

MASTER

The Masterly Apprentice

Part A: Research : Campus Joachimstraße : David Chipperfield Architects : Part B: Design :
Kulturzentrum Mitte : Multifunctional Cultural Center

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Award date:
2019

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Summary:

The graduation project is centered around the notion of "learning from" where a specific reference project serves as a source of inspiration for an architectural design. The chosen reference project was David Chipperfield's Campus Joachimstraße in Berlin. Parallel to this, ran a secondary theme that is specific to every generation of the studio. For the generation of Semester A 2017/2018, this theme was Swiss architect Miroslav Šik, more specifically, his design philosophy that involves a specific, somewhat controversial attitude towards architectural context.

A literature study on some of Šik's written and designed works resulted in a number of group essays discussing different concepts. These are followed by an extensive architectural analysis, including a scale model reproduction of an interior photograph of Campus Joachimstraße. The main relevant finding from these two analyses is the realization that Miroslav Šik and David Chipperfield apply similar methods when approaching a context for a design. For both of their design philosophies, the idea of "unity within variety" seems to be central. Chipperfield approaches this through a process of abstraction he calls the Third Way. Šik refers to this process as "verfremdung" and he uses it to achieve an architectural ensemble, a balanced harmony with the context. The results of these two researches are described in the first part of the thesis.

In the second semester, the "lessons" learned from the analyses on the two architects are used to conceive a design for a cultural center in the vicinity of Campus Joachimstraße. For that, a design method is developed for achieving abstraction of a historical type. The steps of this process are:

- Giving the definition for the Berlin Type by naming the formal characteristics
- Developing a specific archetype that represents the type
- Gradually, in a step-by-step fashion removing details that are not deemed inherent to the type
- Transform and add elements to further individualize and give character to the design

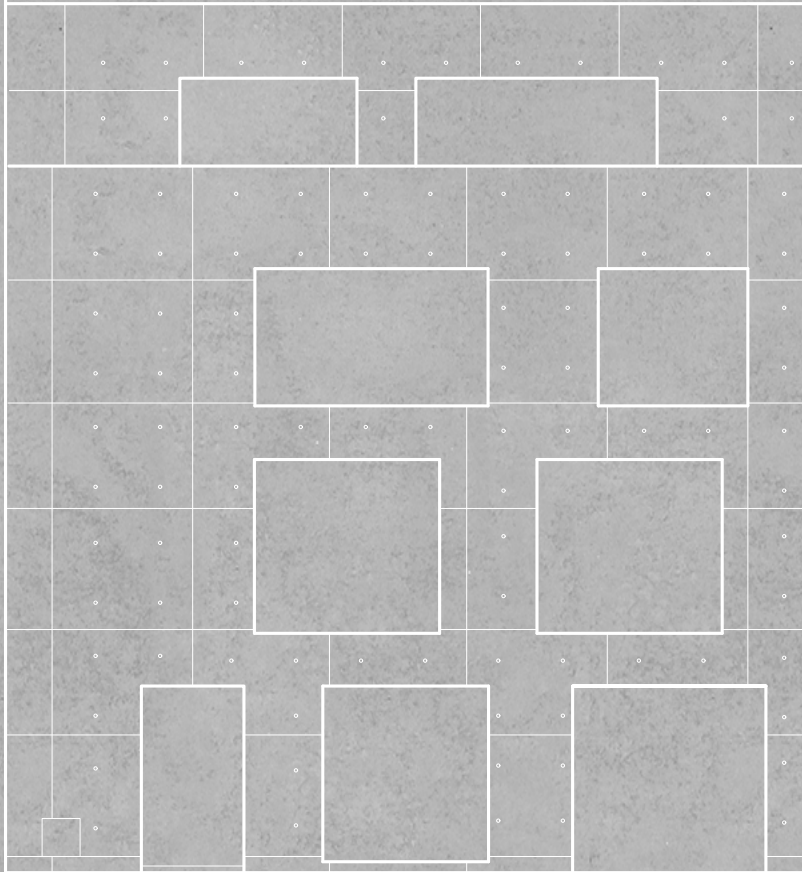
The result is a building that, in its formal distinction, contributes to an idea that is inherent to the Berlin Type, namely that of variety. At the same time, unity is achieved by allowing the building to 'speak' the native architectural language by applying some locally common features. These are: the uniform morphology and scale; the prevalence of relief and its role in how the building is experienced with user's changing perspective; the use of colors and textures native to the context and façades' vertical and horizontal continuity.

The Masterly Apprentice

Part A: Research

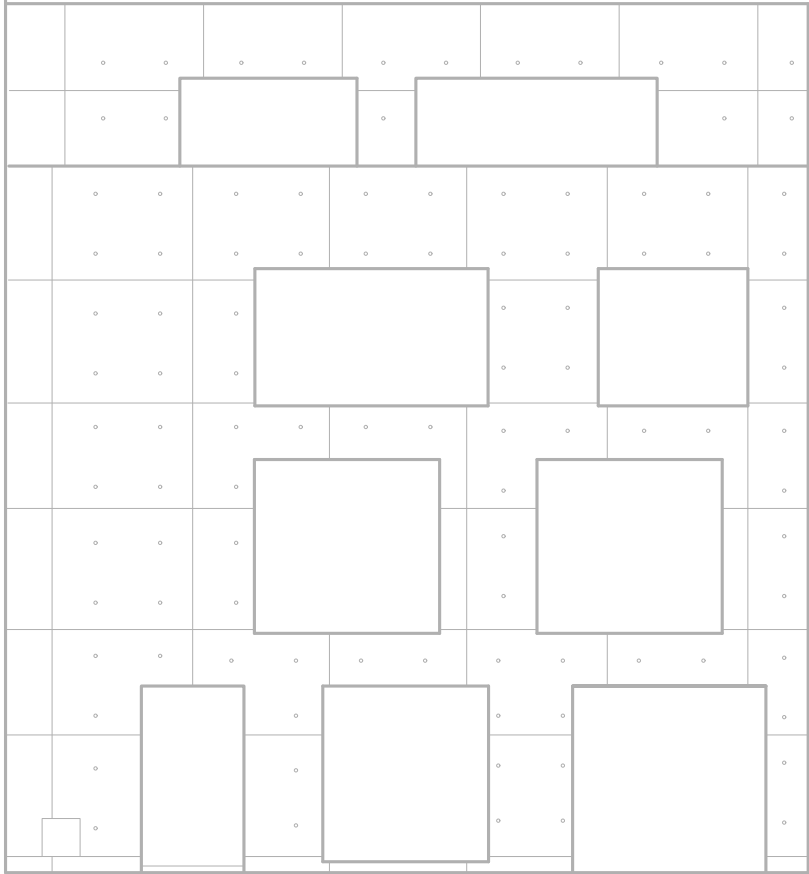
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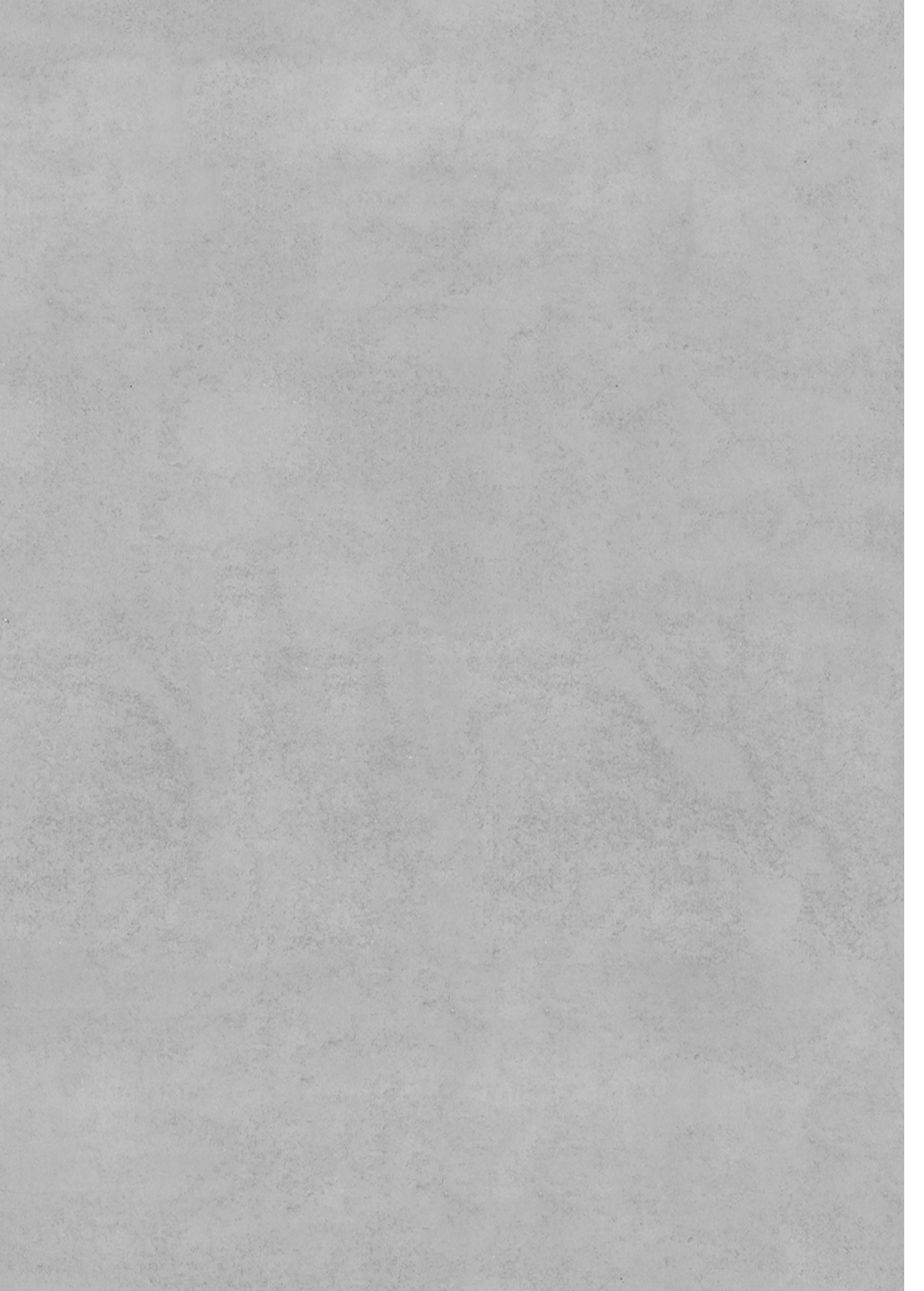
David Chipperfield Architects



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LEARNING FROM A BUILDING

Essays

REFERENCE AS A DESIGN METHOD

By Vera Awadis, Simone Creemers and Ieva Mileika

Using references - Learning from Miroslav Šik

The graduation studio Masterly Apprentice focuses on how we learn from and relate to other buildings and architects. The studio is on one hand an investigation into building culture, on the other – an investigation into our individual and collective learning processes. It is about the way we build upon the work of others, how we use and contribute to the architecture gene pool.

In order to become a better designer you have to reflect upon your own work. Thinking about how you learned from others can be very helpful in doing this. We are able to look critically at what we are doing. Part of learning from a building is referencing. The graduation studio starts with an exploration into what referencing is about. Learning about how others use references and learn from buildings will guide us in our own learning process. Our graduation studio explored the theory of Miroslav Šik, a swiss architect and professor at the ETH Zürich, and how in his studio the students use references as an important part of their design method. In relation to this we will elaborate upon the learning process in our own studio and how references are involved in this. A personal reflection on what researching Šik taught us will be the conclusion of the essay.

Theory

This way of “relating to” and designing with a reference is evident in the theory of Miroslav Šik. Therefore the collective research about learning from a building, starts with exploring his ideas. He explicitly talks about referencing in his theories and isn't afraid of showing his inspirations. Šik's ideas are part of the postmodern tradition: learning from previous generations, rather than a denial of the past. Šik names it “reform” architecture, as striving to bring change by reform. This process is evolutionary rather than revolutionary. There is no rejection of the past, no “tabula rasa” of the urban setting and the buildings we encounter. There have been architects before us, as well as vernacular architecture, that we will have to deal with and can learn from (b. 1 & 2).

After his studies at the ETH Zürich under professor Aldo Rossi, Šik formed his own approach in the 80's, developing a method he would call "dirty realism". This method would study the surroundings to the smallest detail, starting the design concept with a careful pencil hand perspective, where everything, even the mud, would be seen. It required Šik and his students to pay a lot of attention to detail and profoundly comprehend the environment. Drawing in detail compels us to observe the object in a critical manner. This way differs from the common way of scrolling through a pinterest page and looking at reference buildings. A fast look at references can be superficial and oblivious to the surroundings and argumentation behind the images we see. We tend to forget that they are the final result of a process and part of a context (b.3).



Image 1: hand perspective drawing of Miroslav Šik, St. Antonius parish center in Egg, Zurich, 1997

Way of working

Miroslav Šik's current method consists of two parts: first, finding a place within a "family tree" of his architectural fathers: architects whose standpoint he finds applicable to his own designs, and from whom he would loan formal means of expression. He tries to find how he fits in the general tradition of architecture. Secondly it is Miroslav Šik's ambition to see the potential of the environment and design upon this. He is not trying to do this by intruding the context with a large gesture and striking up a fight. He in fact is trying to eliminate the contrast between the existing urban environment and the new building. His own design needs to carefully merge into the surroundings (b. 4).

The context we encounter most often is not spectacular, but we still should respect it and respond to it in a dignified manner. Most surroundings are ordinary and are not ready for radical architecture. The manner described by Šik is about engaging in a dialog with the surroundings, introducing a collage of outside references and blending this into a harmonious ensemble. Somehow the building should help to reveal the quality of the surroundings and bring forward the poetics of the everyday life. Within the constraints of the context he tries to develop his own creativity (b. 5).

Using this method, Šik arrives at an “empirical stylistic mixture” of a building, which shapes his design. This mixture has traces of the general tradition of architecture and includes specific formal references, it takes account of the specific context, but is also rooted in his personal taste. The new building is something of a collage in itself (b. 6).

Whether this in some cases stays at the ‘trying on a dress’ level, is for us to judge. Some of Šik’s own work appears to be more concerned with the mood and the first impression one gets from the facade than the wellbeing of residents using the building. For example the facade of the Musikerwohnhaus in Bienenstraße in Zürich (1992-1998) conveys a mood relating to the environment and has design elements referring to the surrounding buildings, but little attention seems to be spend on the quality of the apartments which all are very noisy; as we experienced ourselves during the study trip to Switzerland, exploring the building and talking to its residents. When just looking at the facade the mixture is a harmonious ensemble like Šik’s intention, observing it closely will reveal how the building relates to the environment and uncover all the little references present in the design. The more you look, the more you will see how it relates to the surroundings.

Teaching & studio - how do Šik’s students learn

Professor Šik uses a similar method in the master studio he supervises: starting the design with composing a collage of a particular mood, using a reference project. It is a tool to visualise which mood the student wants to

investigate in relation to a real location and program. This one image is the leading concept for the whole design. The students focus on how they can translate the qualities of this first image, an abstract mood into a building, a concrete design. They all work on the same site and in the end submit their work in a format prescribed by Šik. The reference collage becomes the main measure to judge the project by. Judgement of the success of the selection and application of this reference would be entirely under Šik's authority (b. 2).

The method seems liberating and restricting at the same time. Liberating, since it focuses on one expression, which becomes the main theme of the design. A collage of mood and formal means to elaborate on in detail and give the atmosphere a real form. Giving a name to fascinations, making them



Image II: visit and interview with Miroslav Šik at the ETH Zürich, 28 november 2017

very explicit. Focussing on one reference frees the student from all other possible intrusions. At the same time it would mean restraining oneself to a single reference and acting within this boundary. It would teach students discipline and ask for modesty in expressing their own ego: it focuses on the actual creation of the building by bringing the selected mood to life by spatial and technical means rather than the wish to create great architecture. A careful selection of a reference picture is critical since the entire design is based on it, thus the quality of this choice determines for a large part the quality of the project. For a student the reference offers guidance along the path of exploration and experimentation while not interfering with their own creativity, as creativity is born out of restriction as well.

Our studio - how do we learn

In the studio Masterly Apprentice we work with a similar method as Šik's, choosing one reference as the base for our complete graduation research and design. Different to Šik's studio is that in our studio not all students are at the same phase in their design process. Every quartile new students join the studio and others graduate, like this the composition of studio always changes. In addition to this we all have individual reference projects, locations and design questions instead of one same assignment. The joint theme however is how we learn from buildings. We feel at ease to discuss this theme with each other in relation to our own projects. It is not about competing to find the best solution for a particular design question and site, but about how we all deal with the question - how do we learn? Together we try to understand and describe the methods of exploring a reference building and learning from it. Talking about it and explaining what we do among our and other generations of students helps us to reflect upon our own designs. The collective essays of our ongoing studio serve as a collection of elaborations of the various themes involved in this learning process.

The process starts with a fascination for a reference building. Inspired by the atmosphere, material qualities, details, light, construction and composition

of the building, we start investigating every detail involved in creating it. By analysis and empirical engagement with the building we go in depth trying to grasp how the building is set up, finding out how the architect made certain design decisions and what he tried to achieve. Making analytical drawings and models helps us to explore the reference. The essay about redrawing illustrates that by gathering information necessary for this step, you come across inconsistencies. Researching these provides you with understanding of the design. Modeling in 3D helps to understand how the different elements relate to each other. Recreating the atmosphere of the building in a model gives the possibility to physically engage and experience what is involved in creating the atmosphere. In each step of the replication process you become familiar with a new layer like; the composition of elements, the material qualities, the details and the light conditions as mentioned in the essay on model making. We can observe the impact and expression of the design decisions made by the architect in the model and reflect upon them. Visiting the building and observing the model creates intimacy between the student and reference as mentioned in the essay about the methodology. From the reference research together with a site analysis and program compilation, we can deduce themes on which we can elaborate in our own designs. These themes would form our ambition and are the criteria against which we can test our design decisions. While trying to translate the themes into a physical building, we can always look at how the architect did this in the reference project. We can apply the references one on one, but also drift away from them in a quest to be original in our own design. During the entire design process, we have the reference building and location in mind and ask ourselves the question 'how does what I do relate back to this'. We reason our own design decisions against the ones made in the reference project. We can 'try on' these decisions, almost as if it would be a piece of clothing, to see their immediate impact and scale in relation to our own vision of a certain design problem. It assists in understanding the scale and complexity of ideas and problems we are trying to deal with. We look for elements in the reference that might be a solution to our design problems

and for ways to apply them.

Just like in Šik's studio the reference building keeps us constrained. It holds us up to its level of detail, intensity of experience, treatment of site and design concepts, yet liberates us to freely explore it to the bone and taking these explorations to our own design. It offers us guidance in bringing the design to life. A wisely chosen reference building can take our own design to a higher level and allows us to strive for achieving the same level of intensity and detail. Creating a perspective drawing or recreating the building through a model contributes to understanding and imagining the atmosphere. It contributes to the empirical form finding: based on experience and observations. It gives us the possibility to engage with and reflect upon the building.

Personal reflection

In the studio Matersly Apprentice we all explore the theme of how we learn from buildings. Together we try to unravel everything involved in the method. We all have our personal reflection upon what we can learn from Miroslav Šik, how he finds his way in our design process and how we can work with references. Three of these personal reflections are described.

Studying Miroslav Šik has been an open invitation to think of and not be ashamed of the ordinary context; to feel invited and needed in designing our everyday activities by giving them appropriate surroundings. It has been a reminder that we can see inspiration in many ordinary things if only we look hard. Working with references and naming them helps to follow the evolution of ideas, methods and tendencies in architecture. By looking at the one reference that has been the leading thread of the complete graduation process, I have learned to see and start to understand influences on my own and other architect's work, and naming them. Tracing this one reference, the work and ideas of Sigurd Lewerentz, throughout the contemporary work I encountered during my graduation, I began to notice more and more

architecture offices influenced by his work and naming Lewerentz as their inspiration. Without doubt, for these architects, as well as for Miroslav Šik, and for myself, there are many more architecture “fathers” to learn from, as all our ideas contribute to the architecture gene pool and return from there, matured, in our own designs and in the work of the others. Still one can see that in many cases architects do not name their reference sources, perhaps fearing to be compared to them or considering the reference to be an minor part of their design process, already so fussed there is no need to mention it. The work of Miroslav Šik and our graduations studio has taught me to be more aware and critical to references and their influence upon my work, bringing it to a higher level. The reference project is a good reminder of the human scale, and the level of detail we should strive for. Working with a digital mass model often misleads us scale wise, we tend to make things larger and more impressive, or smaller and squeezed in. The actual reference building, visiting and recreating it helps us to imagine our designs in reality and thus asks more responsibility from us to deal with these real, grey, and ordinary yet our surroundings.

Looking at the architecture of Miroslav Šik for the first time, its modesty didn't generate immediate enthusiasm. Analysing the Burgerhuus in Haldenstein (2005), showed the layering of the design. It seems like Šik started with a basic volume and kept transforming it until it concealed itself among the other buildings in the small village. His designs are never on the foreground but observing them a little closer reveals the intriguing way how they interact with their environment. All kinds of small references can be traced back to the surroundings. The fact that not all buildings can be extraordinary and not all environments can absorb great architecture implies the necessity for Šik's theory. His method shows responsibility for making design decisions that benefit and contribute to a coherent urban structure and therefore the well being of its users. Šik understands the importance of the urban ensemble and feels that he should contribute to making it even more harmonious and exuding of its already present qualities. Studying Šik taught me that

it is justified to make modest architecture and that it is a responsibility for designers to think about how what we do relates to the context. A building doesn't need to be great to be special. Being able to see the need of small gestures and making them is in some cases just as important. Thinking about how we make use of references and learn from them gives us the opportunity to reflect upon our own designs. We become aware of how our own frame of reference and the collective architecture history we are part of, influence our design decisions and are part of our reasoning. It is sensible to always keep broadening your frame of reference. Investigating, understanding and learning from references broadens your architectural vocabulary and helps you to find solutions for your design questions.

Not feeling ashamed by using ideas from others, but yet giving your own twist on that idea. By doing so, grasping your personal taste. Understanding what you like and dislike, while being critical during the learning process. At the same time giving the environment and the users what they call for. That is what Miroslav Šik got me to. Learning from the reference by tracing what intrigued me the most and using this as a base for my own design. What I learned from the building can be described in one word - atmosphere. I became intrigued how the atmosphere of the reference was formed, how the physical and psychological senses are contradictory. How every design decision is based on creating the atmosphere. And how this atmosphere fits into the users need. Having said that, I implemented this first idea of atmosphere, and relating back to it during every design decision. Before studying Šik it would probably feel as coping of stealing an idea, but using the idea and building upon this idea makes it still original. And after analyzing Šik's theory and projects, it stood out how other architects built upon references as well in practice.

References

- 1 Šik, M., Cooperative housing [Lecture]. Architectuurwijzer, (11 october 2017), Genk, Belgium (unpublished)
- 2 Šik, M., Interview study trip [Personal communication]. ETH Zürich, (28 november 2017), Zürich, Switzerland (unpublished)
- 3 Joanelly, T., & Züger, R. (2018). Pinterest-isation. *werk, bauen + wohnen*, 4, p.7-8.
- 4 Bideau, A., Dell'Antonio, A., Tschanz, M., & Kerez, K. (2000). *Old-new: Miroslav Šik*. Lucerne, Switzerland: Quart Publishers. p. 59, quote originating from "Traditionalistische Koloristiek" *Archithese* No.6, Zürich 1994
- 5 Šik, M., & The Swiss Arts Council Pro Helvetia. (2012). *And now the ensemble!!!*. Zürich, Switzerland: Lars Müller Publishers. p.52 and 54
- 6 Bideau, A., Dell'Antonio, A., Tschanz, M., & Kerez, K. (2000). *Old-new: Miroslav Šik*. Lucerne, Switzerland: Quart Publishers. p. 61, quote originating from *Interview Daidalos* No. 67, Berlin, 1997

Image references

- Image 1: [Miroslav Šik, St. Antonius parish center in Egg, Zürich, 1997]. (n.d.). Retrieved May 8, 2018, from <http://www.co-vienna.com/en/imageviewer/1471604368/>
- image 2: Photos from interview Šik during study trip, ETH Zürich, (28 november 2017), Zürich, Switzerland

MEANINGFUL CONTINUITY

Transforming the commonplace

by Rick de Vries & Jan Quinten Gijsbertsen

Articulating a stance on the relationship between old and new is a question every architect will face. Miroslav Šik describes the relationship he pursues as a “meaningful continuity” and defines it as follows:

“an ongoing renewal of the old, thus a sense of history combined with an affirmation of numerous conventions and common practices, and at the same time a clear “yes” to moderate and reasonable renewal.” [1]

This definition sounds reasonable, but what does it exactly mean, and how do you put it into practice? The start of the explanation “an ongoing renewal of the old” could already mean many different things ranging from continuously destroying and rebuilding the urban fabric, to continuous renovation and musealization of a historic inner city. The “affirmation of numerous conventions and common practices” and “a yes to moderate and reasonable renewal” does give some sense of what it could mean in practice, but still does not cancel out any approach. In this essay, we would like to dive deeper in what it means to bring meaningful continuity into practice, and attempt to define guidelines for achieving a meaningful continuity in a new building design.

Understanding ‘meaningful continuity’

In order to get a better understanding of what Šik means with meaningful continuity, we will explore what the implications are of his definition. For example: notice how Šik says “a sense of history” and not “knowledge of history”. This does not imply that an architect should know all of the historical context of a given plot, it implies that the architect should be able to sense and prioritize which aspects of history are important. Therefore, an architect should have empathy for the history of the plot he or she designs on, and should determine what is important to know, and what is not.

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The definition shows that “an affirmation of numerous conventions and common practices” is of importance when pursuing meaningful continuity. As conventions and common practices are ideas developed throughout history and are still present today, they depict the continuity to this day. Knowing how such common practices or conventions have changed over time reveals the core concept of such a practice or convention. The core concept is the idea behind the convention or practice that has remained unaltered. This gives insight into how an architect could transform these himself. These are the historical references that should become the foundation for a new design. “That is the principle of working with references. The more you know, the more you are able to transform it.” ^[2]

“At the same time a clear “yes” to moderate and reasonable renewal.” Moderation and reasonableness are words which are undefined in this context. These words leave a lot open to interpretation, which is probably done intentionally. In an interview in the magazine *Werk, Bauen + Wohnen*, Šik describes how he takes reference of *das alltags* (i.e. the commonplace) and *das volkstümliche* (i.e. that what the people believe is true). He states: “Das Volkstümliche bedeutet für uns: was die Oma als Rot erkennt, ist rot, und nicht, was ich als Architekt oder als Bestandteil einer Gruppe definiere.” ^[3] *Das volkstümliche* means for us: that what the grandmother believes is red, is red, and not what I as an architect or as part of any group define it to be. We can argue that moderate and reasonable renewal is defined by that what the people believe to be moderate and reasonable. It asks again for empathy from the architect, this time empathy for the people, so that even the layman can understand the design as a reinterpretation of common practices and building conventions.

Meaningful continuity put into practice

How do we put meaningful continuity into practice? Šik provides us with several tools and guidelines. The most important way to create a

meaningful continuity is to get to know the context one works in. This can be divided in two parts, site specific context and the frame of reference. Understanding both the context of the site and one's personal frame of reference requires time and persistence, and is a continuous learning process. The more one understands his context the more one will be able to use and transform it.

As Šik describes it: After observing one's context for a while, something remarkable happens:

“The grey veil that usually envelops everyday life begins to lift. The tiniest flower, the most insignificant weed that we always overlooked because it was so unimportant, suddenly reveals its beauty. As if the lingering gaze were a magic wand, and ‘open sesame’ formula capable of disclosing the splendour of anything and everything.”^[4]

Šik finds beauty in what is ordinary, which is usually overlooked. He does this through observing the specific context and trying to empathise with the surroundings, finding the most important characteristics that constitute the atmosphere. In this way he tries to capture the essence of the place. What are important aspects to consider, and what does this place specifically demand? In this way he obtains the knowledge he needs to contribute to a meaningful continuity.

Besides understanding the site, Šik has also build up a frame of reference throughout his life. A part of Šik's frame of reference is “his family”, which consists of all the architects he is personally interested in and analyzed closely. The ‘family’ of Šik, but also one's own ‘family’, grows in time. Through the years one will understand the ‘family’ better and see more connections between the different ‘family’ members and one's own ideas. Furthermore, during one's life one acquires all sorts of knowledge based on interests and experiences. This family is important, as it will help to shape future designs.

In choosing a reference from their 'family', one chooses which ideas are worthwhile to be part of the continuity. Introducing foreign references into the design should be done consciously, as this choice determines which ideas are meaningful to continue.

After understanding the place and broadening one's frame of reference one should be able to identify the core concepts, and choose one or more references in order to transform them. There is not one right reference, yet the selected reference will have a big impact on the design, so it should be selected carefully. The transformation of the core concept allows one to develop and integrate a new idea. With this, one enters into a dialogue with the core concept. This dialogue is a nuanced act of designing, it is a combination of one or more references with a core concept, where these references should not dominate the core concept.

