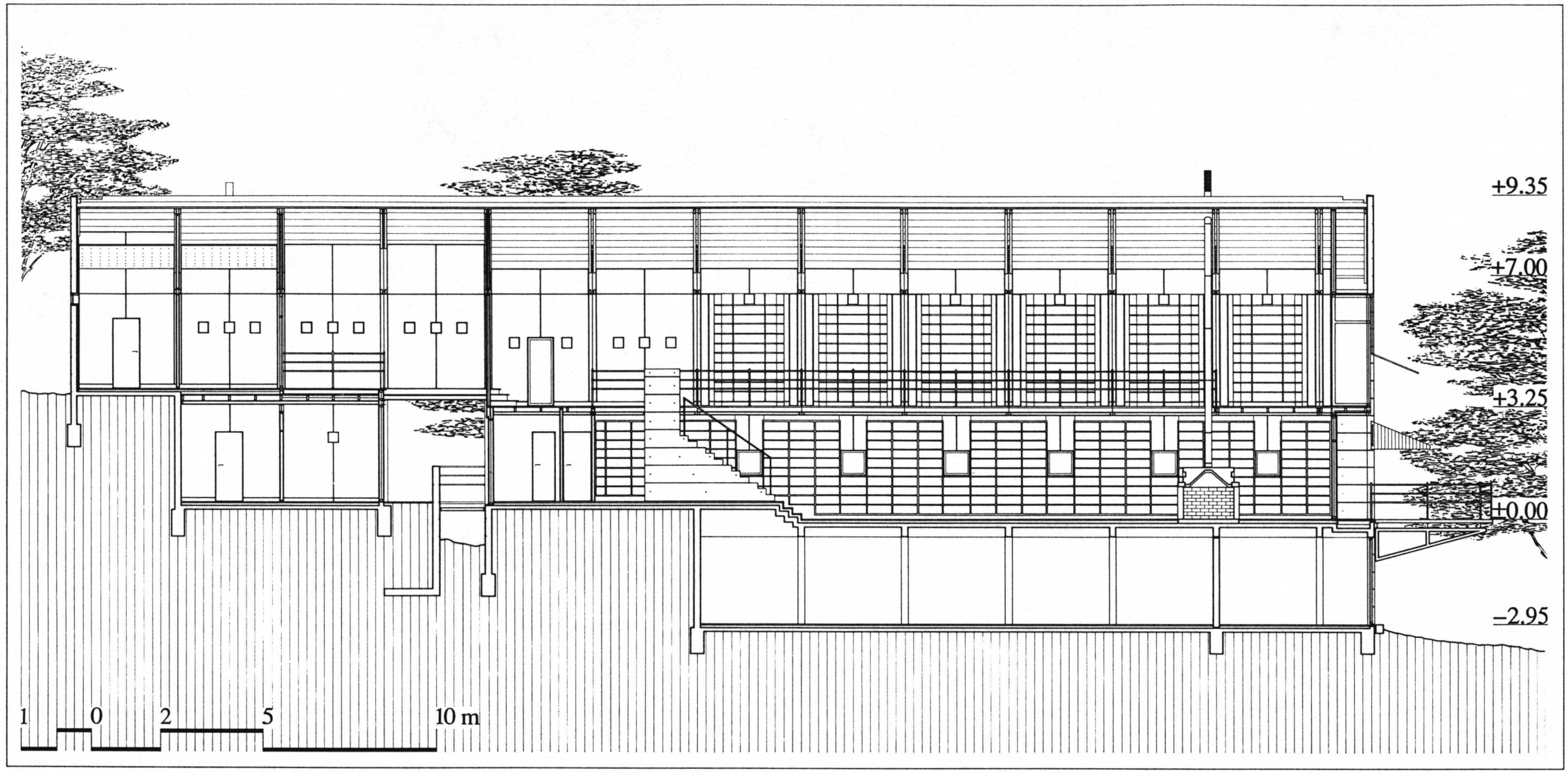
A HOUSE FOR BOOKS
FIRST FLOOR

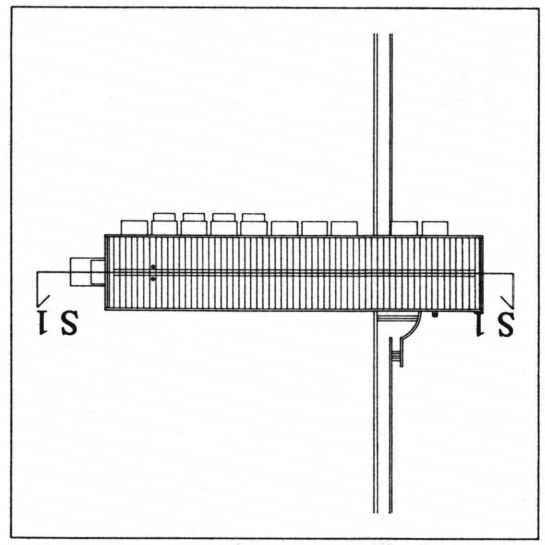


1 "Wall of books"
2 Living area
3 Inglenook
4 Fireplace
5 Dining area
6 Kitchen
7 Vanity
8 Hall
9 Cloak
10 Deck / Balcony
11 Entry
12 Utility
13 Storage
14 Footpath



