Part of the Whole

An Exploration on the Narrative of Details

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Master studios:
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Abstract

This thesis sets out to explore a design process where materials and their different mode of construction are continuously present. By placing emphasise on the joining of materials as a method of design, this thesis searches for an integration between the construction and the experience of space.

It departs from positioning itself in an architectural discourse around abstraction and articulation in the joining of elements. The main reference lies in Marco Frascari and Edward Ford's writings on the narrative of details, how details are perceived and what they tell about the relation between different parts.

The method of focusing on the joining of materials is explored through a process of hand drawing and model making. This approach becomes a process of sketching in composition of parts and details, and understanding the constructional principles of the materials. Through taking the time to draw each part, the process of drawing also becomes a method of understanding the relation between different parts and how it expresses itself in the spaces.

The exploration takes shape in a dialogue between two materials and their methods of construction - brick masonry and wood. The differences between them provide different spatial qualities through aspects of enclosure and materiality. In the thesis, the distribution and hierarchy between them is investigated in two spatial situations. These take place within the context of a library design, situated on the site of the 1923 jubilee exhibition tower in Gothenburg. The interior spatial situations, together with the boundaries of the site and the choice of materials, set the framework for the exploration.

The outcome of this thesis is a method of working which aims to build up a consciousness about the role of details and materiality in the design process and through that take part in a conversation about the poetic potential of details and construction in architecture.

Content

Introduction

This thesis project sets out to explore a design process where the joining of materials and their different mode of construction are continuously present. By placing emphasise on the joints and the narrative of the joints as a method of design, this thesis searches for an integration between how something is constructed and how it is experienced. A search for readability in the relation between parts and between part and whole.

Aim

The overarching aim of the thesis is to enter a conversation about the poetic potential of details and construction in architecture through a dialogue between its parts. It raises questions about the detail's role in different phases of the design process and aims to build up a consciousness about materials and the impact the joining of materials have on the spatial qualities of a space. In a broader discourse, it can be viewed as a will to bridge different disciplines within the profession and on a personal level, a merge of different backgrounds in architecture and structural engineering.

Thesis questions

How can a conscious and continuous work with materials and articulation of details influence the design process?

How can the narrative of a joint be expressed and work as a generator for design?

Background

In 1905, the Dutch architect Hendrick Berlage proclaimed the death of the joint. The development of reinforced concrete had now come to a point where the jointless structure was possible. A hundred years later, Greg Lynn declared the death of the detail. This time with the development of computational tools and digital fabrication. (Ford, 2011) Both of these indicates a search for the seamless. An abstraction that in some ways erases what we call traces of construction.

This thesis work departs from positioning myself in this architectural discourse regarding abstraction and articulation in the joining of elements. If abstraction is an act of concealing, articulation is about revealing and telling a story through the joints. The act of detailing involves both of these. Edward Ford calls it a conscious play with abstraction and articulation (Ford, 2011), suppressing and presenting. By weighing these two against each other in the process of design, the architect creates a narrative - a suggested reading of a space. With the thesis project I am exploring the joining of materials as an articulated narrative, how different parts of a building relate to each other and how this can create the expression of the whole.

Theoretical framework

The method and way of thinking about details is developed based mainly on theoretical references where the main point of reference lies in Marco Frascari and Edward Ford's writings on the narrative of details. Together with the literature study, a preparatory study was conducted as a series of case studies. Through analysing buildings based on what can be read through their details, the drawings included in the discourse chapter are used to show examples relating to the different topics.

The theoretical framework is presented along with the drawings and includes reference to literature from Marco Frascari, Peter Zumthor, Edward Ford, Georg Windeck, Kenneth Frampton and Eduard Sekler.

Delimitations

Presented in this thesis project is a method of working with materials and joints as continuously present factors in the design process. The method is explored on a site-specific project implementation of a library and study place but should be viewed as an exploration of a working process rather than a complete building design. Since this is the focus of the thesis, many aspects of building design have not been taken into consideration, such as a precise program for the building, the need for a library at this specific site or the actual organisation of the library. Rather than this, the process has been about exploring the method within the context of two spatial situations in a library and within the context of the site.

Reading instructions

The thesis is divided into a couple of chapters.

The first one describes the discourse around the role of the detail and narrative of joints in architecture. Literary references are supplemented with built architectural references to support the theoretical concepts. These drawings were done in a preparatory study as a tool for analysing and understanding the buildings.

The framework chapter describes how the exploration is built up. It consists of a site, choice of materials and spatial situations and set the boundaries for the exploration on which the method is tested.

The method and process chapter introduces the sketching process developed based on the discourse. Selected drawings from the process are used to illustrate the search for appropriate means of sketching and representation.

The exploration itself is presented in two different parts, the study place and the entrance structure. Each with an introduction followed by a narrated series of drawings and model photos.

Lastly, a discussion is presented with reflections on the result and the process.

Discourse

Architecture as constructions

Peter Zumthor states a somewhat obvious but very important aspect in his book *Thinking Architecture*. He states that buildings, compared to a lot of sculptures and other arts are constructions which consists of many parts and materials that must be assembled together. He argues that the joints between these parts are as important as the parts themselves in generating a meaningful whole and that the joints and details have the purpose of assuring the quality of the whole. (Zumthor, 1998)

The narrative of details

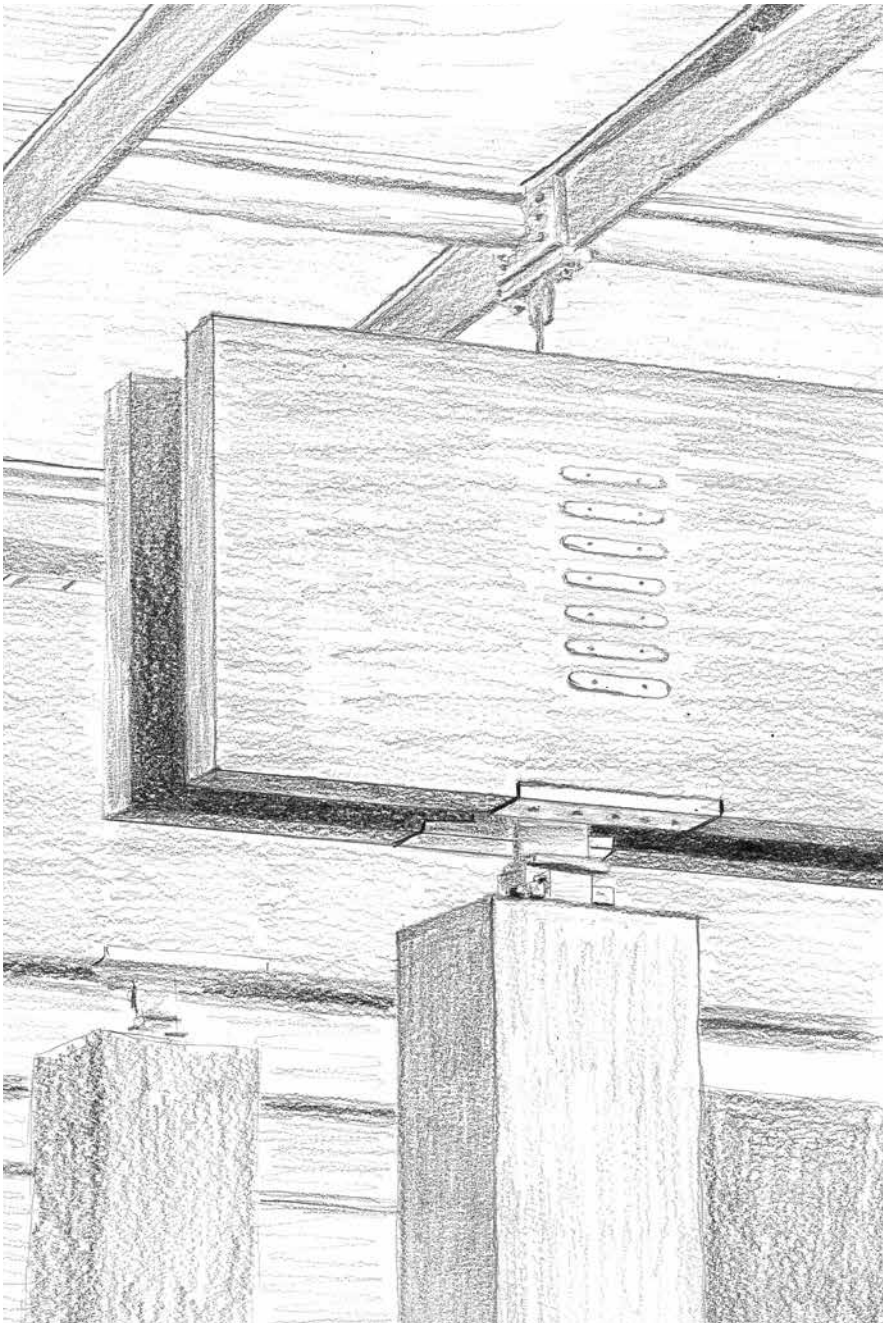
When seeing details as the glue that binds together the whole composition, it is tempting to search for other aspects than the purely constructional ones. Marco Frascari described the role of the detail in his 1984 article *The Tell-The-Tale Detail* as a twofold role of constructing and construing. Constructing in the sense of actually binding elements together as in a beam to column connection or a facade to structure connection, and construing in the sense of applying meaning through these details. The joints are seen as generators for understanding the whole and he means that they establish the narrative of the building they build up. The way in which elements are joined together will imply a certain reading of the building.

"Details are much more than subordinate elements; they can be regarded as the minimal units of signification in the architectural production of meanings." (Frascari 1984, p. 500)

He further draws an analogy to writing in which the choice of words gives character and meaning to the larger plot. The words themselves affects the sentences which affects the character of the whole text. In architecture, like in writing, the choice and the design of details as well as the articulation of certain details, gives character to the whole.

When reflecting on Frascari's article, it is clear from his point of view that details serve a much larger purpose than only being technically necessary for construction. In a similar way, Zumthor describes the role of details as something that not only assures the quality of a building down to the smallest components but also as something that implies a deeper understanding of the whole:

"Details express what the basic idea of the design requires at the relevant point in the object: belonging or separation, tension or lightness, friction, solidity, fragility... Details, when they are successful, are not mere decoration. They do not distract or entertain. They lead to an understanding of the whole of which they are an inherent part." (Zumthor 1998, p. 15)



1. **Kimbell Art Museum, Fort Worth, Texas**
   Renzo Piano Building Workshop
   Drawing of a beam to column connection. The joint articulates a separation between the different layers of the structure, rendering in a light, almost floating appearance.

Traces of construction

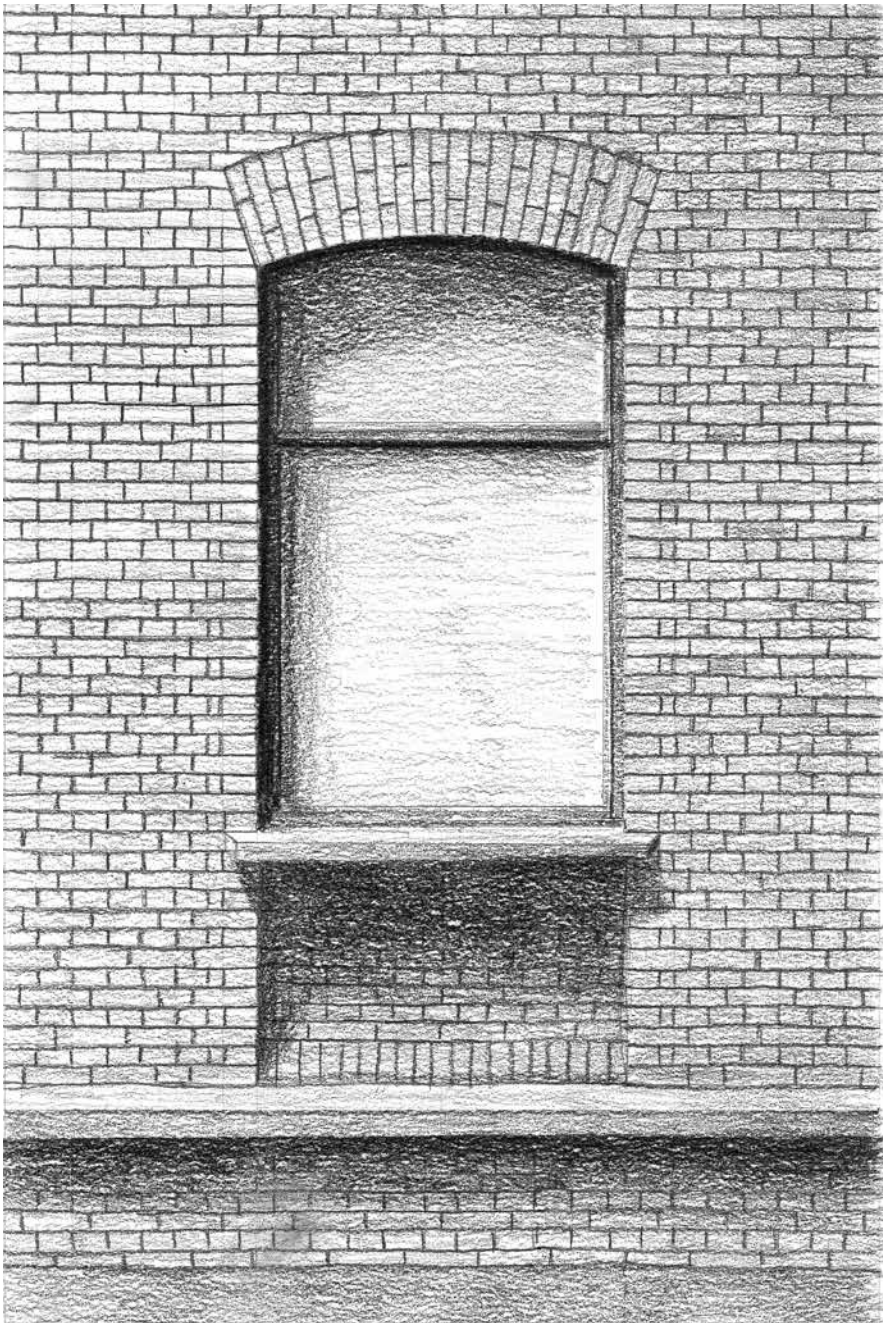
The understanding and appreciation of buildings as something that is made out of many parts have been standing as the basis for this investigation. On the topic, Georg Windeck wrote the book *Construction Matters* 2016 to, once again, refocus architecture on the art of construction and its visual and tactile qualities. He means that every material and method of construction have its own characteristics which *"establish the essential shape and character of architectural space."* (Windeck 2016, p. 12). In the book, he traces the technological development of new construction methods and how they have enabled new kinds of spaces and expressions.

What many of the examples have in common is how they leave traces of their creation through articulated details. A casted concrete structure leaves traces of its formwork, whether it is wooden boards or panels. A timber structure reveals its creation through the hierarchy of its beams and how they are connected together. Specifically on masonry structures, he writes:

"Their modular shape determines the proportions and dimensions of the building elements they constitute. The pattern of their assembly establishes the surface texture of the building, in which the construction procedure remains tangible as a permanent architectural feature"
(Windeck 2016, p. 12)

This direct connection between construction procedure and architectural expression makes small features relatable from one building to another. Not by overall building size or form, but by details. Windeck further writes about the relatable aspects embodied in exposed masonry structures:

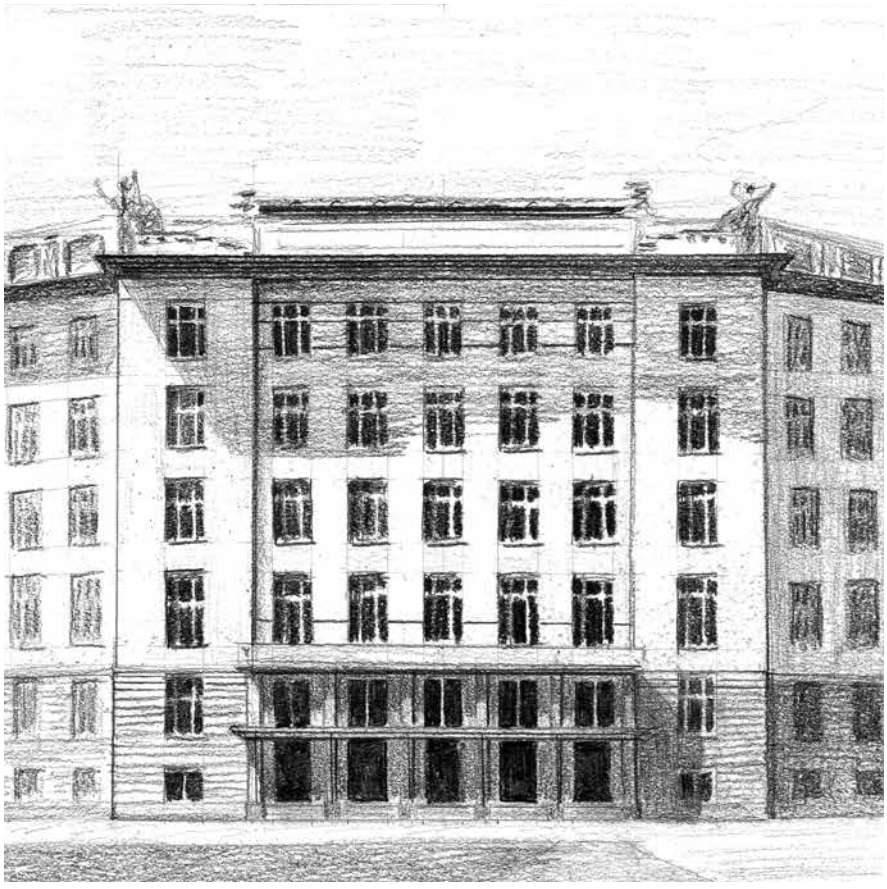
"The surface of a brick wall creates a comforting appearance because the size of its units relates to the size of a human: The brick dimensions are determined by the weight a mason can easily hold in one hand; we can imagine ourselves as the builders of such a structure."
(Windeck 2016, p. 12-13)

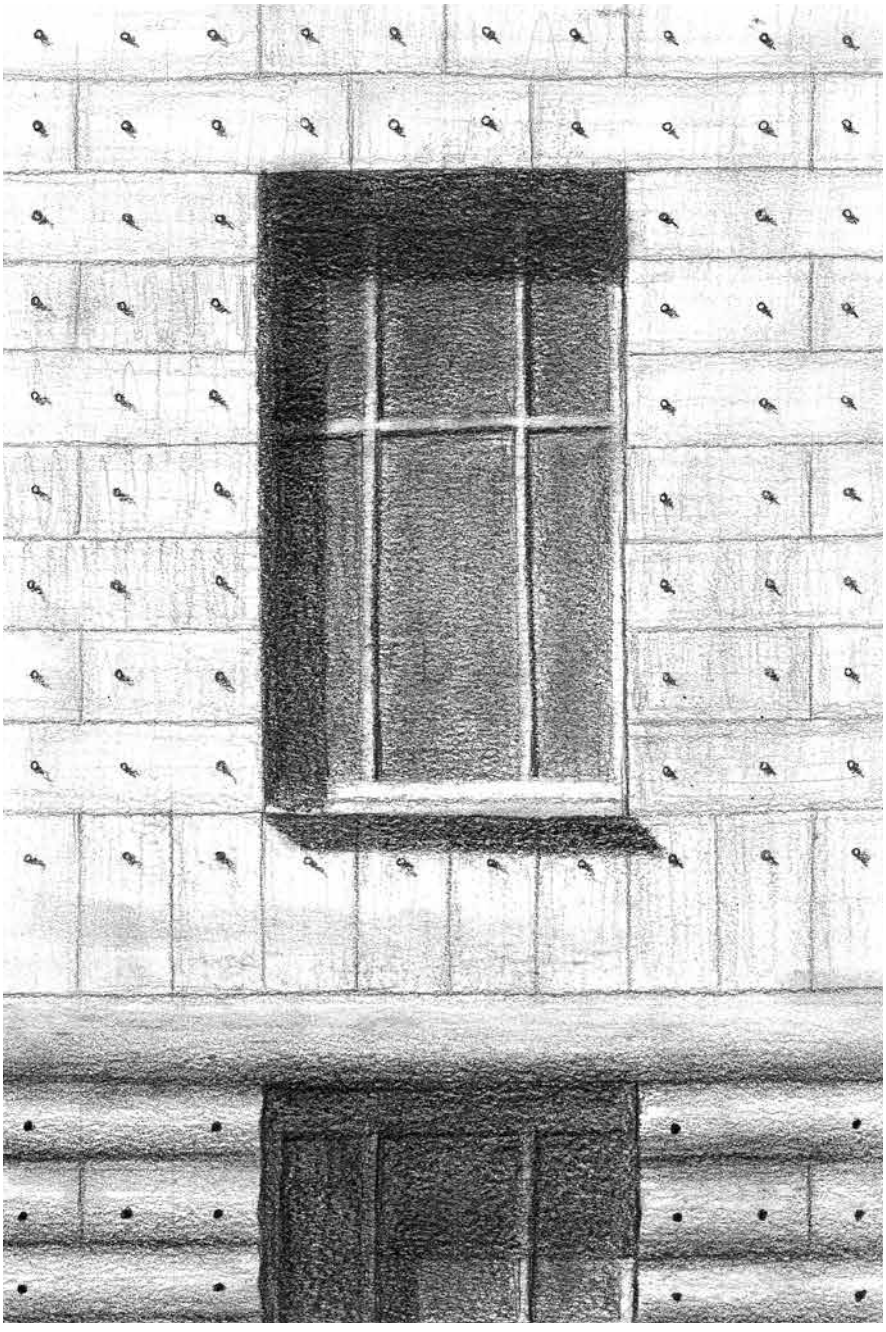


2. Brick wall, Gothenburg
The english cross bond is both the method of laying the bricks and the expression of the surface. The method of spaning a window opening is visible and takes the form of an arc.