In an interview Šik explains how he teaches his students to incorporate a reference into the design. He uses an example of the use of solar technology. Most of the students put them on the roof, but this does not necessarily create a meaningful continuity, as it is not incorporated into the design, but more a separate addition. It would be better if it were incorporated in a design element, for example in the facade configuration. In this way one can use solar technology as a force to change the tradition. This process of transforming and combining references will become easier the longer one works with it. "The liberty of transformation comes by time." [5]

Conclusion

To conclude, Šik's definition does not provide well defined conditions when a design adds to a meaningful continuity. Yet combining his definition of meaningful continuity and his theories, he does give guidelines how an architect should design in order to create a meaningful continuity.

Firstly, it is important to acquire knowledge of the site to learn what the

common practices and conventions are. This is done through investing time to observe the site closely and trying to capture which elements are essential in the place. After determining the essential elements of the place it is important to consciously select one or more references. This is an important choice as it will determine which ideas will be part of the continuity.

Secondly, these essential elements should be transformed using the selected reference by entering into a dialogue. This dialogue, an act of designing, wherein the knowledge of the core concepts is combined with personal references, might cause one's design to evolve in something that is meaningful. In the end it will be beneficial to spend as much time as possible to get to know one's frame of reference and the site. This will help to become better at transforming and to create a meaningful continuity.

References

- [1] Šik, M. (2000). *Altneu*. Luzern: Quart Verlag.
- [2] Šik, M. (2017, November 28). Interview with Miroslav Šik at the ETH Zürich [Personal interview].
- [3] Zwicky, S., Zwicky, S., & Zwicky, S. (1999). *Werk, Bauen Wohnen: VSI-Beilagen - Venturi Europäisiert 1988-1998*. S.n. Retrieved from <http://doi.org/10.5169/seals-57012>
- [4] *Ibid.* 1
- [5] *Ibid.* 2

THE POSSIBILITIES OF ‘VERFREMDUNG’

by Zou Danfeng, Sjoerd Deckers & Wilbert de Rooij



Miroslav Sik

“It’s about time that we understood urban architecture as a dialogue based, evolving, and collective artwork. Through its design, the mood it conveys, and its usage, every new building can strike up a dialogue with its local surroundings, no matter how much the structure might appear to be bursting with fragments both old and alien.”^[1]

In his goal to create ensembles by means of his buildings, one of Sik’s main design tools is the concept of ‘Verfremdung’. The word ‘Verfremdung’ has no literal translation in the dictionary. Words that approach ‘Verfremdung’ the closest are ‘estrangement’ and ‘defamiliarization’ but they still do not grasp its full meaning. Therefore, this essay will explore the design tool ‘Verfremdung’ in theory as well as practice. This will be done by means of the following research question: ‘What role does ‘Verfremdung’ play in the design process and what are its possibilities?’

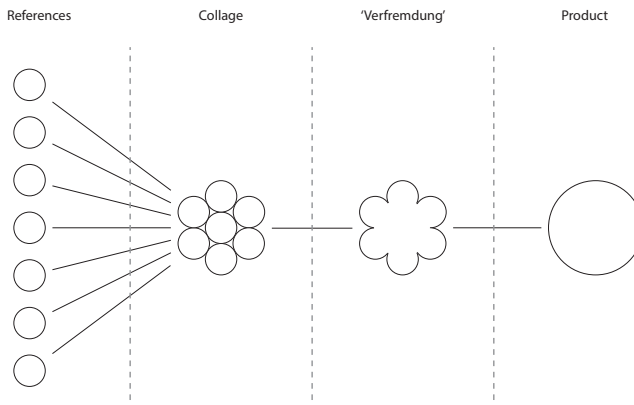
First the essay will start by identifying the position of ‘Verfremdung’ in the design process. Subsequently the process of ‘Verfremdung’ in Sik’s Musikerwohnhaus will be described. In order to explore other interpretations of ‘Verfremdung’, the tool will be linked to multiple case studies to investigate its possibilities. The conclusion will offer a broad summary of the essay and answers the research question.

Identification

Sik takes ‘Verfremdung’ as a design tool to achieve a certain ‘ensemble’. Different buildings in a city are like musicians with different musical instruments. “All inhabitants and designers play a dedicated and creative part.”^[2] It means that different parts of the city can maintain their own uniqueness while meeting the same coherence.

In order to achieve an ‘ensemble’, designers look for references that match the context, and make a collage out of the selected references. The next step is to modify this collage in order to create a different expression

which contributes to the 'ensemble'. An important aspect of this process is that the modified product should create a coherence with the context. "If architectures merely collide and clash, the result is fragments and contrasts, but not urban architecture."^[3] The transformation from collage to modified product can be described as 'Verfremdung'. It can be understood as a process of defamiliarization that finally becomes a modified representation of the initial reference.



'Verfremdung' process

The designer's approach to 'Verfremdung' is based on the most direct and subjective understanding for the sense of the place, instead of abstract diagrams and mapping. There is no absolute or universal method for 'Verfremdung' which can be applied to all projects. Therefore, in the following parts, different kinds of 'Verfremdung' will be discussed by introducing a number of case studies.

'Verfremdung' in Miroslav Sik's Musikerwohnhaus

Miroslav Sik's Musikerwohnhaus in Zürich is a clear example of a project where 'Verfremdung' was used. The building site is located in an industrial

part of the city, which mainly consists of large scale offices and warehouses. In this project Sik used 'Verfremdung' for the geometry of the building, the materialization, and specific design elements.



Musikerwohnhaus

For the footprint Sik aligned the Musikerwohnhaus with the adjacent buildings, parallel to the street. The height of the building is mediating between the heights of the surrounding buildings. Also the materialization of the Musikerwohnhaus is inspired by its context. In this area of the city concrete is a widely used building material. Miroslav Sik responds to this context by applying grey stucco for the streetsides of the facades. For the facades at the courtyards Sik selected a warm yellowish stucco, to create a more cheerful experience. In this way Sik responds to the context, but at the same time dares to differ from it to create a more desirable experience for the specific function of the building.



Decorative elements

Besides the geometry, and materialization, Miroslav Sik also uses context-related elements as references for the 'Verfremdung'. From the direct context Sik uses the geometry of the glass facades of the bus depot to create the staircases. An other reference he uses for his design are traditional French windows, which are commonly used in Zürich. In the staircases Miroslav Sik added decorative elements, which are derived from musical notes, in order to display the building's function. The Musikerwohnhaus illustrates a broad range of references Miroslav Sik uses for 'Verfremdung', to make this building a coherent element in its context.

Same tool, different outcomes

Although Sik mentions the use of 'Verfremdung' very explicitly in his theories, it is not a tool only used by Sik. In fact, 'Verfremdung' is a tool used by most architects in a more or less explicit way. The outcome of the process of 'Verfremdung' is highly dependant on the attitude and personal preferences of an architect. Even if the architects are using similar types of references, the

outcome can still differ a lot. A comparison between the Bürgerhuus by Sik and the auditorium theatre by Siza proves this phenomenon.

Both architects use the direct context of the design location as leading references for the shape and materialization of their buildings. However, the interpretations of these similar references are very different. Sik incorporates the fine grain size of the buildings surrounding the plot within the shape of his own building. Siza on the other hand relates the main shape of the theatre to the hills surrounding the village. Where Sik tries to mimic a natural stone by modifying the surface of the concrete he uses, Siza uses the most common local building material as cladding for his building. Also the influence of personal preferences, such as the Italian balconies in Sik's project as well as the promenade architecture in Siza's building, contribute significantly to the differences between the two eventual designs.



Bürgerhuus

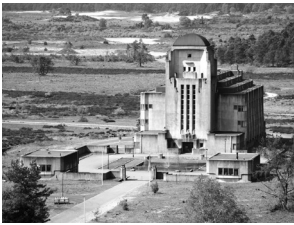
The comparison shows that both architects acquire references from local shapes, building materials and personal preferences. Both architects apply the tool 'Verfremdung' on their chosen references. However, the outcome of their designs is very different. This can be explained by two factors. The first one is the choice of references in which architects are free to choose the ones that suits them best. The other one is the degree of 'Verfremdung' an architect applies on a certain reference. The architect decides how far an element is estranged from its reference. Given these two arguments, 'Verfremdung' is, quoting Miroslav Sik, a tool which can result in millions of possible outcomes.^[4]



Auditorium theatre

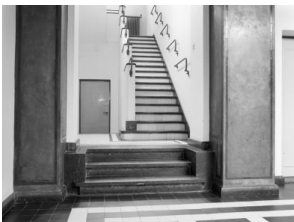
Variations on the tool 'Verfremdung'

Within 'Verfremdung' multiple variations can be identified. In some cases the 'Verfremdung' is applied in such a way that it becomes questionable whether 'Verfremdung' is the right word to explain it. Using 'Gebouw A' in Radio Kootwijk as reference project two variants are illustrated.



Gebouw A

A variation of 'Verfremdung' is more of a typological 'Verfremdung'. In this way of 'Verfremdung' not a specific building element is selected, but the final design resembles multiple characteristic elements of a certain building type. A nickname of 'Gebouw A' is 'cathedral of the Veluwe'. Not only does the shape of the body and the tower show resemblance with a cathedral, also in the large hall a large balcony is present. In cathedrals these balconies are often used for the organ. In this case characteristic elements from a cathedral can be recognized in the building, but it lacks a certain precision to unambiguously state that the building is a direct product of 'Verfremdung'. For the reference with a cathedral the word 'analogy' may be more suitable.



Staircase

Another variation of 'Verfremdung' illustrates the difference between 'Verfremdung' and its English description 'defamiliarization'. In this case the elements themselves are familiar elements. However the combination of these elements in a certain context, create an unfamiliar or unusual experience. In 'Gebouw A' tadelakt, an ancient lime plastering technique from Morocco, is used to cover the walls. Both the material itself and the production technique are applied in the traditional way. The defamiliarization arises when the Moroccan plaster is combined with tile patterns inspired by Persian carpets, and Amsterdam School style staircases, within the Dutch building tradition.

The different variations of 'Verfremdung' illustrate the ambiguity around the precise meaning of the concept. In other words, Miroslav Sik's concept of 'Verfremdung' can't be simply defined or translated into estrangement, defamiliarization, or analogy.

Verfremdung over time

In the classic revival movement of the 19th century, eclecticism directly integrates the elements of ancient Rome and ancient Greek architecture without much transformation and interpretation, although its purpose was to create a new architectural style.

Nowadays, although historical architectural language appears in contemporary projects, most architects tend to not directly copy symbols from historical buildings anymore. On the contrary, architects often create new variations on old elements. For example, in the Tama Library, where the arch is no longer subject to structural requirements, but is transformed into a pure aesthetic element. The spatial sequence formed by continuous arches can also be seen in the Dragon Art Museum. Both of these buildings do not directly borrow historical elements, but instead use more subtle means to convert these historical elements into new expressions.



Tama library & Dragon art museum

Some projects draw inspiration from engineering projects, for example the Steilneset Memorial of Peter Zumthor. The slender shape of the building mimics the construction of a ship in the shipyard. Another example is the Burgo Paper Mill which uses a concrete bridge structure, which lifts the concrete roof with steel cables, creating a large-span structure to suit the needs of the factory. Both buildings extract properties from references that meet the needs of the architect who subsequently re-interpret them. This illustrates that the scope of references is less limited to the architectural domain. It can be extended to anything in our everyday life, also resulting in different methods of 'Verfremdung'. The result is the diversification of the contemporary architectural practice. We can learn from culture in the broadest sense and use 'Verfremdung' to form our own architectural language, which results in a wider variety of architectural designs.



Steilneset Memorial & Burgo Paper Mill

Conclusion

What role does 'Verfremdung' play in the design process and what are the possibilities? 'Verfremdung' is the part in the design process in which modification takes place. The way this 'Verfremdung' is executed is highly dependant on the approach and personal preferences of the architect. This becomes clear in the different case studies. They demonstrate that although the same tool is used, the way the tool is used differs, resulting in different outcomes.

'Verfremdung' can be compared to gene mutation. In gene mutation the original gene evolves into a new one. Sometimes this evolution is positive, sometimes it is negative. Nevertheless, the possible mutations are endless. For genes, natural selection makes sure that the positive mutations survive while the negative ones vanish. Natural selection is not available for 'Verfremdung'. Instead, it is the architect who has the responsibility to decide whether a mutation is positive or negative based on his own personal preferences and experience.

References

- ^[1] ^[2] ^[3] 'S. (2012). And now the ensemble! Ennetbaden: Lars Müller Verlag.
^[4] Sik, M. (2017, November 28). Interview with Miroslav Sik at the ETH Zürich [Personal interview].

Image: '*Miroslav Sik*'

Yavas, A. (2007). Miroslav Sik, Architekt, Zürich 2007 [Digital image]. Retrieved May 7, 2018, from http://ayseyavas.ch/files/gimms/188_w24793920.jpg

Image: '*Musikerwohnung*'

Sik, M. (n.d.). Musikerwohnung Bienenstrasse, Zürich [Digital image]. Retrieved May 7, 2018, from http://www.miroslavsik.ch/website/var/tmp/image-thumbnails/0/443/thumb__big-square/mwh-aussen-strasse.jpeg

Image: '*Decorative elements*'

Sik, M. (n.d.). Musikerwohnung Bienenstrasse, Zürich [Digital image]. Retrieved May 7, 2018, from http://www.miroslavsik.ch/website/var/tmp/image-thumbnails/0/439/thumb__big-square/mwh-treppe-aussen.jpeg

Image: '*Bürgerhuus*'

Sik, M. (n.d.). Wohnhaus Bürgerhuus, Haldenstein [Digital image]. Retrieved May 7, 2018, from <http://www.miroslavsik.ch/website/var/tmp/image->

thumbnails/0/467/thumb__big-square/hal-oben.jpeg

Image: *'Auditorium theatre'*

Mairs, J. (2016, January 29). Álvaro Siza completes red brick theatre near Barcelona [Digital image]. Retrieved May 7, 2018, from https://static.dezeen.com/uploads/2016/01/public-auditorium-llinars-del-valles-alvaro-siza-vieira-catalonia-spain_dezeen_1568_13-1024x731.jpg

Image: *'Gebouw A'*

Staatsbosbeheer. Radio Kootwijk/Routes [Digital image]. Retrieved May 7, 2018, from <https://www.staatsbosbeheer.nl/-/media/radio-kootwijk/radio-kootwijk-header-2.jpg>

Image: *'Staircase'*

Monumenten.nl. Radioweg 3, Radio Kootwijk [Digital image]. Retrieved May 7, 2018, from https://www.monumenten.nl/files/styles/monument_visual/public/externals/7e4be60ea7381185b11b6f6629b1e2ad.jpg?itok=bWrymL_N

Image: *'Tama Library'*

Tama Art University Library [The interior space of Tama Art University Library]. (2013, March 18). Retrieved May 7, 2018, from <https://www.fanpage.it/toyo-ito-vince-il-pritzker-prize-2013-il-nobel-dell-architettura/>

Image: *'Dragon Art Museum'*

Shengliang, S. (2015, December 2). Dragon Art Museum [Digital image]. Retrieved May 7, 2018, from http://images.adsttc.com.qtlcn.com/media/images/5433/6cb7/c07a/80cb/e800/00e6/slideshow/contemporary_art_gallery_1st_floor_01.jpg?1412656289

Image: *'Steilneset Memorial'*

DAR.A. (2017, July 26). 26/07/2017 Una obra de Peter Zumthor : Steilneset [Digital image]. Retrieved May 7, 2018, from <http://www.dara.org.ar/new/wp-content/uploads/2017/07/peter-zumthor-andrew-meredith-steilneset-1.jpg>

Image: *'Burgo Paper Mill'*

Cartiera Burgo, Mantova, 1961-1964 [Burgo Paper Mill]. (2012, October 25). Retrieved May 7, 2018, from http://costruirecorrettamente.org/site/profondimento/informativo_detail.php?doc_id=214

ŠIK'S THEORY IN PRACTICE: LA LONGERAIE

by Noor Al-Khayat & Soleiman Naderi

As was evident from the previous essays, the terms 'continuity', 'ensemble' and 'estrangement' run as constant, recurring themes in Miroslav Šik's writings, lectures and public talks. With this essay, we first give an overview of these theories by doing a close reading of some of Šik's publications where the terms are mentioned. The results of these readings and our critical interpretations of them will then be assessed in Šik's practice by considering them in a realized project whose conception has allegedly (by Šik himself as well as other theorists) been rooted in these terms; the hotel complex La Longeraie in Morges, western Switzerland.

Terminology

On continuity, Šik writes: "*Anyone who is fascinated by the variety of the city he lives in will be interested in its preservation and continuity. [...] By meaningful continuity, I mean an on-going renewal of the old...*"^[1]. Here, Šik defines continuity with the seemingly paradoxical phrase "ongoing renewal of the old". He clarifies this further: "*... thus a sense of history combined with an affirmation of numerous conventions and common practices, and at the same time a clear "yes" to moderate and reasonable renewal.*"^[1]. Šik uses the phrases 'numerous conventions' and 'common practices' fairly liberally, they are left subjective and open for interpretation. This vagueness somewhat typifies Šik's tone. Concepts and ideas are kept ambiguous and only made specific as they are translated into practice. This also means that terms and definitions he uses might refer to slightly different things when describing different projects. Room is left out for particular, context- and project-specific solutions.

Another distinction of Šik's writing is the fact that he often writes prescriptively; he frequently speaks of how things should be. To a certain extent, this is also true for his lecturing; the phrase "Every

building must have...” recurs often during his public talks and school lectures. This signifies Šik’s strong opinion and his passion for architecture.

During a visit by the ‘Masterly Apprentice’ studio to the ETH, where Šik teaches, we witnessed how ruthlessly competitive his studios are. Šik employs a ranking system with a ‘winners’ and ‘losers’ wall for successful and less successful student project entries. However, we were also surprised by how open he was towards ideas that diverge from his own. He does not impose his views on his student nor does he expect them to agree with him. Which was evident from the wide variety of approaches and styles on the ‘winners’ wall.

With these observations in mind and looking back at the previous quote on ‘continuity’, we can start observing this dual tone that is both indistinct and dictative. A crude interpretation of the quote would be: “One *should*, in one way or another, aspire to achieve continuity by combining existing historical elements with common practices and conventions”.

Regarding the notion of ensemble, Šik writes: “*The ensemble in architecture is first of all not a composition. The complex blocks of buildings were not chiseled out by a single masterful hand, and the textures and details do not form a stylistic unity*”^[2]. This quote should be read with the premise that Šik sees the ensemble as something that architects should desire to achieve. In this excerpt, Šik states that an ensemble is not so much about elements being identical replicas of each other, but rather merely similar. He explains further: “*If perchance we do take in several buildings at a sweeping glance that are grouped around an evidently collective spatial figure, while forming balanced volumes and a coherent mood, we can be sure that we are witnessing a typical Gesamtkunstwerk, or total work of art.*”^[2]. Elsewhere he writes: “*If we understand identity within variety to mean the marriage of adjacent buildings as it has evolved in some cases across several decades, we come closer to what we mean by ensemble*”. In other words, an ensemble involves

an (unspecified) intricate balance between variety and uniformity. In an urban context, both of these are accommodated by a 'natural' evolution throughout time. Uniformity is provided by the common, locale-specific architectural language (type) and variety by the specific influences of the architects of the individual buildings (model). The distinction made here between type and model is used as characterized by French theorist Quatremère de Quincy, namely that the type describes the general guidelines that can be followed and the model the result of a practical application of these guidelines.

The term variety in the earlier-mentioned phrase 'identity within variety' is defined by Šik as 'estrangement'. It is often wrongly translated from the German 'verfremdung' into 'alienation'. Indeed, the term 'alienation' carries a negative connotation that is undoubtedly not intended by Šik, whereas 'estrangement' is more neutral in this sense. Estrangement can be described as the process where new elements are made to clearly relate to existing ones while at the same time show visual divergences. According to Šik, applying estrangement correctly would result in a 'dialogue' which would otherwise not be there in a context where the elements perfectly imitate each other. To remain in the speech analogy, the latter would produce an echo chamber, where all participants are in complete agreement - by definition, an unproductive activity. Šik explains: "*[...] neighboring buildings enter into a dialogue when they relate to one another by way of their color schemes, details, or volumes, but at the same time display other features that are different. If instead the buildings resembled one another in architectural expression and milieu, completely imitating each other, then we would have a pure stylistic analogy. And this, strictly speaking, does not constitute variety and is therefore not an ensemble.*"^[3]

Now that a terminology with clear definitions is established, we can start evaluating the different concepts against Šik's architecture, more specifically, La Longeraie hotel complex in western Switzerland.

La Longeraie

The hotel complex is a former early-20th century catholic boarding school which was expanded with a church and two adjacent buildings in the 1950's and '60's. These additions were designed by Swiss architect Pellegrino in so-called Perret-style (Images 1 and 2).

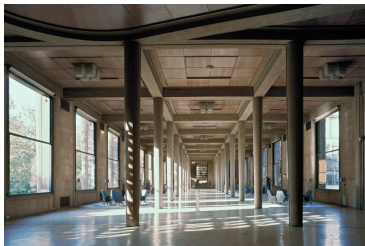
In 1990, Miroslav Šik won a competition for the repurposing of the compound into a complex with multiple hotel wings, restaurants, a gymnasium and congress rooms. Šik's competition entry consisted of a redesign of all the façades except the church's. He also added a new colonnade connecting the different buildings (Image 5).



1. Mobilier National, Auguste Perret



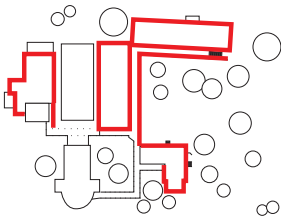
2. La Longeraie, Mioslav Šik



3. Palais d'Iéna, Paris, Auguste Perret

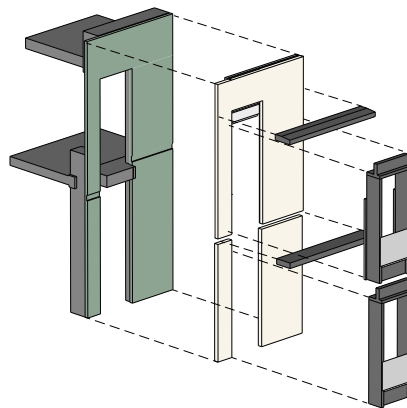


4. Chapelle de la Longeraie, Pellegrino



5. Redesigned parts by Šik

The main challenge was to maintain unity within the different buildings despite the vast differences in façade compositions and window types and sizes. Šik did this by preserving the Perret theme and expanding it to all buildings (until then, this was only the case in the Pellegrino additions). This Perret-style is expressed in the window details, namely the protruding window and door frames and the horizontal bands that encircle the buildings. However, there where the this frame grid in a Perret façade is a direct expression of the load-bearing concrete structure, this is not the case in La Longeraie, as it is only used to ensure visual unity (Images 6 and 7).



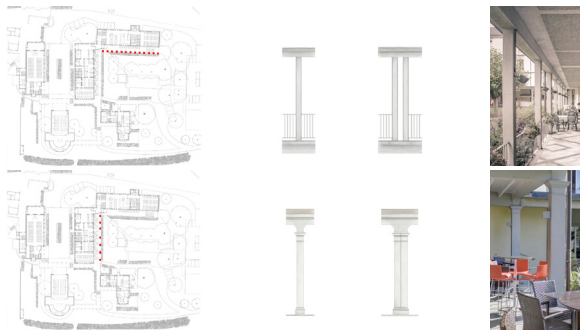
6. Exploded view window detail



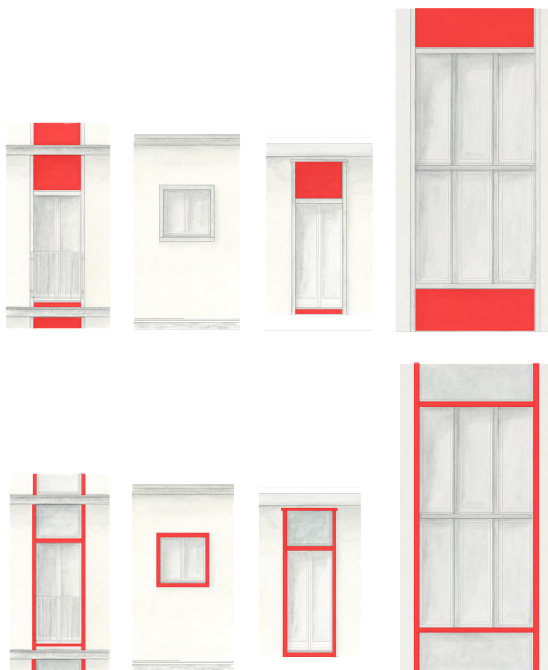
7. Elevation hotel wing

The colonnade is another tool Šik uses to maintaining aesthetic coherence. Here, estrangement (which as we established earlier, was needed to create the ensemble) is achieved by using different types of columns which are employed to denote the different functions; the restaurant building is lined with unornamented rectangular columns and the hotel building with classically decorated ones (Image 8).

At the same time, both column types relate to each other by the fact that they form a continuous colonnade and that they are both occasionally positioned in pairs.



8. Column types



9. Window types

Conclusion

Looking back at Šik's approach for the redesign of La Longeraie and evaluating it against his (broad) theoretical views, we can safely say that Šik was successful in specifying and translating them into practice.

Šik applies a single window type to create variations that fit the existing façade composition (Image 9). Here, all windows 'speak' the same language but 'say' different things. A similar but different method is applied for the columns in the colonnade where one column type is an abstraction of the other. Šik defines these processes as 'verfremdung' or 'estrangement'. This ensures what he calls 'identity within variety' which in turn would lead to an 'ensemble', unifying the entire complex.

References

Literature

- [1] “Ein anderer Fortschritt, eine andere Utopie”. Lecture. Frankfurt am Main 1988.
- [2] Šik, Miroslav. *And now the ensemble*. Zürich: Lars Müller, 2012. Print.
- [3] Šik, Miroslav. *And now the ensemble*. Zürich: Lars Müller, 2012. Print.

Images

- [1] Photo by Gilbert Fastenaeneken
- [2] “Altneu”, p. 8, Miroslav Šik
- [3] Photo by Benoît Fougeirol
- [4] Retrieved May 9, from <http://frevall.blogspot.com/2015/11/la-chapelle-saint-dominique-savio-de-la.html>
- [5] Drawing by Noor Al-Khayat
- [6] Drawing by Soleiman Naderi
- [7] “Altneu”, p. 8, Miroslav Šik
- [8] Retrieved May 9, 2018, from <https://caruso.arch.ethz.ch/archive/references/project/120>
- [9] Retrieved May 9, 2018, from <https://caruso.arch.ethz.ch/archive/references/project/120>

THE MASTERLY APPRENTICE

Graduation studio

INTRODUCTION

Choosing the studio

My choice for the graduation studio was not a very hard one to make; ever since I heard about “The Masterly Apprentice”, I was ‘sold’. I loved everything it had to offer, from its thematic approach to its setup.

Firstly, I was drawn by the unique continuous setup where every quartile, four students are “replaced” by four new ones as the former graduate and the latter enlist to the studio. This way, every student goes through a “metamorphosis”, starting as an ‘apprentice’ of the older students, and finally becoming a ‘master’. I find this an ingenious system of exchanging practical knowledge with one’s peers as well as a great way of self-evaluation.

After looking further into the studio, I quite liked its design approach. Ever since I started studying architecture, I was increasingly curious about how architectural concepts are conceived. As I progressed into my studies, I realized more and more that these ideas are never born in a vacuum but are rather mutations of other ideas that the designer happened to like or prefer over others. I found that many architects try to distance themselves from this notion of getting inspired by other architects or do not admit it for fear of being called unoriginal. I liked this studio exactly because it does not shy away from this and even takes it as a premise for the design.

Studio setup

As the name suggests, the ‘Masterly Apprentice’ graduation studio has the underlying main theme of ‘learning from’ where a work of a certain architect or architectural practice, chosen by the student, serves as a source of inspiration for the later design. This theme runs continuously as a common thread through all generations of the studio.

Parallel to this runs a secondary sub-theme that changes every quartile. Our generation, that of Q1 of 2017-2018, was to closely analyse the written and built works of a particular Swiss architect and teacher: Miroslav Šik. This

analysis was done in a group setting and its results are the essays at the beginning of this book. The essays go into depth on Šik's theories as well as his designed buildings. In the essay I was involved in, we tried to look into how Šik translates his theories into architecture.

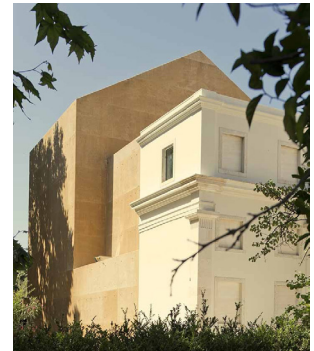
As stated earlier, each student is to choose an architectural work to 'learn from'. This project is analysed extensively, among others by replicating a chosen photograph with a physical model.