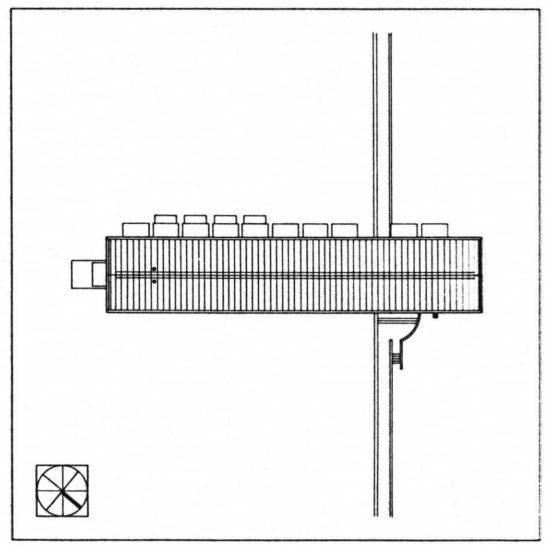
A HOUSE FOR BOOKS
LONGITUDINAL SECTION

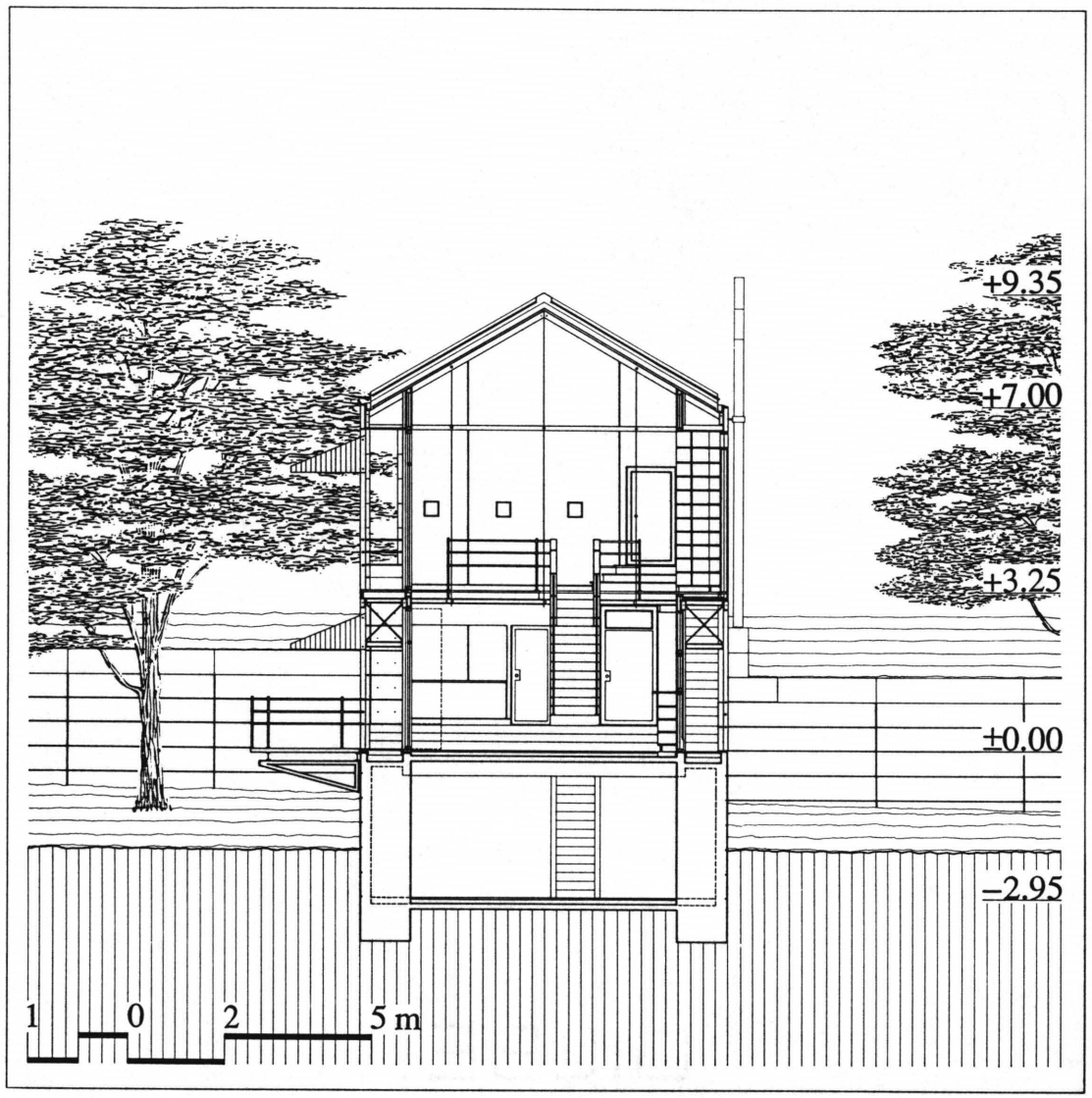


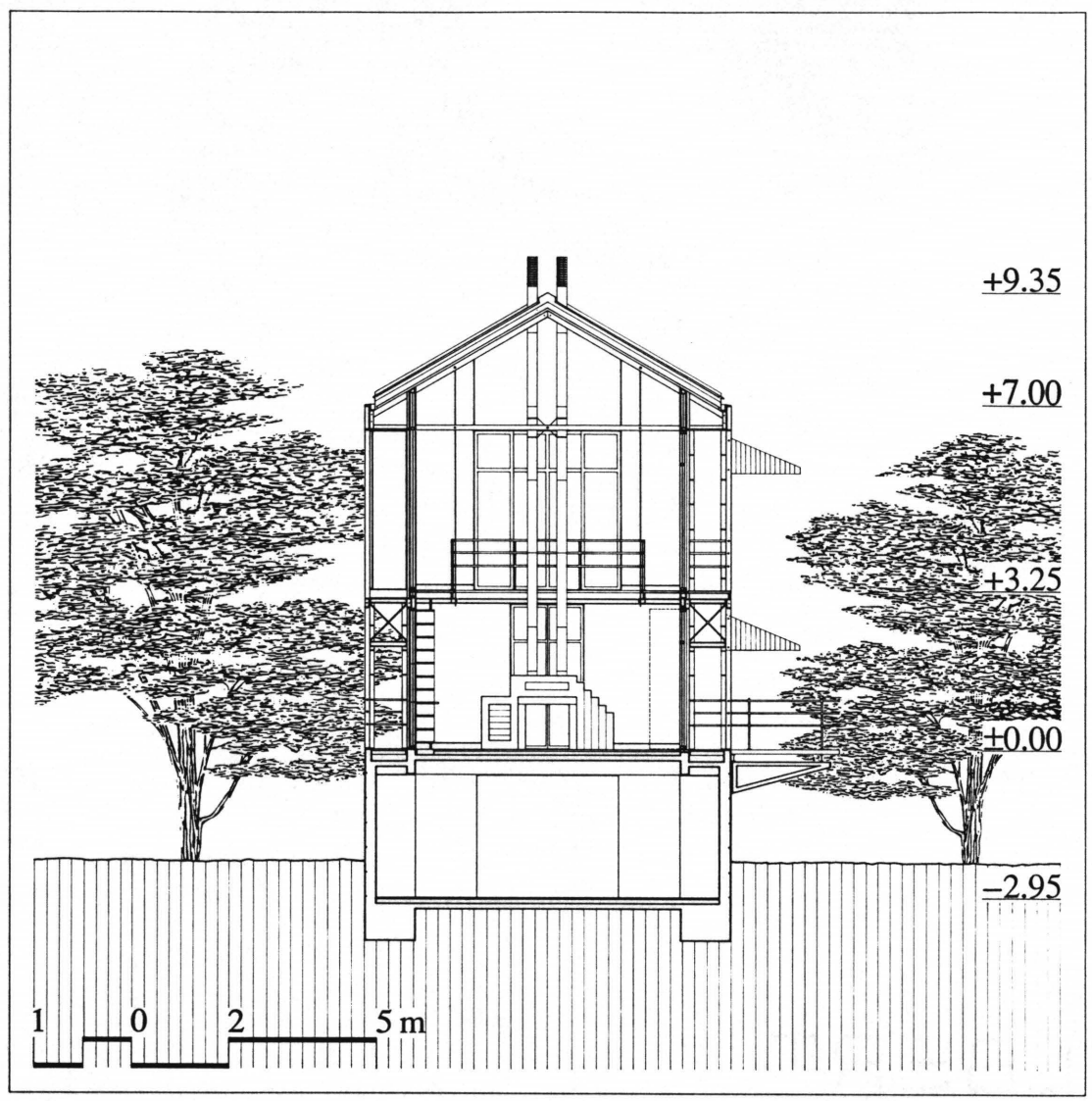