3. **Postsparkasse, Vienna**
   Otto Wagner
   From a distance the building can be read as a heavy base with lighter upper levels. The rounded section of the granite slabs gives a perception of weight in contrast to the smooth surface of the marble.

4. **Postsparkasse, Vienna**
   Otto Wagner
   Coming closer, the decorative bolts of the facade not only create patterns of shadows on the surface but also tell about the connection between facade cladding and inner load bearing structure.





Tectonics

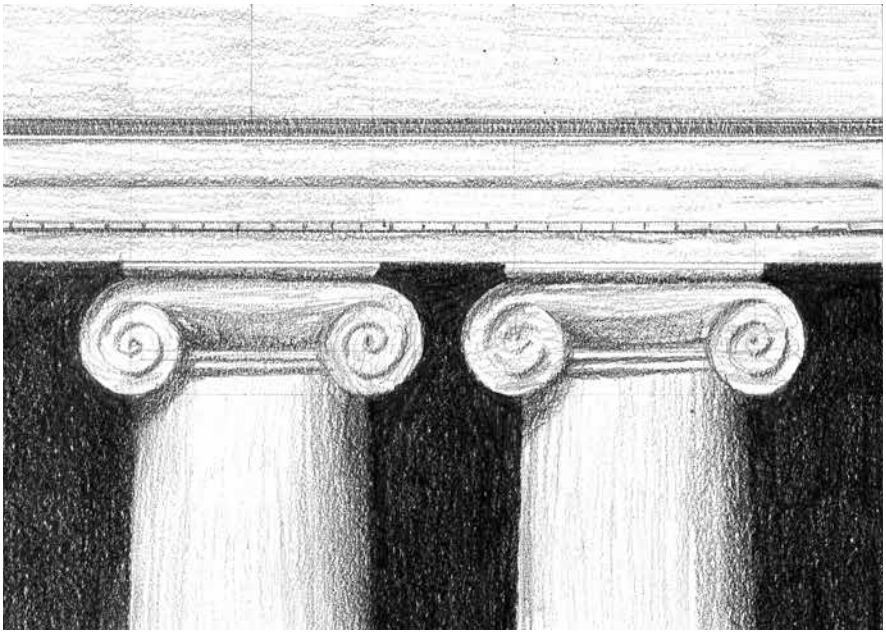
The articulation of structure and construction in architecture is deeply related to the discourse of tectonics. In his 1965 essay *Structure, Construction, Tectonics*, Eduard Sekler describes the difference and connection between these three terms:

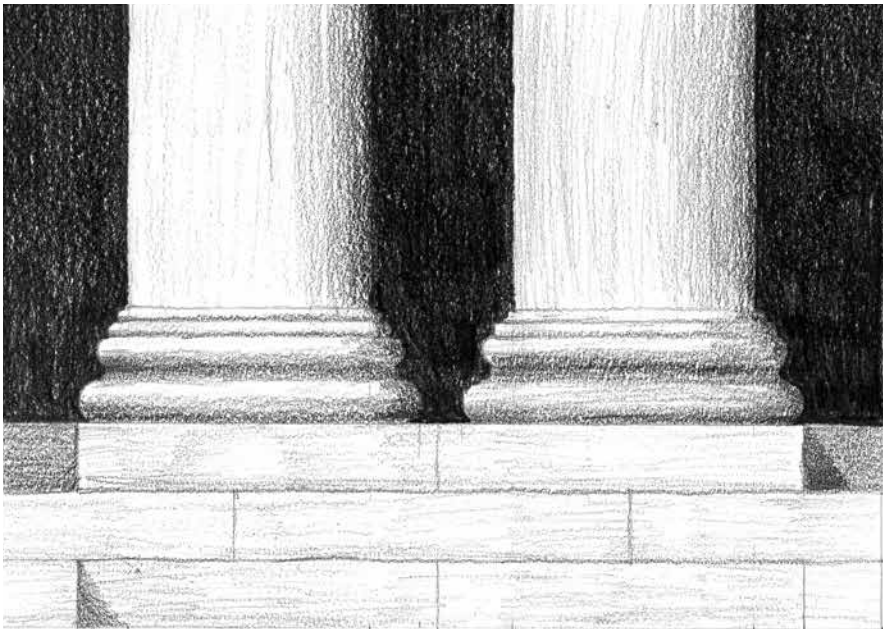
"When a structural concept has found its implementation through construction, the visual result will affect us through certain expressive qualities which clearly have something to do with the play of forces and corresponding arrangement of parts in the building, yet cannot be described in terms of construction and structure alone. For these qualities, which are expressive of a relation of form to force, the term tectonic should be reserved." (Sekler, 1965)

Kenneth Frampton describes tectonics as the poetics of construction (Frampton, 1995). The term refers therefore not to the construction or structure of a building in itself but rather to the creative process of handling construction and structure. We perceive a building's construction through its tectonic qualities, for instance by being able to read the assembly of parts in the final product. In the same way, we perceive a building's structure through its tectonic expression. We can relate the arrangement of parts and materials to the play of forces and supports.

A tectonic expression may also be representational and not relate entirely to the construction or structure. Sekler mention as example, the various facade mullions of Mies van Der Rohes high rise buildings which are representations of the structural system. They are not part of the structure itself but important for the reading of the structure.

Frampton states in his book Studies in Tectonic Culture that *"A given expression may be at variance with either the order of the structure or the method of construction ... However, when structure and construction appear to be mutually interdependent, ..., the tectonic potential of the whole would seem to derive from the eurhythmy of its parts and the articulation of its joints."* (Frampton 1995, p. 20)





5. Frick Collection, New York, John Russel Pope
The parts are in the joints articulated as separate elements, yet unified to a whole. The presence of weight is emphasised in the visual deformation of the base which is seen as crushed by the weight of the column.

The act of detailing

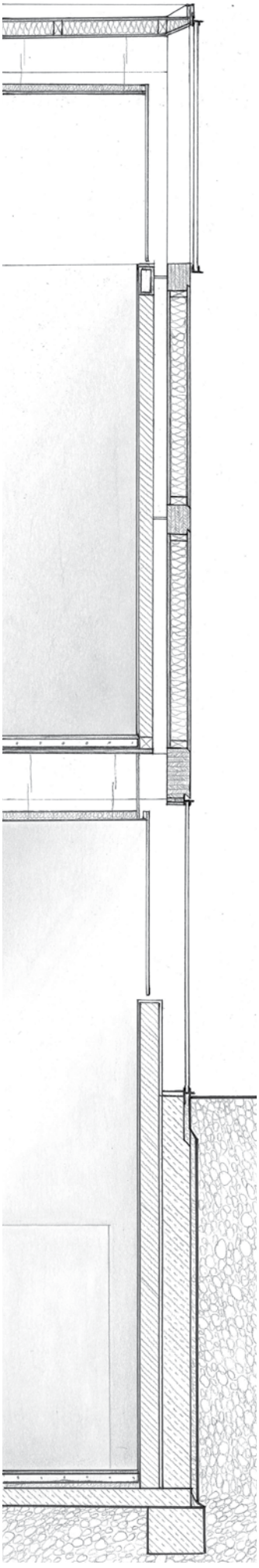
The articulation of internal forces, shown in the Kimbell Art Museum, and the articulation of construction, shown in the brick facade are two of several narratives given in the details. In Edward Ford's book *The Architectural Detail* (Ford, 2011), he categories details based on what story they express. There are structural narratives which tell a story about the presence of internal forces and the weight of materials. Constructional narratives which leaves traces of the how the building was constructed. Programmatic narratives which emphasises how external forces like rain and wind are handled and functional narratives which gives a hint on how the spaces are to be used.

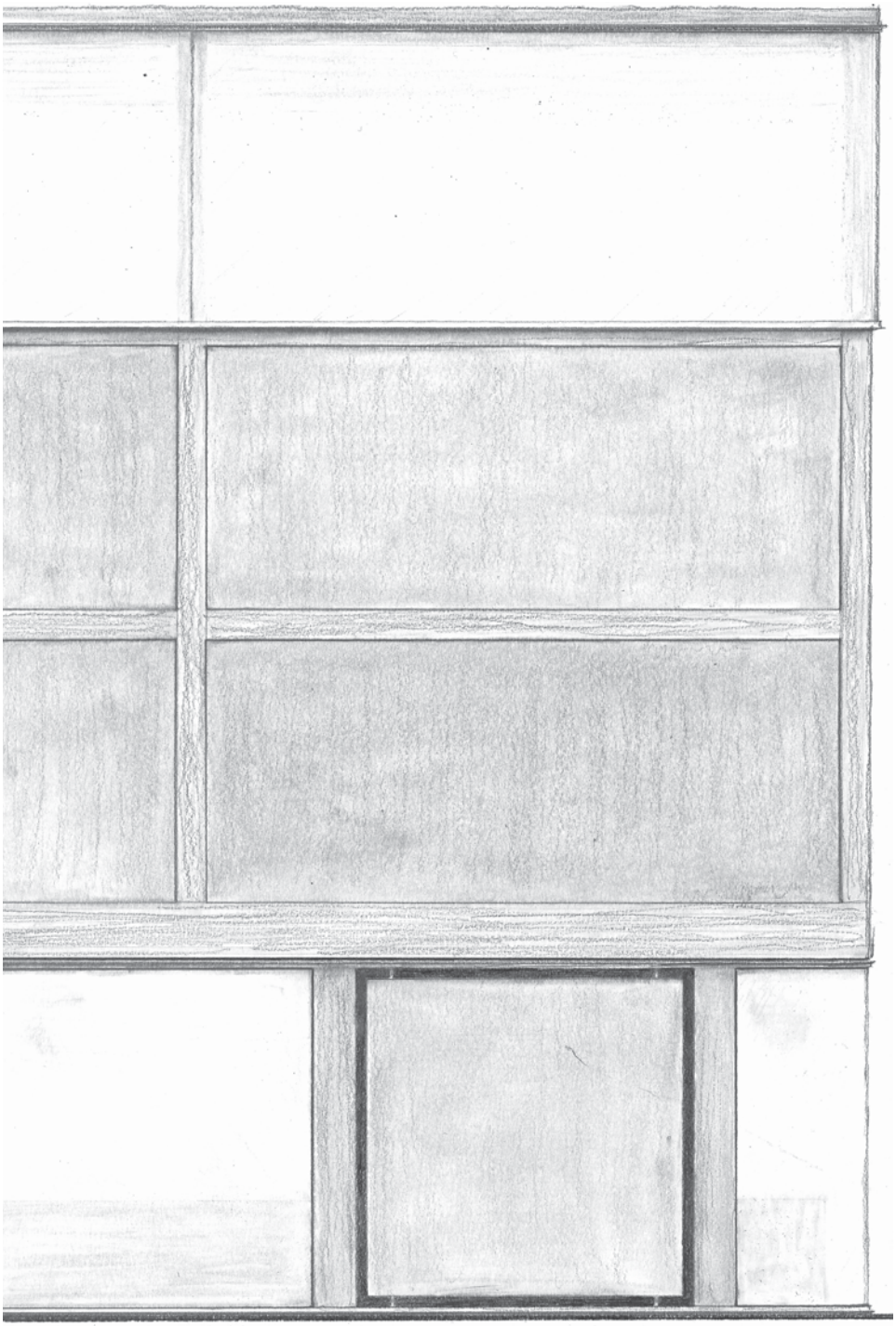
All details, when articulated, provide a story about the building they build up. They guide our perception of the space and how we relate one part to another. An important aspect in strengthening the articulation of details is its opposite, abstraction. If an articulation is a presentation of a solution, an abstraction is a suppression of information.

In his book Ford searches for a definition of details in architecture and of the act of detailing. He argues that defining details in architecture can be very difficult since it always depends on scale and some part's relation to the larger whole. However, when looking at details as bearers of information or as narratives, the act of detailing becomes a selective act where you consciously work with suppressing certain information and presenting other information to provide a desired reading of a space.

Ford describes buildings as abstractions and argues that what we see of a building is merely a small part of all the problems and solutions each building needs to tackle. By working with suppressing and presenting, details can either emphasize this abstraction and be hidden or they can reveal their function and be articulated. As stated earlier, the weighing of these two terms in the process of design establish how we perceive the construction of a space.

6. Sammlung Götz, Munich Herzog & de Meuron
The change in articulation between the exterior and interior creates two very different expressions. One articulating the construction and one abstract to place focus on the art exhibited.





Framework

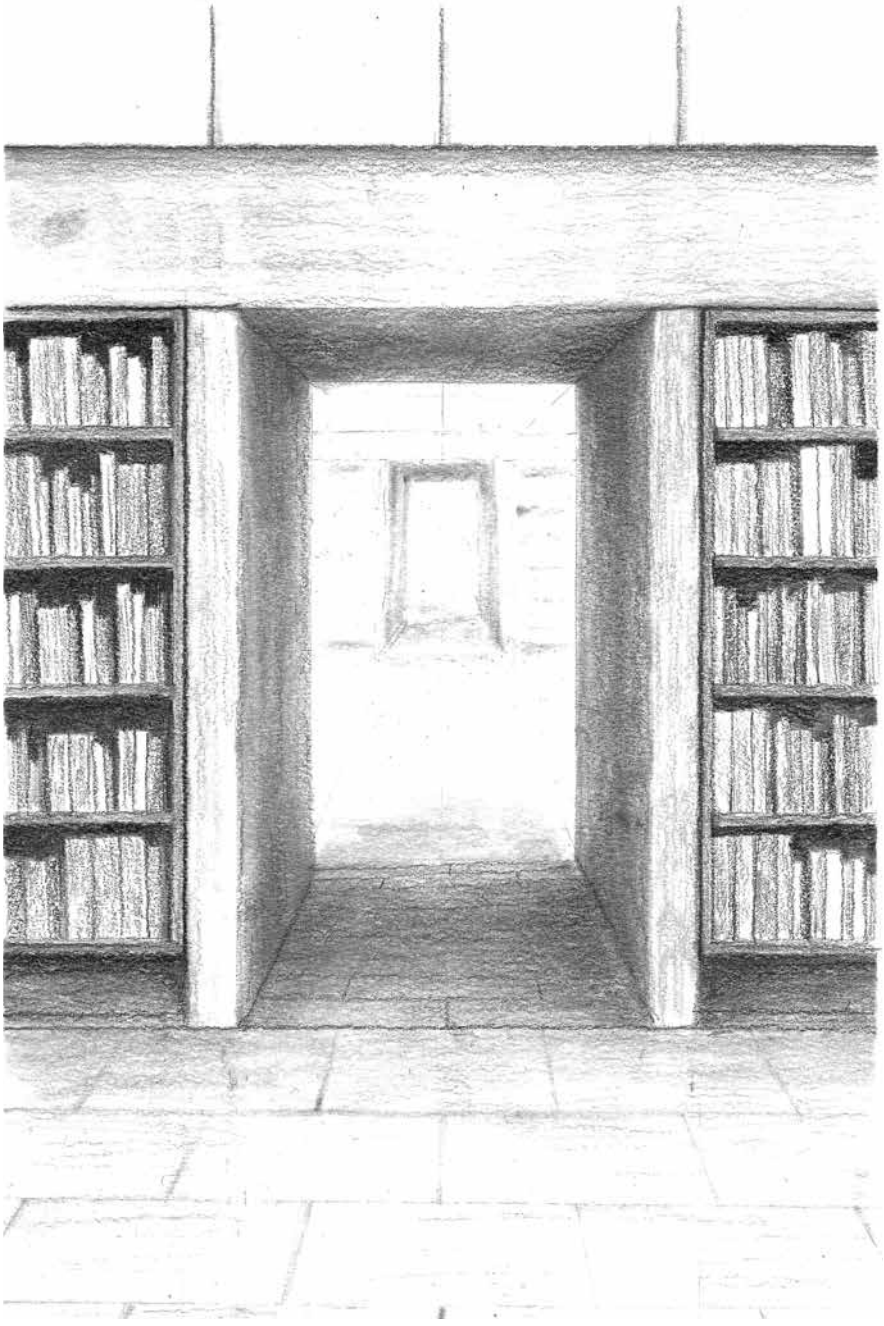
The exploration is framed by and developed based on three main aspects; the spatial situations, the selected site and the choice of materials. Each of these add boundaries to the investigation while also acting as sources of inspiration that guides the design forward.

Spatial situations

The first framework is the spatial situations that take place in a library. The differences in character and atmosphere of different rooms in a library offers great potential to explore a variety of spatial configurations. The library's function as a place of knowledge and collection of books can be questioned in a time where more and more information is available digitally. However, the library's role as a place to study, work or meet continues to be an important factor. In the book *Libraries: A Design Manual*, the library is described as a third place (Lushington 2016). A place, besides the home and the work place, which offers hospitality, work space and retreat. In the book Aat Vos argues for a need for such places outside the world of commercial cafés.