In the second half of the studio, a design is to be made in a location nearby the reference project. The design is to somehow incorporate elements from the Šik and reference project analyses,

A struggle to choose

The process for choosing a reference project was a long one and not without setbacks. I had to consider several projects until I settled on one. This difficulty to choose has been somewhat of a constant throughout the project's duration. While I cannot say for certain why that is, I can make a guess based on my experiences in the past. I believe it is mainly to do with my difficulty and reluctance to express myself verbally in group discussions. This results in me not being able to properly explain the reasoning for a certain choice and subsequently not getting the right feedback for it, to either reinforce or discredit the choice. I find that I am much more effective and precise in writing than in speech. In hindsight, it would have been a better idea to write down my thoughts before every feedback session.

This all meant that I had gone through 8 different possible reference projects before settling on the one that I and the teachers were satisfied with.



1. Thalia Theatre, Lissabon/Portugal



2. Swiss National Museum, Zurich/Switzerland



3. Neues Museum, Berlin/Germany



4. Eglise Saint-Nicolas, Hérémence/Switzerland



5. City Hall Harelbeke,
Harelbeke/Belgium

Reference projects

Since before joining the studio, I was interested in the idea of typology, more specifically in the European historical inner city urban type. What most of the considered projects have in common is the fact that they are embedded in a historical context. I was curious as to how the architects dealt with this context, what role it played in the designs and how the local type was 'translated'. The eventual choice fell on David Chipperfield's Campus Joachimstraße in Berlin. Besides being a lesser known project of a renowned architect that I admire, I picked it for the practical reason that it was one of the few projects with enough available information to conduct an in-depth analysis on.



6. Golden Nugget,
Graz/Austria

This first of two books is the result of the year's first semester containing the Miroslav Šik group essays and the research and architectural analysis on Campus Joachimstraße. The second book will comprise a detailed description of the design process and its results made during the second semester.



7. Campus Joachimstraße,
Berlin/Germany

CAMPUS JOACHIMSTRASSE

Building analysis

DAVID CHIPPERFIELD ARCHITECTS



David Chipperfield

Sir David Alan Chipperfield, born December 18, 1953 in London, is one of Britain's most renowned architects. He graduated from the Kingston School of Art in 1976 and the Architectural Association in 1977. Earlier in his career, he worked for Norman Foster, Richard Rogers and Douglas Stephen (Jodidio, 2015). In 1985, he founded his own architectural office in London. Quickly thereafter, he establishes an international reputation designing exclusive shops in Paris, Tokyo and New York which led to him receiving commissions for larger public projects and eventually opening offices in Berlin, Milan and Shanghai in addition to the main office in London. The practice has won several international competitions and has realized over a hundred projects with diverse programs, scales and contexts, from small provincial private houses to large urban master plans. Today, Chipperfield runs a very successful practice with over 250 employees in four offices (Chipperfield & Irace, 2018).

Philosophy

As many other architects, Chipperfield does not want to be ascribed to a certain style or movement. He says: *"The one thing you can't do in architecture, at least in my opinion, is to limit your way of thinking to a style, or a material, you have to be responsive to the circumstances of a project."* (Butler, 2014).

In an interview with Designboom.com, to the question whether he thinks that there is an increasingly 'globalized approach' to architecture, he answers: *"There shouldn't be. A building can last for a very long time. It's fixed to the ground and it contributes to the idea of 'a place'. However contemporary we feel that we are, we still want to find different characteristics in different places. If we go to Mexico we want to see architecture that tells us something about the place, the culture. When we build in a city we have a responsibility in a way to join in and understand why buildings are the way they are in that city, what they add. I find it very weak for an architect to disregard the history and culture of a city."* (Butler, 2014).



A selection of some of Chipperfield's works:
 1. River and Rowing Museum, Henley-on-Thames/UK, 1989
 2. Private House, Gallacia/Spain, 1996

3. Toyota design store, Kyoto/Japan, 1989
 4. Gallery Bastian, Berlin/Germany, 2003
 5. The Hepworth Wakefield, West Yorkshire/UK, 2003
 6. Museo Jumex, Mexico City/Mexico, 2009

Neues Museum

In 1997, Chipperfield won the competition for what would become his Magnum Opus: the reconstruction of the Neues Museum in Berlin. The building had been heavily damaged in bombings during World War II. Chipperfield's plans involved restoring and recreating original parts in some areas and adding new 'contemporary elements' elsewhere. The museum's entry on the office's website reads: *"When considering the way forward, it was clear that the ruin should not be interpreted as a backdrop for a completely new architecture but neither was an exact reconstruction of what had been irreversibly lost in the war seen as an option. A single continuous structure that incorporates nearly all of the available damaged fabric while allowing a series of contemporary elements to be added became the preferred path, often described as 'the third way'."* (davidchipperfield.com).

Chipperfield's approach in the Neues Museum aptly typifies his overall philosophy and attitude towards a historical context in his later works. The museum's tremendous success has proven to be a huge boost for Chipperfield's reputation in Germany. Today, the office has over 20 projects realized, under construction or planned in the country, 9 of which in Berlin alone (davidchipperfield.com).



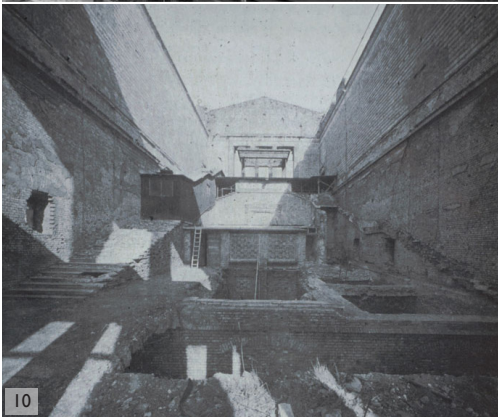
7



8



9



10



11

7. Southwestern elevation showing the left wing done in the 'third way'
 8. The northeastern façade before the intervention, note the largely destroyed south copula
 9. Northeastern façade after the intervention with the new south copula
 10/11. The grand staircase before and after the intervention

THE THIRD WAY

As we've read before, Chipperfield's 'Third Way' describes a specific approach to a design where an existing context plays at least some role in how design decisions are made. It rejects the first two 'ways' where the first takes the context as a static given that dictates any and all decisions and where any form of transformation is absent. A good example of this is the Humboldt Forum in Berlin; a painstakingly perfect reconstruction of the Stadtschloss, which was demolished after World War II and replaced by the Palast der Republik during the GDR era. The latter was in turn demolished to be replaced the Humboldt Forum (Image 12 and 13).

The second 'way' that Chipperfield rejects is the polar opposite of the first. Here, the new architecture is completely alien to its surroundings. The role that context plays is to provide a backdrop to contrast against. Daniel Libeskind's extension to the Royal Ontario Museum is an example of this approach. The crystal, which seems to be in the process of 'devouring' the existing historical museum building, appears to contrast with it in every possible way: its materials, colors, scale, morphology, orientation, etc.

These two approaches are two ends of a spectrum, somewhere in the middle of which lies Chipperfield's Third Way. Because of this, the design method is not by any means static or unambiguous. These archetypes of approaches and the relations between them are described by Miroslav Šik, albeit in different terms. Šik echoes the same ambiguity of the (preferred) in-between approach when he writes: "*[...] neighboring buildings enter into a dialogue when they relate to one another by way of their color schemes, details, or volumes, but at the same time display other features that are different. If instead the buildings resembled one another in architectural expression and milieu, completely imitating each other, then we would have a pure stylistic analogy. And this, strictly speaking, does not constitute variety and is therefore not an ensemble.*" (Šik, 2012).



12. Stadtschloss, 1901. Demolished in 1950



13. Humboldt Forum, computer rendering. To be completed in 2019.

This description by Šik may give us insight on how this desired ‘ensemble’ can be achieved, it is however not how Chipperfield does it. Whereas Šik achieves this “estranging” by mixing local motifs with alien ones, Chipperfield does this by altering the local elements using a process of abstraction.

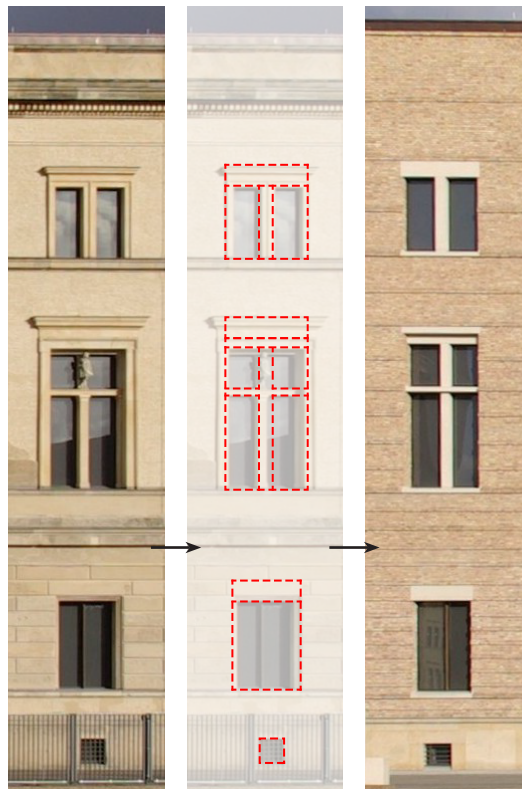
Abstraction

In architecture, abstraction is the process of removal of details in order to reach the essence of that which is being abstracted. Elements that are deemed irrelevant or excessive are discarded or combined with others.

A relation with the context is maintained by using the local type as a criterion to define the constraints within which to design. In the case of the Neues Museum, the restored original façade fragments served as this criterion. To abstract, those parts are considered, the elements that are judged to be essential are ‘preserved’ in the new parts, and all others are ‘discarded’. The result is a façade that is unmistakably related to the original while at the same time being distinct from it (Image 15).



14. Royal Ontario Museum, Montreal/Canada, Danile Libeskind

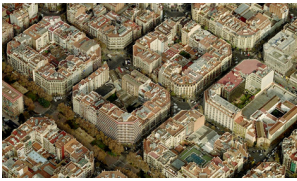


15. The process of abstraction, Neues Museum

THE BERLIN TYPE



16. Typical Amsterdam street (Damrak)



17. Barcelona building blocks in the Eixample district



18. Boulevard Haussmann in Paris

Before delving into the Campus Joachimstraße project, we must first discuss the architectural type of the area it is located in, as would become apparent that it played a significant role in the design's conception.

Typologically, the vast majority of inner city Berlin's architecture follows a distinct type. This Berlin Type is related to other European historical urban types, with some formal differences.

Amsterdam's urban structure follows that of the artificial canals. The building's roof ridges run perpendicular to the street, meaning that the gables are visible in the façades. The separate façades show a high degree of formal variety. On average, Amsterdam's historical inner city buildings are 4 or 5 storeys high.

In Paris and Barcelona, street architecture is much more uniform. In Barcelona's inner city Eixample district for instance, the building blocks are fixed in shape and dimensions, being 113 meter by 113 meter squares with chamfered corners and little variation between neighboring plot façades (Roca, 2015). Even more uniform is the architecture in Paris' boulevards, where strict prescriptions were imposed for the buildings' dimensions (12 meters wide, no higher than 6 storeys), roof shape (45° mansard roof) and façade composition (mezzanine on the first floor and balconies on the second and fifth floor) (Lemoine, 1998). Barcelona and Paris architectural uniformity is mainly due to the large-scale and relatively rapid renovations the cities underwent during the 19th century, carried out by Ildefons Cerdà in Barcelona and Georges-Eugène Haussmann in Paris.

Berlin

Where Barcelona had Cerdà and Paris Haussmann, Berlin's 19th urban reconstruction happened under the Prussian James Hobrecht. The resulting Hobrecht-Plan was much less restrictive however, giving only some general constraints. Namely requiring each house to be reachable from a courtyard and the courtyard to be large enough to allow for a fire engine to make a full turn.

Hobrecht's plan had greater effects on the urban scale, where it divided Berlin in large urban blocks. In turn, the bigger blocks, paired with a rapid population growth resulted in the rise of a new type of large rental barracks. These so-called "Mietskaserne" contained many smaller apartments and housed large numbers of people, often living in bad conditions. This is especially true for apartments located deep in the urban block, where windows were a luxury. By 1871, three quarters of Berlin's apartments were Mietskaserne (Rubin, 2016).

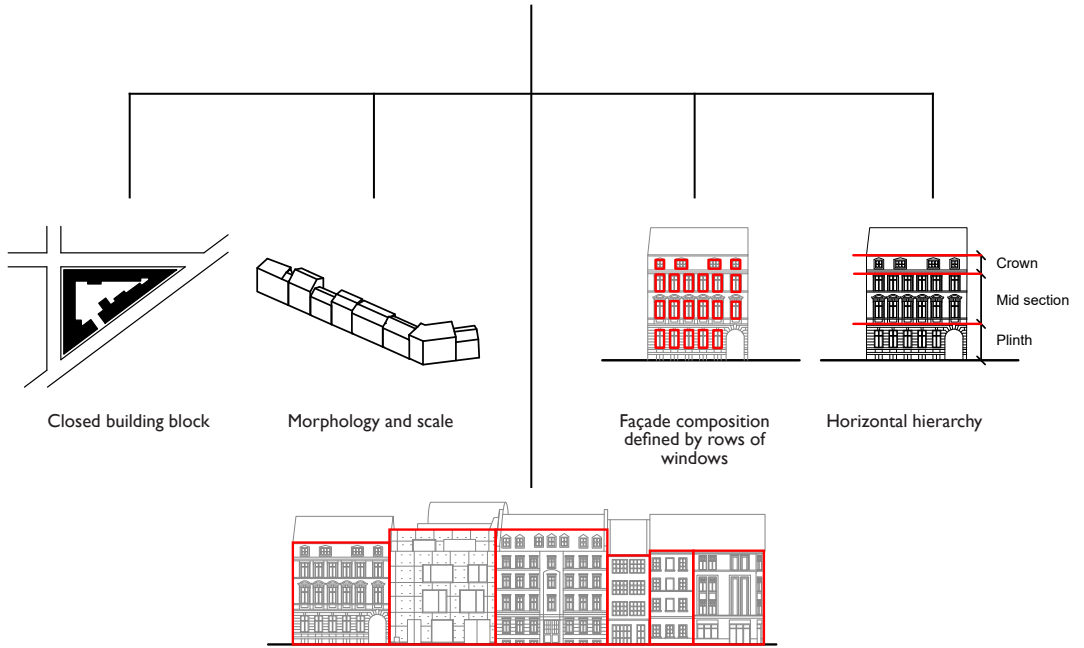
Today, many of the buildings in Berlin's historical core are either restored or reconstructed Mietskaserne. This means that the Berlin Type we speak of today is at the very least partially, if not predominantly defined by architecture found in Mietskaserne.

Characteristics

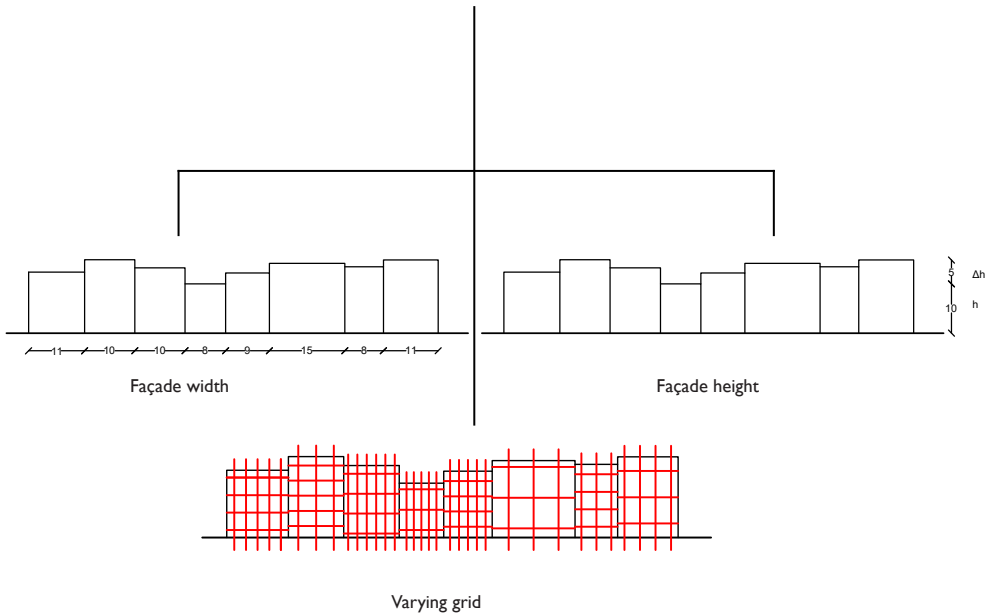
Berlin largely consists of closed building blocks in the middle of which lie either an inner courtyard or a set of back gardens. These blocks are mostly closed and their building line uninterrupted, with occasionally an unoccupied plot awaiting to be filled. Most buildings are 4 or 5 storeys high or between 15 and 20 meters. Their roof ridges run parallel to the street, meaning that the façades are rectangular in shape and the gables are not visible. The façades are composed of rows of rectangular windows placed in an orthogonal grid. Most of these windows have a width:height proportion of approximately 2:3. The façades are divided horizontally in the classical plinth, shaft and crown.

Underlying all of these characteristics lie the ideas of variety where no two façades in a street are identical. This variety takes place within a certain margin that ensures unity. The three main variables are: the width of a façade, its height and the composition of its grid, that is to say, the amount of grid lines in each direction and the spacing between them. Other aspects are the materials used, their color and texture, the amount and type of relief, and the size and number of windows.

Typological elements



Variety within a margin



BERLIN MITTE

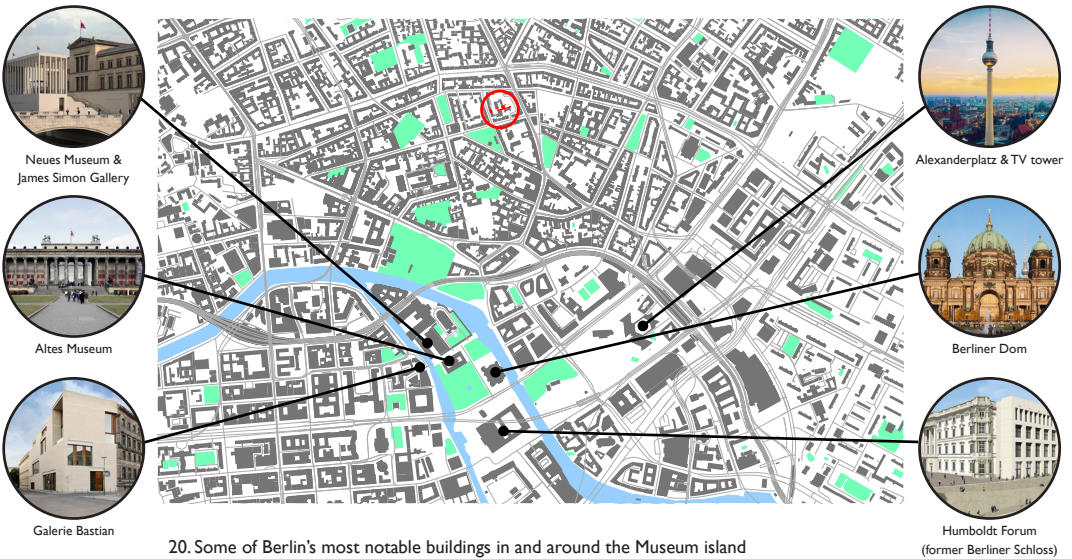


19. Berlin's boroughs. Campus Joachimstraße highlighted in red

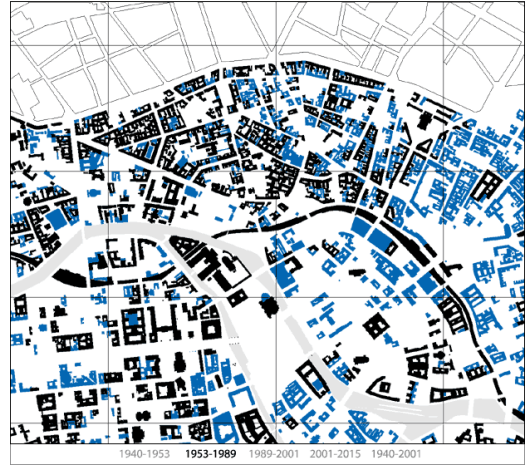
The reference project is located in Berlin's most central borough, Mitte. Joachimstraße itself lies less than a kilometer north of the Museum Island, where the earlier-discussed Neues Museum is located.

Much like the rest of Berlin, the area was severely damaged during World War II. The extent of the damage meant that some complete neighborhoods were wiped out by the end of the war. Rebuilding occurred over the course of several decades with the majority taking place in the first decade after the war (Image 21). By the end of the 1980's, Berlin's urban structure took its current shape as there were no more large-scale reconstructions.

During my visit to Berlin, I discovered an odd phenomenon that I hadn't seen elsewhere. Namely, the amount of empty plots, even on prominent, 'expensive' streets. Some are used as parking spaces or have been turned into small, overgrown parks, which would imply a long-term vacancy. These 'gaping wounds' seem to all but beg to be built on and are all the more emphasized by the tightly knit nature of Berlin's architecture. The reason for this high amount of empty plots is unclear to me. Perhaps they are 'repairs' of the cheap, fast architecture that emerged due to housing crises in the Cold War.



20. Some of Berlin's most notable buildings in and around the Museum island Campus Joachimstraße highlighted in red



21. History of Berlin's inner city structure
Demolished buildings are highlighted



22. Three of Berlin's many 'gaping wounds'



23. Birdseye view of the site
Campus Joachimstraße is at the top north and is highlighted in red

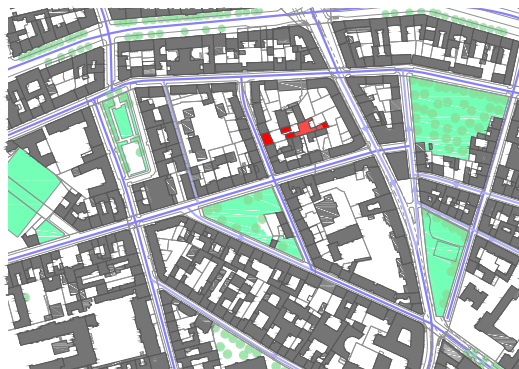


24. Site plan
Campus Joachimstraße is highlighted in red

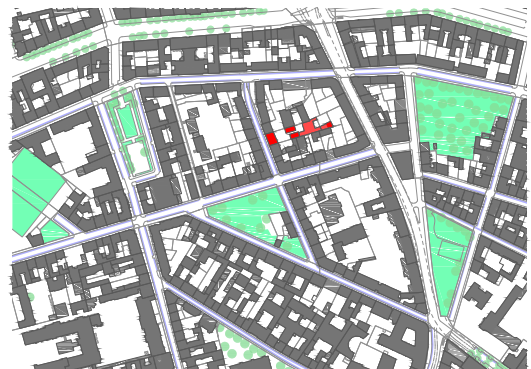
Zooming further into the site, we arrive the junction of Joachimstraße and Auguststraße. Joachimstraße, on which the project is located, is a narrow, 5-meter wide one-way street with parking on both sides. This, together with the limited variation in its buildings' heights and the relative flatness of its façades, gives Joachimstraße a very intimate impression. The street feels as a narrow corridor (Image 27 D).

Crossing Joachimstraße in the middle is Auguststraße, a wider two-way street that runs east-to-west (Image 27 A). Together with the Gipsstraße, Joachim- and Auguststraße form a triangular block which, apart from a row of residential buildings at its eastern side and a single solitary house at the south, is covered with grass, large trees and shrubs. The northern part is dedicated to a skateboard with a public sitting area (Image 23). At the time of my visit, an October afternoon, the park gave me the impression that it was well-used by residents from the area.

As stated earlier, the vast majority of Berlin's building blocks have private inner gardens. Depending on the orientation and size of the the blocks, these gardens can have limited direct sunlight. This is especially true during the winter months, when barely any sunlight will reach the interior gardens (Image 28).



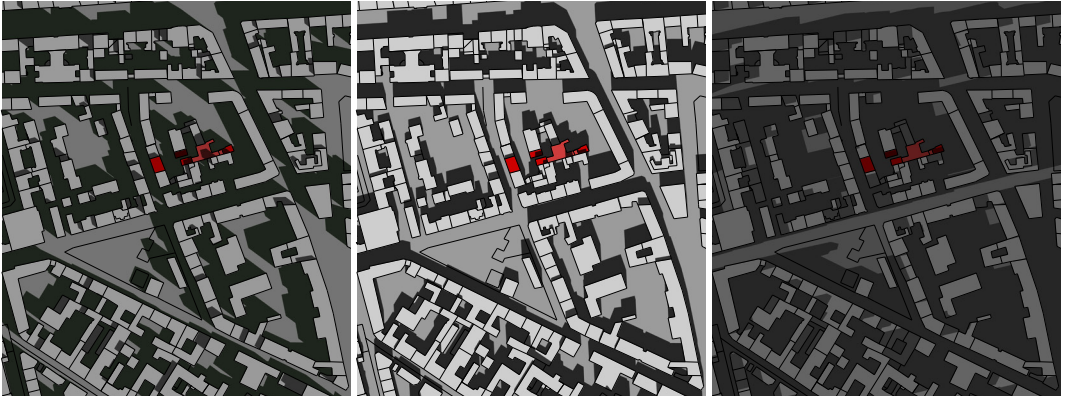
25. Car traffic



26. Parking



27. Some of the main views on the site, as experienced by pedestrians



20 March, 09:00

20 March, 12:00

20 March, 17:00



21 June, 09:00

21 June, 12:00

21 June, 17:00



21 December, 09:00

21 December, 12:00

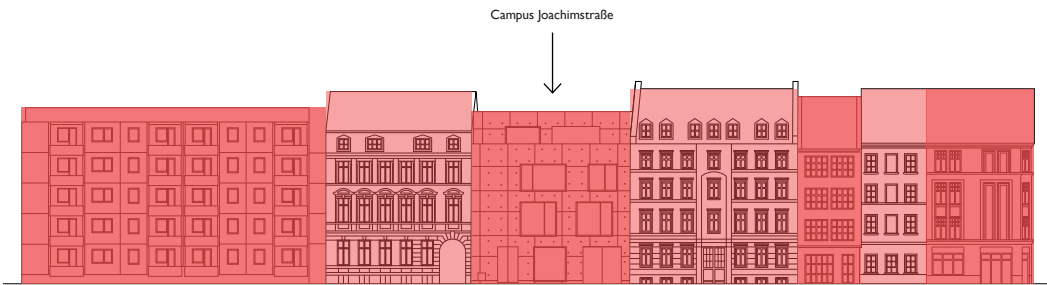
21 December, 17:00

28. Sunlight simulations throughout the year

In order to understand the relation between Chipperfield's design and the Berlin Type and how the process of abstraction has been applied, we will examine it in reference to its neighbours. More specifically, this will be done by deconstructing the façades into a number of basic elements. Each of these elements be visualized separately for of Chipperfield's Campus Joachimstraße's lateral neighbours for the entire row of buildings.

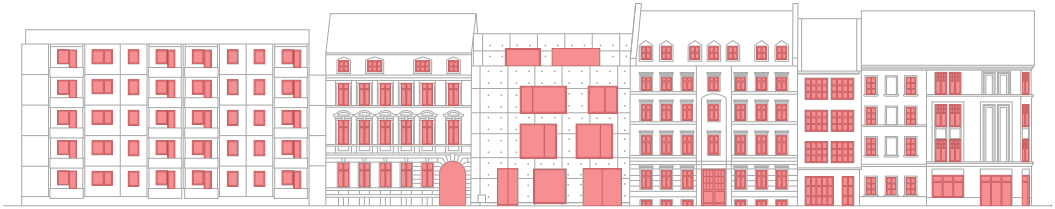


29. Joachimstraße



Variants

Before starting with the analysis of comparing the façades with respect to the different primary elements, we must first define what constitutes a façade. Here, the street is divided into 'variants' rather than façades. This distinction is necessary since the façade of a single building can be designed in multiple, visually distinct 'parts'. This is in fact the case with the two rightmost 'variants'; they are parts of one façade of one building and they are built simultaneously and in the same material and detailing.



Openings



Relief

Relief

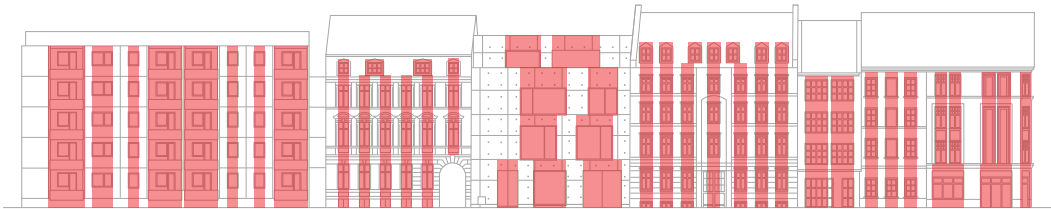
Because of how narrow Joachimstraße is, its buildings are primarily perceived from an acute angle. This means that the window and door openings and other receding or protruding elements play an essential role in how the architecture is perceived.