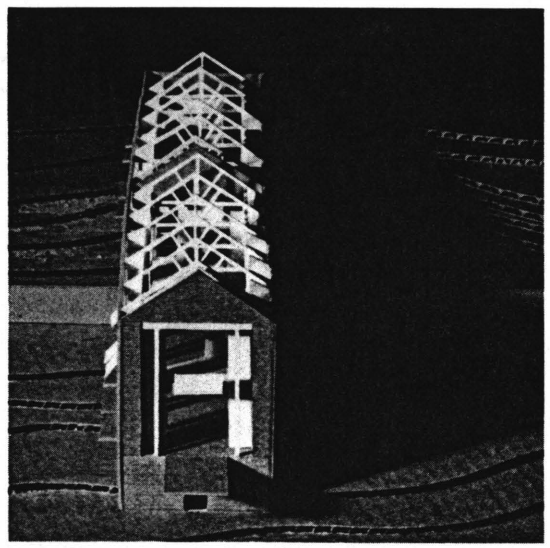
1 0 2 5 10 m

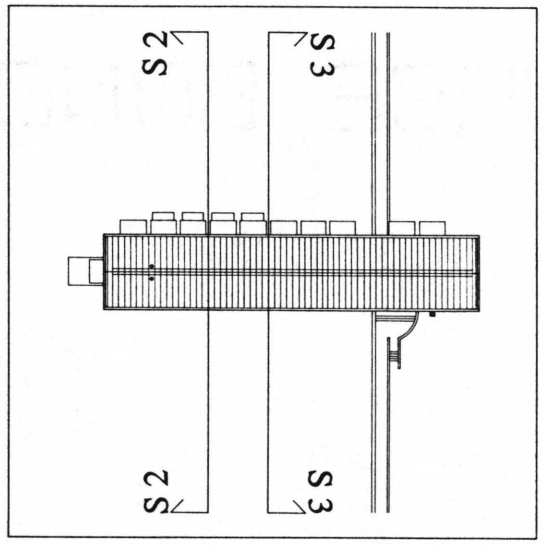
1 "Book alcoves"
2 Void
3 Bay window
4 Study area
5 Deck
6 Loggia
7 Bed room
8 Closet
9 Bath room
10 Entry