The exploration is governed by intended experiences rather than a building program. These are worked with and illustrated as spatial situations - rooms or transitions with focus on the human activity in and experience of the spaces. By working in situations, the whole proposal evolves around intended experiences that create the overall narrative of the project.

A spatial configuration is never experienced from one single point of view (Janson & Tigges, 2014). Situations are overlapping and depending on use. The spatial situation of a study place for instance can be experienced from sitting and working at the desk. It is however connected to what happens outside the window and in the adjacent spaces. The spatial situation of the study desk is also experienced through movement in either approaching the space or walking by it. The explorations of this thesis focuses on two spatial situations and their immediate surrounding, meaning the configuration of the spaces itself in relation to the spaces around it. The whole is presented in rough section sketches to place these two in the context of a building and in the context of the site.

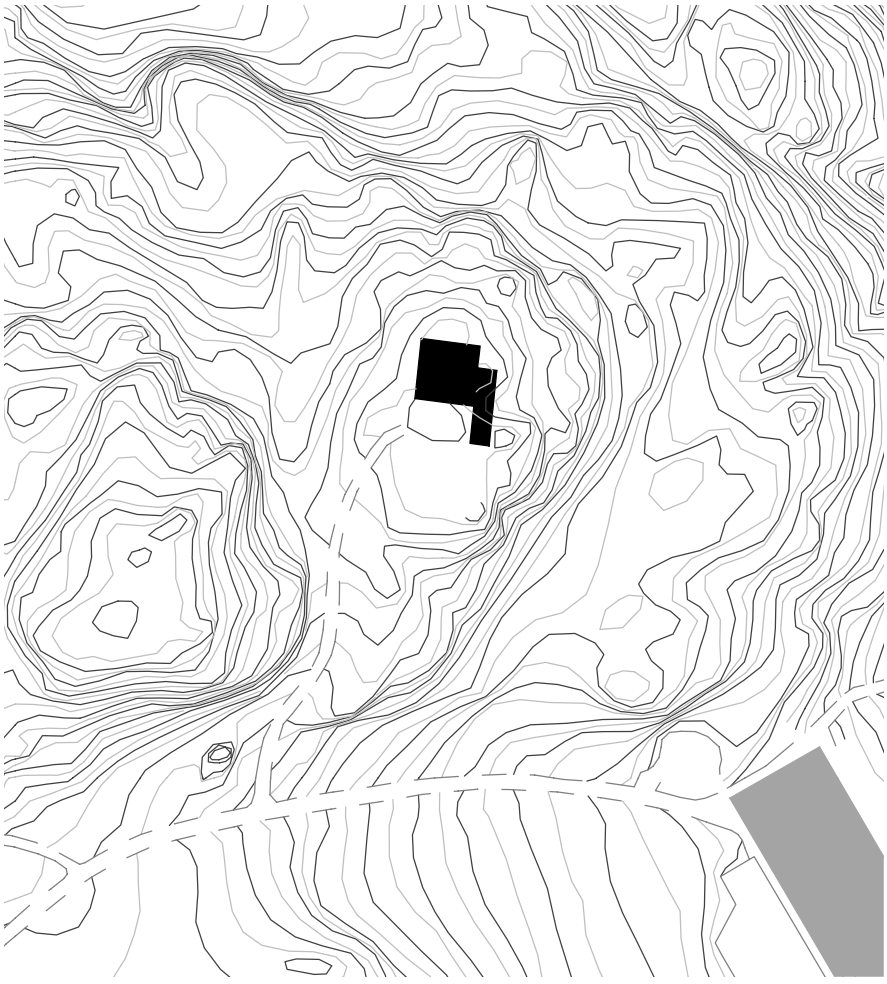


7. Transition space
Early sketch of a transition between two rooms. A search for relations between the different architectural elements of a library.

Site

The project takes place on the site of the 1923 jubilee exhibition tower in Gothenburg. The site, located on top of the hill between Näckrosdammen and Johanneberg, offers a possibility for a remote, yet central study environment with close connection to Chalmers and the University of Gothenburg as well as to the city library. On the hill remains traces of the tower that was exhibited. The remaining foundation stands on the rough terrain and is used to anchor the proposed building to the site.

The site is accessible from the existing pathways going between Eklandagatan and Viktor Rydbergsgatan. The photographs on the following pages (figure 10-13) show the path leading up to the foundation.



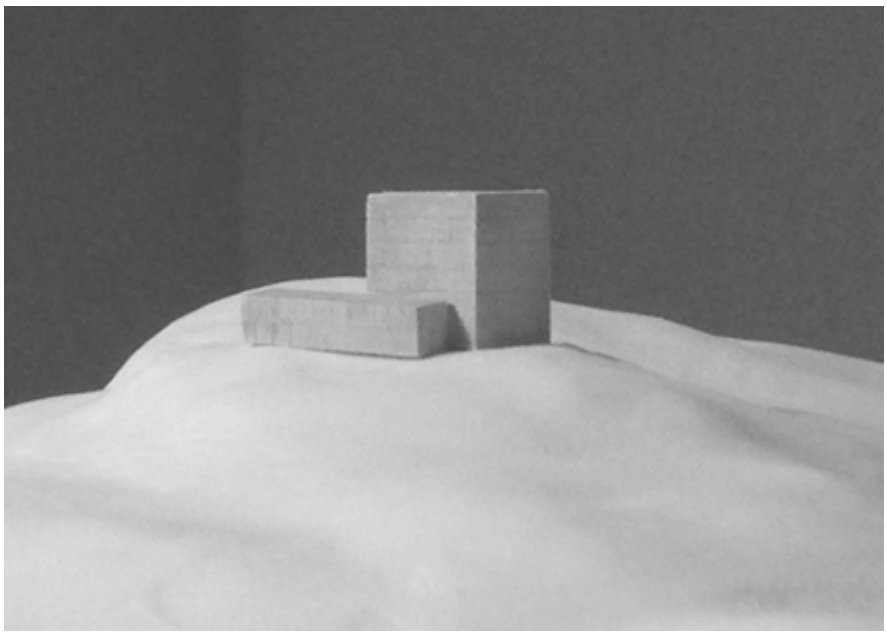
8. **Site plan 1:1000**
   Location of building is marked in black.

9. **Site plan 1:4000**
   Location of building is marked in black.

10-13. Approaching the site
Walking along the terrain between rocks and trees, the location of the building gradually becomes visible.

Material dialogue

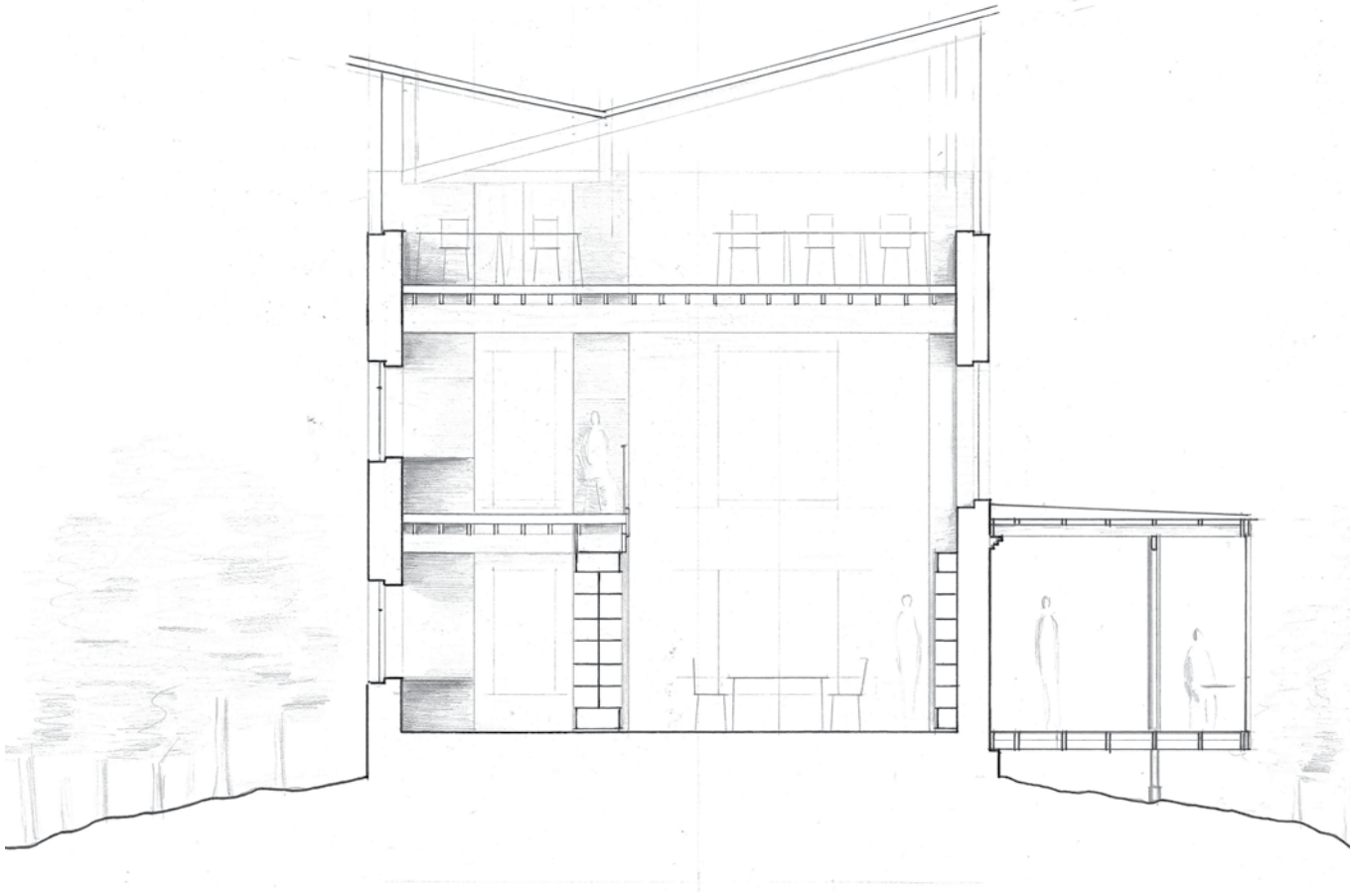
The exploration takes its shape in a dialogue between the two materials brick masonry and wood. The differences between them in terms of materiality and methods of construction create a play with heavy versus light and enclosed versus open. In this thesis, the relation and hierarchy between these two materials are investigated in two spatial situations. The study place and the entrance structure. To place these investigations in the context of a building, the two sections (figure 15-16) show a rough outline of the structure as a whole. The concept of a material distribution starts already on the scale of the building. The brick structure as a heavy mass rises from the site of the old foundation. Together with the timber in the form of beams, slabs and fittings it contains a larger reading room and smaller study places next to it. A wooden structure attaches to the side of the brick structure to create an entrance while another one lands on top of it.

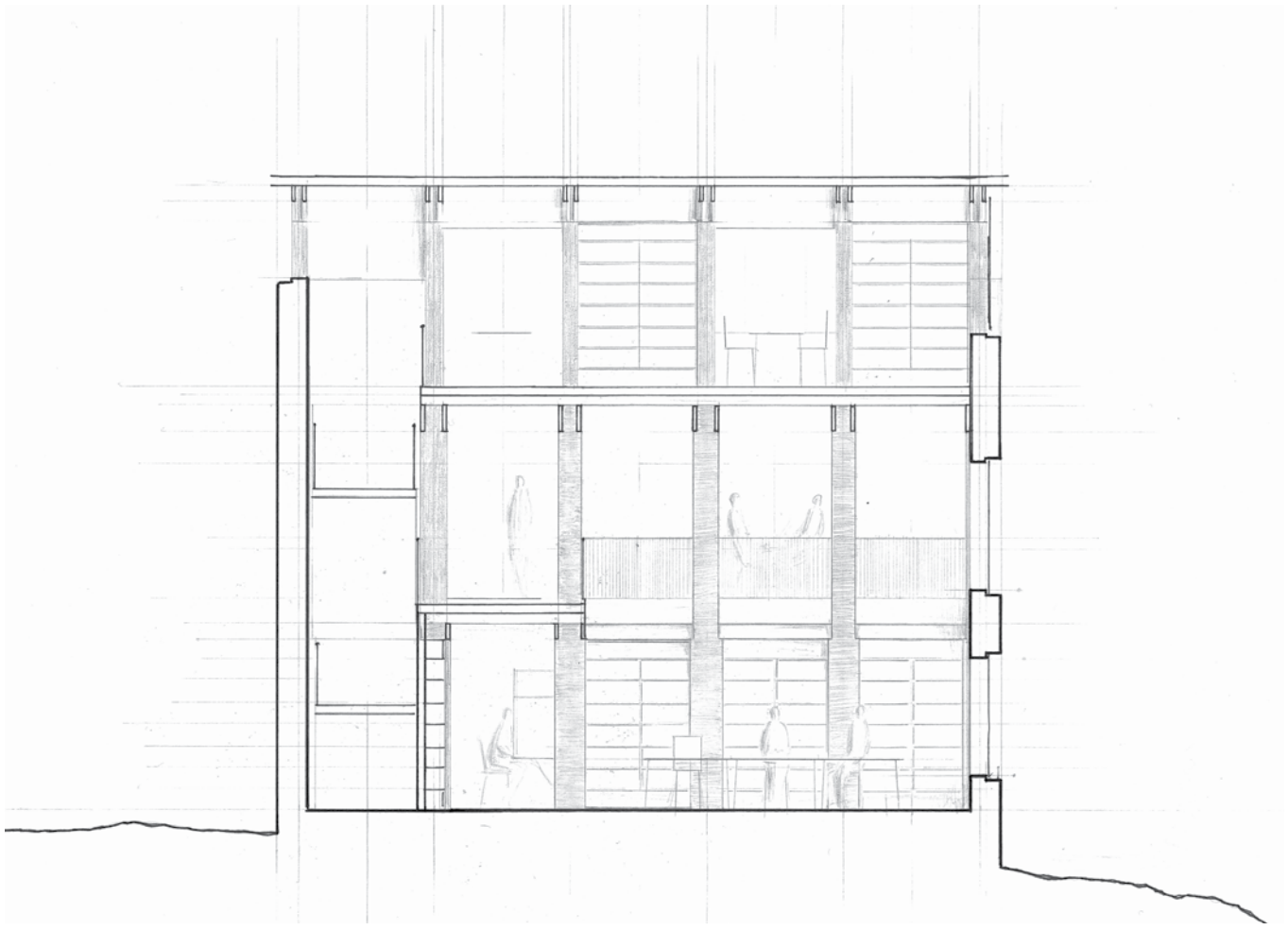


14. Site model 1:500
The main volume and the entrance volume set into the landscape. The brick volume lands heavily on the site of the old foundation while the timber structure lands on simple plinth foundations in the terrain.

15. Section 1:100
Cut through east-west direction

16. Section 1:100
Cut through south-north direction





Method & Process

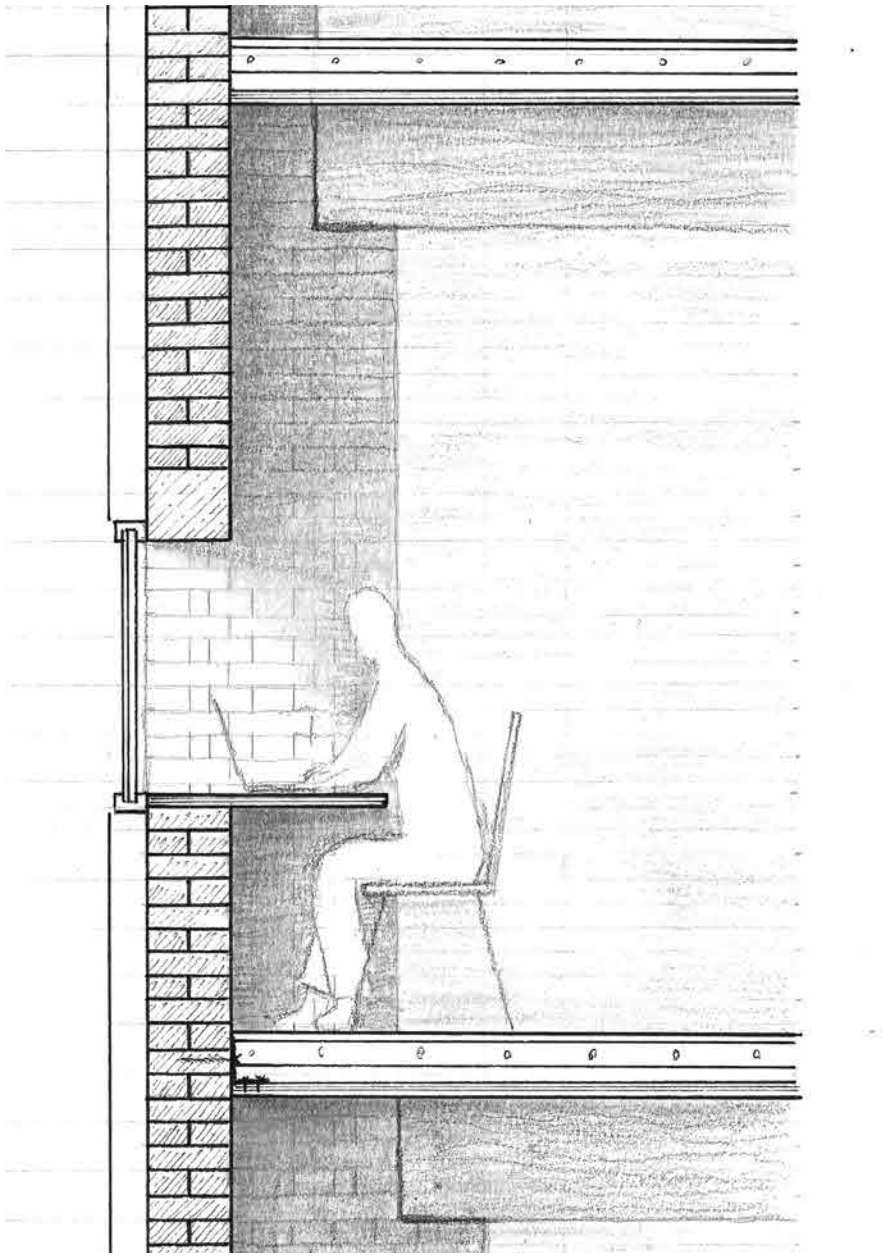
The method of focusing on the joining of materials is explored through a process of hand drawings and model making. By placing parts in relation to each other it becomes a process of sketching in composition of parts rather than sketching in spaces that are later filled with parts. This thesis project therefore raises questions about the role of details and materiality in the design process and investigates how a continuous work with the joining of materials can influence the method of design.