The façades directly adjoining Chipperfield's Campus are extensively adorned with classical motifs such as pediments above the windows, accentuated plinth floors, stringcourses and cornices. The other façades show these motifs but to a lesser extent. In contrast, Campus' façade is very flat, displaying minimal relief with slightly protruding window frames in all but the ground floor where the frames are detailed flush with the façade's surface. This discrete window, together with the recessed main entrance door and the passage to the garden gives the building a distinct and discernible plinth.

The apartment building on the far-left shows no such attention to detail. Here, everything seems to be oversized for the street. Its recessed balconies and deep vertical niches form alien elements in the area.



Horizontal composition

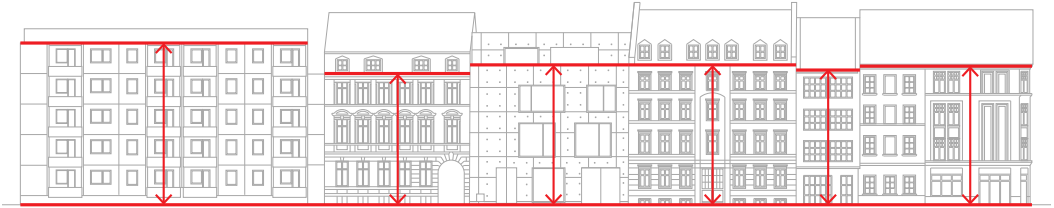


Vertical composition

Composition

Underlying the former theme is the façade's composition, formulated by the row of windows and other large façade elements. Each variant has a distinct and unique composition.

Horizontally, Campus follows a similar scheme to the other variants where each floor has a row of windows with equal height. However, there where the other façades have a similar orthogonal vertical composition, this is not the case with Campus. Here, the windows do not align vertically but rather shift and vary in width. This only becomes apparent when the building is viewed from a wider angle i.e. from closer by.



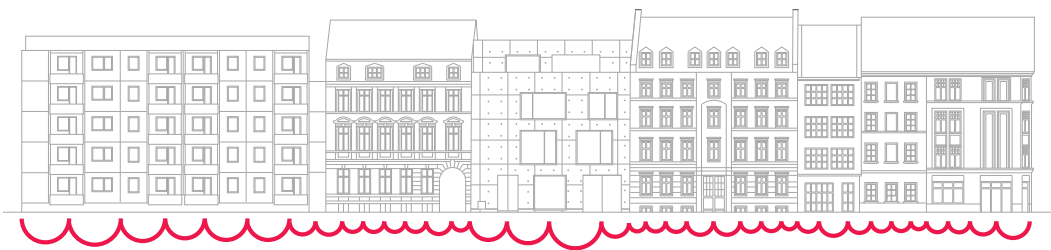
Height



Width

Dimensions

The variation in the façades' heights happens within a very small margin, with the exception of the apartment building. The differences in width are much larger, with the smallest being almost three times more narrow the Campus. Due to the street's narrowness and the subsequent sharp viewing angle, this large variance of widths is not as conspicuous as if the heights varied this much.



Rhythm

This diagram shows the effects of Chipperfield's abstraction to the vertical rhythm in the street. 'Rhythm' here is defined by the overall width of vertical elements and the spacing between them. It is to do with how 'busy' or 'quiet' a variant feels. Campus Joachimstraße has two rows of large windows. These are spaced relatively far from the façades' edges, creating large uniform and flat surfaces of glass and concrete, giving a 'calm' impression.



Horizontality

This analysis visualises the horizontal lines that are emphasized in a sharp-angled view and to what degree that happens. The thick lines signify the protruding stringcourses, while the thinner ones are the windows' top and bottom edges.

What is most striking is how independent each variant is from the others; none of the bands seem to run continuously through the neighboring variants. In their consistent autonomy, the façades have a common ground. Similar to how the unique stones of a mosaic can form a single image, Berlin's infinitely unique façades comprise a single, coherent architectural type.



Former piano building
New volumes

30.Additions by Chipperfield

On the middle of the narrow street's length on number 11 is situated Chipperfield's Campus Joachimstraße. The building resides on a plot formerly occupied by a piano factory built in 1895 (architekturpreis-berlin.de). The factory was hit by an airstrike during the war, destroying the street-facing building and a portion of the factory behind it. What is left is a five-storey brick building in the middle of the plot which housed David Chipperfield Architects since the opening of the Berlin branch in 2004 and an empty plot in the front that was used as a car park for the employees.



31. The former piano factory building

Since the very beginning, Chipperfield had plans for substantial extensions to the site to accommodate the office's growth. In 2008, a formal design application was submitted for approval and construction began three years later in May 2011 (architekten-pga.de). The proposed design was to add four concrete volumes in a composition that would “[...] *strike a balance between re-establishing the typical pre-war courtyard structure, and a post-war configuration of solitary buildings.*” (davidchipperfield.com). This meant that the street façade would be closed with a front residential building. Two volumes in the middle would form two courtyards, connected through a narrow 2-meter passage between the volumes. The smaller of these volumes houses a public canteen that faces into the first courtyard which can be reached from a passage through the front building, giving it a semi-public character. The fourth volume connects the brick building from the back, creating a third courtyard.

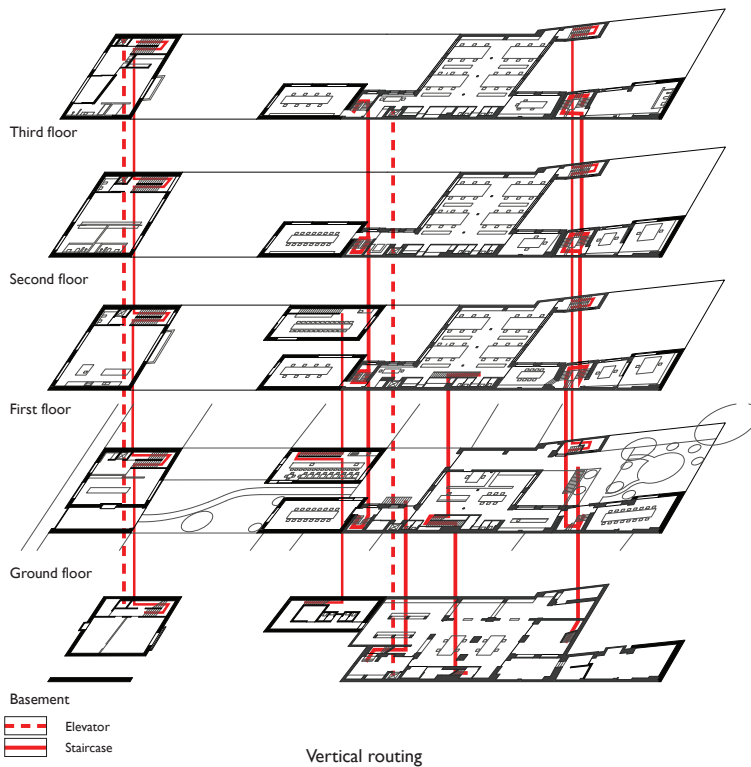
Courtyards

The three courtyards, shaped by a careful placement of volumes, have three vastly different atmospheres. The first, between the front building and the canteen, is directly accessible from the street and is visually connected to it. It is relatively large, comprising the entire width of the plot and is paved in moss-covered cobblestone and furnished with park benches and planted with a small tree and some shrubs. This all gives the courtyard a somewhat rural, friendly and welcoming atmosphere.

The second courtyard is accessed through a small 2-meter gap between the two concrete buildings. It is much smaller and darker than the first on account of it being surrounded by tall buildings from three sides. Its dark concrete paving only adds to this cold and confined ambiance. It functions primarily as a lightwell to provide daylight for the deep former piano building.

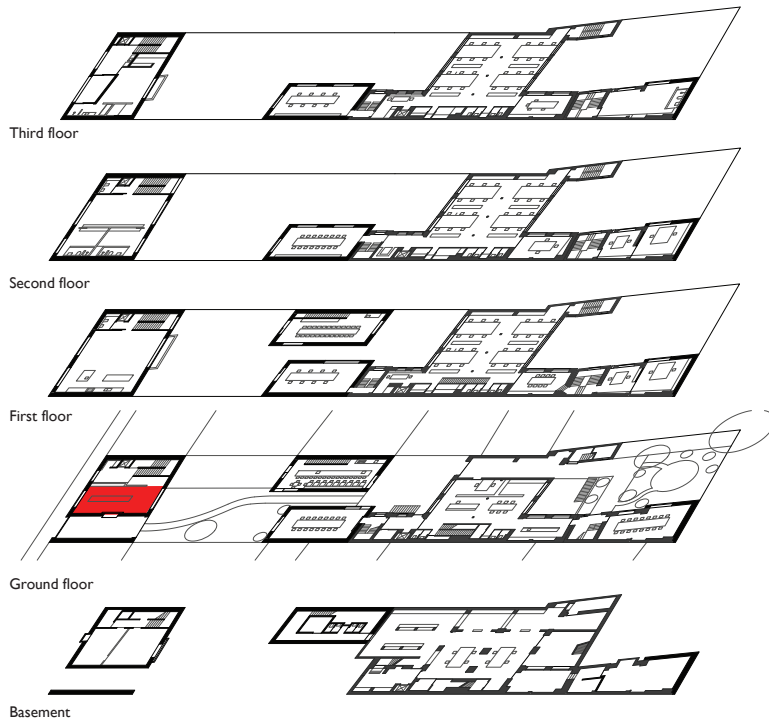
The third courtyard serves as a private garden and a back entrance for the employees. It provides a view into the inside of the urban block and the backs of the apartment buildings along the Rosenthaler Straße. The garden is flanked by the 20-meter high brick building from the south-east and -west, meaning that it is free of direct sunlight all year long.





Routing

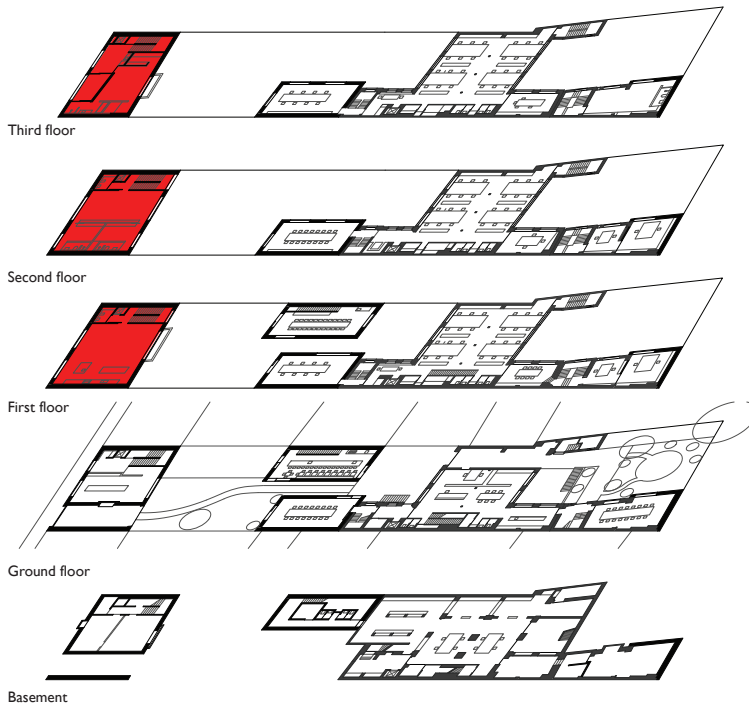
In addition to three existing staircases in the former factory building, an elevator was added to a narrow section that connects one of the middle volumes to the factory building and which contains one of the staircases. In the front building, a 3-meter wide bay houses the main circulation area with the street entrance, a staircase and an elevator.



Functions: Exhibition space

Exhibition space

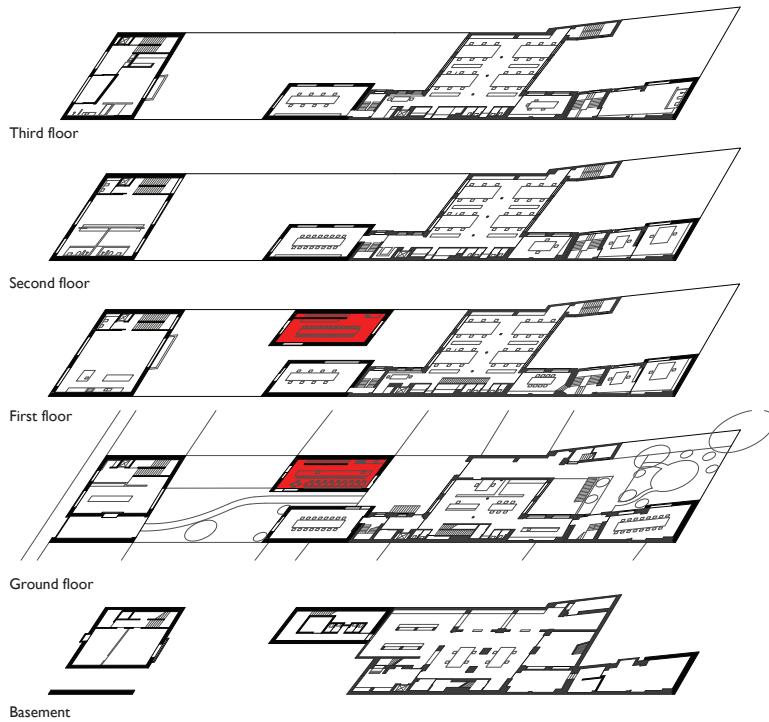
A large exhibition room is located on the front building's ground floor. This space is also used to receive and meet clients and official visitors and can be accessed from both the street and the courtyard.



Functions: Residence

Residence

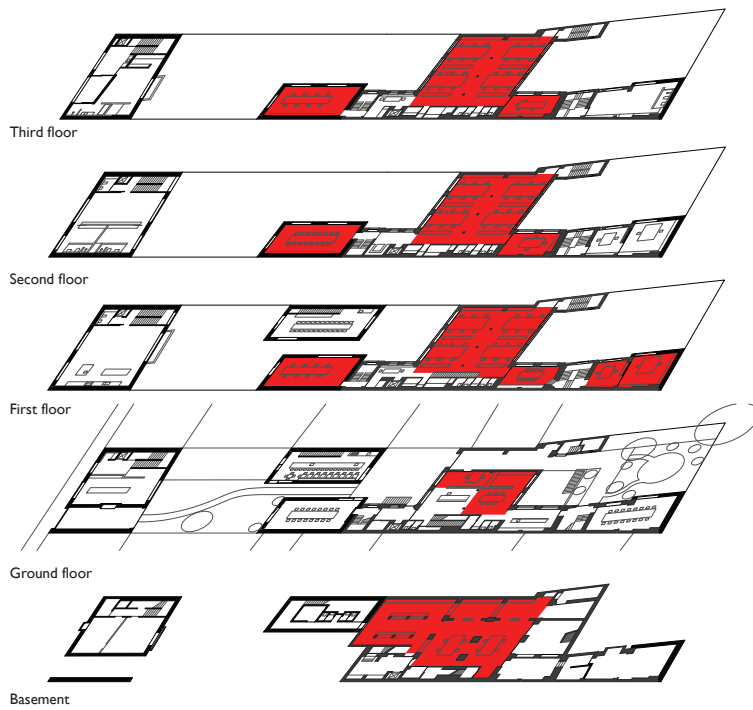
The top three floors of the front buildings serve as a private residence for David Chipperfield himself or for his office partners when visiting Berlin. The first floor has an open plan with a kitchen and a living space. The second floor houses two bedrooms with a living room. The top floor has a large bedroom with a kitchen and living room and can be used as separate living quarters or a guest house.



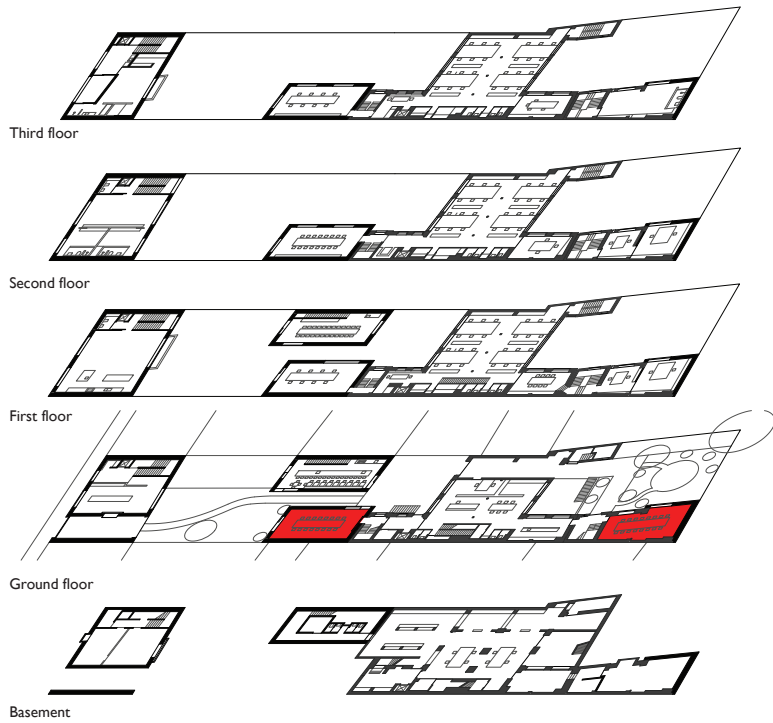
Functions: Canteen

Canteen

The smaller, two-storey building accommodates the public canteen, with a bar and kitchen on the ground floor and a sitting area on the first floor. The first courtyard can be seen as an extension of it and is furnished with benches and tables. Especially during the summer months, the courtyard will attract many people from nearby businesses as well as tourists to have dinner.



Functions: Office space



Functions: Meeting rooms

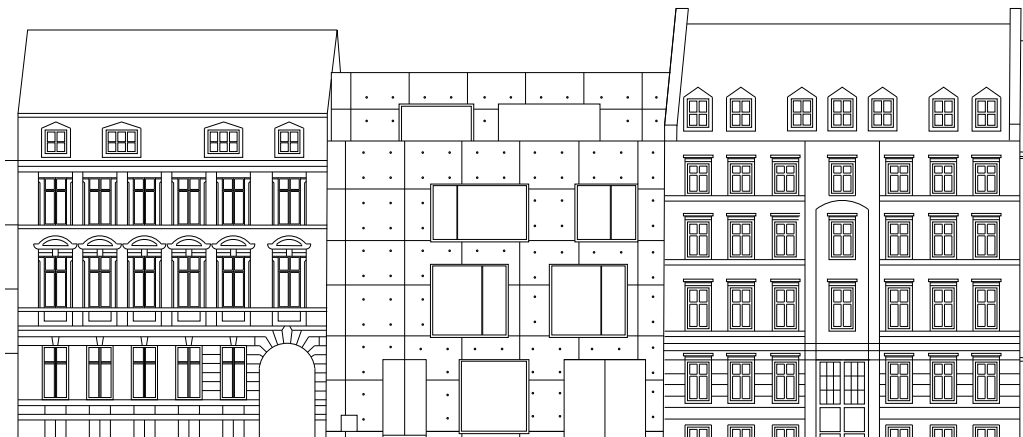
Elevations

We've seen in the street elevation analysis that Campus Joachimstraße's front façade is fairly flat, apart from the slightly protruding window frames on the first and second floors. This is different in the interior façade where we find two balconies: on the first and third floors. This follows a local trend where living quarters facing the interior courtyards are given balconies.

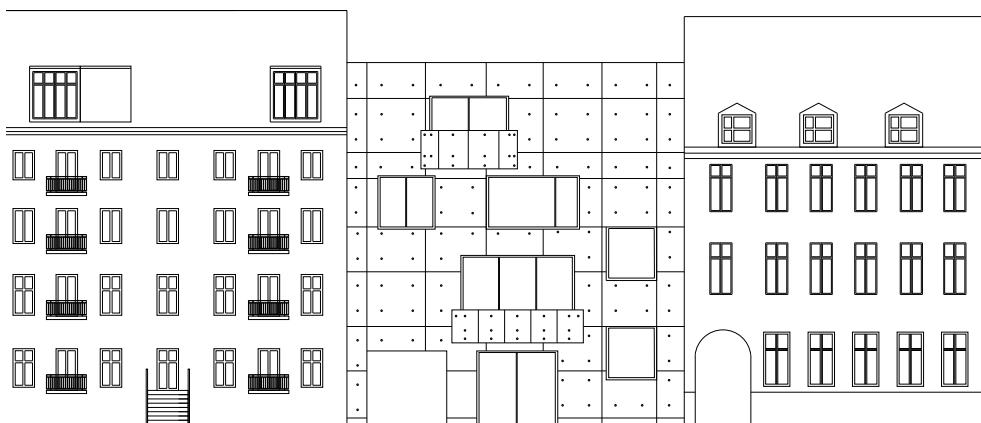
The continuous horizontal composition produced by the windows' equal heights that we've seen in the front façade is absent in the back where it is interrupted by a vertical shift of the windows for the stairwell at the right hand side.



32. Front building's interior façade



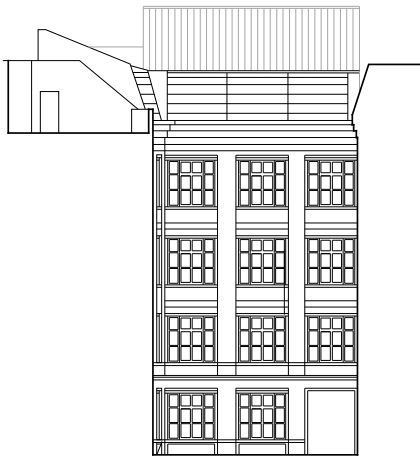
Front building
front elevation



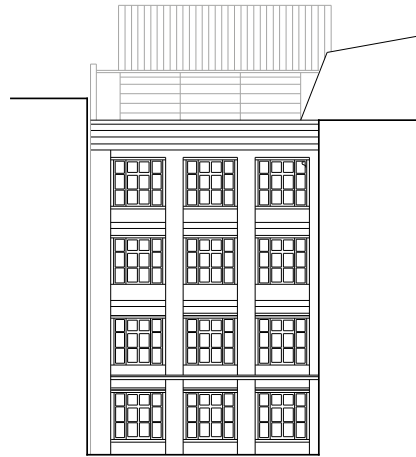
Front building
back elevation



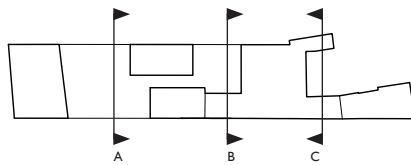
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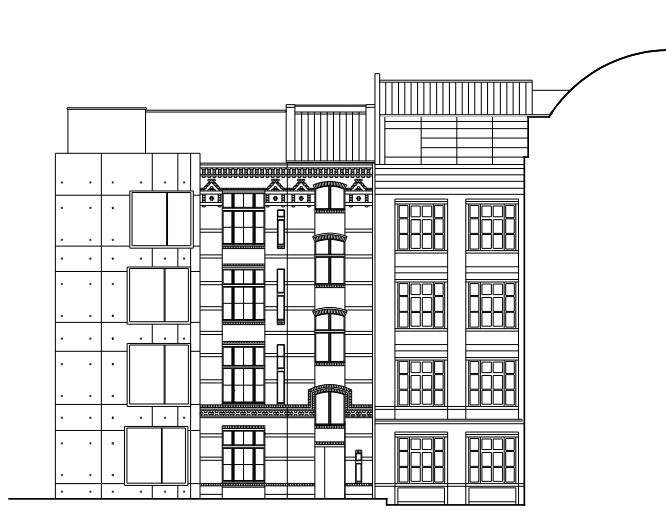


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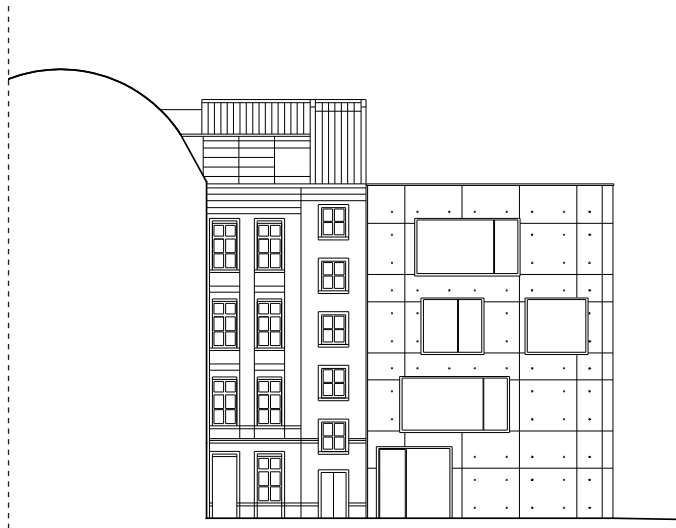


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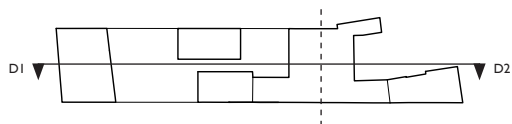




D1



D2





33. Top: Meeting room on the middle building

34. Bottom: View through the corridor between the Canteen and middle building into the front building

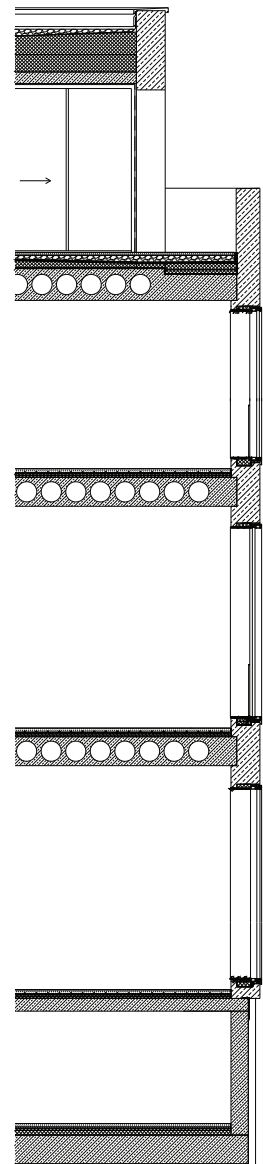
Dämmbeton

The new volumes are constructed in an insulating, full-depth, solid exposed concrete called Dämmbeton. The 50-centimeter-thick walls, cast without a cavity, gain their insulating capability from the use of an aggregate of superheated clay balls to achieve a U-value of $0.7 \text{ W}/(\text{m}^2\text{K})$ (Woodman, 2014).

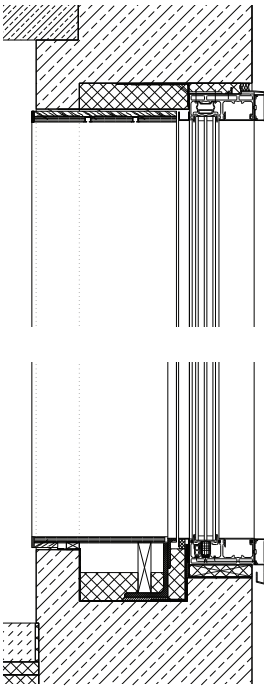
The main downside of Dämmbeton is the fact that it is extremely labour intensive. Because of how much lighter the aggregate is than the cement, it tends to “float” upwards when poured in large quantities. So to ensure an equal distribution in the concrete, the walls are poured in segments of 50-60 centimeters high (Liese, 2014).

Another concern that contributed to prolonged construction times is the walls’ unusual thickness. This meant that no standard corner formwork elements could be used to cast the corners, meaning that no two walls could be cast together. These complications compounded to result in a staggeringly slow construction rate of one wall a week, or one room every month (Woodman, 2014).

For all the floors, conventional in-situ cast concrete is used, except in the front building where the larger span necessitated the use of lighter hollow core slab floors. The floors are equipped with an underfloor heating system and finished with a layer of screed. All the joints between the floors, walls and ceilings are finished meticulously to be seamless without the need for skirting boards.



35. Front façade section

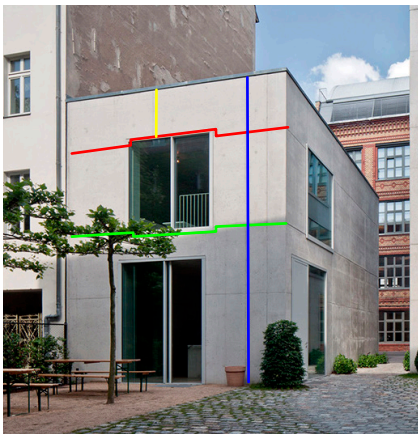


36. First floor window detail

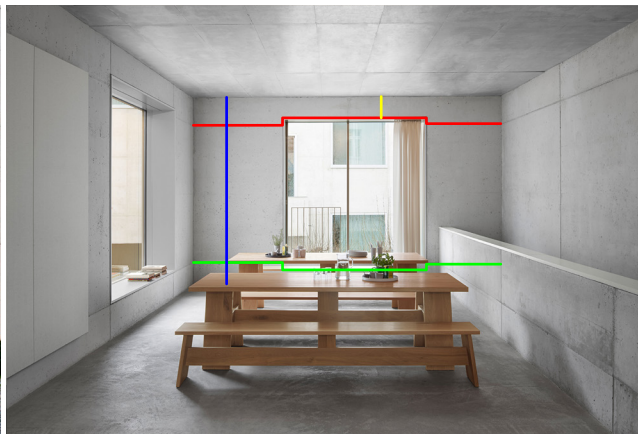
Formwork

To cast the walls, modular steel formwork elements of 2700 mm by 2300 mm were used, resulting in a very smooth finish both on the inside and outside with formwork seams and patched anchor bolt holes still visible. The formwork grid on the exterior walls can be seen on the inside wall surface as mirrored and inverted (Images 37 and 38).