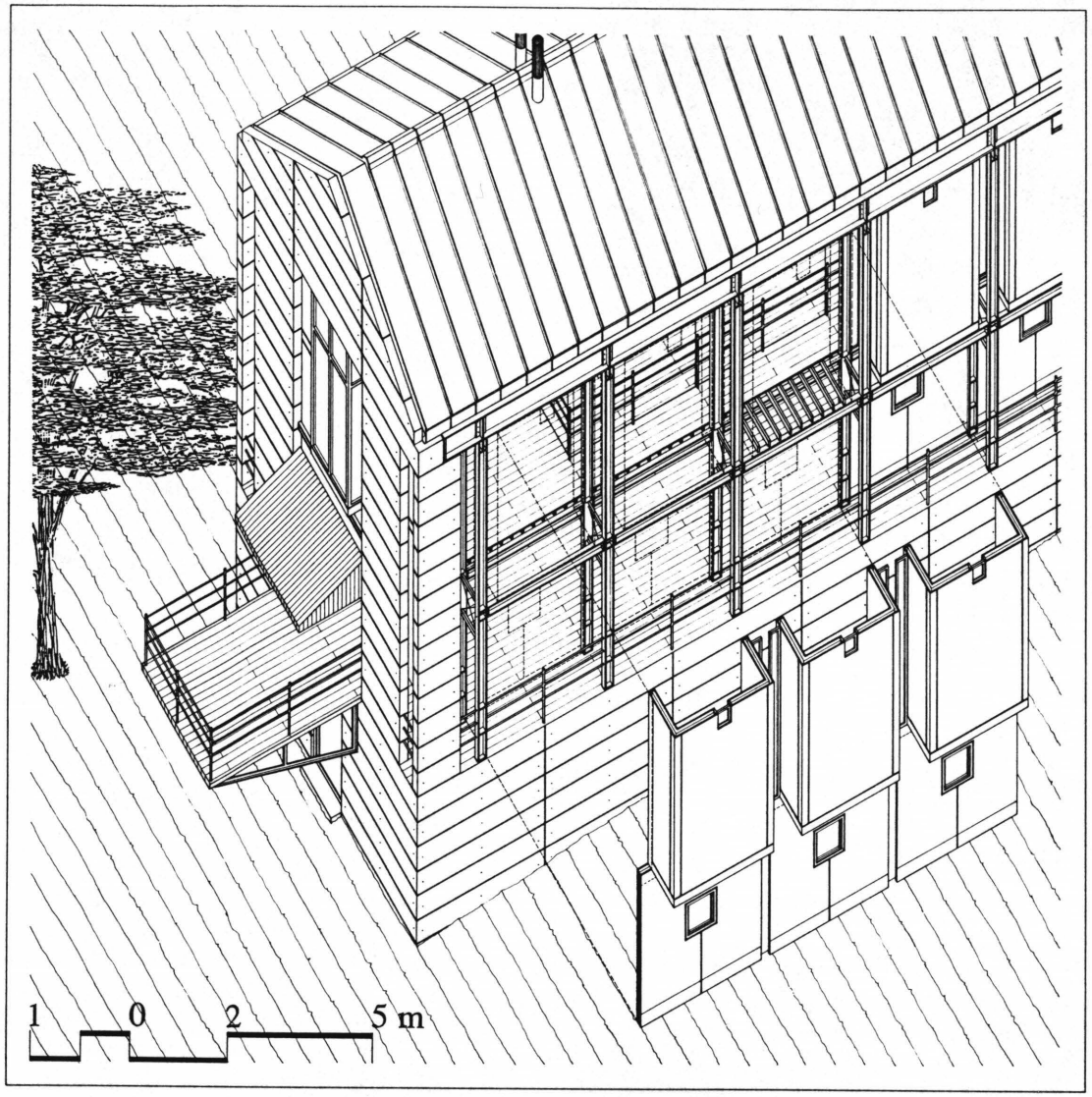

+9.35
+7.00
+3.25
±0.00
–2.95
1 0 2 5 m

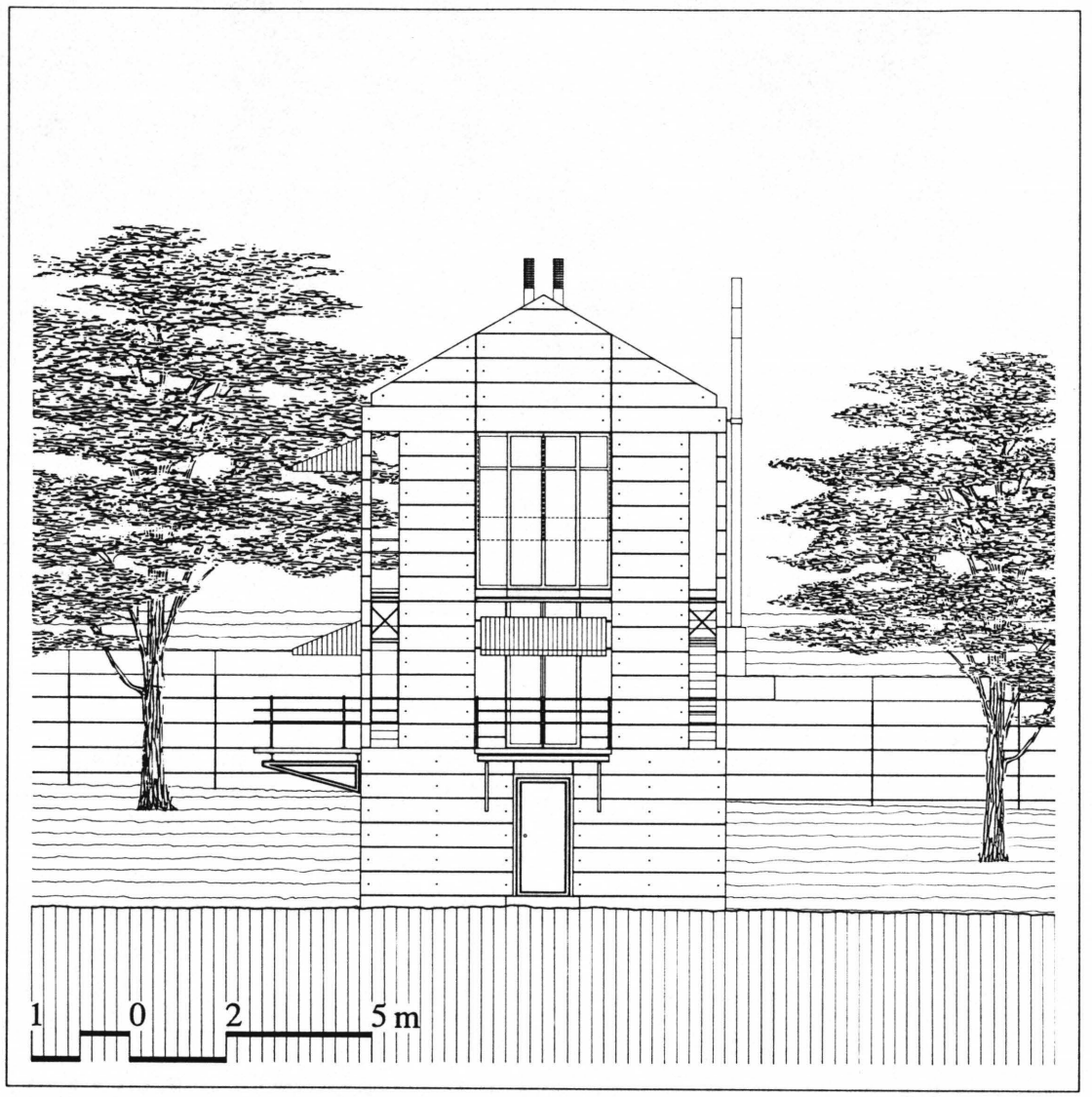

+9.35
+7.00
+3.25
±0.00
–2.95
1 0 2 5 m