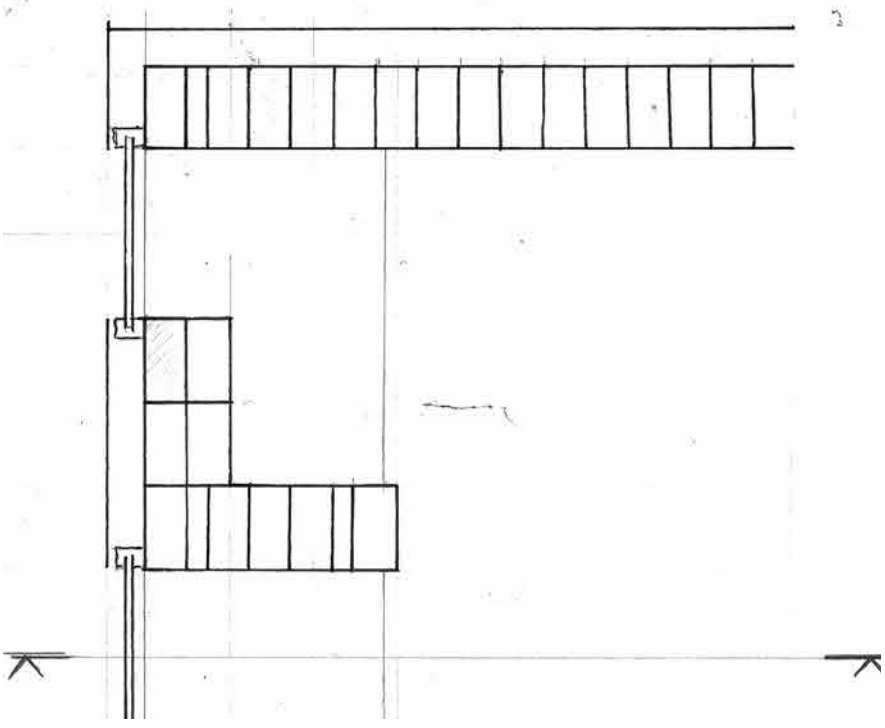
The background on narratives embedded in constructional joints build up a way of thinking about details that became the starting point for the exploration. Marco Frascari's concept of constructing and construing is interpreted in the design process of this thesis as a tool of continuously examining the relation between a joint's constructional or structural connection and its perceived connection. This thesis explores and proposes a design method where materials of construction and concepts of joining are not only present but also guides the design forward. This involves an understanding of the materials themselves, their structural and spatial properties and their respective methods of construction. What this means for the process is a shift in how a building design is approached. The process departs from the materials, their dimensions and their configurations.

The exploration evolves around a series of models and drawings. The process of drawing by hand aims to build up an awareness about the parts and how they relate to each other. The drawings are mostly done in two dimensional projections, plans, sections and elevations that are combined to show the connection between them. Drawings of spatial situations in 1:20 are developed in parallel with detail drawings in 1:5 to let the concept of a joint be present in the process.

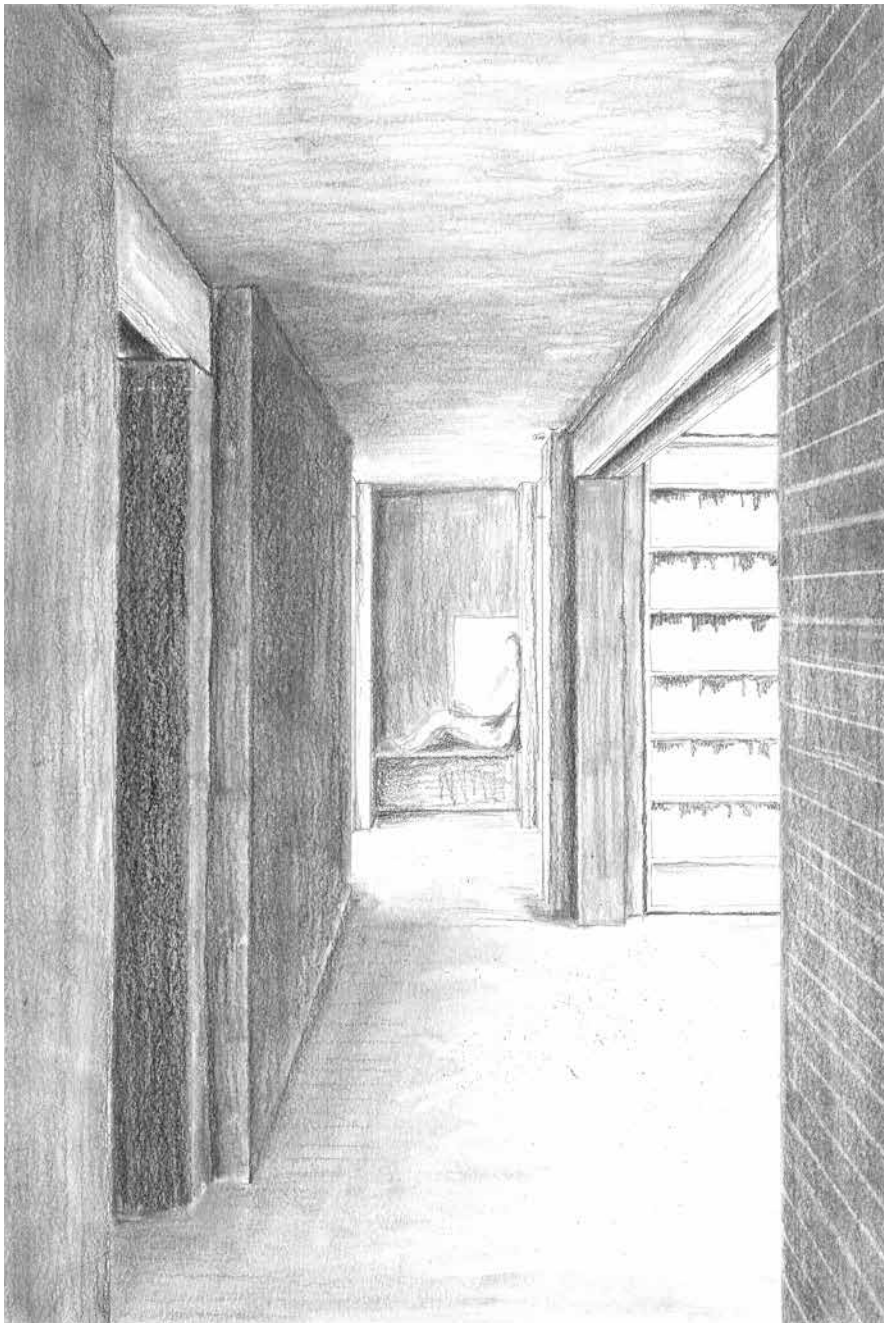
The models are used as a tool for sketching and as a tool of examination. In the models, the joints are placed into a spatial context and are examined through photographs. Together with the drawings they communicate the link between what is visually perceived and how that is constructed. One step in having the materials of construction present in the process is to find appropriate model materials. As will be presented later on, the masonry and timber structure of the exploration is a play with heavy versus light and with different modes of construction. The timber structure is easily translated into models by the use of small wooden pieces, cut into the dimension of the scale model. For the masonry structure, two different model approaches are used, both having more sculptural qualities than the assembly of wooden members. As a sketch model, foam board is used and carved out with the dimensions of the bricks in mind. For more precise models of brick walls, plaster is casted on patterned formworks.

The following pages show some of the drawings from the sketching process. They are presented both as an introduction to the final drawings and to illustrate the working process. The method of drawing has evolved over the time of the thesis and the selected drawings are also presented to illustrate the search for approaching the topic.

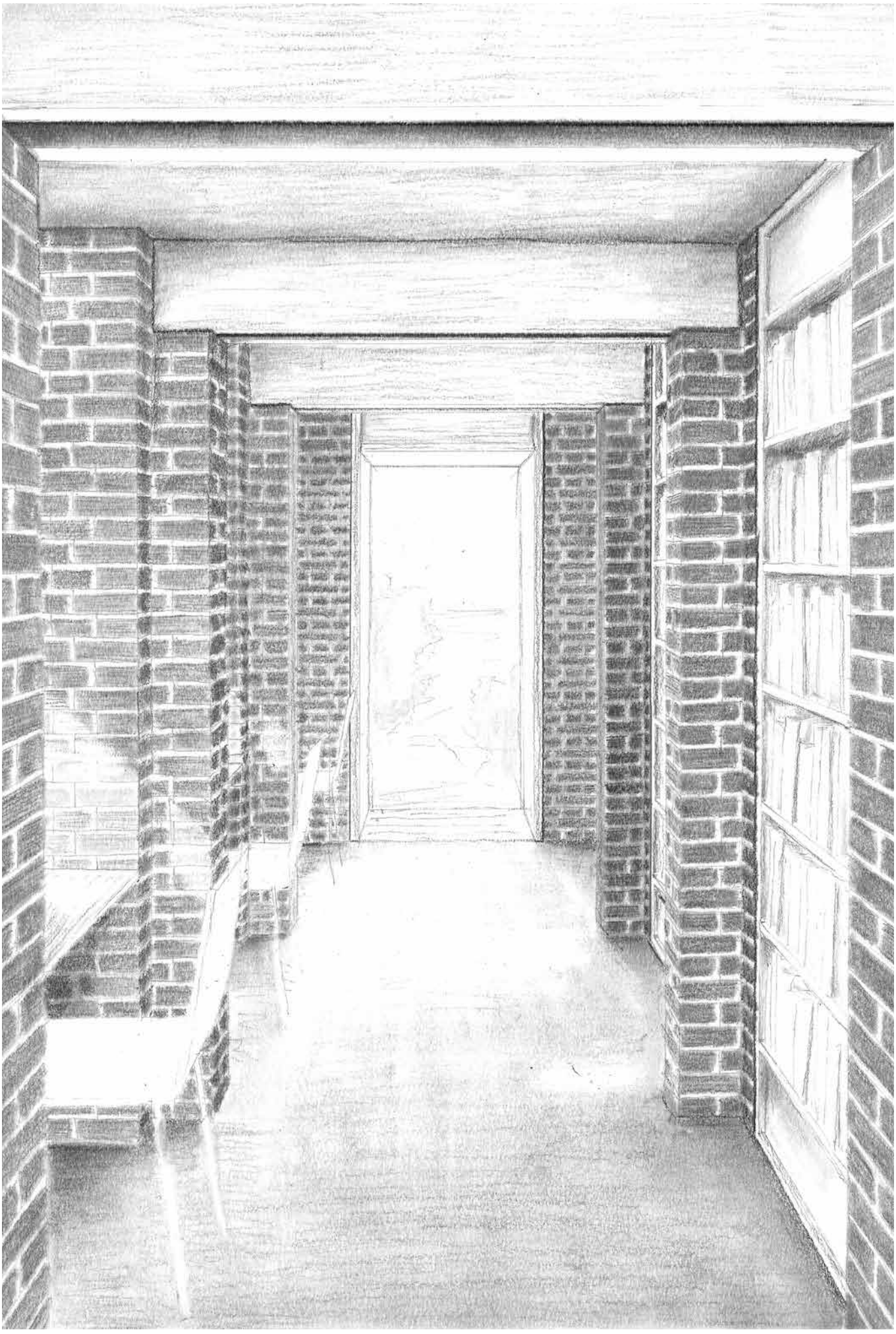


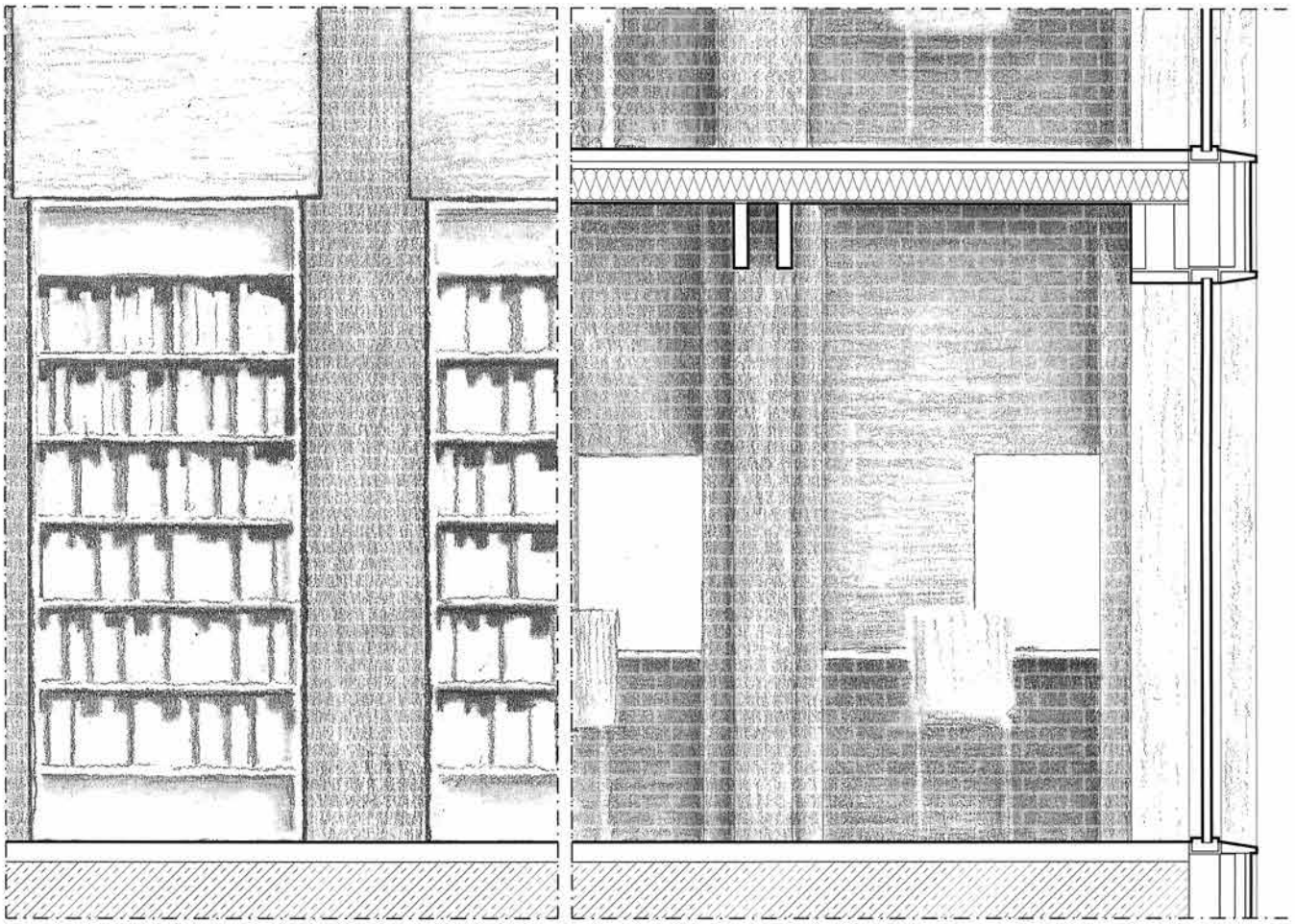


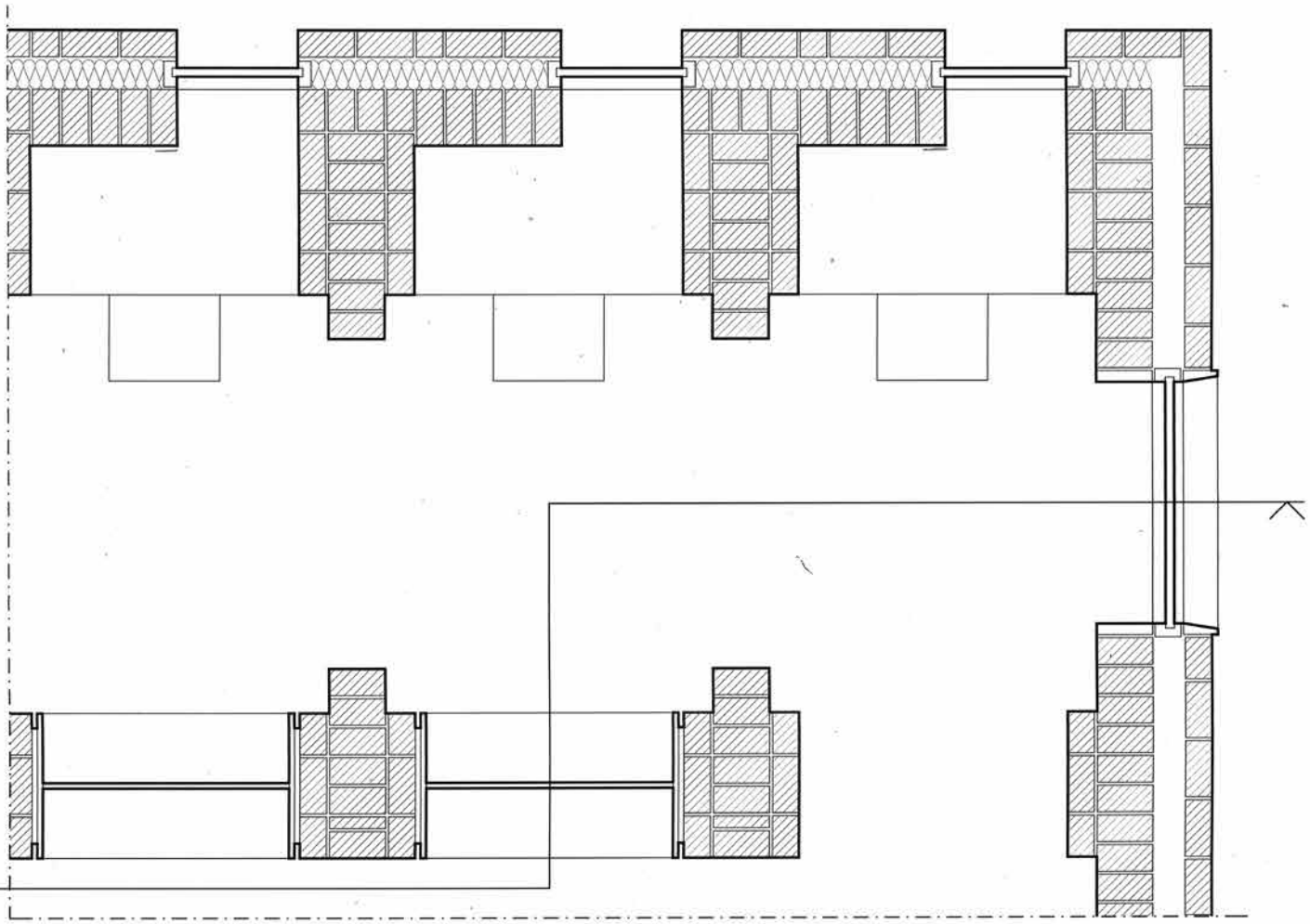
17. Section and plan
Study place set into the brick wall. The joining of wall and beam forces a change to the next level. The structure grows lighter further up the building.