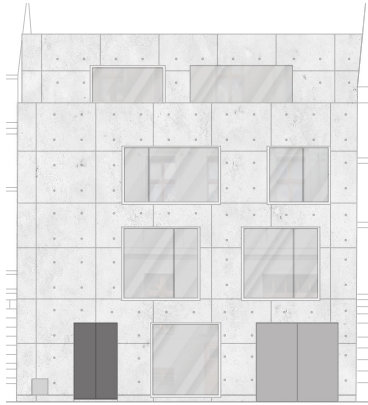
At first glance, the formwork and window grids appear completely independent of each other. However, upon closer inspection, it becomes apparent that the bottom of the each window opening will consistently correspond with a formwork seam. The two windows for the staircase on the right form an exception in this, where the top frame aligns with a seam. The frames however, do not perfectly follow the seam line. This slight misalignment is due to the outer edge of the window being recessed into the wall so as to make room for the window frames (Image 36).



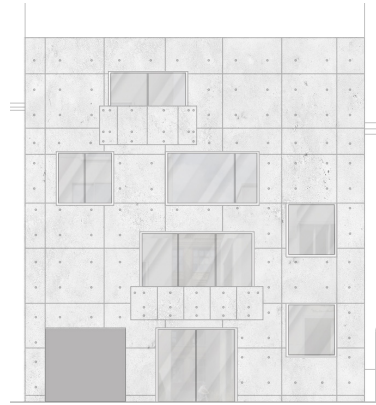
37: Canteen building



38: View from the Canteen's first floor on the same wall as image 37. Note the corresponding seams between the two photographs.

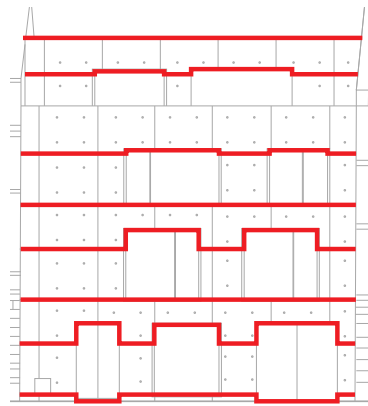


Front elevation

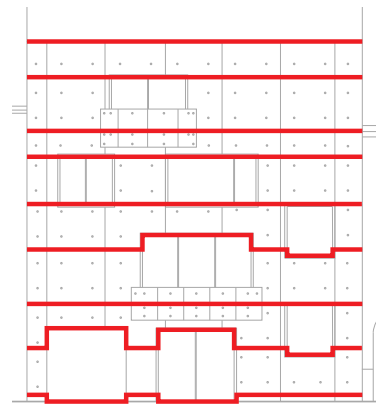


Back elevation

Formwork seam structure

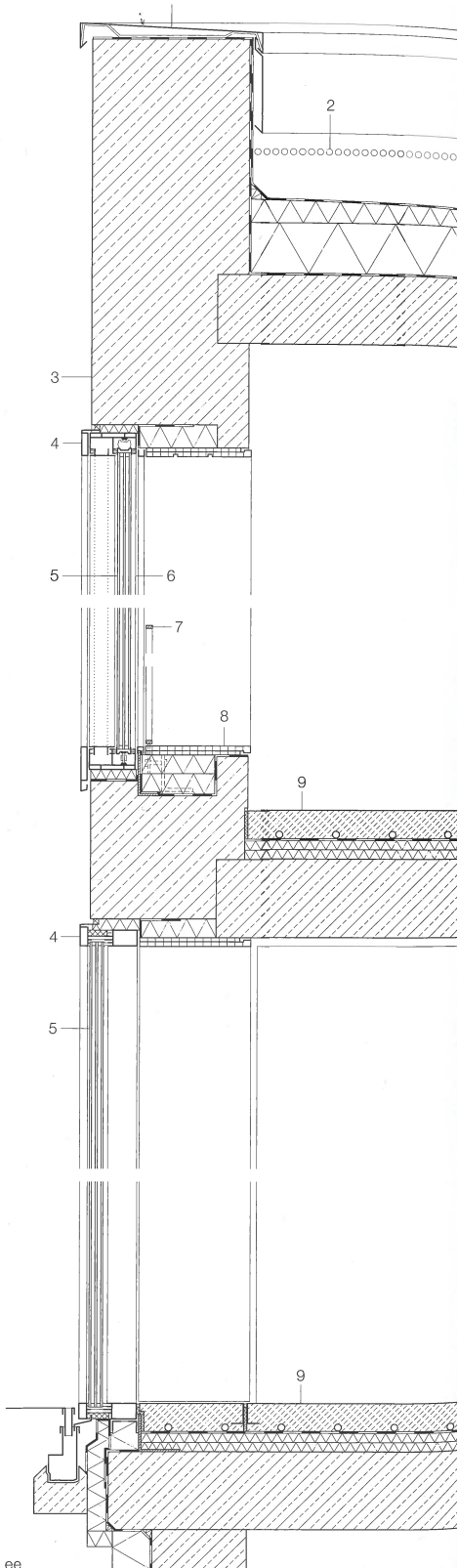


Front elevation



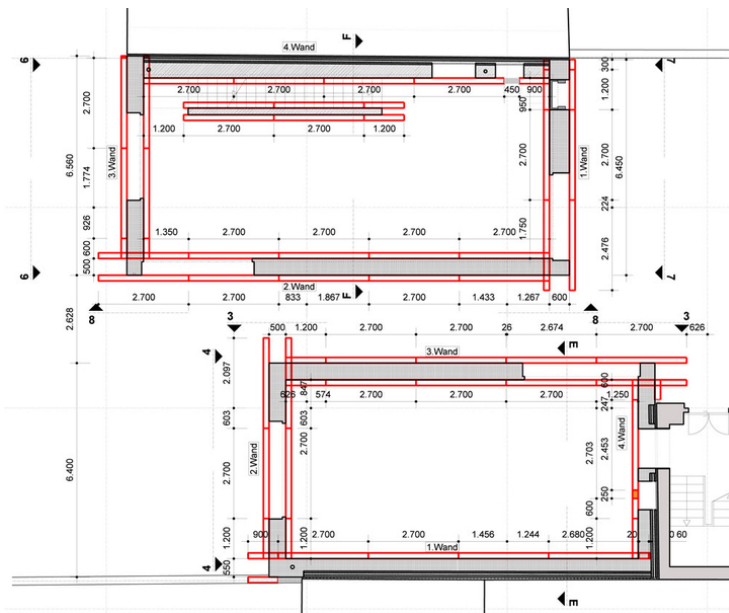
Back elevation

Horizontal seam alignment



- 1 sheet-zinc parapet wall covering
- 2 layer of gravel; plastic sealing layer
40–140 mm expanded polystyrene insulation to falls
160 mm expanded polystyrene thermal insulation
bituminous vapour barrier
220 mm reinforced concrete roof
- 3 external walls to front and middle buildings:
500 mm insulating concrete, relative density 1.2, compression strength class LC 16/18, exposition class XC2 ($U_g = 0.7 \text{ W/m}^2\text{K}$)
- 4 powder-coated alum. cover strip
- 5 triple glazing: lam. safety glass + 12 mm cavity + 8 mm float glass + 12 mm cavity + 8 mm toughened glass ($U_g = 0.5 \text{ W/m}^2\text{K}$)
- 6 sliding window with GRP frame
- 7 20/10 mm steel flat safety rail
- 8 25 mm blockboard lining, painted grey
- 9 90 mm screed, ground smooth underfloor heating system with integrated separating layer and impact-sound insulation
30 mm expanded polystyrene insulation
250 mm reinforced concrete floor
- 10 external wall to garden house:
200 mm exposed concrete
30 mm mineral-wool separating layer
365 mm lightweight brick wall
perlite insulation; 15 mm plaster
- 11 existing brick outer wall
- 12 300/320 mm reinf. conc. column

39: Canteen façade details



40: Positioning of the formwork panels. Canteen and middle building.



41. The chosen photograph

PHOTOGRAPHIC MODEL

The first quartile of the graduation studio included an exercise where the student is to choose a photograph which in one way or another represents and characterises the building. The student then remakes the photograph as a physical model as accurately as possible which he or she photographs.

After some deliberation, I chose a photograph I had found on a website of a designer company advertising and selling furniture designed by David Chipperfield. What immediately drew me to this particular photograph is the stark contrast between the 'coldness' of the concrete walls, floor and ceiling and the 'warmth' of the oak tables and benches.

During the making of the model as I was taking test shots, it became clear that getting accurate lighting would be the main challenge. In the photograph, the exposure value inside the room is very close to that outside. This so-called "high dynamic range" is impossible to replicate in a single photograph with a 'regular', non-professional camera. This limitation can be overcome by combining multiple photograph with different exposure values (Image 45).



Concrete ceiling:

- Glossy
- Discolored patches
- Formwork seams



Oiled oak table:

- Glossy
- Wood texture



Screed floor:

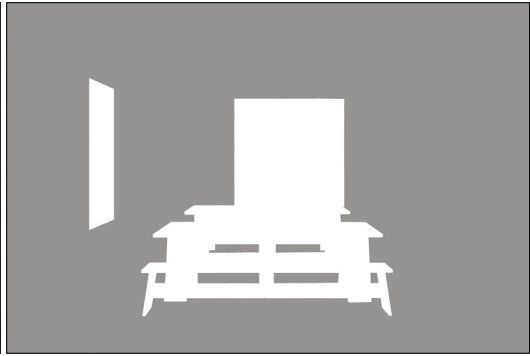
- Deep relief
- Patched reflectivity



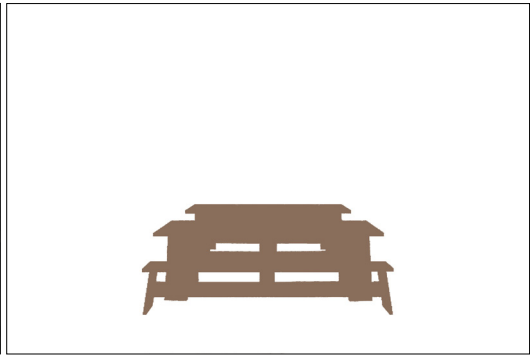
Concrete wall:

- Visible surface voids (air bubbles)
- Matte surface
- Formwork seams

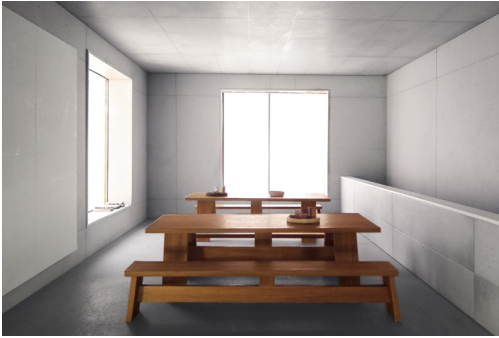
42. The four main different surfaces and their characteristics



43. The "cold" zone and its average color



44. The "warm" zone and its average color



+



=



45. Combining the two initial photograph into an evenly exposed one



Original photograph

46.A comparison of the different surfaces in the two photographs



Model photograph

CONCLUSION

David Chipperfield derives his design for the Campus Joachimstraße from an abstraction of the local architecture. By this process of reduction, Chipperfield not only acknowledges the qualities of the context, he also strikes a dialogue with it through a formal continuation, while at the same time maintaining a distinct identity.

Some elements have been subject to reduction more than others. The building's height correspond directly to those of the neighbors. The locally prevalent classical trichotomy of plint, shaft and crown is also preserved, albeit in a less conspicuous fashion. The same can be said about the building's morphology in relation to that of the surrounding architecture. In contrast, Chipperfield materializes the building wholly in bare concrete, a material alien to the street. Moreover, the notion of a consistent, orthogonal grid that strictly orders the façades does not appear in Chipperfield's design. This apparent arbitrariness of choosing which elements to abstract, how and to what degree is based on the very idea that the architectural type is defined by a coherent balance between individuality and commonality of its constituent parts. Indeed, abstraction is used as a tool to produce variation to balance against the shared traits.

This idea of unity within variety is echoed by Miroslav Šik who describes it using the terms 'continuity', 'ensemble' and 'Verfremdung'. Šik applies 'Verfremdung' similar to how Chipperfield does 'abstraction', namely to achieve a balanced harmony with the context, something that Šik refers to as 'ensemble'. In Campus Joachimstraße, Chipperfield accomplishes this Verfremdung using the Third Way.

After having studied the Berlin Type in great depth, the following quote by Šik will sound aprly relevant to it: "If we understand identity within variety to mean the marriage of adjacent buildings as it has evolved in some cases across several decades, we come closer to what we mean by ensemble".

Personal lessons from Šik and Chipperfield

I joined this studio as what one could call a conservative; I was of the opinion that the architecture of the European historical city was sacred and should not only be preserved but continued, in a literal sense. Šik calls this “historicism” and is something he adamantly opposes.

This overeagerness for preservation is possibly rooted in my background as a Middle Eastern minority whose heritage has been the target of many for centuries. I (naively) thought that I was a herald of what is to happen if the effects of an external force are kept unchecked. In Europe’s case, this danger was represented by all the modernist architectural movements such as deconstructivism, high-tech and post-modernism.

By studying Šik and Chipperfield I came to the realization that architecture is not something static or perpetual. Change should not be feared, as long as it is done consciously, deliberately and with its consequences in mind. Moderate innovation does not necessarily mean departure of heritage, but can be a development of it. European architecture that I came to value so much is a result of a process of evolution over the course of many centuries. It would be shortsighted, if not downright destructive to want to stop that process. But I also believe that we should see this process for what it is: a very gradual development, where continuation is as much part of the equation as renewal and innovation.

REFERENCES

Literature

Berlin after 1945. (2016, March 01). Retrieved from <https://www.berlin.de/berlin-im-ueberblick/en/history/berlin-after-1945/>

Butler, Andy (2014, April 30), *interview with architect david chipperfield*. Retrieved from <https://www.designboom.com>

Campus Joachimstrasse. (n.d.). Retrieved from <https://architekten-pga.de/archive/222>

Chipperfield, D., R., Irace, (2018). *David Chipperfield Architects Works 2018*. Köln: Buchhandlung Walther König.

Joachimstraße Der Campus von David Chipperfield Architects Berlin. (n.d.). Retrieved from <http://www.architekturpreis-berlin.de/Archiv/2016/Projekte/123/>

Jodidio, Philip (2015). *David Chipperfield Architects*. Taschen.

Lemoine, B. (1998). *Architecture in France 1800-1900*. New York: Harry N. Abrams.

Liese, J. (2014, August 07). *Puristic facades in exposed concrete: Chipperfield's office extension in Berlin*. *Detail*, 2014(6).

Neues Museum, Museum Island Berlin, 1997–2009. (n.d). Retrieved from <https://davidchipperfield.com/>

Roca, E. (2015). *Walking the City: Barcelona as an Urban Experience*. Barcelona: Universitat de Barcelona.

Rubin, E. (2016). *Amnesiopolis : modernity, space, and memory in East Germany*. Oxford: Oxford University Press.

Šik, Miroslav. *And now the ensemble*. Zürich: Lars Müller, 2012. Print.

Woodman, E. (2014, February 12). *David Chipperfield Architects' Berlin office campus*. Retrieved from <https://www.bdonline.co.uk/buildings/david-chipperfield-architects-berlin-office-campus/5066481.article?adredir=1>

Images

Masterly Apprentice

[1] Daniel Malhao, *Thalia Theatre*, Retrieved 17 September 2017 from <https://www.mimoo.eu/>

[2] Walter Mair & Iwan Baan, *Swiss National Museum extension wing by Christ & Gantenbein*, Retrieved 17 September 2017 from <http://bustler.net>

[3] Achim Kleuker, *The Neues Museum in Berlin*, Retrieved 17 September 2017 from <https://www.inexhibit.com>

[4] J.Letoublon Photo, *Eglise Saint Nicolas Hérémence*. Retrieved 17 September 2017 from <https://twitter.com/>

[5] Tim Van de Velde, *City Hall Harelbeke by Dehullu & Partners*, Retrieved 17 September 2017 from <https://www.dezeen.com/>

[6] Paul Ott, *GOLDEN NUGGET*, Retrieved 17 September 2017 from <http://ecola-award.eu/>

[7] Simon Menges, *Campus Joachimstraße*, Retrieved 17 September 2017 from <https://davidchipperfield.com>

Campus Joachimstraße

[1]-[6], [8], [9], [10] David Chipperfield Architects (n.d.). [Photograph]. Retrieved from <https://davidchipperfield.com/>

[7] Berlin Neues Museum 001.JPG. (2016, February 7). [Photograph]. Wikimedia Commons, the free media repository. Retrieved from https://commons.wikimedia.org/w/index.php?title=File:Berlin_Neues_Museum_001.JPG

[12] Berliner Stadtschloß (n.d.). [Photograph]. Retrieved from <http://www.britlink.org/germany/berliner-stadtschlos/>

[13] Humboldt Forum (n.d.). [Computer render]. Retrieved from <https://www.humboldtforum.com/en/stories/under-the-sign-of-the-lion>

REFERENCES

[14] Royal Ontario Museum (n.d.). [Photograph]. Retrieved from <https://libeskind.com/work/royal-ontario-museum/>

[15] Original work

[16] Typical Amsterdam architecture (May 4, 2014) [Photograph]. Retrieved from https://clausitosfootprints.wordpress.com/2014/05/04/amsterdam-netherlands-photos/img_0470/

[17] Eixample (Ensanche) (n.d.). [Photograph]. Retrieved from <http://densityatlas.org/casestudies/profile.php?id=92>

[18] Blv-haussmann-lafayette.jpg. (2016, October 10). [Photograph]. Wikimedia Commons, the free media repository. Retrieved from <https://commons.wikimedia.org/w/index.php?title=File:Blv-haussmann-lafayette.jpg&oldid=209367556>.

[19] Berlin Subdivisions.svg. (2016, January 30). Wikimedia Commons, the free media repository. Retrieved 01:56, September 6, 2018 from https://commons.wikimedia.org/w/index.php?title=File:Berlin_Subdivisions.svg&oldid=186034804.

[20] Original work

[21] Stadtmodelle - Digitale Innenstadt. (n.d.). Retrieved from http://www.stadtentwicklung.berlin.de/planen/stadtmodelle/de/innenstadtplaene/sp/index_ab-stl.shtml

[22] Google Street View. (2008-2009). Retrieved from <https://www.google.com/maps>

[23] Bing Maps. (n.d.). Retrieved from <https://www.bing.com/maps>

[24]-[30] Original work

[31] Google Street View. (2008-2009). Retrieved from <https://www.google.com/maps>

[32] Ute Zscharnt. (n.d.). Retrieved from <https://divisare.com/projects/280146-david-chipperfield-architects-simon-menges-joachimstrasse>

[33] Simon Menges (n.d.) Retrieved from <https://divisare.com/projects/280146-david-chipperfield-architects-simon-menges-joachimstrasse>

[34] Christian Schittich. (n.d.). Retrieved from <https://www.detail-online.com/article/puristic-facades-in-exposed-concrete-chipperfields-office-extension-in-berlin-16775/>

[35][36] TEKTONIEK. (n.d.). Retrieved from <http://www.tektoniek.nl/projecten/david-chipperfield-architectenbureau-berlijn/david-chipperfield>

[37] Simon Menges. (n.d.). Retrieved from <http://modulo.net/en/realizzazioni/joachimstrasse>

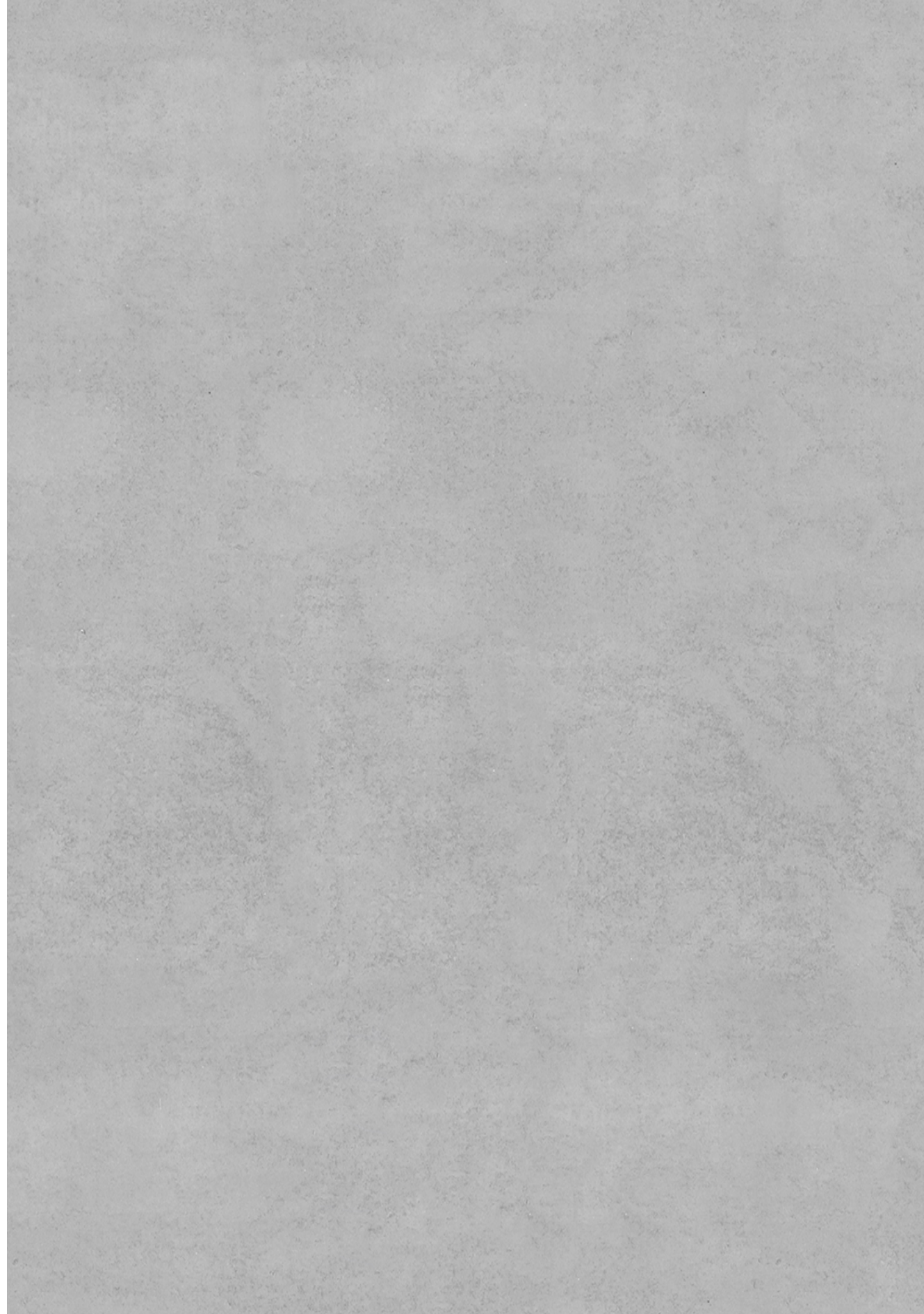
[38] e15.com (n.d.). Retrieved from <https://www.e15.com/en/fayland.html>

[39] Liese, J. (2014, August 07). Puristic facades in exposed concrete: Chipperfield's office extension in Berlin. *Detail*, 2014(6), p. 608

[40] Detail-online. (n.d.). Puristic facades in exposed concrete: Chipperfield's office extension in Berlin. Retrieved from <https://www.detail-online.com/article/puristic-facades-in-exposed-concrete-chipperfields-office-extension-in-berlin-16775/>

[41][42] e15.com (n.d.). FAYLAND. Retrieved from <https://www.e15.com/en/fayland.html>

[43]-[46] Original work

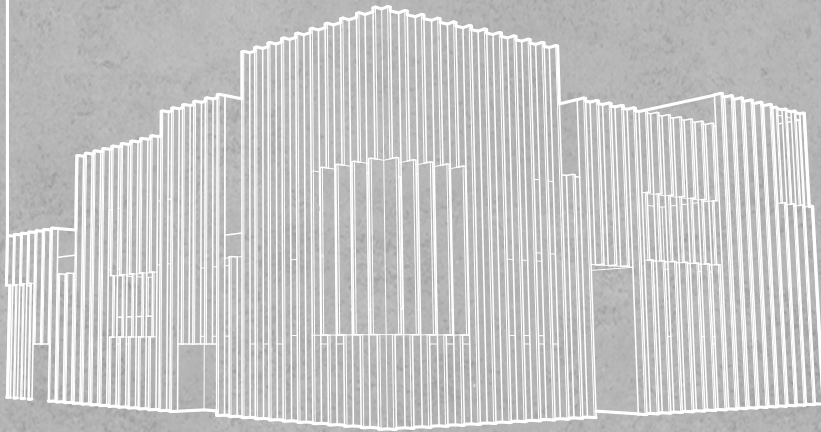


The Masterly Apprentice

Part B: Design

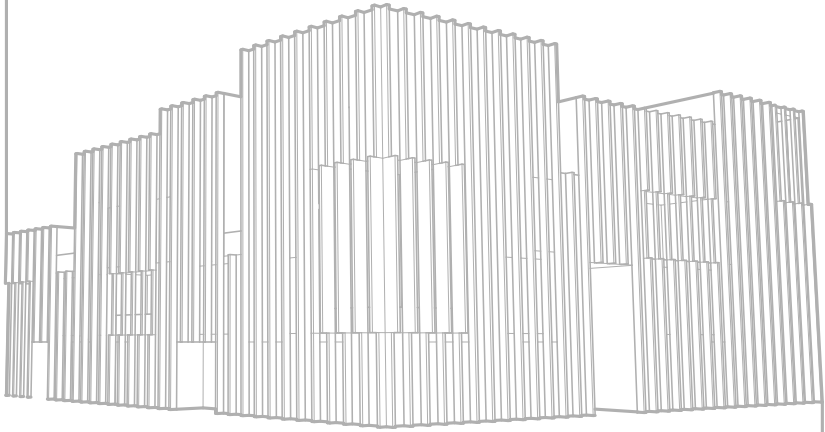
Kulturzentrum Mitte

Multifunctional Cultrual Center



Noor Al-Khayat

2018





PART B: DESIGN

Technische Universiteit Eindhoven

Built Environment
Architecture, Building and Planning
Master in Architecture Urban Design and Engineering

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LEARNING FROM A BUILDING

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KULTURZENTRUM MITTE



1. Birds-eye view of the site

This second of two graduation booklets will cover the design process that took place in the second semester of the graduation studio The Masterly Apprentice. The contents of this book follow directly from the findings of the first semester in which two detailed analyses were conducted, viz. on the written and designed oeuvre of Swiss architect Miroslav Šik on one hand, and the chosen reference project of David Chipperfield's Campus Joachimstraße on the other.

For this reason, the reader is advised to familiarize themselves with these analyses by at least reading the conclusion of the first book.



2. Satellite photograph of the site with the chosen plot highlighted

The design brief came with a single prerequisite regarding the design location, namely that it has to be within visual range of the chosen reference project.

As stated earlier, I came into this design studio with a fascination for European urban typologies. I was very much interested in designing within the confines of a distinct type. And so, once the definitive choice fell on Campus Joachimstraße, the first thing to do was to look for an unoccupied plot, preferably between two buildings that clearly follow the type. After looking online, I found such a plot on Joachimstraße 9, next to Campus' left neighbor. However, on my visit to the location, I saw to my dismay that the plot was already occupied; the online street photographs had been outdated.

In my walks through Berlin Mitte, I noticed its many corner buildings and had grown increasingly interested in them. Almost every intersection is flanked by four elaborate corner buildings. Like with its 'flat' façades, Berlin's corners were endlessly varied, yet follow a similar formal language. With this in mind, I eventually chose the corner plot along Joachimstraße and Auguststraße, which was now used as a skate park. The corner plot is part of a triangular block named Gipsdreieck, or 'gypsum triangle', after the Gipsstraße that runs along its southern edge. The name refers to a gypsum factory that stood there before the War.

Having chosen the location provides us with the all-important context to design with and for. Next to the plot along Joachimstraße stands a pair of townhouses built in baroque style. The plot's direct neighbor on number 20 is the oldest of the two, dating from 1775, making it the oldest building in the area (Strebe, 2018). The buildings opposite the townhouses show a larger degree of variation in height, color and window composition compared to the part of the street where Campus is located. The same can be said - although to a lesser degree - about the buildings along Auguststraße, north of the Gipsdreieck.