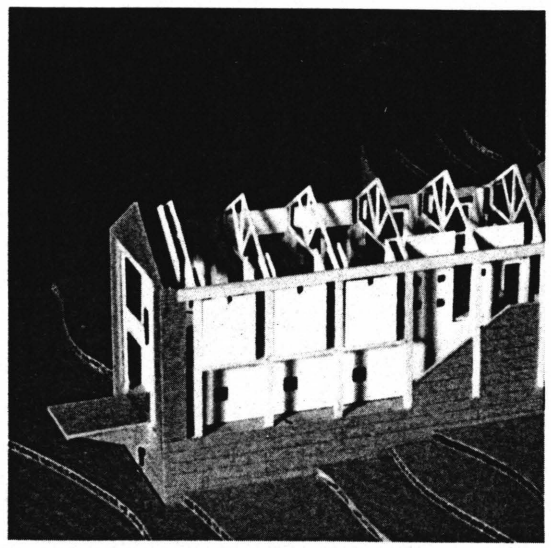


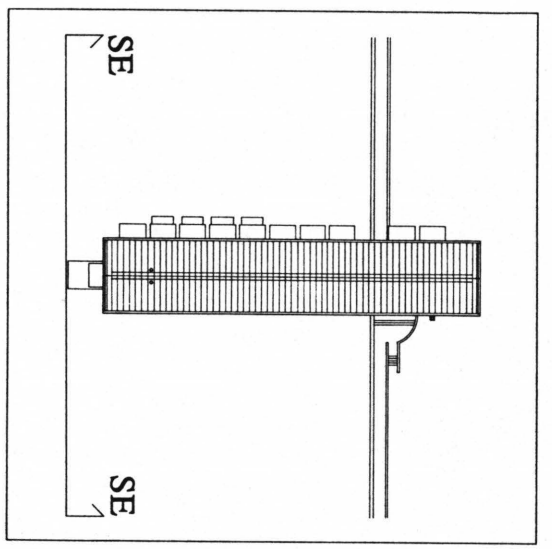

S2
S3
S2
S3

A HOUSE FOR BOOKS
SOUTH - EAST ELEVATION

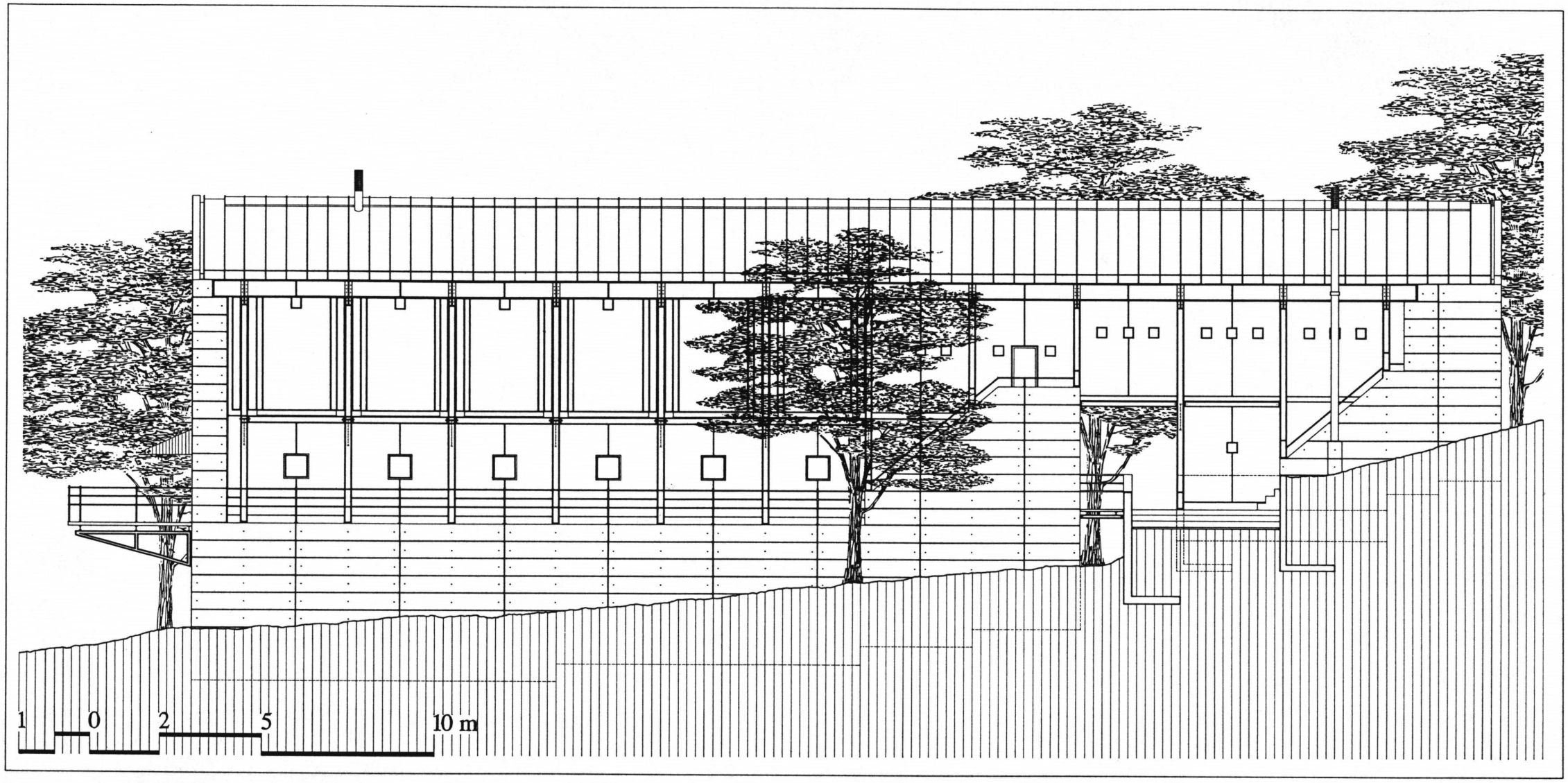