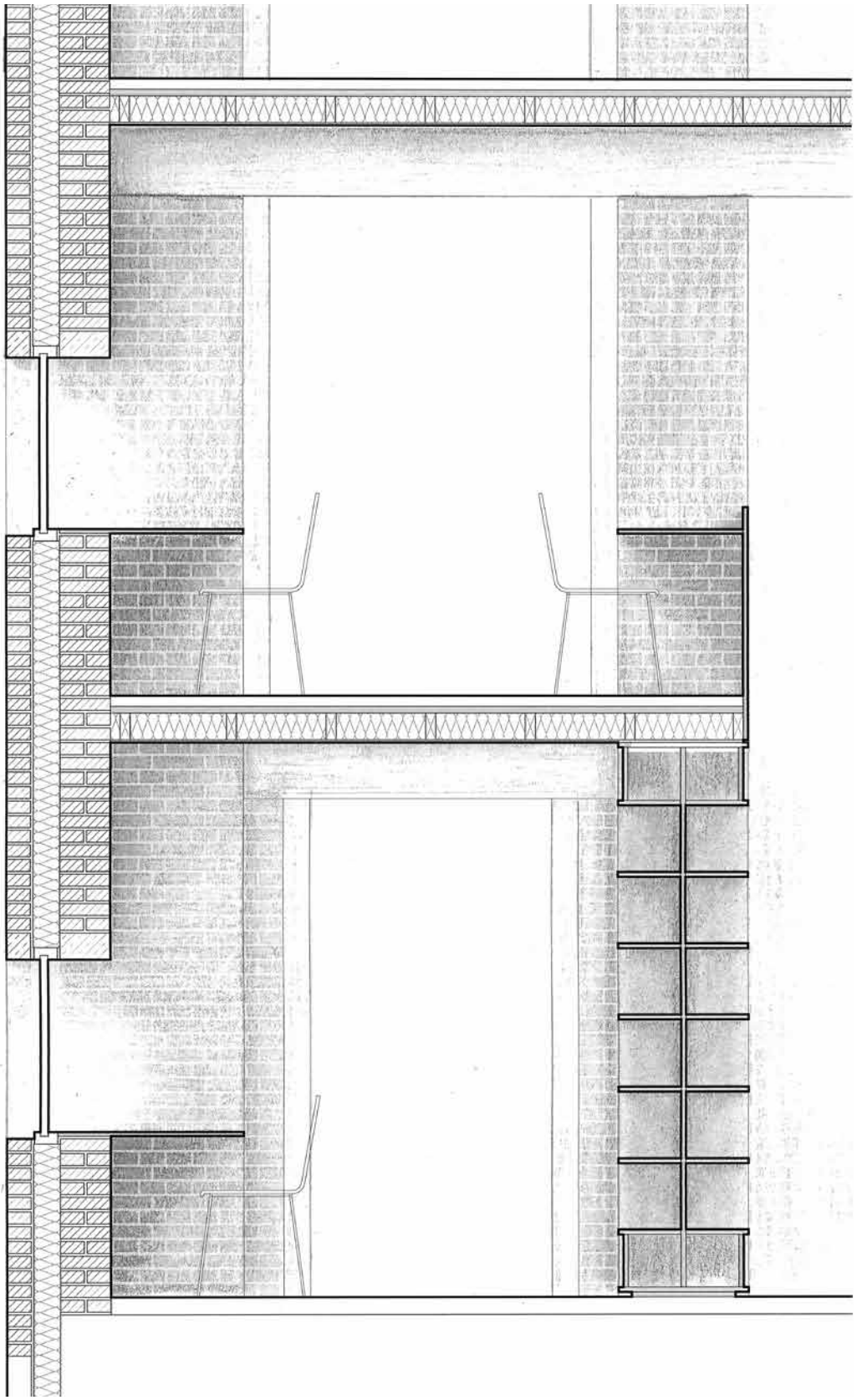


18-19. Perspective drawing
Focusing on the spatial qualities of light, shadows and materiality. These kind of drawings also worked as a tool for identifying crucial joints.

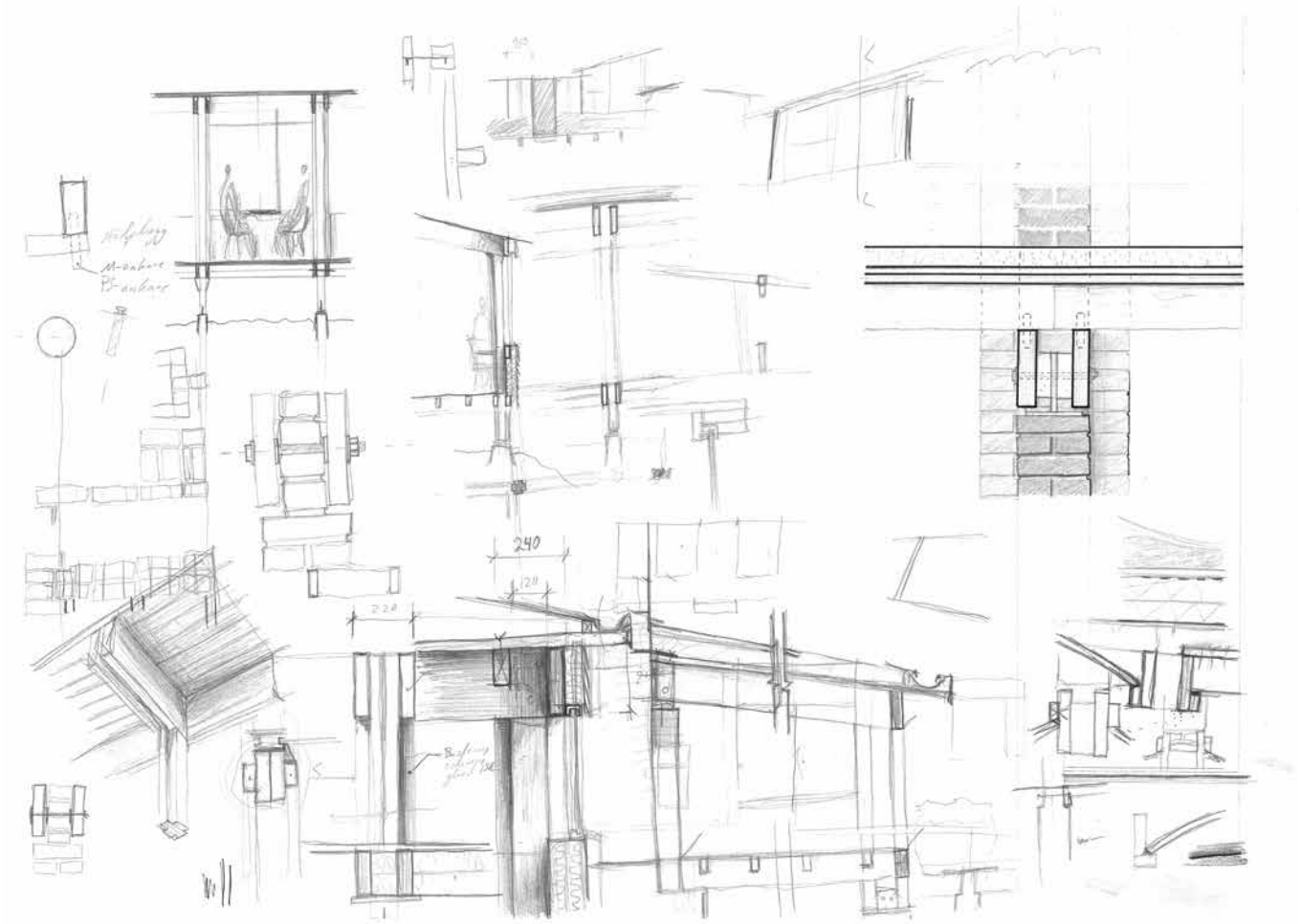








20-21. Sections and plan
A test in combining the precision of digitally drawn sections with the qualities of the hand drawings.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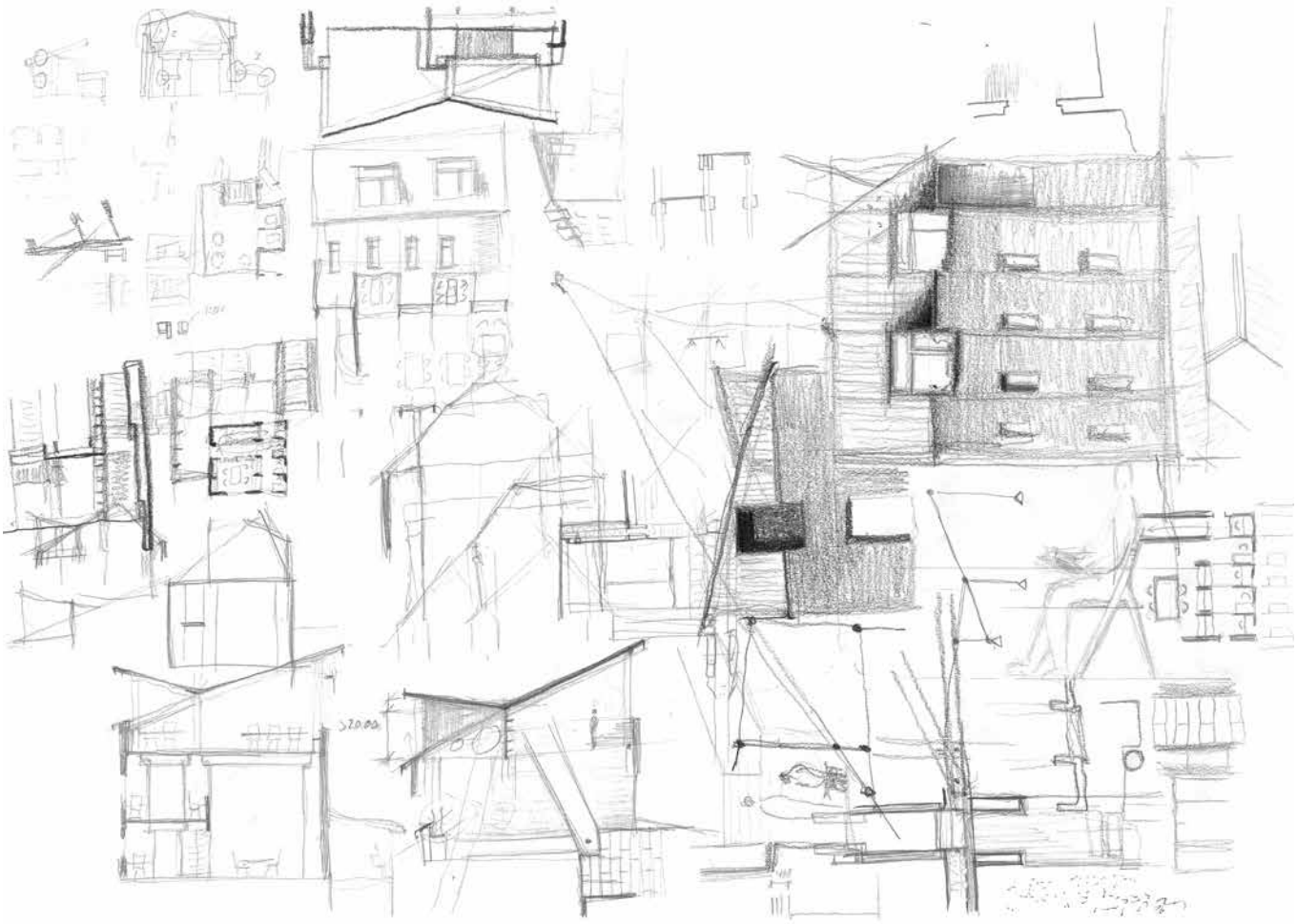
120
220



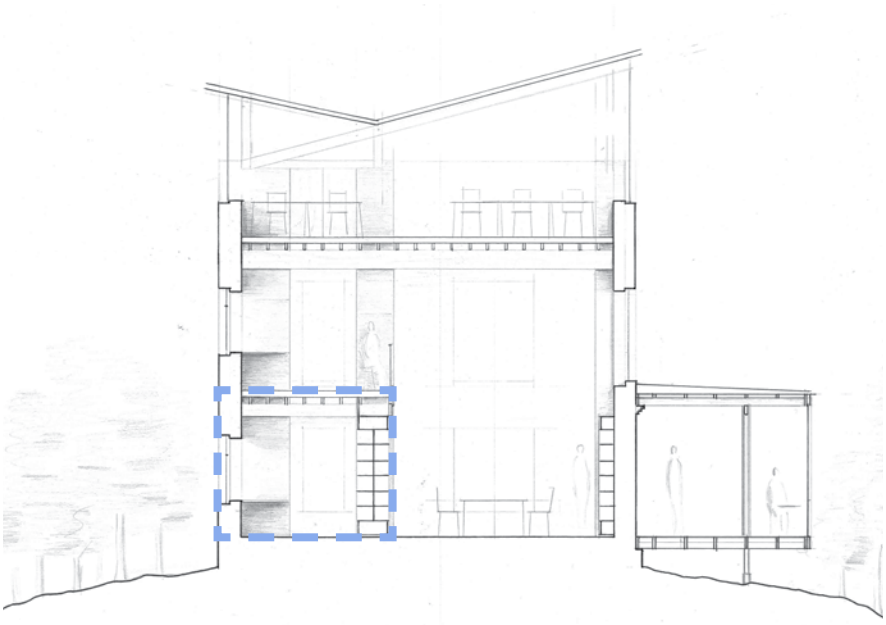
22-25. Sketches
Drawings in various scales and projections searching for relation between different parts.

1st exploration

The study place

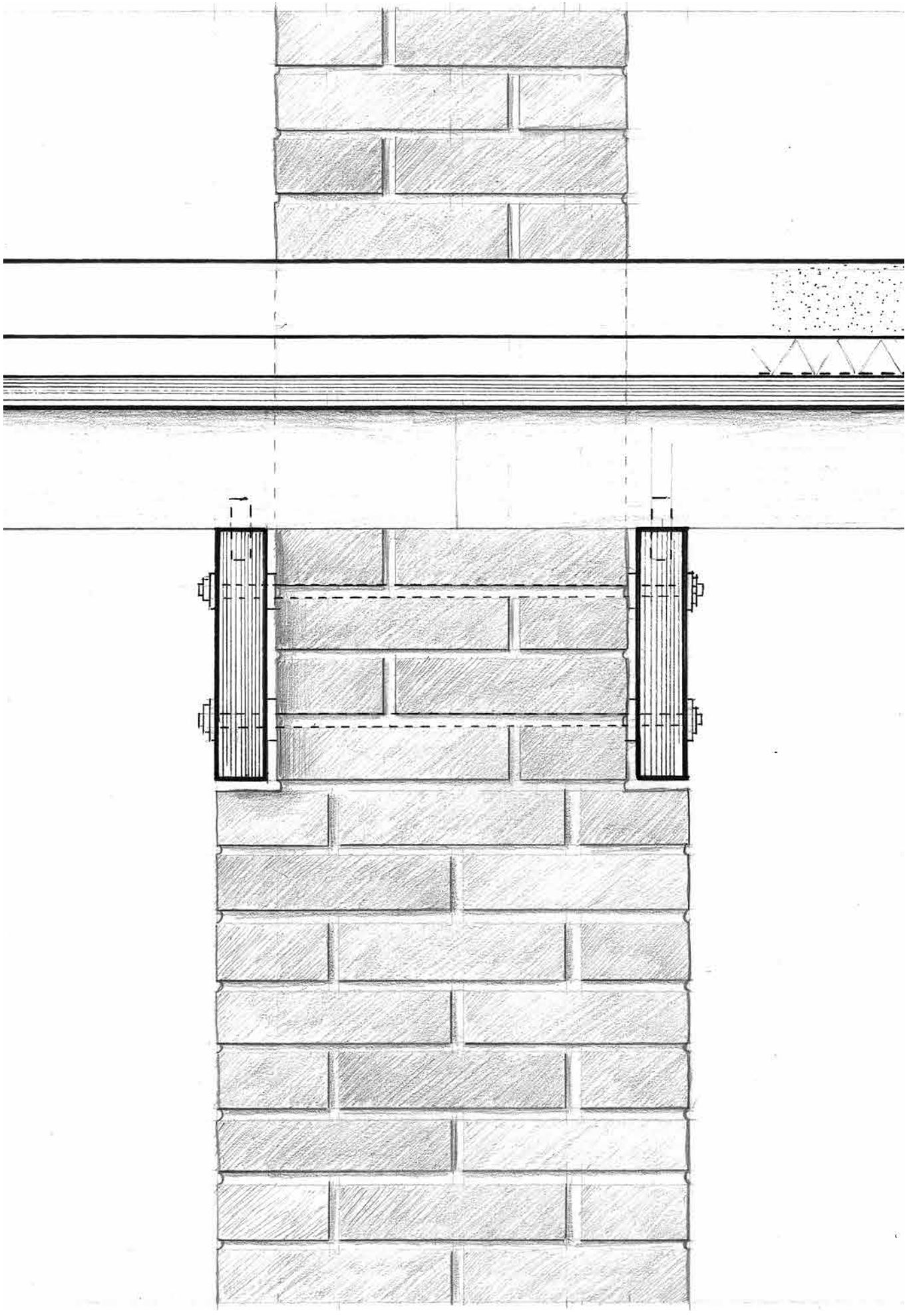
The first investigation takes place in the most enclosed part of the building. Located on the west side with the dense forest outside are the study places. A desk and window, placed into the brick structure. Here, I've worked with the meeting between the two materials as something that defines zones of concentration. The process consists of building up an understanding of the materials themselves - the sizes and logic of brick bonding and the hierarchy of beams. With this in mind the second step is to place these in relation to each other. - Where does one material stop and another begin. Which one is continuous over the other and how does this affect the space it creates. The joint is developed in a parallel process of 1:5 drawings and more schematic models. The narrative of the joint is explored through articulating these relations. As can be see in the model photo and drawings on the next pages, the beam interrupts the brick wall, forcing it to get narrower on the next level. The logic of the joint therefore affects the whole. The continuation of the brick wall is revealed and shown in the cavities between the second layer of beams.

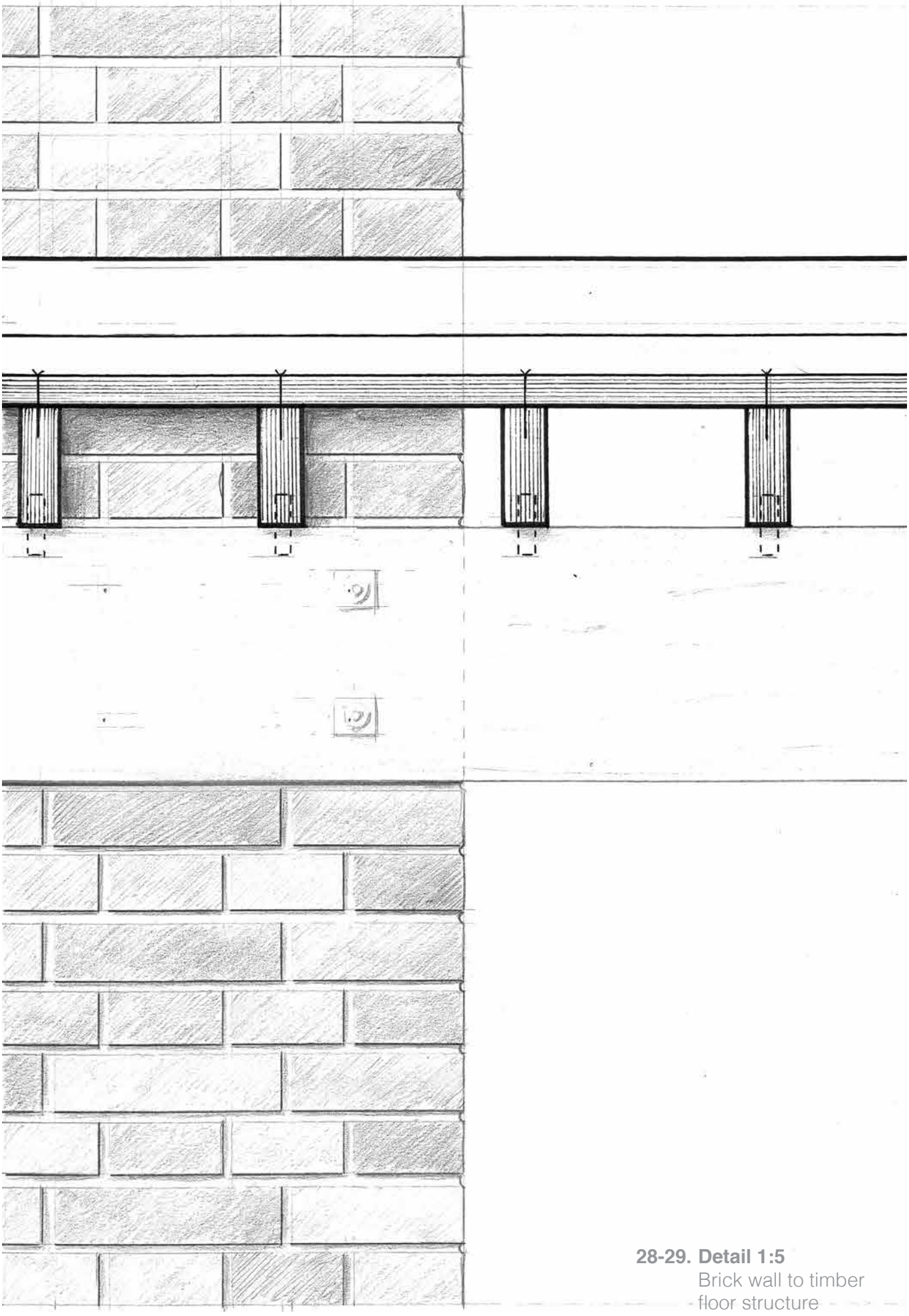
The exploration was at that point in the process mostly focused on the overall structure and the space it defines. The next step was to look at how other parts, the window, desk and bookshelf relates to this. It can be seen as a play with hierarchy between the main structure and the fittings. They are all integrated with each other but still visible as separate elements, assembled at different times in the process of construction. The desk and window are placed against one of the walls to create a study situation where the only distraction can come from one side. The orientation of the room allows for direct sunlight to shine on the brick surface but never directly on the person sitting there.