3. Joachimstraße 20 after 1945



4. Recent photograph of Joachimstraße 20



5. Aerial view of Auguststraße, red arrow indicates the location of the bottom photograph
6. Auguststraße



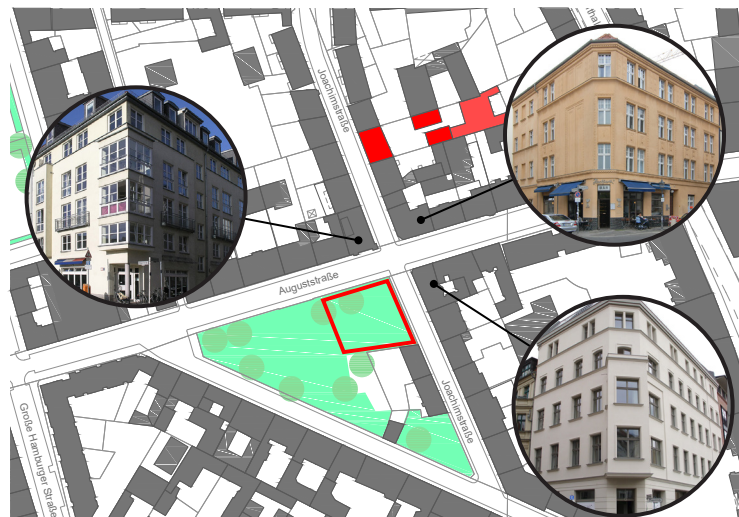
7. Aerial view of Joachimstraße, red arrow indicates the location of the bottom photograph
8. Joachimstraße

CORNER TYPOLOGY

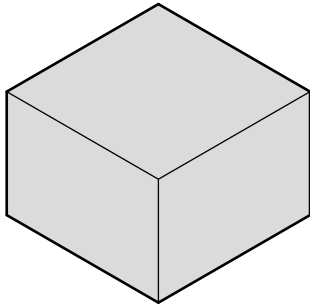
To get a better grasp on the different approaches for designing a corner, an overview of different corner archetypes is made. For the sake of relevancy, only local examples are used.

Note that these are the archetypal elements of the different corner types. A corner will often feature a mixture of different types. For instance, the western corner at the junction (Image 9) combines a half-chamfered and a bay window corner.

Another way of classifying corners is by their corner's angles. But since triangular urban blocks are somewhat of a rarity in Berlin, I chose to focus on morphology.

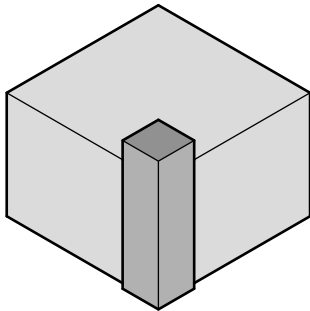


🕒 9. Corner buildings at the junction of Auguststraße and Joachimstraße



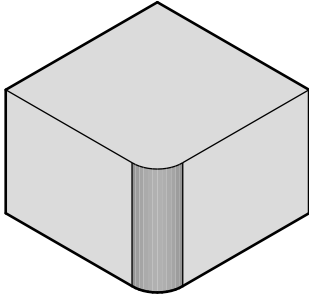
Oranienburger Straße 34

The Straight corner is the most basic type where entirety of both façades run simply parallel to the street. Where they meet, a right angle is made.



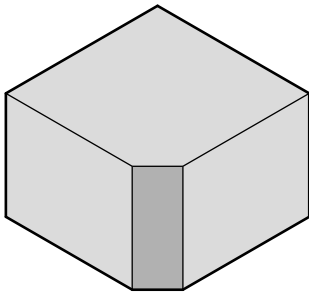
Steinstraße 1

The Tower corner is a less common type that features a tower that is accentuated visually through the use of a different material and/or physically by the fact that it projects from the main building volume and is higher than the rest of the building.



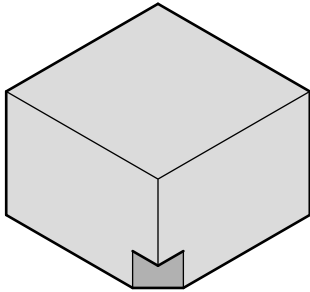
Grosse Hamburger Straße 37

The Rounded corner is characterized by a lack of an angle. The façade simply ‘wraps’ around the corner. A famous example of a building that employs such a corner is New York’s Flatiron Building.



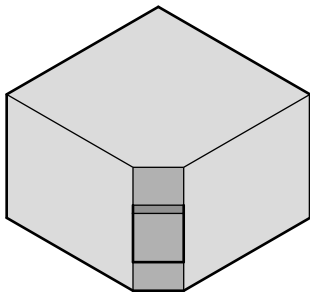
Oranienburger Straße 34

The Chamfered corner is where the edge is “cut off”, effectively creating a third façade. Often, the window composition of the flat façades will be continued in this chamfer, in which case the chamfer will feature one of the repeating window rows.



Liniensstrasse 113

The Half-chamfered corner is another common type. It combines the straight and chamfered corners. Often, only the ground floor is chamfered.



Auguststraße 34

The Bay Window corner is by far the most prevalent corner type in Berlin. Here a volume will protrude from a chamfered corner, creating a partially covered entrance, akin to a portico.

DESIGN CONCEPT

The analyses on the local typology and Chipperfield's design of Campus Joachimstraße showed that the Third Way is an effective approach for designing within the confines set by the type, while at the same time allowing for a degree of creative freedom. What is more, an inherent quality of the Berlin Type is the relative distinctiveness of its buildings. This means that a certain amount of variation is encouraged - if not required - when designing in Berlin.

For these reasons, the Third Way will be adapted as the guiding design tool. Specifically, this entails that a model will be developed to exemplify the type. The resulting 'archetype' is then abstracted by means of the Third Way to produce a new design.

Type, model and archetype

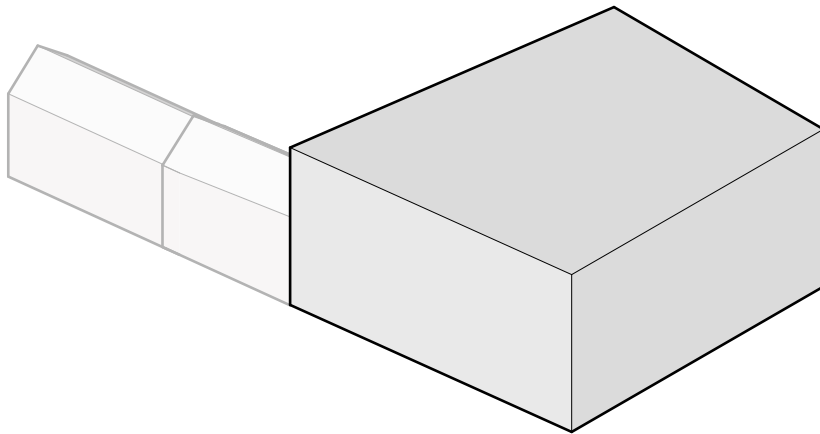
A number of terms are of importance here. French theorist Antoine-Chrysostome Quatremère de Quincy (1755-1948) was the first to make the distinction between 'type' and 'model' in an architectural context: "*The word type presents less the image of the thing to copy or imitate completely, than the idea of an element which must itself serve as a rule for the model*" (Younes, 1999). A 'type' is an abstract set of rules whereas a 'model' is a physical manifestation of the type. Furthermore, there is the notion of 'archetype', which in the context of architectural typology is defined as the model that perfectly embodies the fundamental, defining characteristics of the type. An archetype is always theoretical; an architect may very well aspire to design the building that perfectly exemplifies a certain type, but as soon as it is built, it becomes a model.

Classification of models into types is not by any means binary but rather a spectrum; a building can belong *more* to a type than another, or *less*. The extent of this affiliation is to do with how the model is related to the archetype; the more characteristics they share, the more the model belongs to the type.

To relate these terms back to our case, 'Joachimstraße 11' would be a model of the Berlin type. However, because variety is a fundamental attribute of this type, finding an archetype for it in the form of a single building will prove a great challenge, if not impossible. After all, one cannot convey variation between objects without discussing all the objects. The closest we may come to that is by considering two or more buildings together. One might say that any given street in Berlin whose buildings can be considered as models of the type, can serve as an archetype for it.

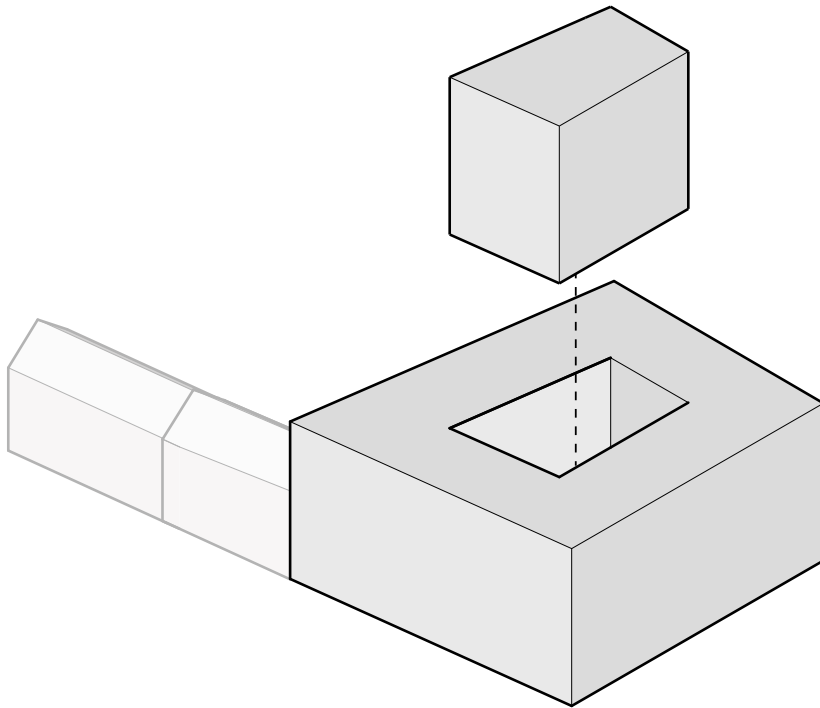
For the purpose of our design, the two neighboring 18th century townhouses together with the previously analysed row of building on Joachimstraße will be used as the archetype, or 'template' to apply the Third Way on. In the next pages, this process will be visualised in a step-by-step fashion.

Keep in mind that the following is a review of the development that led to the final design. It is the result of a long and iterative process and has gone through many changes. One of the bigger challenges was achieving synthesis between the the formal/aesthetic decisions and the functional/ programmatic. Thanks to the design freedom allowed by the Third Way, the façades' compositions were free to change and 'evolve' as the plans were developed.



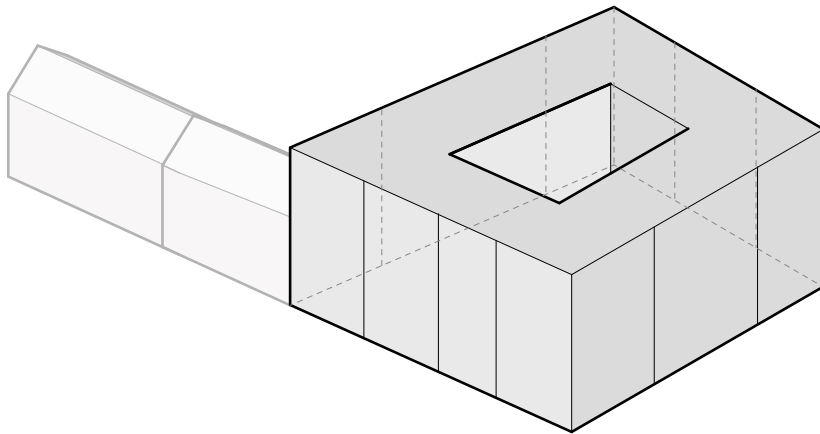


The chosen plot is 'extruded' uniformly upwards to correspond with the other three corner buildings' heights



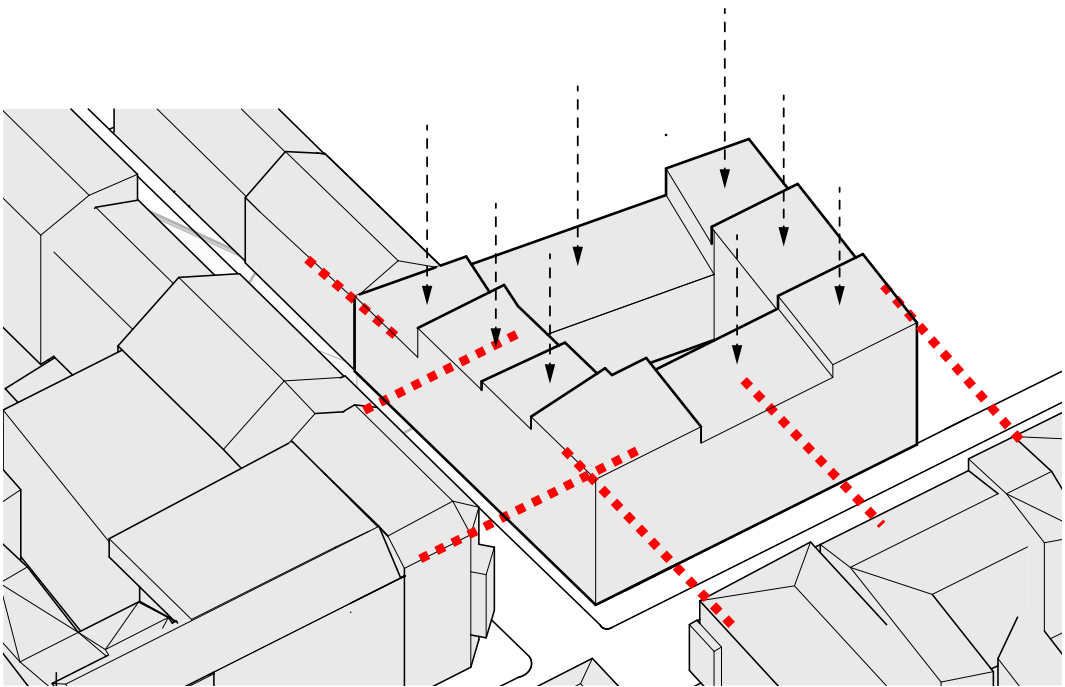


The courtyard is 'hewn out' of the main volume to make sure that daylight reaches the deeper and lower spaces.



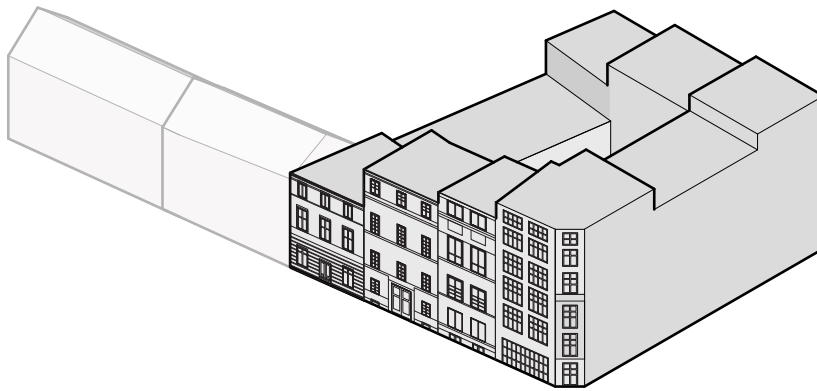


The now too wide façade is divided into four smaller ones to better manifest individual façade variety.



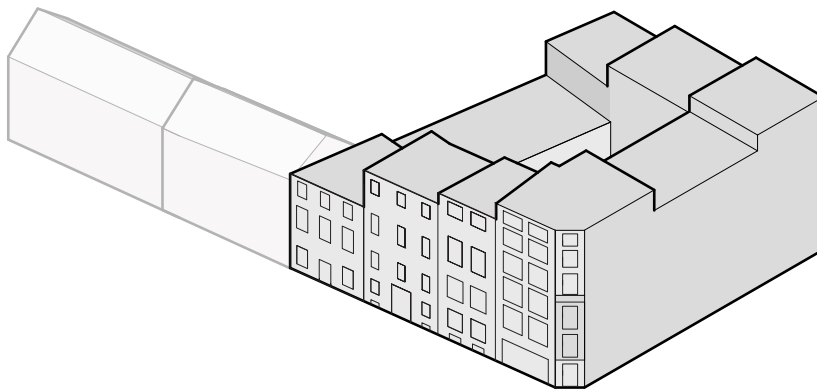


The separate façades are 'pushed down' to react to the surrounding morphology and to add further distinction between them.



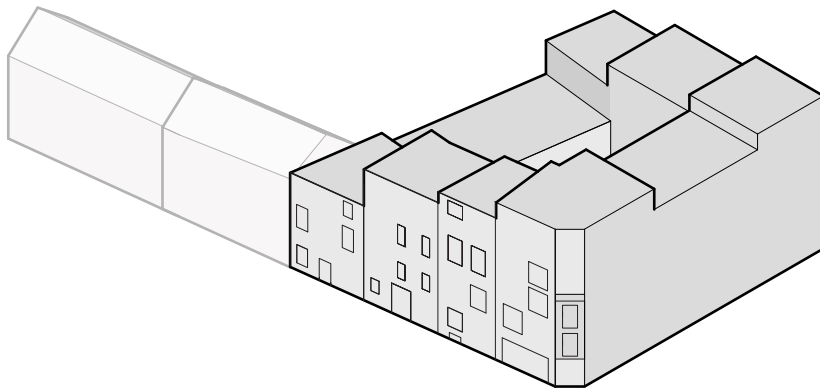


As a way of preparing for abstraction, the façades are given initial traditional designs, closely following the rules of the archetype and 'quoting' the surrounding architecture, with minor variation. In other words, the 'First Way' is applied here.



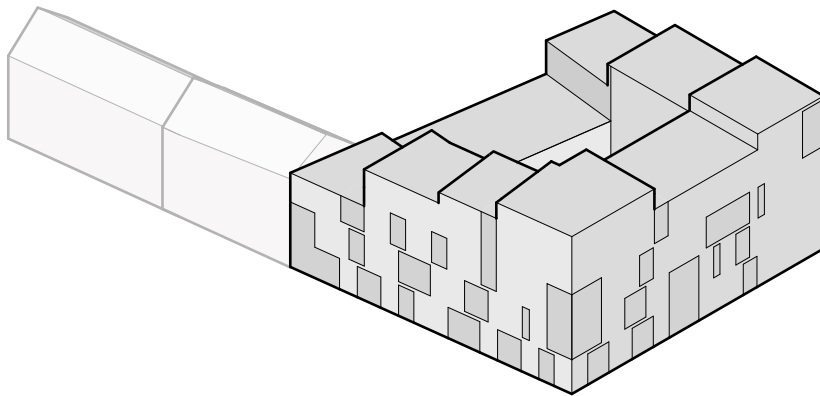


Abstraction starts with the 'stripping' of the façades of everything but the window and door openings. What is left is a set of varying orthogonal compositions,.





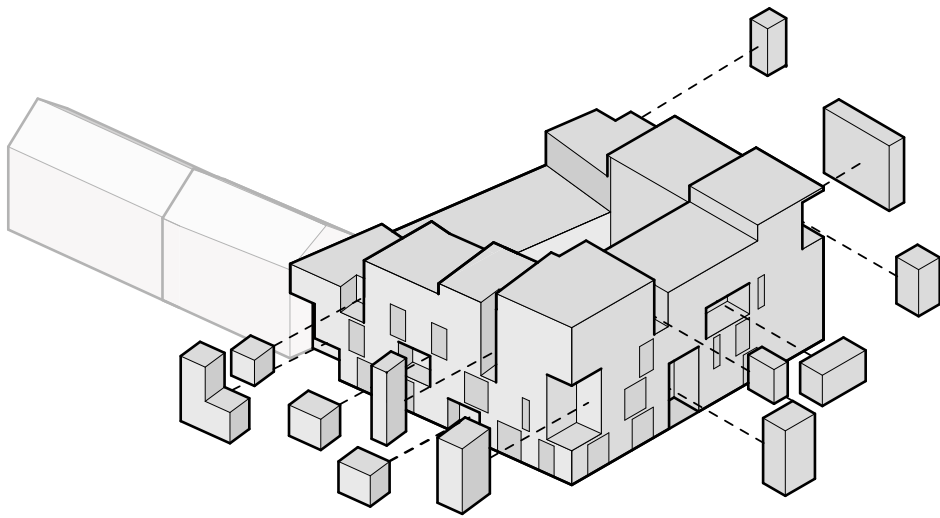
Some windows are removed to create a somewhat free composition, but one that also shows an evident horizontal continuity.





The chamfered corner has been 'abstracted away' and the accompanying bay window replaced by one that wraps around the straight corner.

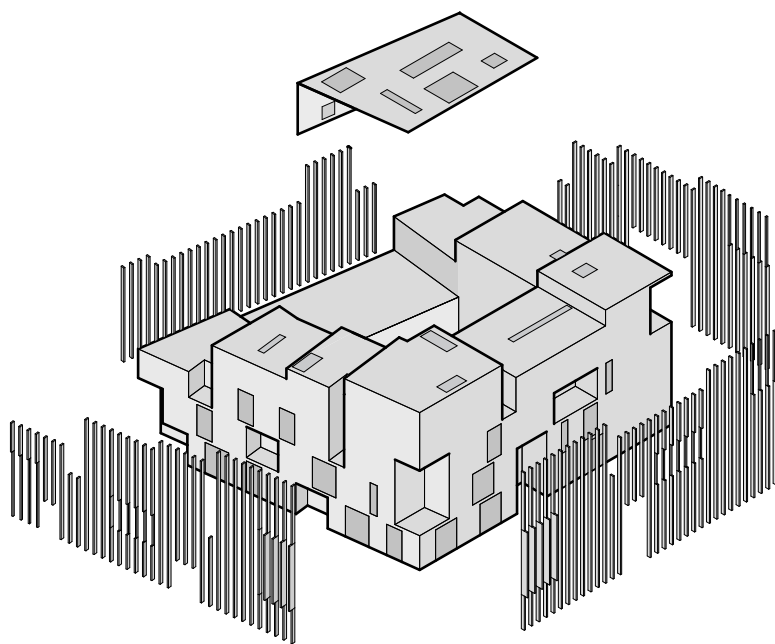
The vertical composition is disturbed by merging some openings and varying the widths of others. This puts further emphasis on the façades' horizontality as all traces of vertical continuity are removed.





Some of the openings are 'chiseled out' to become balconies, underlining the building's sculptural quality.

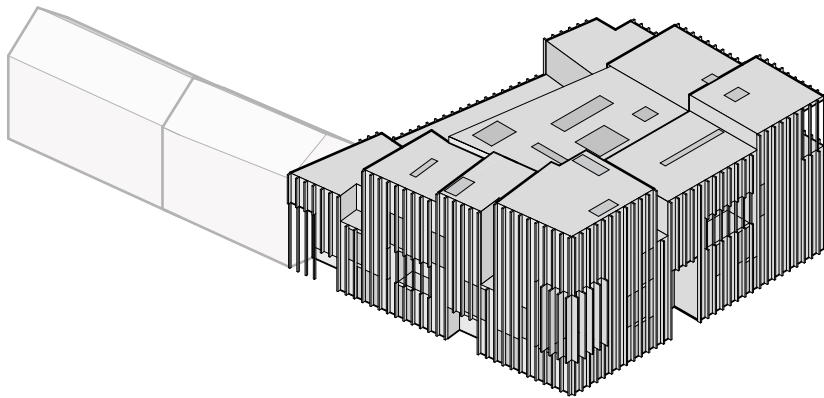
Among these are two long vertical slits next to the corner volume on both sides that accentuate it as a tower.



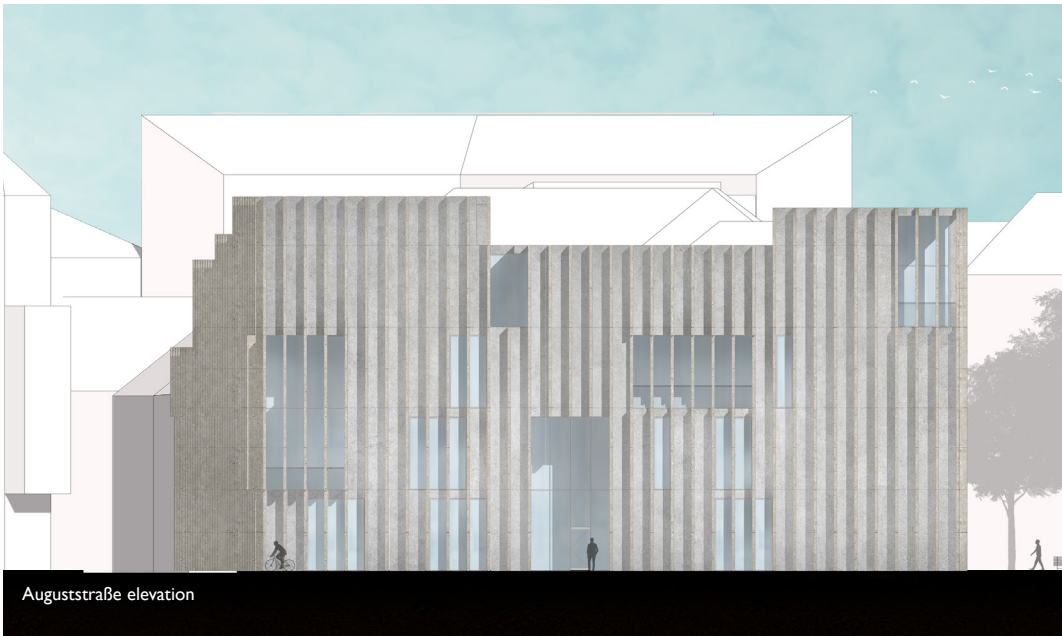


The idea of verticality is reintroduced by means of a 'skin' of vertical slats that, depending on angle of viewing, will conceal some parts of what is behind and reveal others.

The top floor and courtyard are given skylights which, together with the courtyard's interior walls, are positioned in a free composition similar to the façades'.







Auguststraße elevation



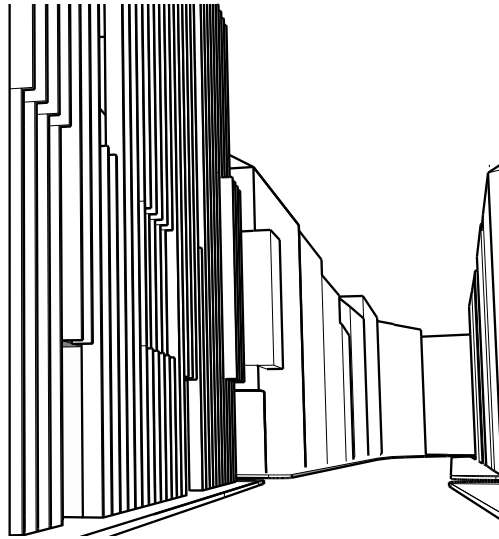


10. View into Joachimstraße from the junction with Auguststraße
11. Joachimstraße 11A from up-close

A LAYERED EXPERIENCE

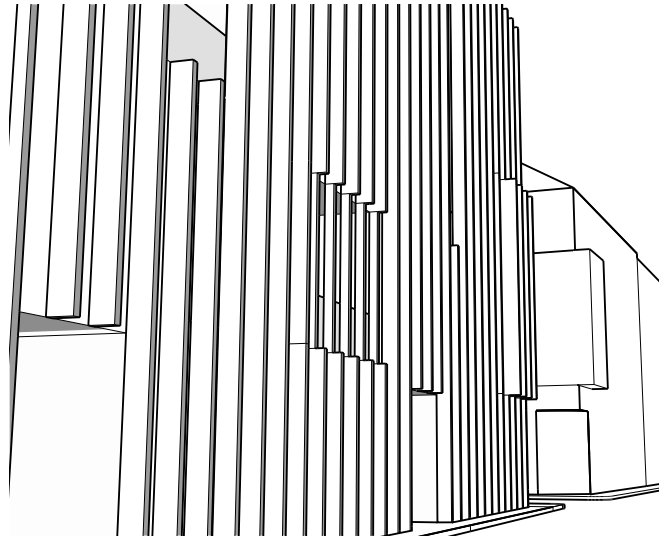
Because of the street's narrowness, Joachimstraße's architecture is primarily observed from a sharp angle. This puts a large emphasis on the façades' reliefs, ie. their protruding elements. It also means that what is observed of any certain façade changes as the viewing angle changes. Where from a distance only window pediments, stringcourses and some hints at window openings are seen (Image 10), the details will start to reveal themselves as the building is approached (Image 11).