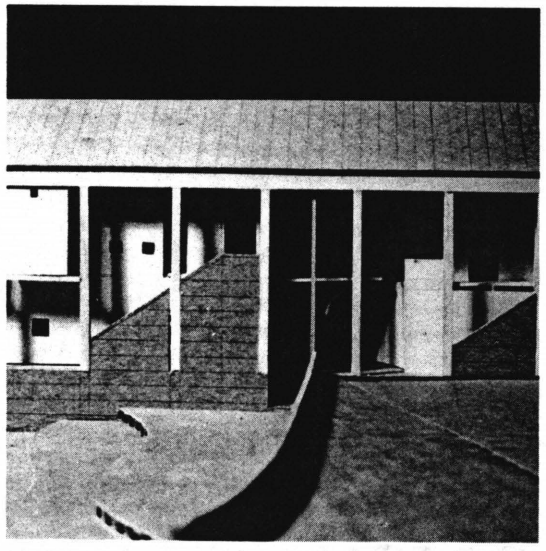


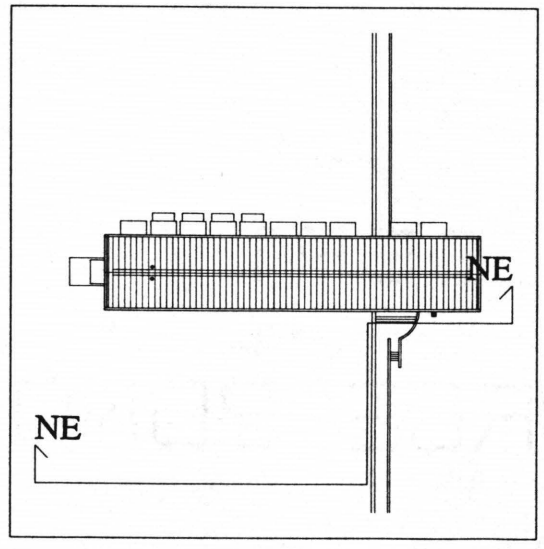




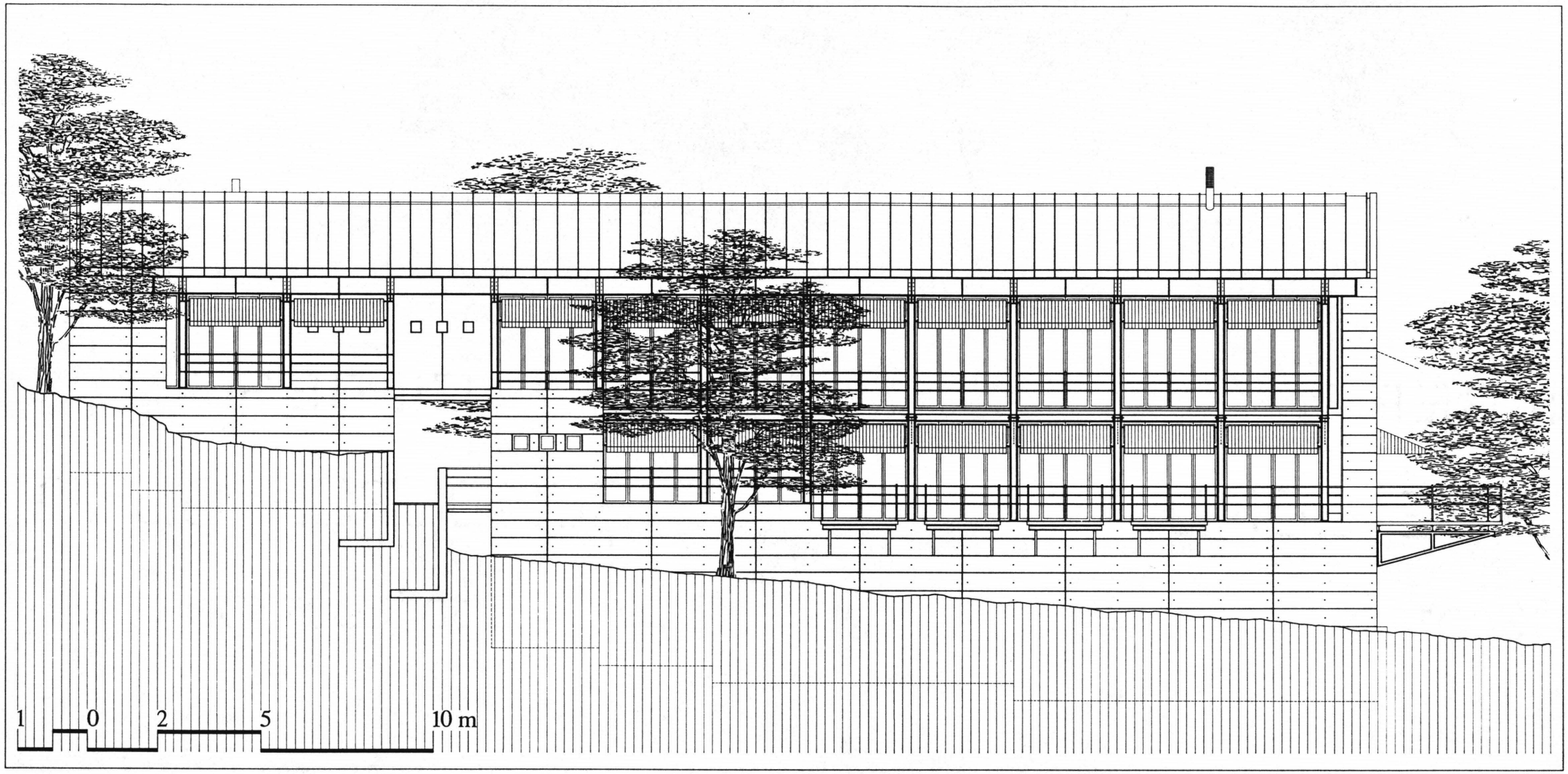
A HOUSE FOR BOOKS
NORTH - EAST ELEVATION

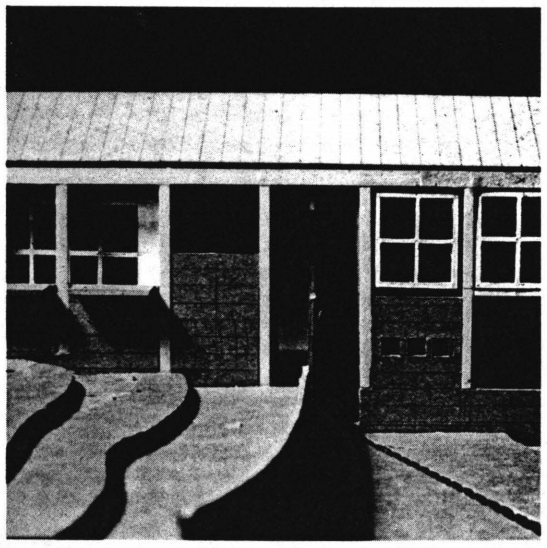


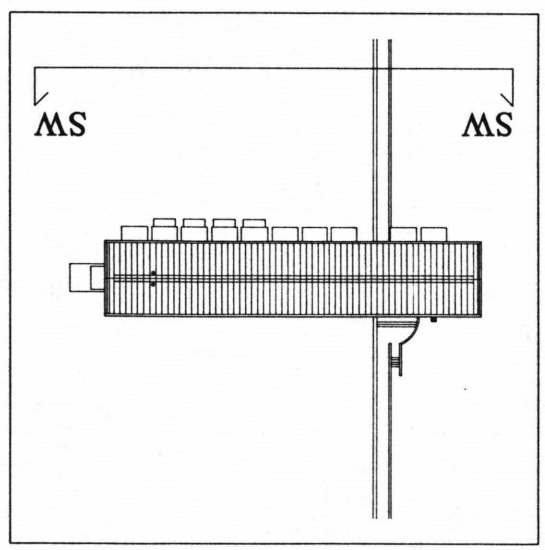




A HOUSE FOR BOOKS
SOUTH - WEST ELEVATION







Aalto, Alvar. *Sketches*. Ed.: Göran Schildt. MIT Press, Cambridge, MA. 1985.