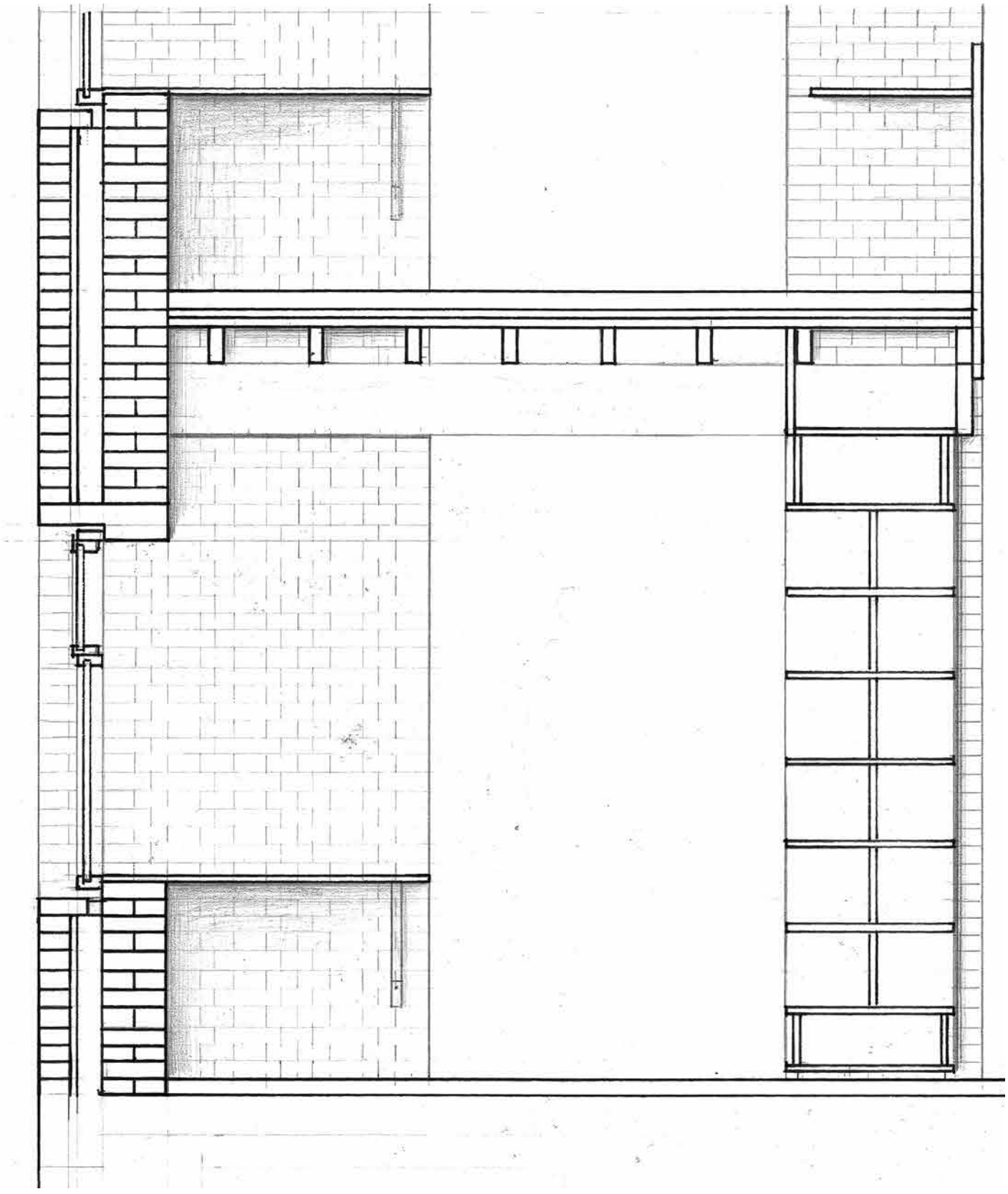
26. Section 1:150
Location of study place marked in blue

27. Model 1:10
Showing the joint in the spatial context of the study place.



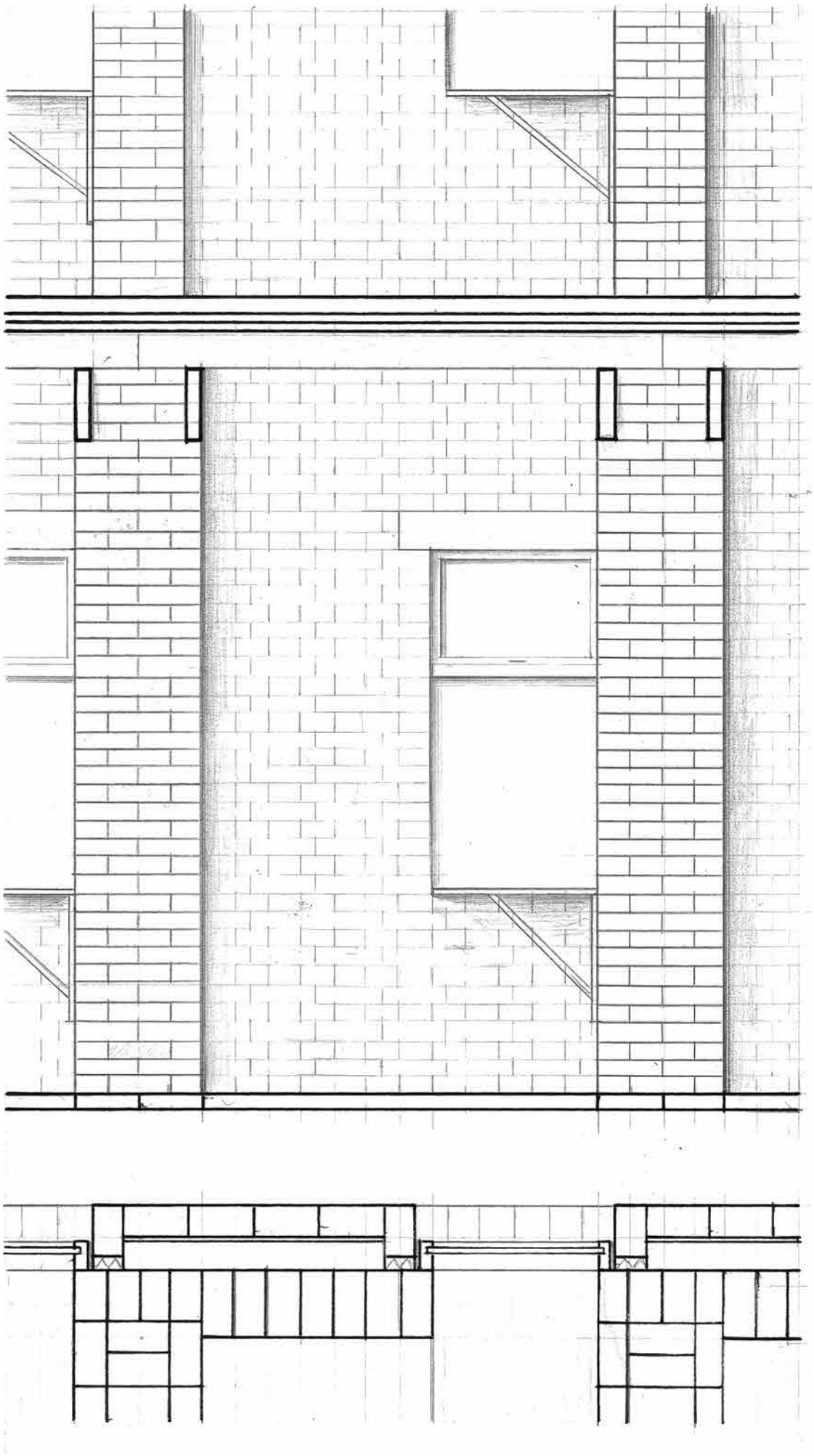


28-29. Detail 1:5
Brick wall to timber floor structure



30. Section 1:20
Cut through study place

31. Section 1:20
Cut through study place



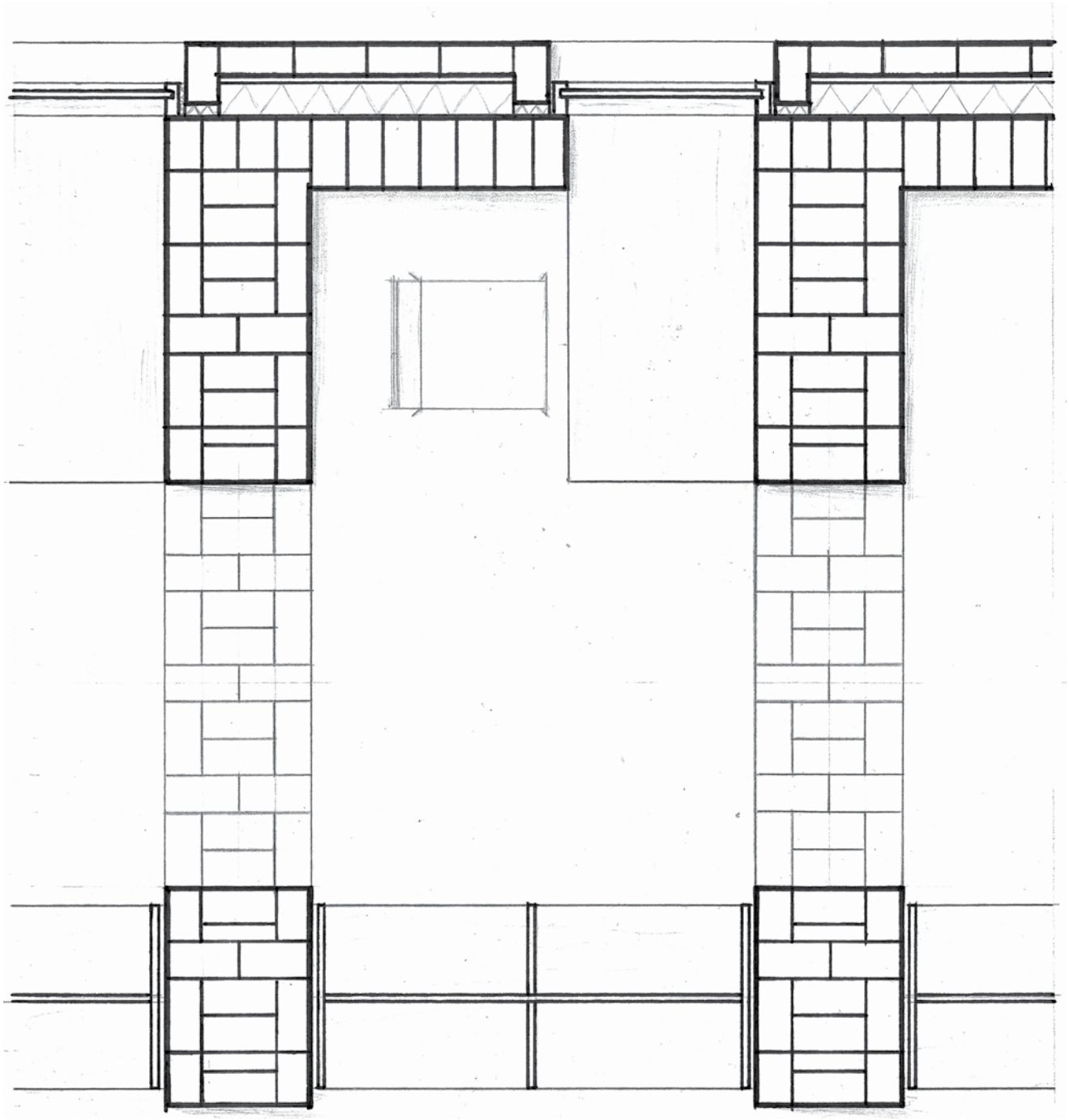
Brick bond

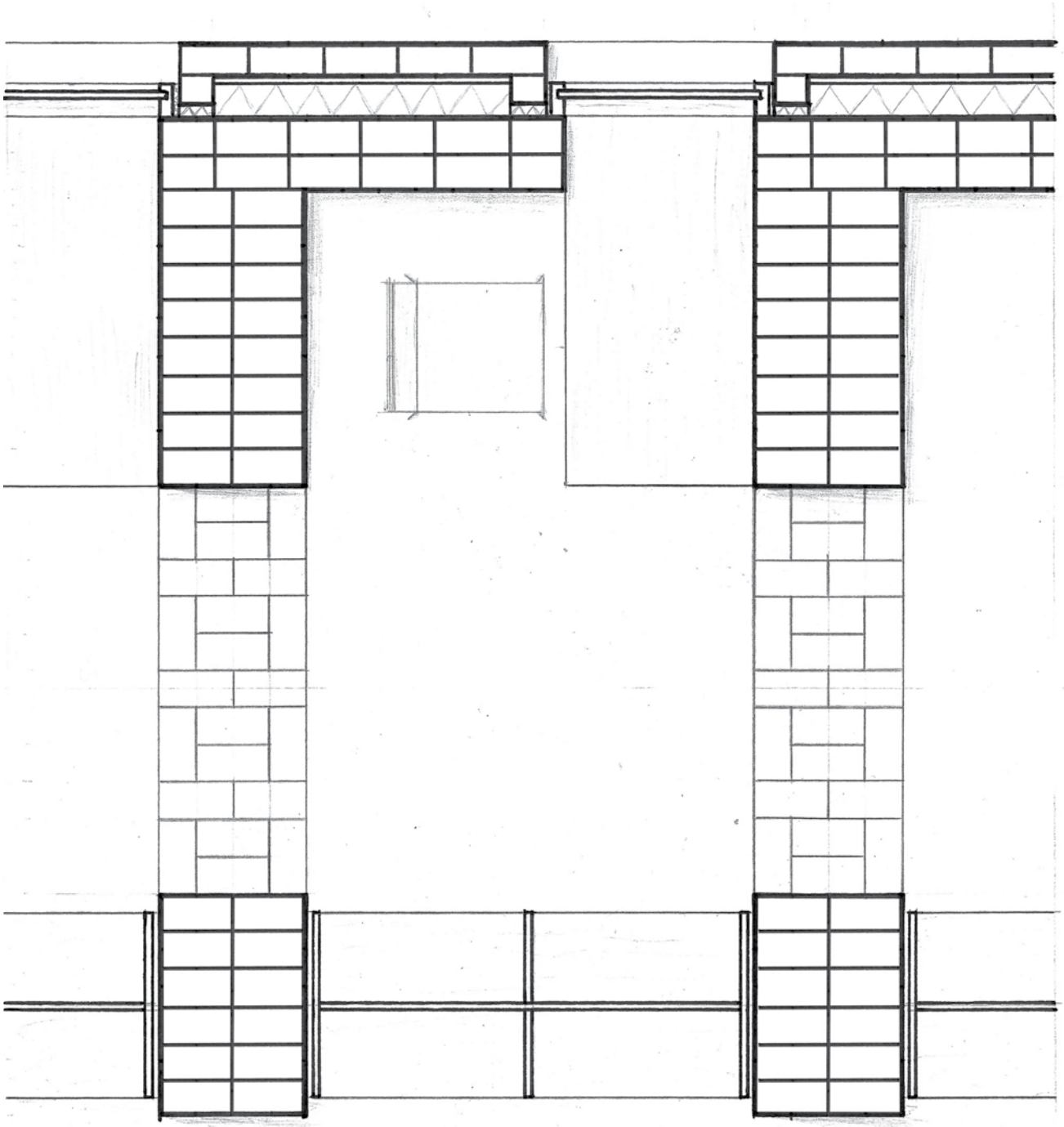
The design is continuously checked with the dimensions of the bricks. Here a Danish standard size is used, measuring 228x108x54 mm with horisontal and vertical joints of 12 mm. 3/4 bricks are used at the ends of a brick wall to create a 1/4 shift compared to the next course.

The English bond used consists of headers and stretchers laid out on every other course which creates a stiff wall structure. The connection between the wall along the edge of the building and the perpendicular shear walls interlock with each other. This is made visible by the placement of the window and the desk. The shear walls are what create the niches of the study places. They provide horisontal stiffness to the structure and reach out to support the beams. The bricks laid on the floor follow the direction of the main beams and define a zone for each study place.

32. Plan 1:20
Cut through the 20th brick course.

33. Plan 1:20
Cut through the 21st brick course.





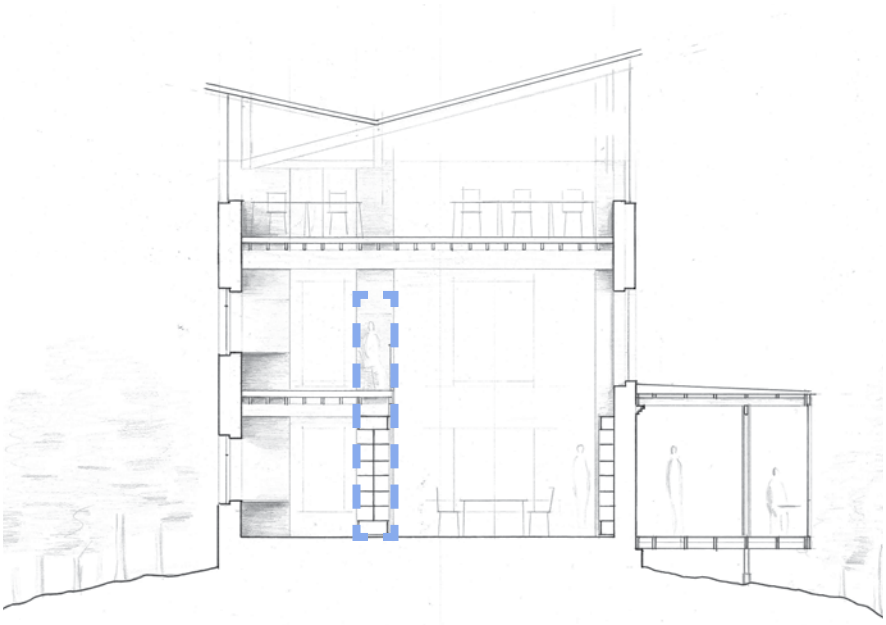
The reading room

When looking at how the logic of the joint and composition of the study place expresses itself in the larger reading room, the brick columns are shown as the continuous part which interrupts the wood, the railing and the bookshelf. This together with the tapered form of the columns create a more vertical orientation of the larger room in comparison to the horizontal divisions of the study places.