This same principle is applied for the façade design. There are three different stages of experience that a pedestrian goes through when walking past the building:



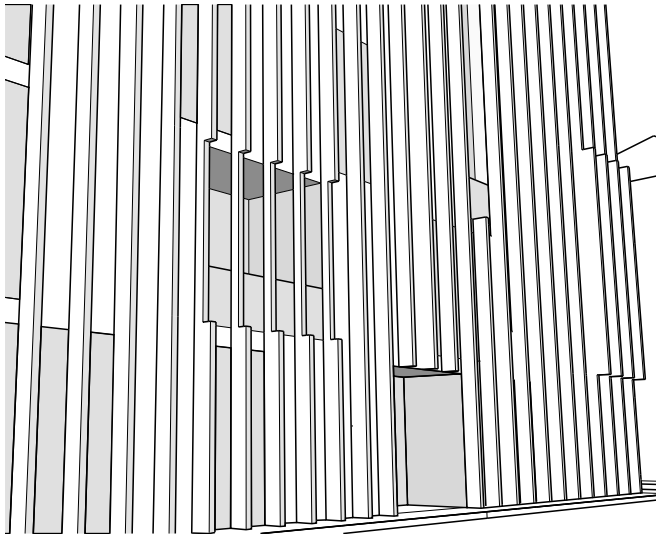
First layer:

When one first notices the building from a distance, only the vertical slats define its volume and overall shape. Occasionally, some slats become narrower indicating a balcony. In the corner balcony, the slats widen as an analogy to a bay window.



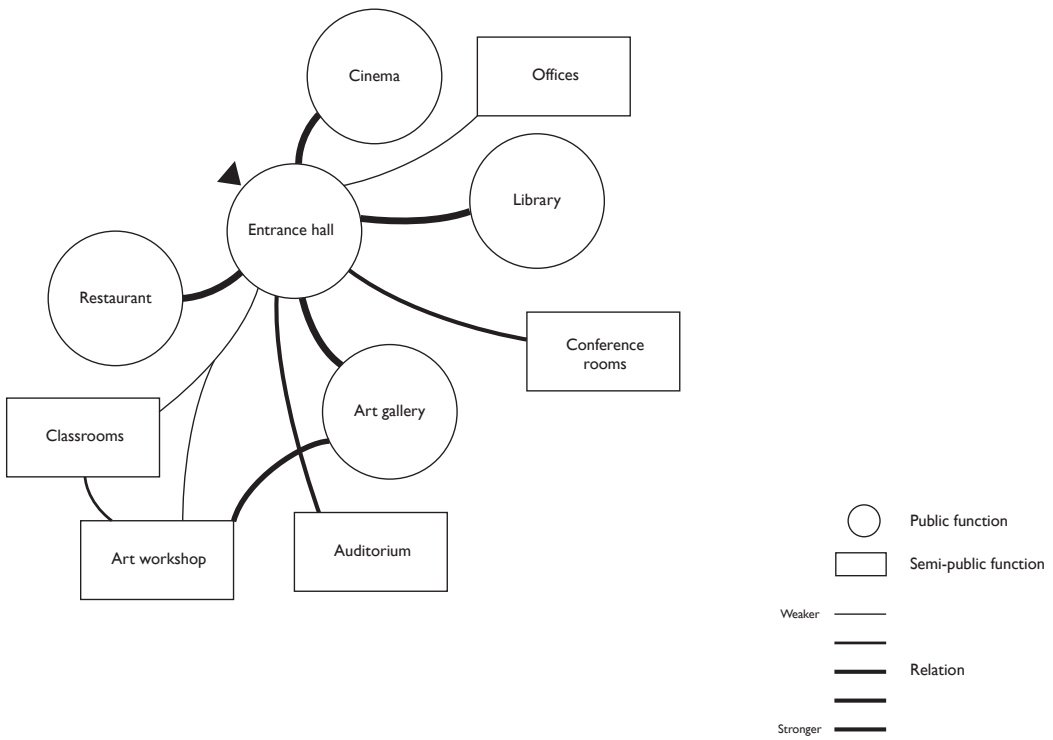
Second layer:

As one approaches the building, the narrower slats that cover the balconies cause them to 'reveal' themselves first. This happens at approximately 35 meters from the building when using the opposite sidewalk.



Third layer:

Lastly, at a 10-meter distance, the building's 'inner skin' with wall and windows appears. The complete façade composition can never be fully observed from a single position. One must keep moving to 'unravel' more of the building.



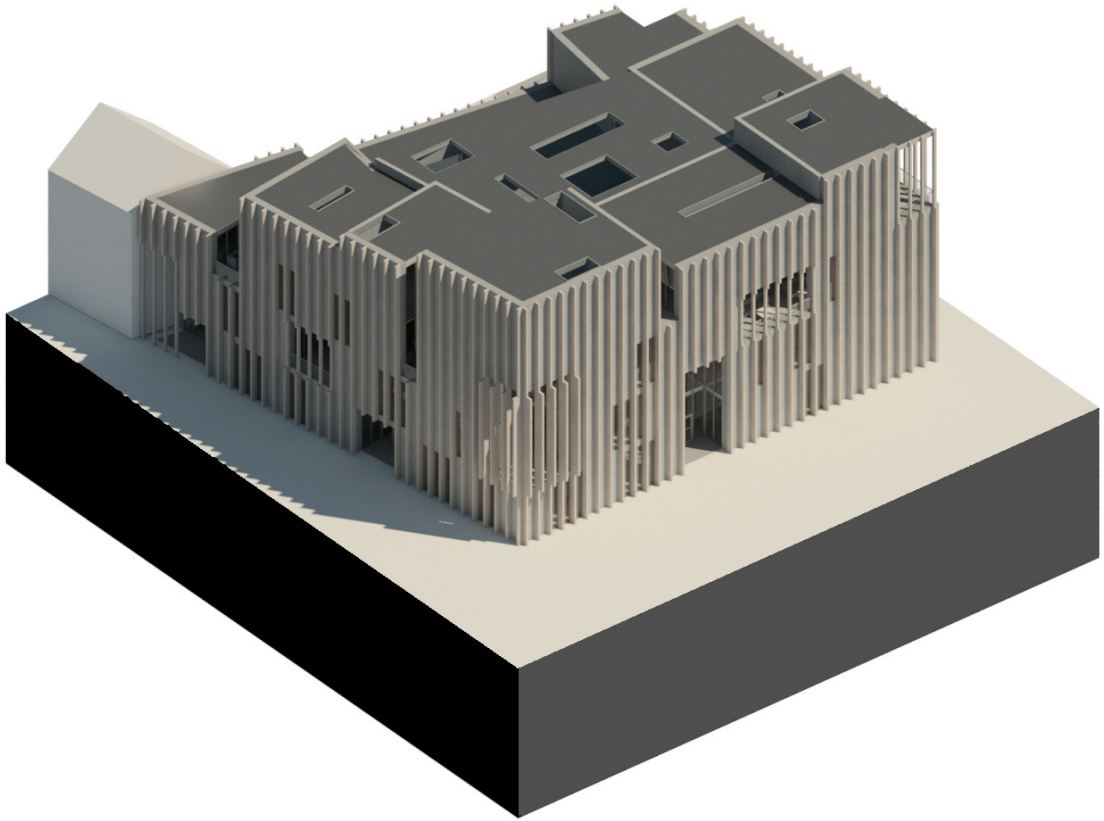
As with the project's location, the students were also free to choose its program. From the very beginning, after specifying the project's location, the choice for its function had been clear. Because a large part of the public park would be occupied by the design, the intention was to adopt a function that is, at least in some way, a substitute for a public park. The plan was also to redesign the remaining park. The eventual choice for a function fell on a multifunctional cultural center intended for the same group of people that use the park: locals that look to spend their free time. The building is named "Kulturzentrum Mitte", after the district.

From a brief case study on a number of cultural centers emerged a list of functions for the program:

- Main public entrance hall
- Restaurant
- Cinema hall
- Auditorium
- Offices
- Conference rooms
- Library
- Classrooms
- Art workshop
- Art gallery

A good way of understanding this complex program is to visualize it. This is done by analyzing the relations between the different functions using 'average', everyday scenarios. The relevant parameter here is the degree to which every two functions are related to each other. This relation is defined by the expected frequency of movement between the functions at any given time.

The resulting diagram visualizes a web of relation: a thicker line denotes a stronger relation, thus requiring a higher proximity and a more prominent routing between the functions.

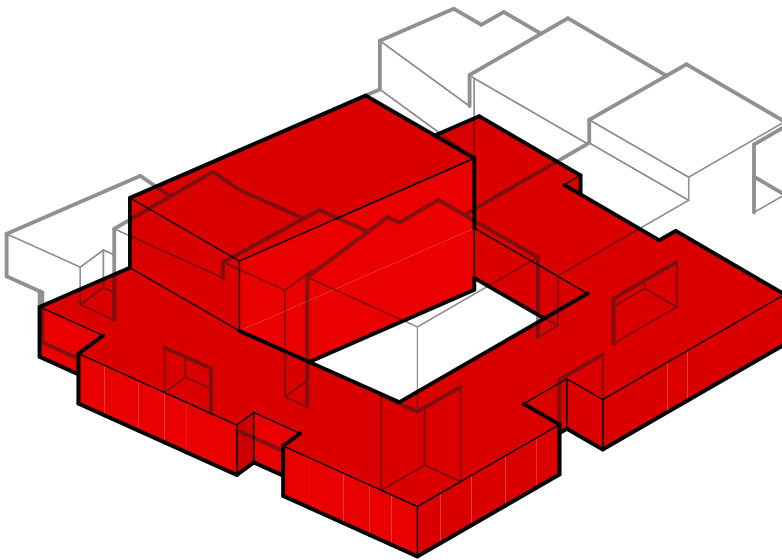


CLUSTERING OF FUNCTION

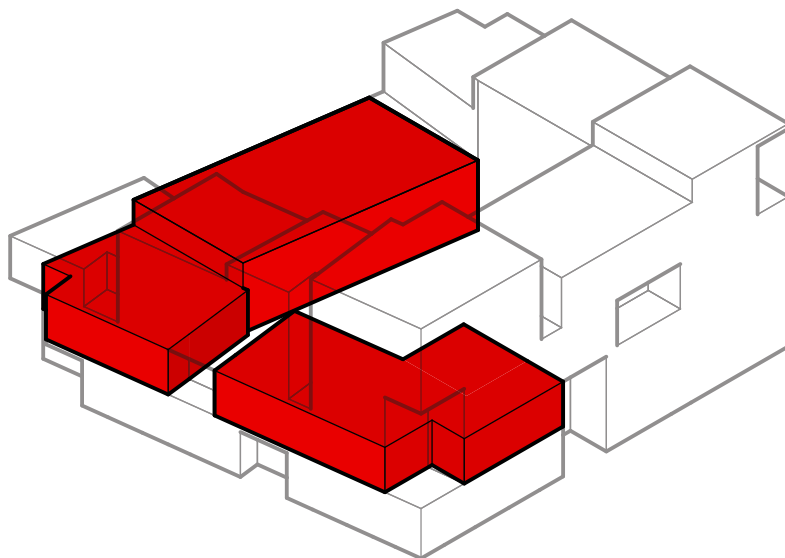
The programmatic diagram proved to be an excellent tool for the further design of the plans. It revealed a second layer of division between the functions, namely a grouping into thematically related categories. Because of the intuitive clarity that it provided, this clustering was implemented directly into the plans' layout.

The three clusters are:

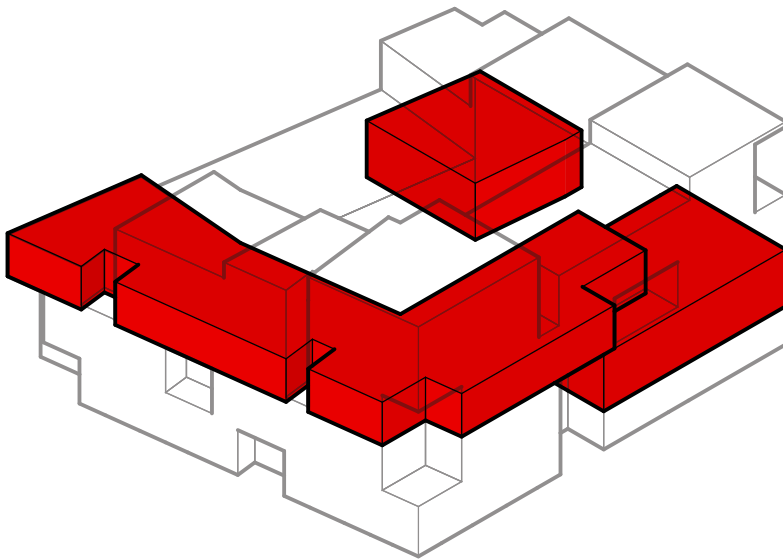
- **The leisure cluster** with the restaurant, cinema and a retail store. This is the most public of the clusters and is to be located on the ground floor. The courtyard takes part in this cluster as it connects them. The restaurant and retail store face Auguststraße and Joachimstraße respectively where they are given independent entrances.
- **The business cluster** containing offices, meeting rooms and a large auditorium that can double as a cinema hall.
- **The educational cluster** with a number of classrooms and a large library.
- And lastly, the **art cluster** consisting of workshops and an art gallery.



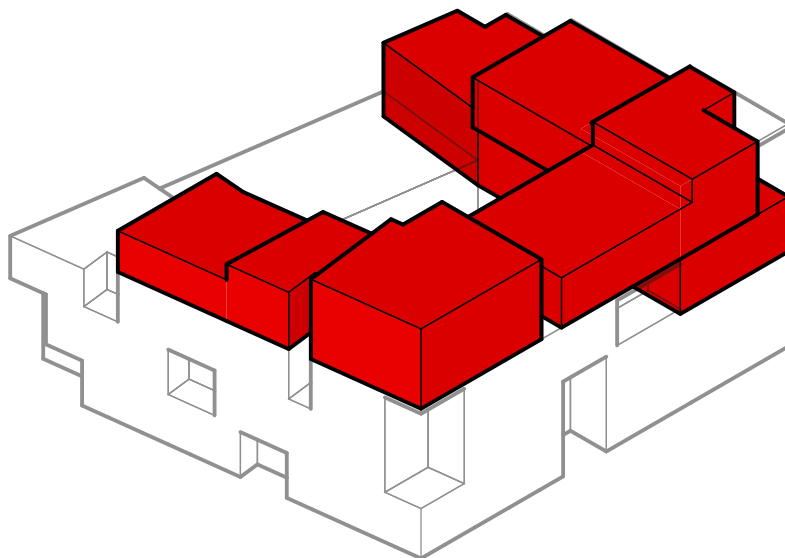
Leisure cluster



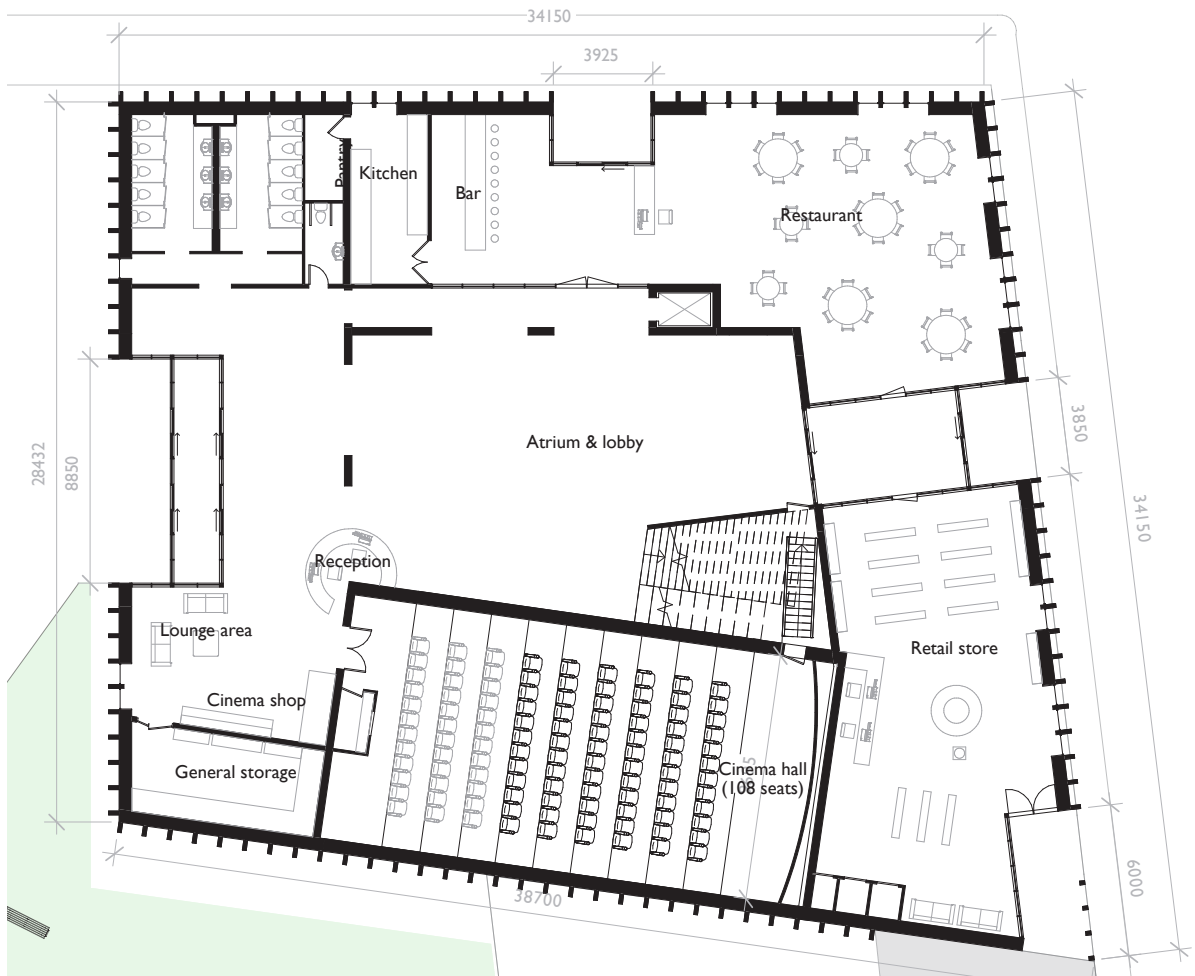
Business cluster



Educational cluster

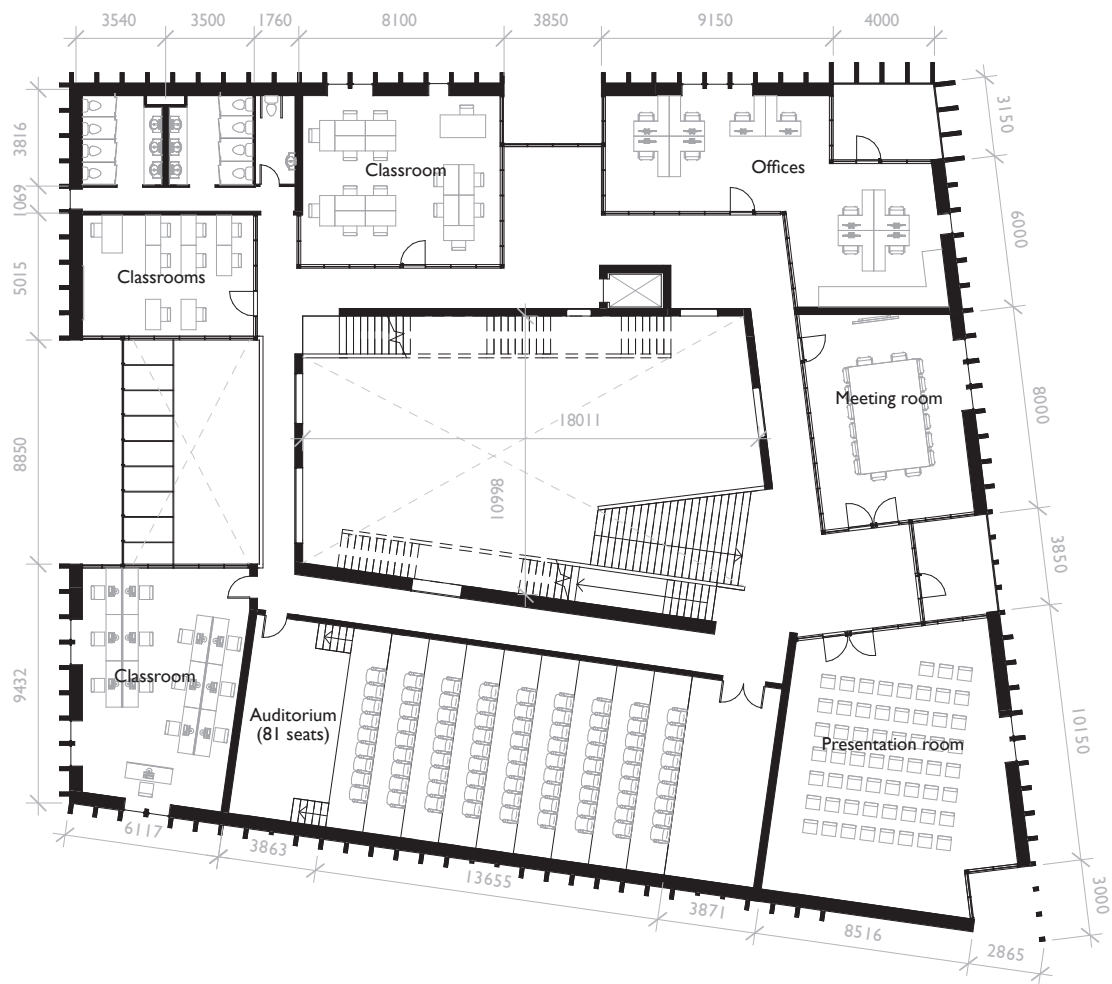


Art cluster



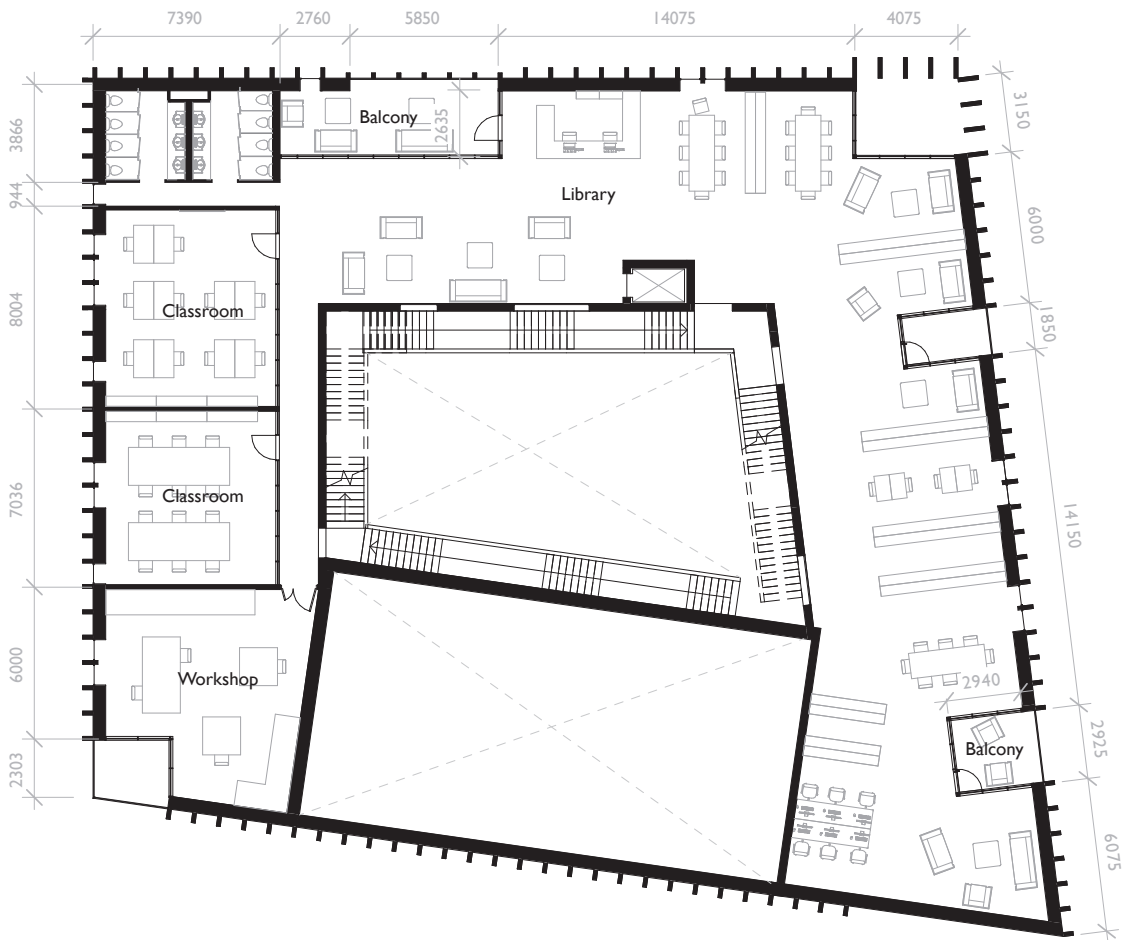
⌚ 1:300

Ground floor



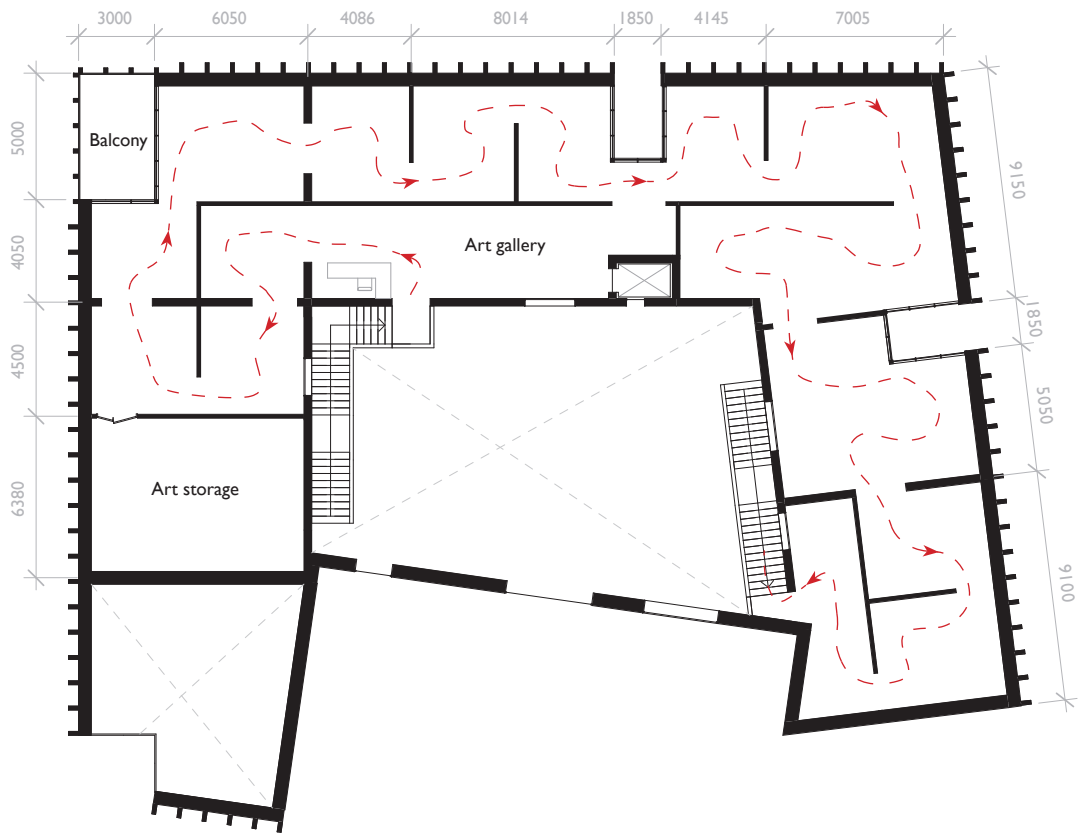
⌚ 1:300

First floor



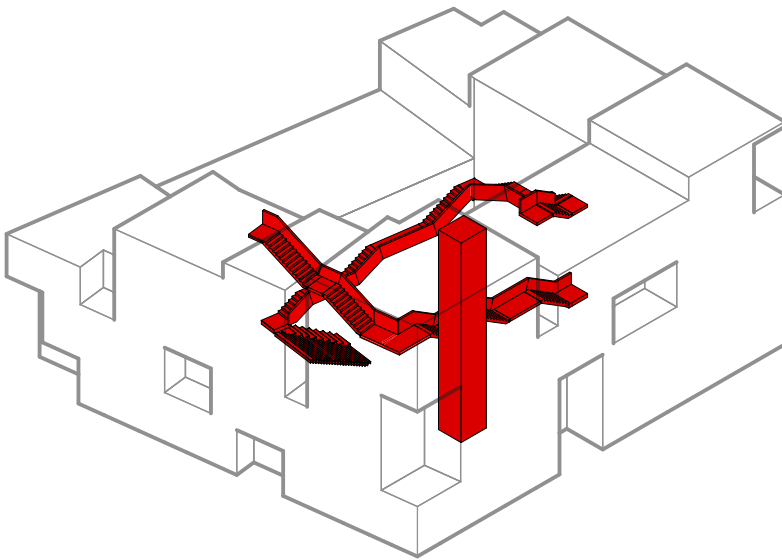
⌚ 1:300

Second floor



⌚ 1:300

Third floor



Central routing

MOVEMENT AND ROUTING

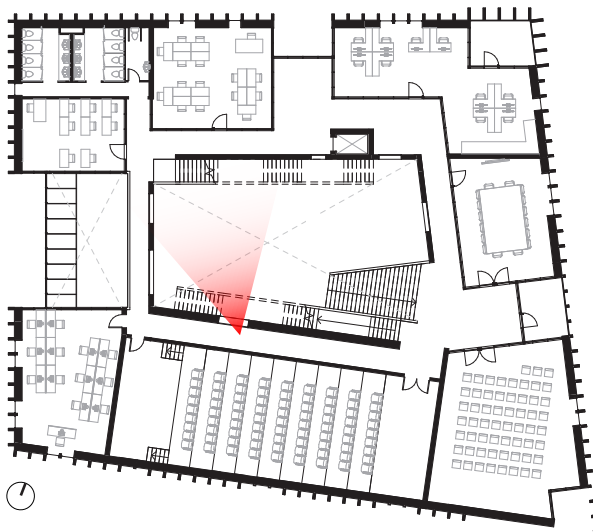
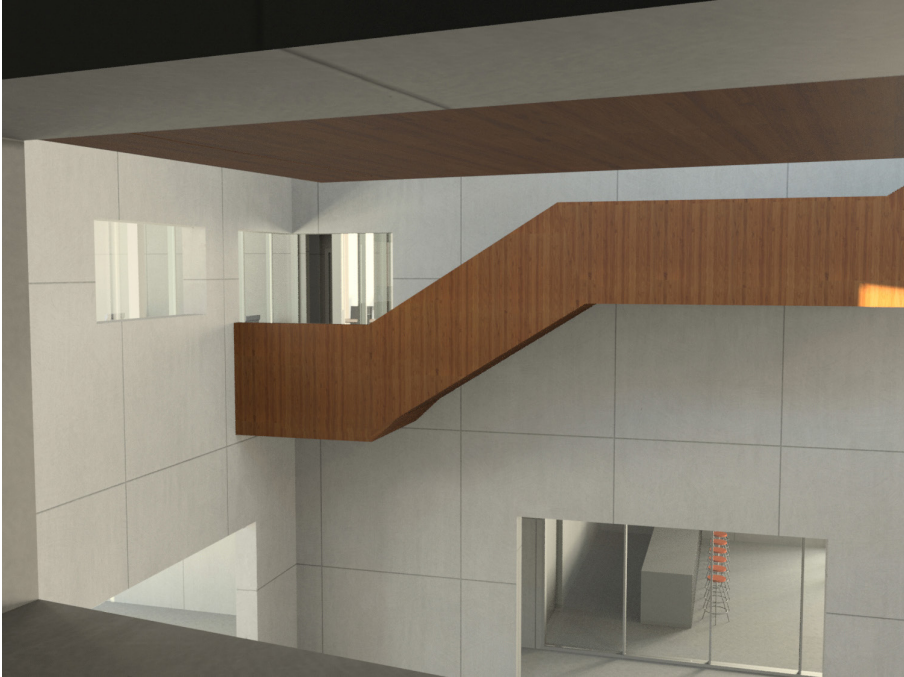
From the very beginning of the design process, clarity and readability of routing had been given a high priority. This was achieved by designing a central routing to serve the entire building in the form of a set of winding staircases that run along the courtyard walls.