Ackerman, James S. *Palladio* . Hatje Verlag, Stuttgart. 1980.

Alexander, Cristopher. *A Pattern Language*. Oxford University Press, New York City, NY. 1977.

Architectural Design Profile: *The Anglo - American Suburb.*
Ed.: A. M. Stern. Architectural Design Publications, London. 1981.

Architectural Design Profile :
Elements of Architecture. Ed.: Andreas Papandakis and Rob Krier, Architectural Design Publications, London. 1983.

Architectural Monographs 4 : *Alvar Aalto*. Ed. David Dunster. Academy Editions, London. 1978.

Bachelard, Gaston. *The Poetics of Space*. Beacon Press, Boston, MA. 1969.

Bernabei, Giancarlo. *Otto Wagner*. Artemis Verlag, Zürich. 1986.

Bloomer, Kent and Moore, Charles. *Body, Memory, and Architecture.*
Yale University Press,
New Haven, CT. 1975.

_____ . *Carlo Scarpa a Castelvecchio*. Ed.: Licisco Magagnato, Edizioni di Comunitá, Milano. 1982.

Chang, Amos Ih Tiao. *The Tao of Architecture*. Princeton University Press, Princeton, NJ. 1956.

Dal Co, F. and Mazzariol G. *Carlo Scarpa - The Complete Works.*
Rizzoli, New York City, NY.1984.

Drexler, Arthur and Hines, Thomas. *The Architecture of R. Neutra*. The Museum of Modern Art. New York City, NY. 1984.

Eisenman, Peter; Graves, Michael; Gwathmey, Charles; Hejduk, John; Meier, Richard. *Five Architects* . Oxford University Press, New York City, NY. 1975.

Freibeuter #22; Vierteljahreszeitschrift für Kultur und Politik *Eigensinn ohne Illusion by Vittorio M. Lampugnani*. Wagenbach Verlag, Berlin. 1984.

Frampton, Kenneth. *The Antiaesthetic: Towards a Critical Regionalism*. Ed.: Hal Forster.
Port Townsend, WA. 1983.

Jellicoe, G. and Jellicoe, S. *The Landscape of Man*. Van Nostrand and Reinhold Company, New York City, NY. 1982.

Kahn, I. Louis. *Light is the Theme*. Kimbell Art Foundation,
Fort Worth, TX. 1975.

Kücker, Wilhelm. *Architektur zwischen Kunst und Konsum*. Surkamp Verlag, Frankfurt. 1979.

Kulka, Heinrich. *Adolf Loos*. Löcker Verlag, Vienna. 1979.

Lobell, John. *Between Silence and Light* . Shambhala Publications, Boulder, CO. 1979.

_____ . *Adolf Loos - Raumplan und Wohnungsbau*. Akademie der Künste, Berlin. 1984.

Lynch, Kevin. *What Time is this Place*. MIT Press, Cambridge, CA. 1982.

Meier, Richard. *Buildings and Projects 1965 - 1987*. Eidgenössische Technische Hochschule Zürich. 1982.

Moore, Charles; Allen Gerald and Lyndon Donlyn. *The Place of Houses*. Holt, Rinehart and Winston. New York City, NY. 1974.

Norberg - Schulz, Christian. *Genius Loci: Towards a Phenomenology of Architecture*. Rizzoli, New York City, NY. 1980.

Rawson, Richard. *Old Barn Plans*. Bonanza Books, New York City, NY. 1982.

Rowe, Colin. *The Mathematics of the Ideal Villa and Other Essays*. MIT Press, Cambridge, MA. 1985.

Saarinen, Eliel. *The Search for Form in Art and Architecture*. Dover Books, Mineola, NY. 1985.

Scully, Vincent. *The Shingle Style Today*. G. Braziller, New York City, NY. 1974.

Scully, Vincent. *The Shingle Style and the Stick Style*. Ed.: Lewis Curtis, Yale University Press, New Haven, CT. 1971.

Venturi, Robert. *Complexity and Contradiction in Architecture*. The Museum of Modern Art, New York City, NY. 1977.

Wolfe, Tom. *From Bauhaus to our House*. Farrar, Straus, Giroux, New York City, NY. 1981.

Wrede, Stuart. *The Architecture of Erik Gunnar Asplund*. MIT Press, Cambridge, MA.1980.

Wright, Frank, Lloyd. *Drawings and Plans of Frank Lloyd Wright - The Early Period.*. Dover Publications, New York City, NY. 1983.

Wright, Frank Lloyd. *The Natural House*. Meridian Book, New York City, NY. 1982.

Zevi, Bruno. *Frank Lloyd Wright* .
Artemis Verlag, Zürich. 1981.

Photo Credits

Unless otherwise noted, all photographs and drawings are by
M.A. Schuster.

John T. Hill,
Connecticut State Capitol; Page i.

Johannes Spalt,
Villa Moller; Vienna, Austria; Page 5.

Baily Scott,
Design for a hall; Page 5.

F. Kaeß,
Provinzial Bibliothek Neuburg;
West Germany; Page 28.

Architects Journal, London, June, 1987.
Trinity College, Dublin, Ireland;
Page 28.

Robert Emmett Bright,
Villa Rocca nel Cireo, Sabaudia, Italy.
Page 28.

The vita has been removed from the scanned document