At the point where the column gets narrower, the floor slab lands on the bricks. It is a play with forces and supports made visible and simultaneously a play with hierarchy and order between the different architectural elements. Similarly to the window and desk in the study place, the amount of integration between main structure and fixed furnitures is investigated.

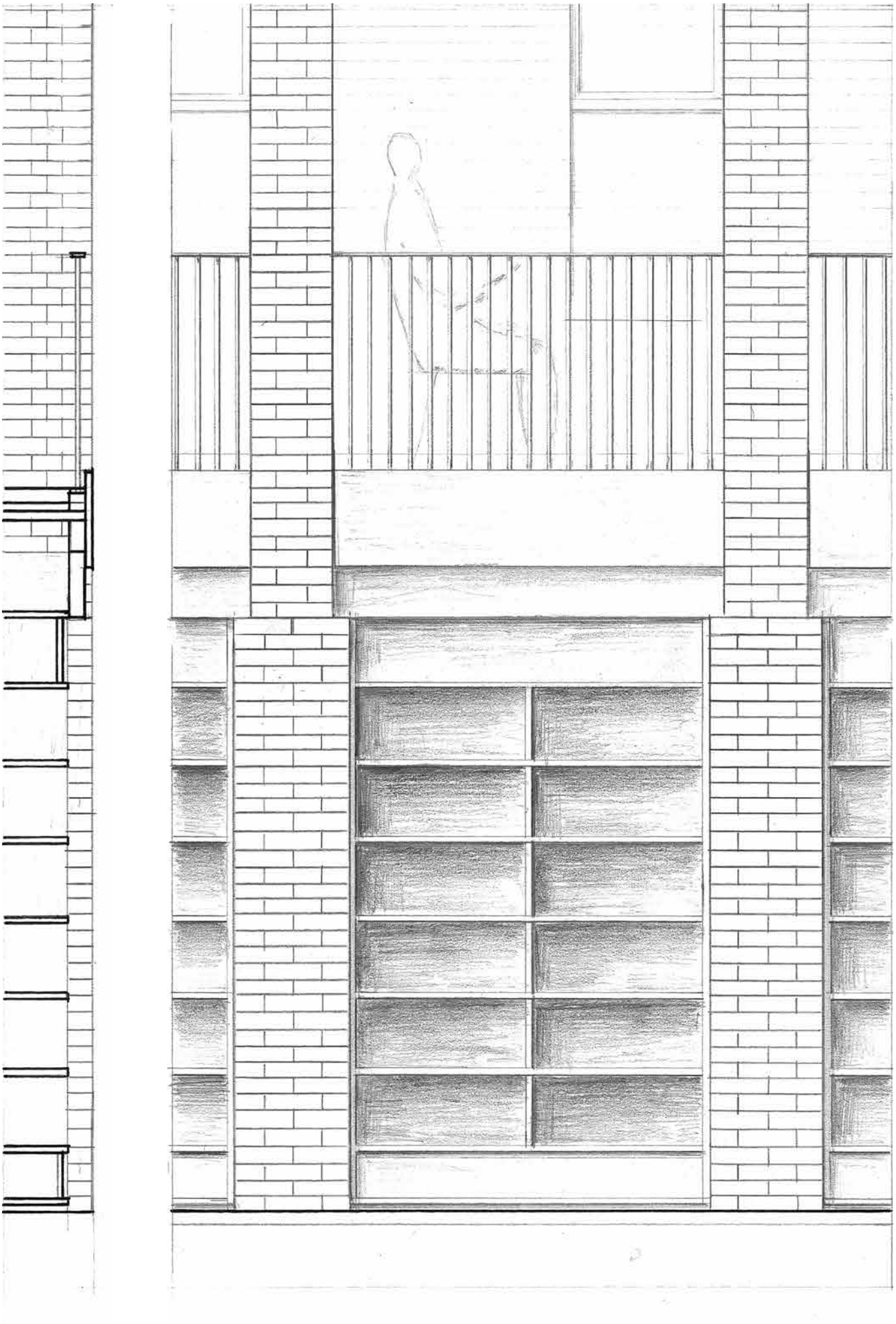
In library design, the integration or separation between building and interior is a crucial question to raise. In *Libraries: A Design Manual*, Aat Vos refers to the concept of the shearing layers, coined by Frank Duffy. The concept describes different layers of buildings with regard to their different life spans. The question is raised whether bookshelves are part of the structure, the fixed space defining elements or as flexible furnitures (Lushington 2016). Depending on in which category they are placed, different levels of flexibility is provided but also different readings on the relation between the building's different parts.

In this exploration the bookshelves are used as infill elements between the structural brick columns. The brick column as the most dominant element is emphasised by recessing the bookshelf and the floor slab. This creates a relation between main structure and infill which can be seen in the meeting point between the rough texture of the bricks and the straight surface of the bookshelf. By placing them next to each other, the gap between them, the shadow joint, becomes an element of design. This relation was further explored in a model study (illustration 28-31).



34. Section 1:150
Location of column and bookshelf marked in blue

35. Section & elevation 1:20
Columns and bookshelves seen from reading room.



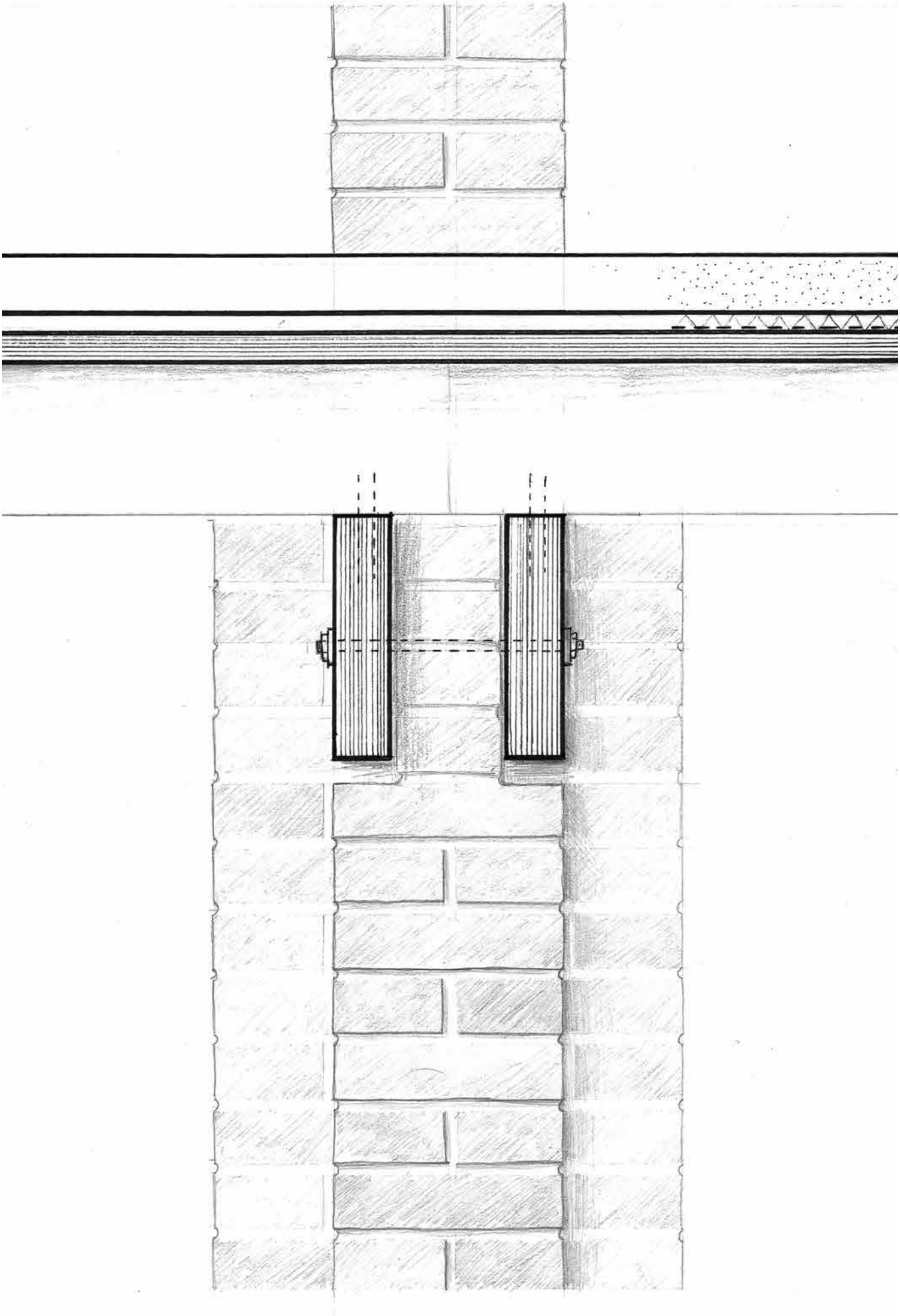
36-39. Model study 1:5
Exploring the relation between brick structure and book shelf.

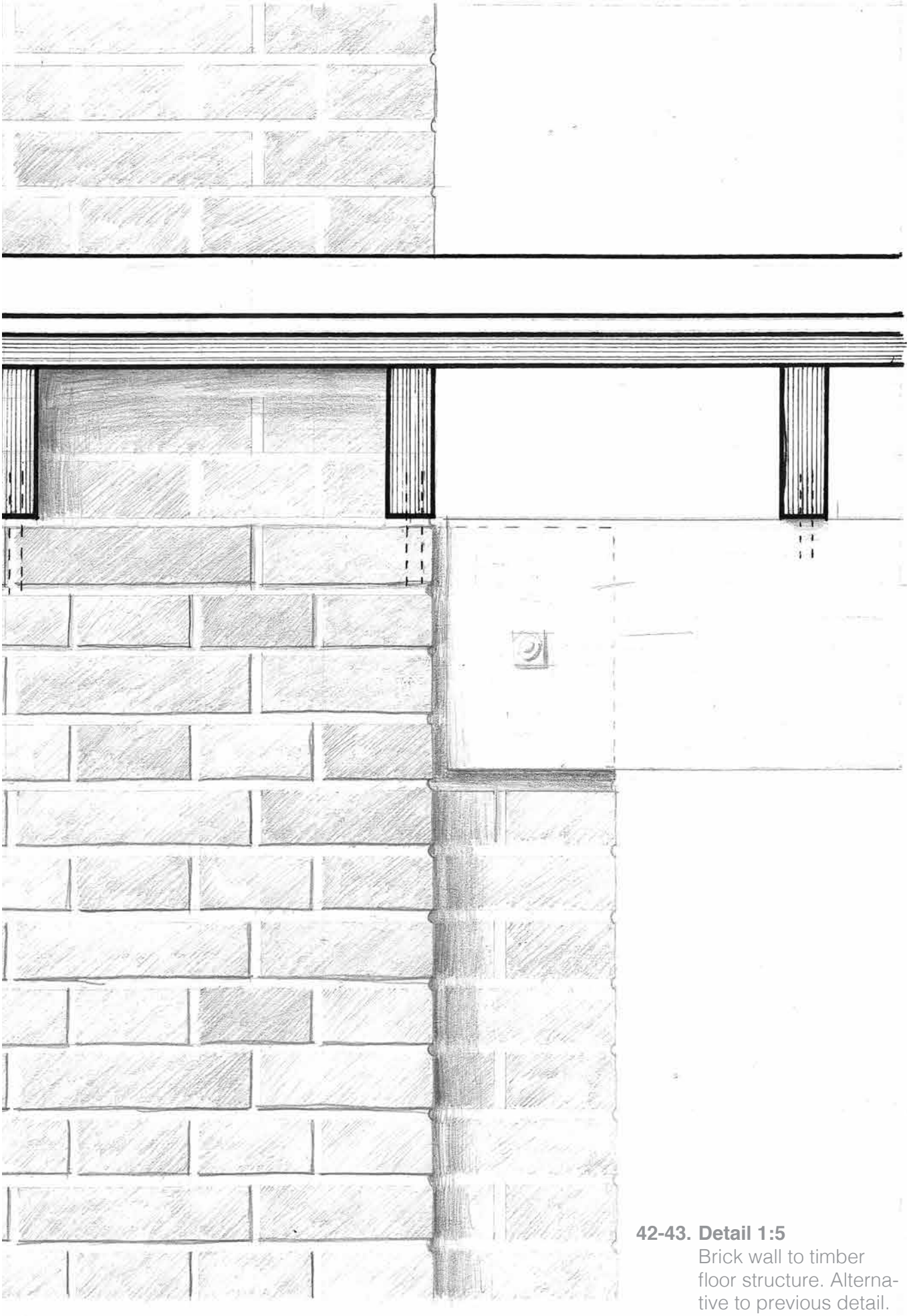
Alternative

The process also consisted of working in alternatives where the development of the joint follows another logic. This creates another order between the elements and another reading of the space. In figure 40, the main beams of the timber structure is interrupting the brick wall while in figure 41, the brick structure itself is reaching out to support the beams. This joint can be seen in detail on the following pages.

40. Model 1:10
The study place

41. Model 1:10
Alternative to previous model





42-43. Detail 1:5
Brick wall to timber floor structure. Alternative to previous detail.

2nd exploration

The entrance structure

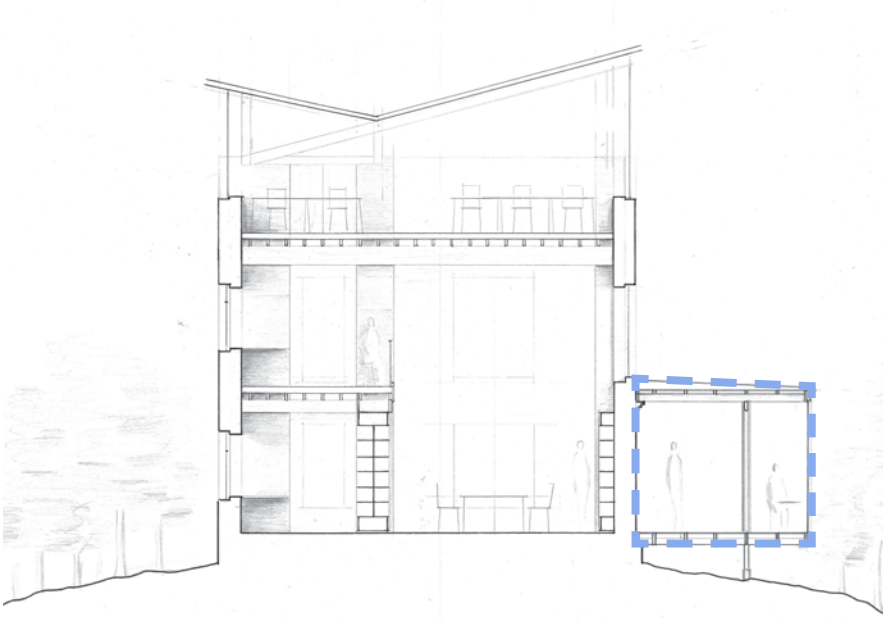
The second investigation takes place in the transition between the entrance structure and the main building. Located on the east side it serves the function of both a passage and more open places to sit. Similarly to the first one, I'm exploring relations between different parts and how that is communicated.

The brick bond as expression of its construction

The first story is told in the change of brick bonds. In the construction of a masonry cavity wall, two layers of bricks or one layer brick and one layer concrete are left with a cavity for thermal insulation. The expression of the brick surface is often unrelated to the thickness of the structure. A half-brick thick layer of facing bricks are often cut into halves and alternated with stretchers to create a specific bond. In this project, the construction of the cavity wall and the different thicknesses of the two layers are used in creating the expression of the surface. The English bond of the interior wall, shown in the study place is an expression of the wall's thickness. Stretchers and headers are laid alternating on every other course to create a stiff wall structure. The outer layer of the cavity wall (see drawings on the next pages) is only a half-brick thick and therefore laid as a stretcher-bond. The connection between these two walls can be read in the headers, the short end of the bricks.

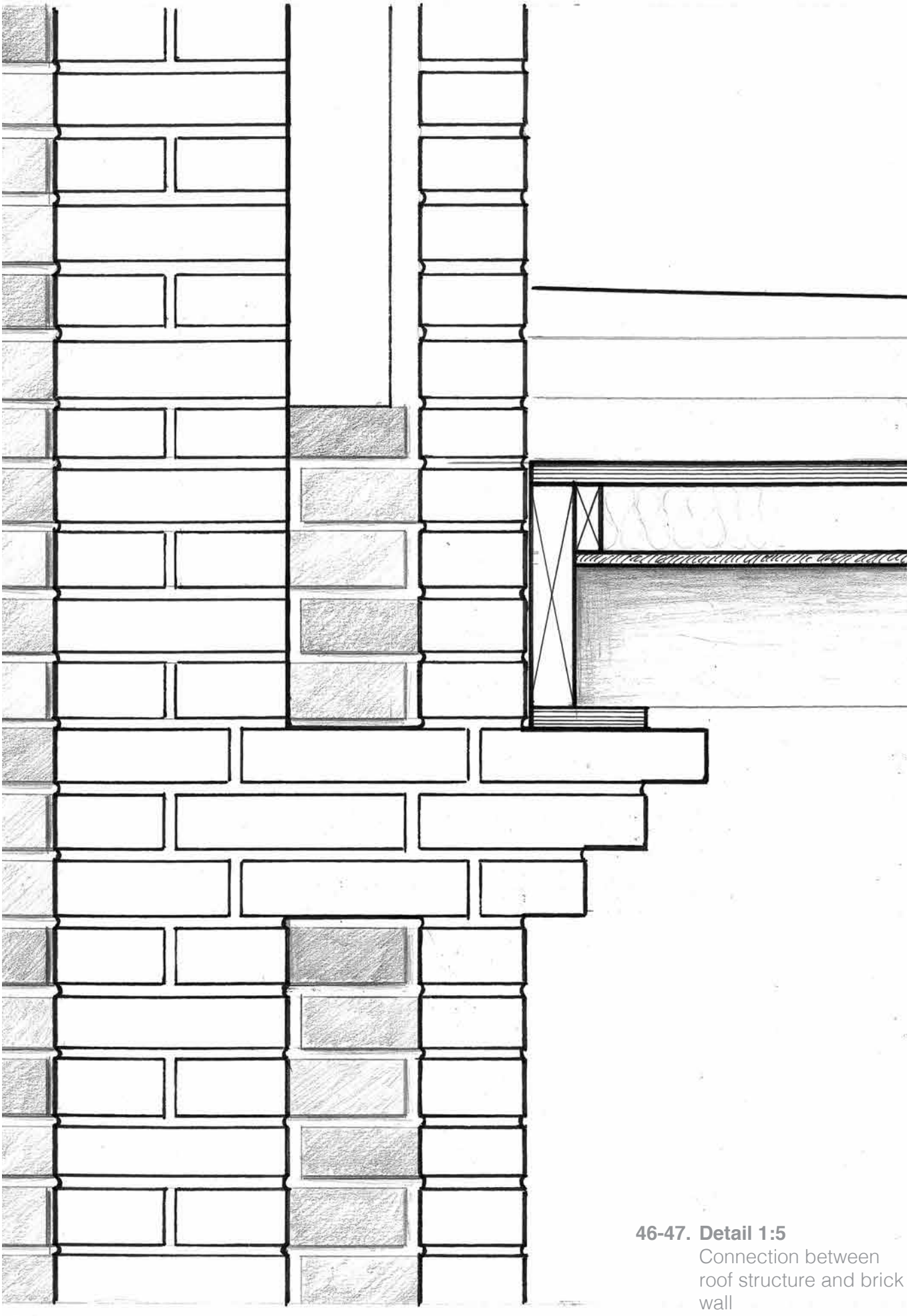
Transition to timber structure

The timber structure is attached to the brick wall on one side. Here the structure bridges out to support it. The stability of the brick structure enables the other side to land on simple foundations. The play with articulating the joints continues in the timber structure itself where the beam is shown continuous over the columns. The division between space to walk through and space to stop and sit down is created by the line of columns, standing independent of the roof structure and the facade. In contrast to the enclosing structure of the study places, the timber structure merely defines places to sit.

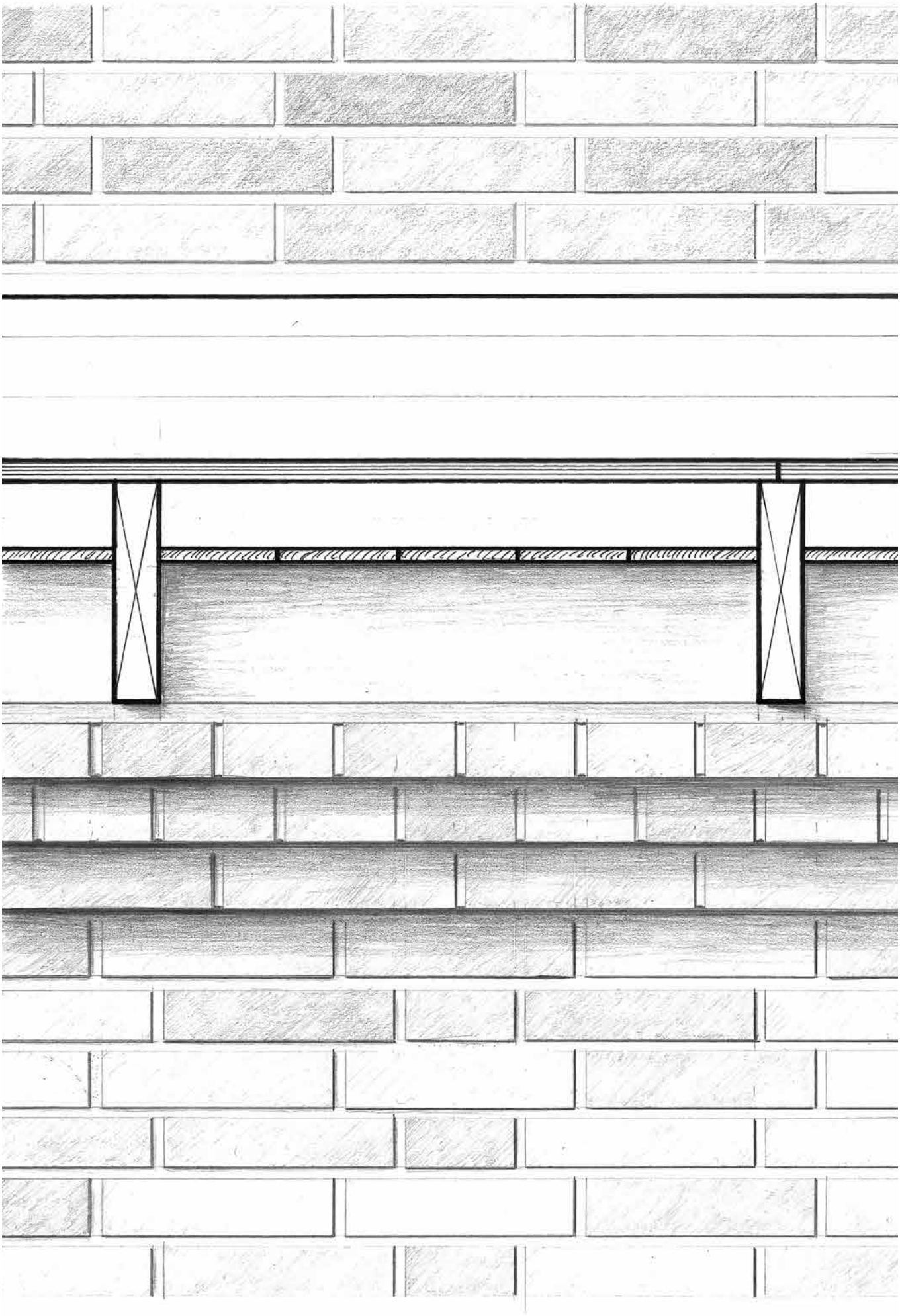


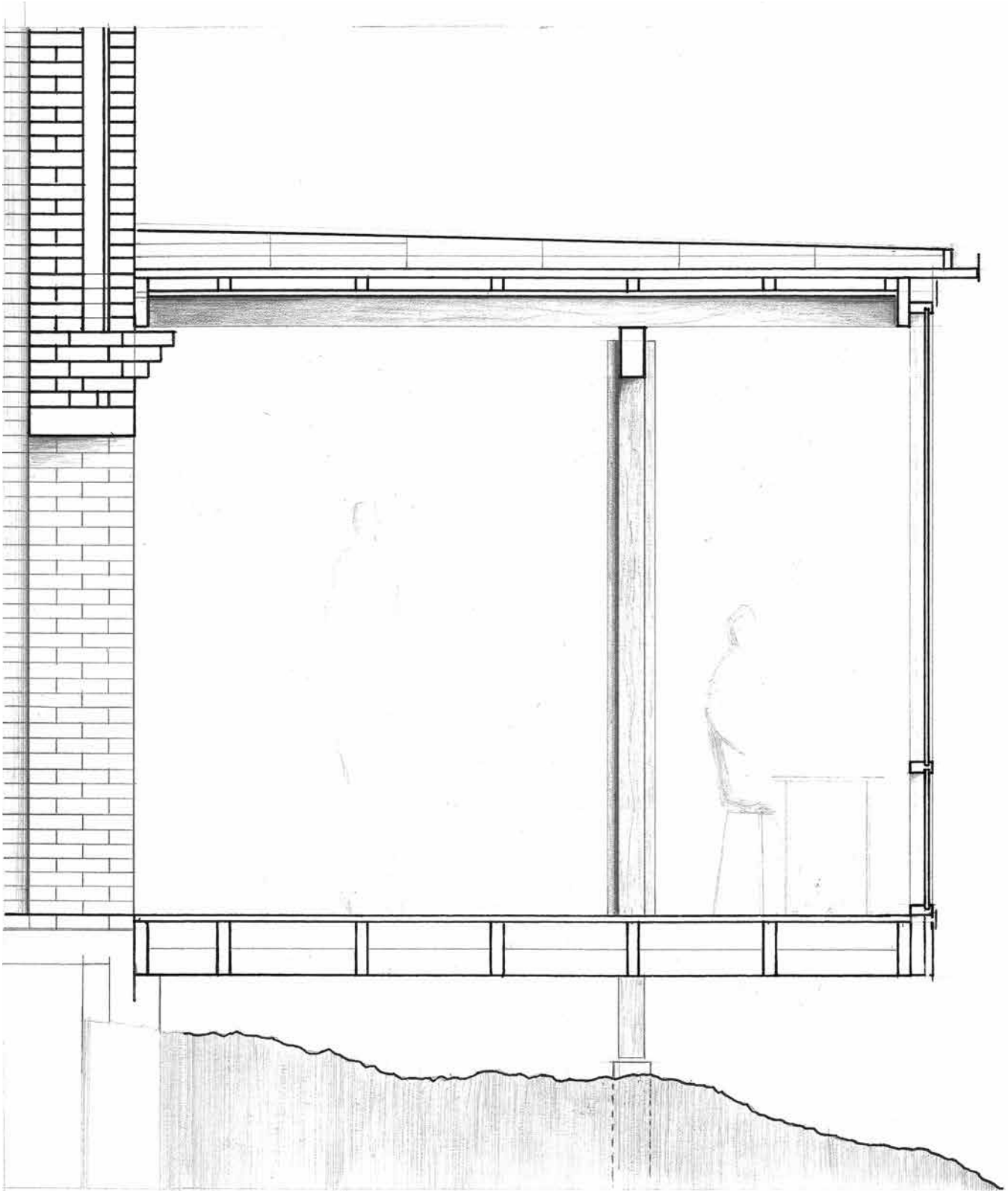
44. Section 1:150
Location of entrance structure marked in blue

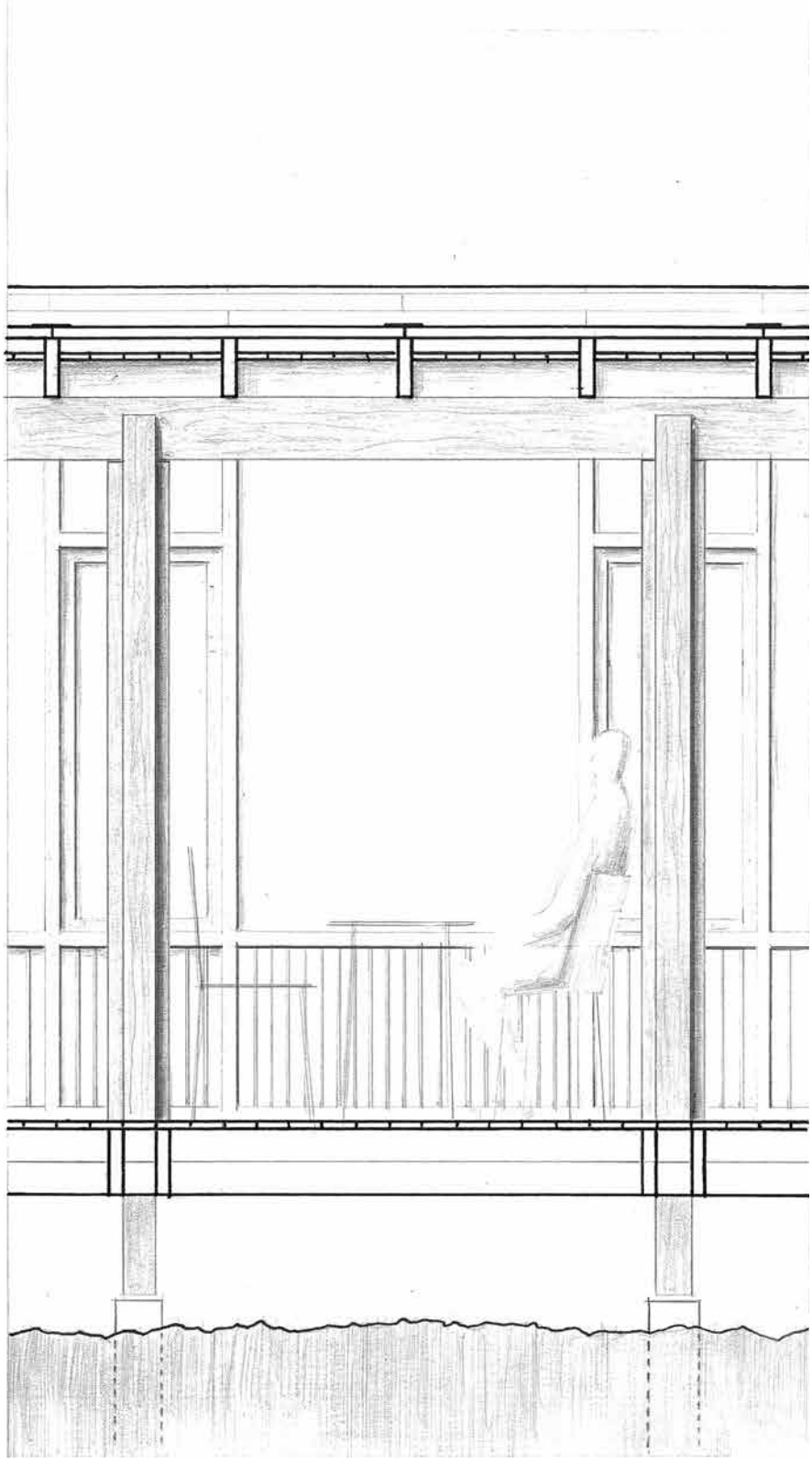
45. Model 1:20
The entrance structure with transition to main building on the left and line of columns on the right.



46-47. Detail 1:5
Connection between roof structure and brick wall

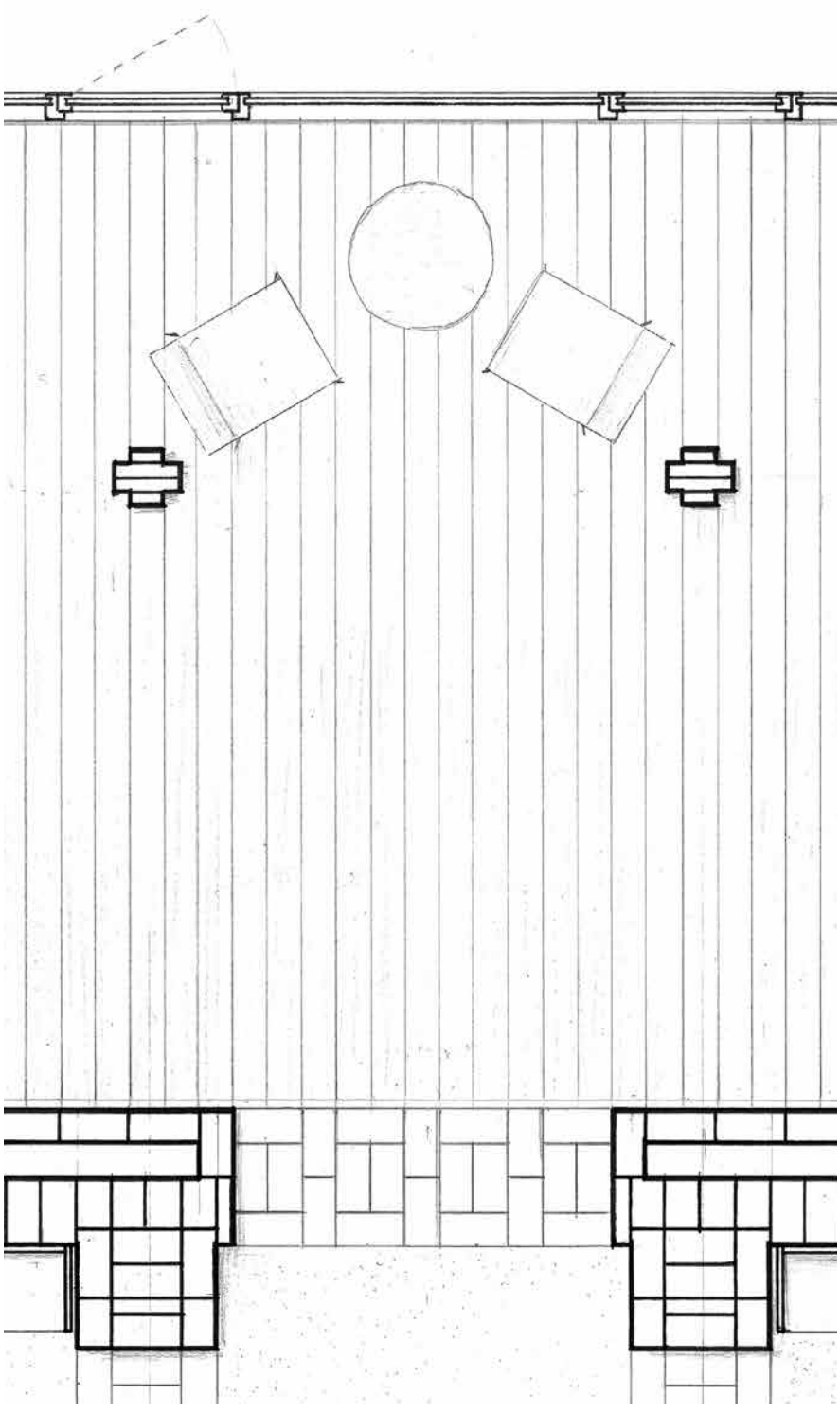






48. Section 1:25
Cut through transition to main building.

49. Section 1:25
Showing the seating area between the columns.



50. Plan 1:25
The transition is emphasised by the change in floor materials. The elevated structure with wooden floor planks gives another step sound than the concrete finish of the foundation. The transition is marked by a strip of bricks.

51. Model 1:20
The design of the columns articulates the beam as a continuous part while holding it in place.

Discussion

This thesis set out to explore the detail's role as narrative in architecture. By interpreting theoretical references on the topic into an exploration of a design method, this thesis raised two main questions:

How can a conscious and continuous work with materials and articulation of details influence the design process?

How can the narrative of a joint be expressed and work as a generator for design?

The process of working, presented in this Master's Thesis is very much about sketching in assembly of parts and continuously placing parts in relation to each other. By having the elements of construction present in the whole process, the spaces becomes bound to the parts themselves. The hierarchy of beams for instance defines different zones and therefore bears a meaning beyond constructional necessity. It is not a search for material honesty but rather a search for integration. Every decision in the process is a constant weighing between what is appropriate for the structure and the construction and what is appropriate for the spatial intention. The work with brick masonry as structural and space enclosing elements demands an understanding of the logic of the bricks. Every dimension of the spaces therefore need to follow the dimension and logic of the brick.

The exploration took its shape in a series of drawings and models done by analog means. The process of drawing by hand started in the preparatory case studies as a tool for understanding. The time invested in drawing each part means time invested in thinking, analysing and trying to understand each part's impact on the whole. This continued in the design process itself where the process of drawing each part by hand forces an understanding of the composition.

The drawings and models have been a very active part of the design process rather than a final mean of representation. 1:5 detail drawings, 1:20 sections and 1:10 models were developed in parallel and influenced each other. In this way, the detail was never the constructional realisation of a space but instead a generator for the ongoing design process. The models worked as spatial examinations of the drawings and a detail could in that way be examined in a spatial context.

One important aspect to reflect upon is the outcome of the exploration in relation to the framework used. The site, the spatial situations and the choice of materials guided the exploration in a certain direction. The method of working, however, does not necessarily rely on using bricks or wood but rather to understand and depart from the materials at use. In this way, another choice of materials, for instance steel or concrete, would render into a completely different expression and process of design. One could have worked with the joints in steel construction, the welds and bolts, in creating a narrative. Or similarly, the process of casting as a tool of expressing the method of construction in concrete. The formwork used would have been expressed in the surface and in the joints.

The method of departing from the materials and the joints clearly influenced the process. It rendered in a design of spaces where the small things matter the most. A time consuming process with subtle variations between different iterations. I, however, believe that the process need to take its time. Like the drawings, the time invested in working on details yields a deeper understanding of the detail's role in the project and similarly an understanding of the materials and their meaning.

To conclude this investigation, what has been presented here in this Master's Thesis is a method of working that tries to emphasise the significance of joints. It was explored in a design proposal but the focus was on the process itself. It started with a fascination for details, the small parts that establish a great impact on the whole. The aim with this was to explore and contribute to a discussion about the role of details and materiality in the design process.

52. Open seminar
Photograph from the open seminar presentation.

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