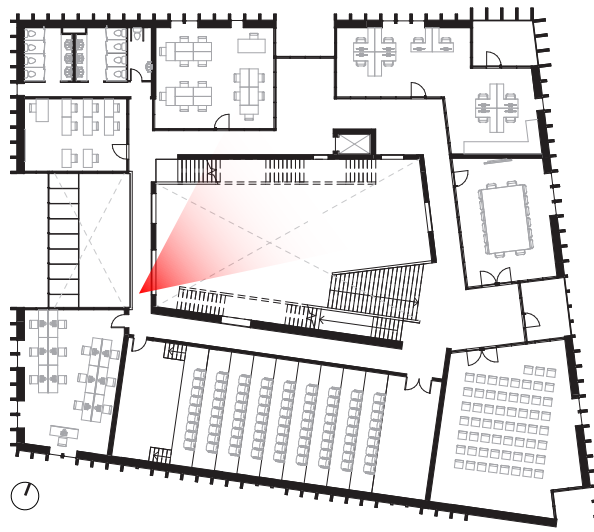
The photograph of Chipperfield's Canteen chosen for the photographic model exercise served as the source of inspiration for the intended atmosphere in the atrium. The contrast between the concrete walls, ceiling and floor and the oak tables and benches is brought back in the design by making the staircases wholly in wood.

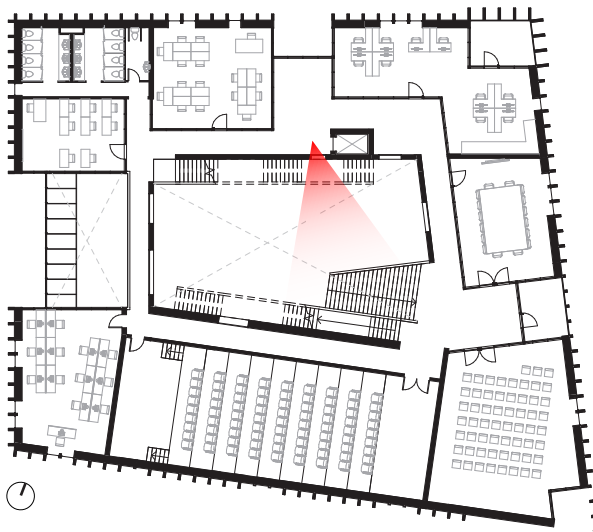
With that, the winding, protruding staircases act as formally separate entities from the rest of the otherwise entirely concrete building. The resulting opposition between the coldness of the concrete and warmth of the oak not only creates a clash between the two, but the materials also seem to enhance each others' presence.

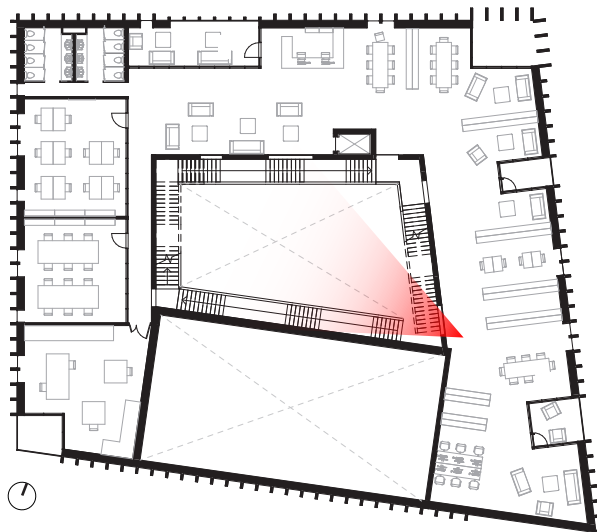
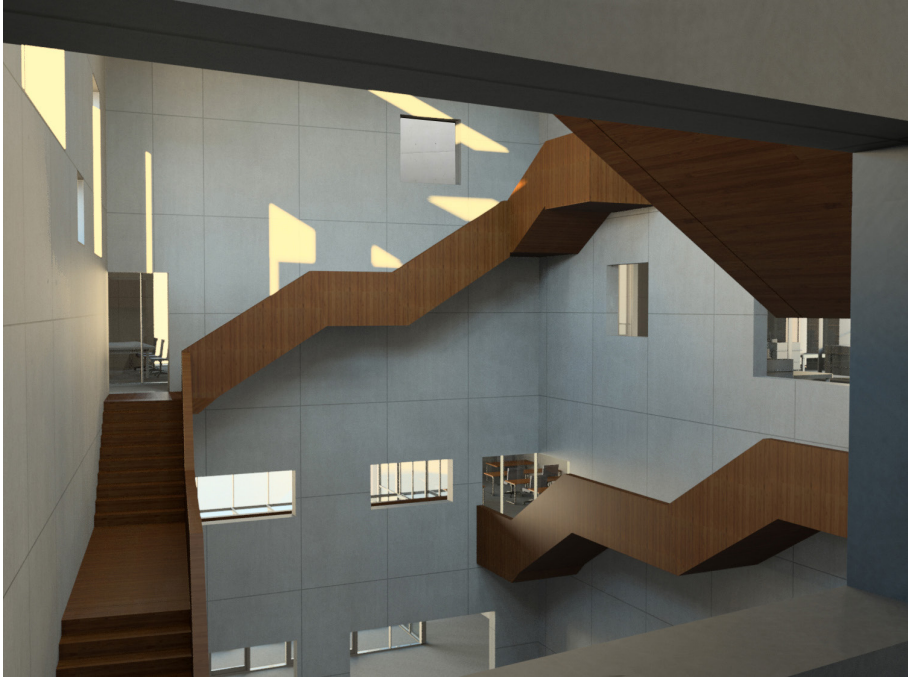
Courtyard

The interior windows facing the courtyard and the skylights in its roof are placed in a similar free composition as in the façades. These windows vary in size and shape (proportions) and are positioned in an irregular, seemingly arbitrary arrangement. This placement is not entirely unplanned, however. The windows are placed strategically so as to 'guide' the users as they walk through the building. For instance, when one exits the elevator, a window immediately to the left looks into the atrium and serves as an orientation point. Similarly, the window in the corridor on the first floor provides a view on the staircase leading to the second floor.

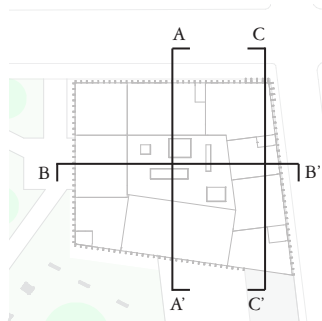
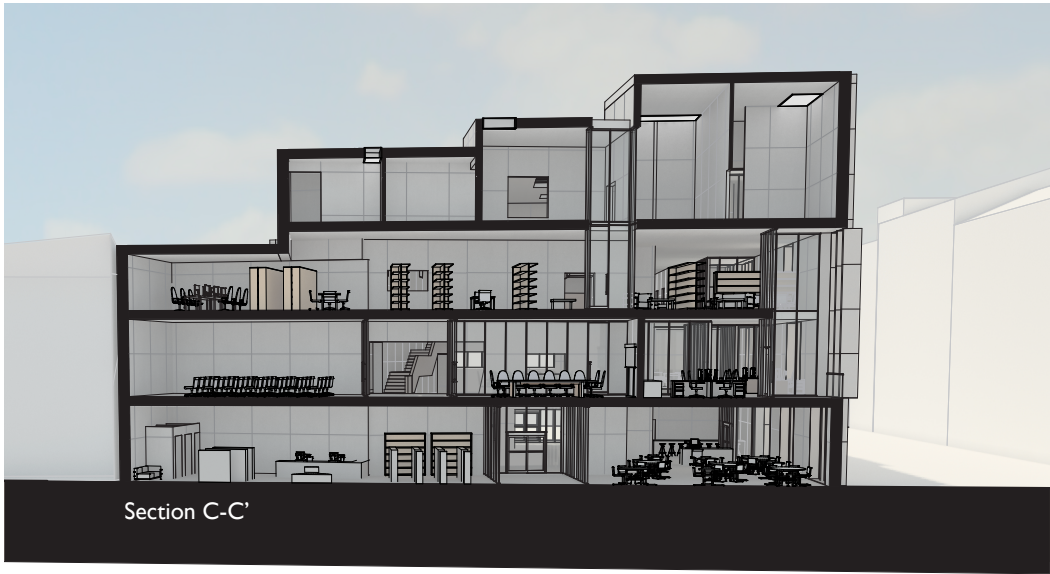


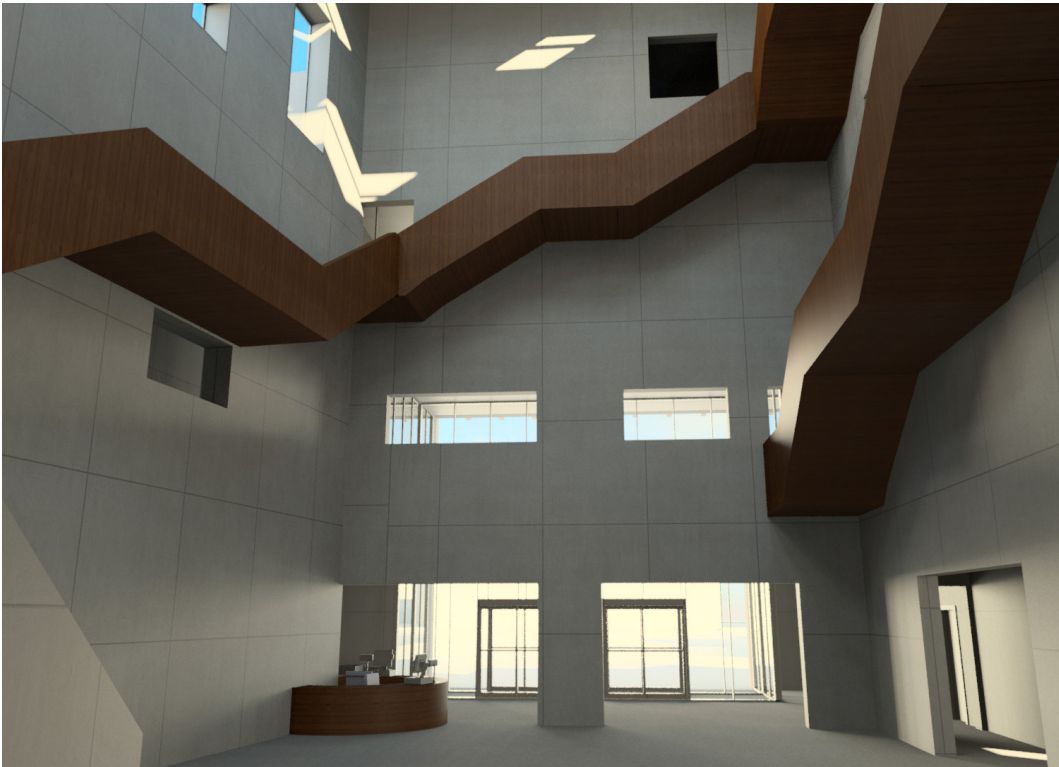


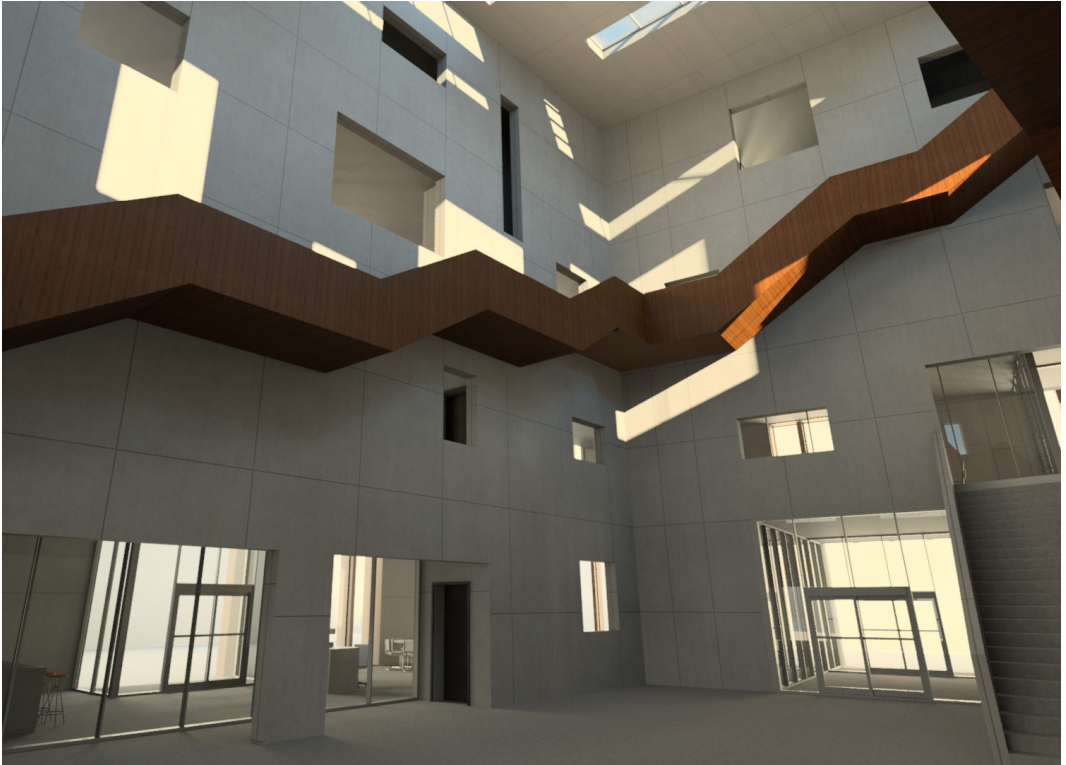






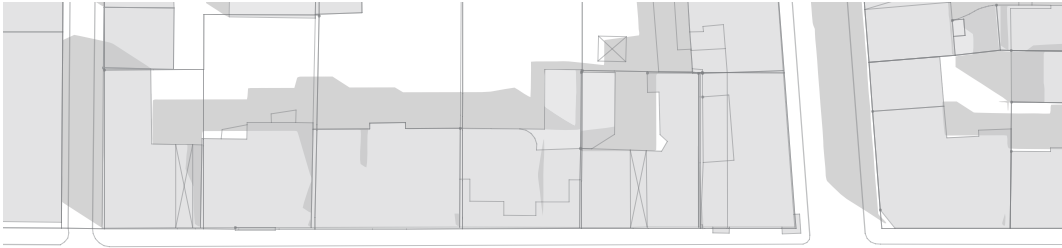












As mentioned earlier, because the public park had to make room for the new design, it had to be relocated and redesigned. The skating area is moved to the left corner of the block and a designated sitting area is placed south, away from the busy Auguststraße. Two pedestrian paths run diagonally from Auguststraße and Gipsstraße and lead to the entrance area of the cultural center.

Dämmbeton

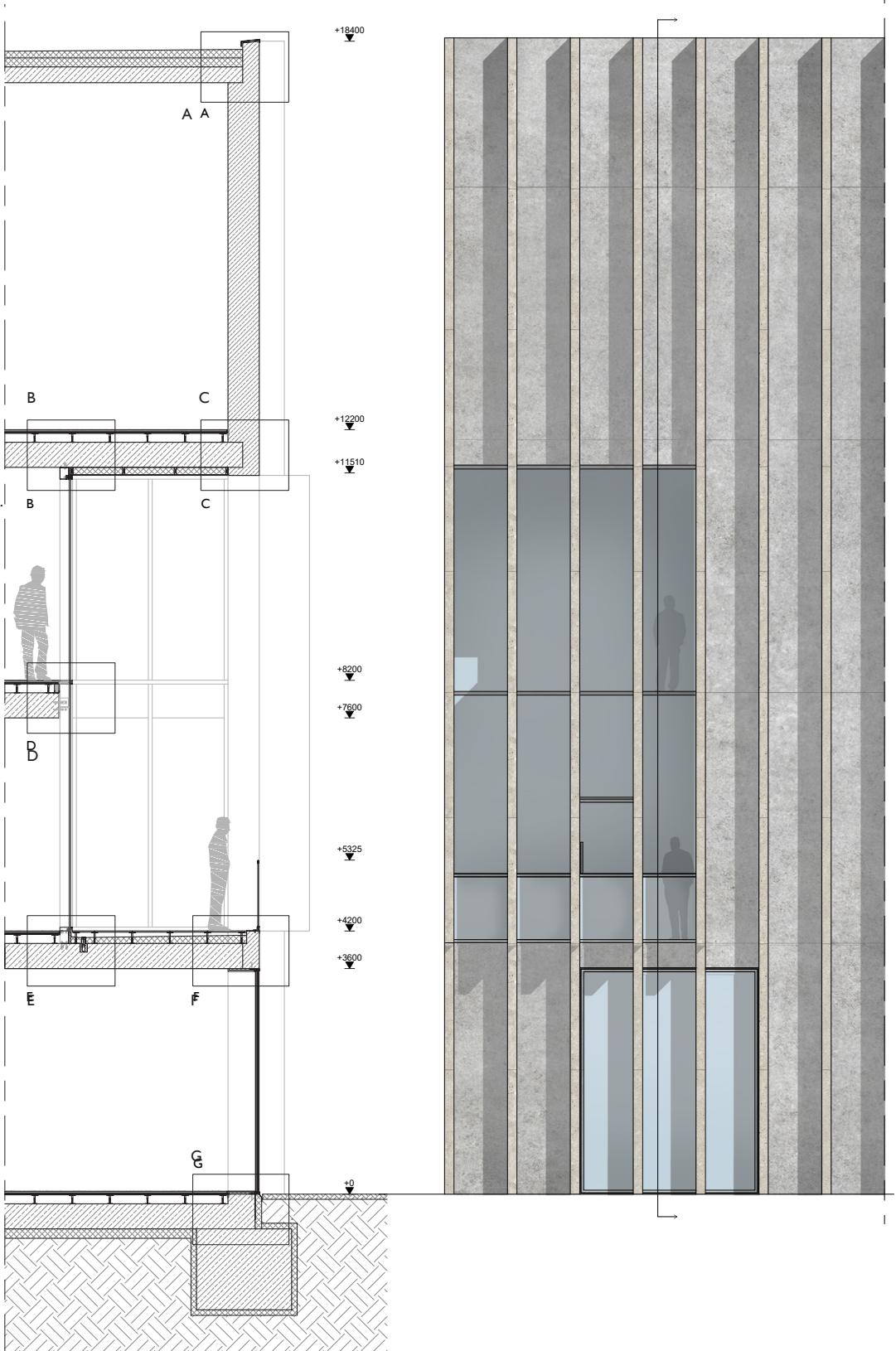
To achieve the same material uniformity throughout the entire building as Chipperfield's Campus Joachimstraße, Dämmbeton is used as the main construction material. Dämmbeton is a type of concrete with high enough insulation rating that allow it to be poured as a single leaf, without the need for a cavity or insulation. This means that the walls are perfectly uniform on both faces, down to the seam grid. To maintain this material uniformity, in-situ poured floors are unfinished ceiling texture and cement screed floors.

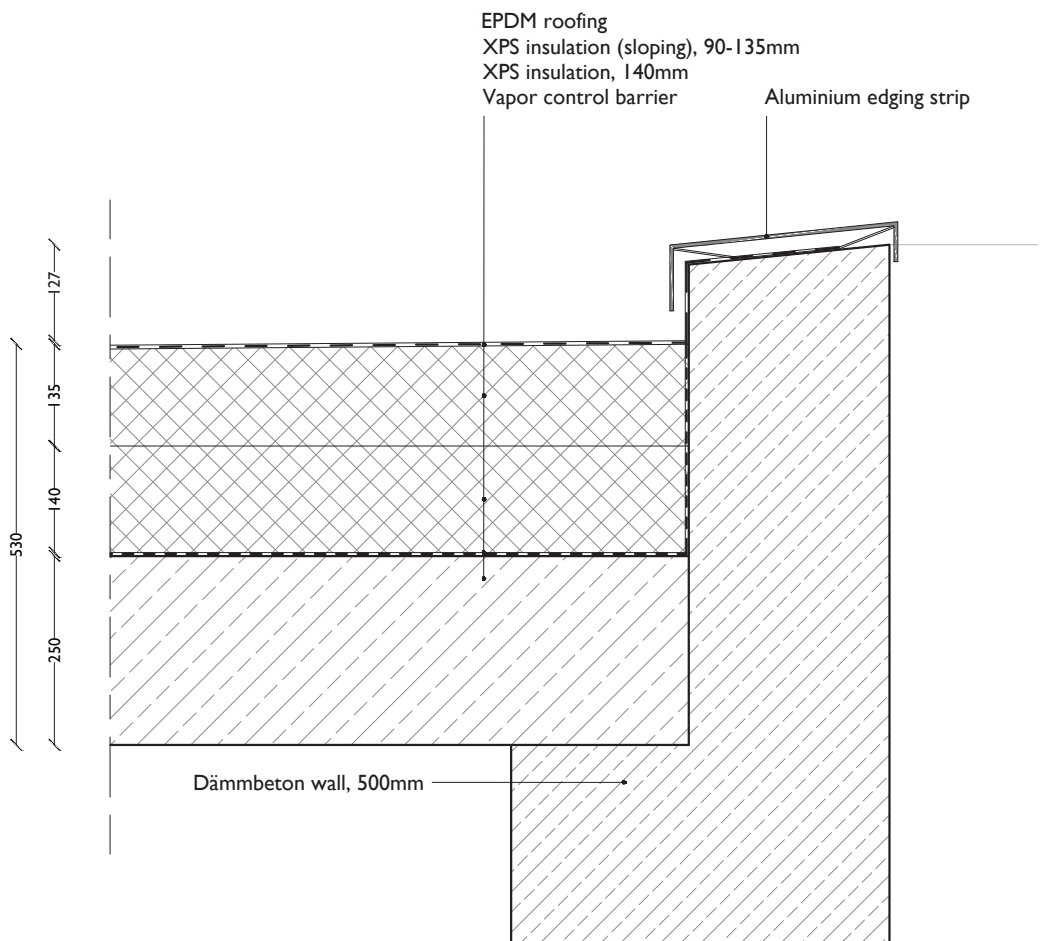
Raised floors

The building's function and size meant that a lot of mechanical and electrical systems would have to be integrated in either the walls, floors or ceilings. To avoid having to resort to suspended ceilings that would cover the concrete finish, a raised floor system is used. A number of pedestal pads support formwork boards on which the screed floor is poured. This leaves a 14-centimeter cavity between the structural floor and the top screed layer where all the mechanical, electrical and plumbing systems are integrated.

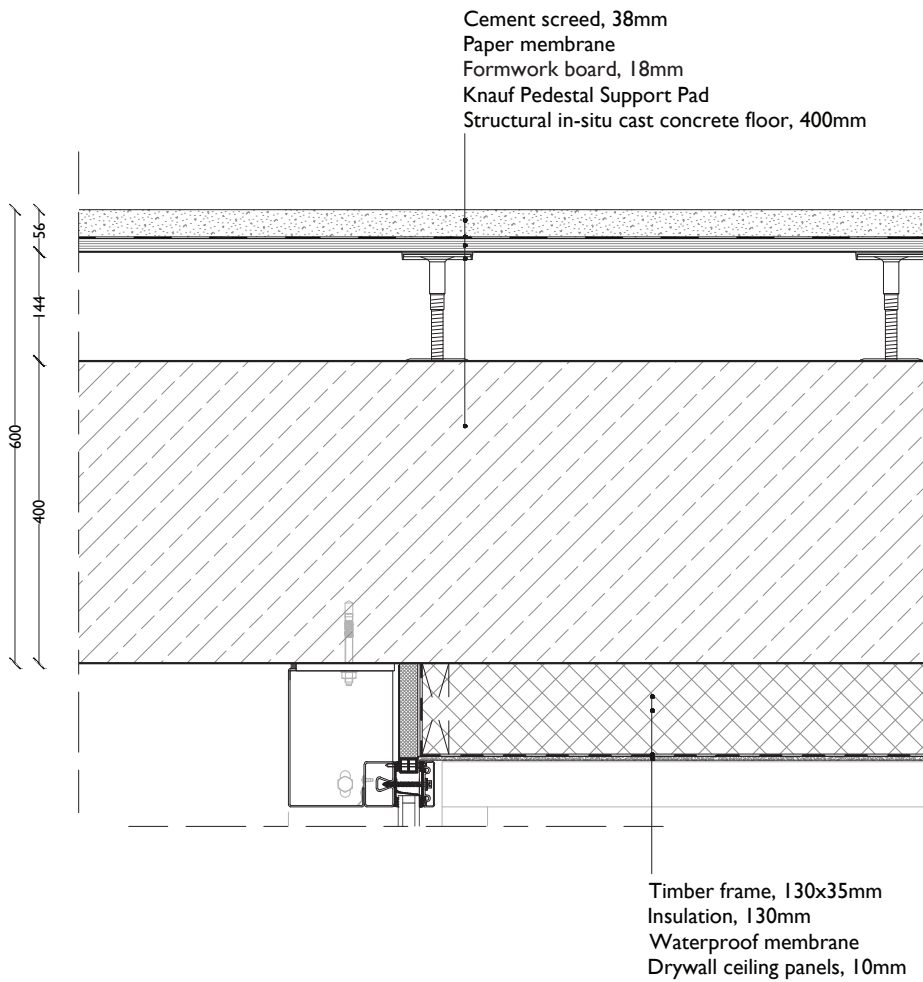
Acoustics

A number of the voids is two storeys high. In those cases, the decision was made to use only one horizontal mullion where the upper floor meets the curtain wall. This raises a number of challenges, mainly regarding acoustics and fire. To resolve those, two systems are applied. The first involves so-called high-mass acoustic inserts that are slotted into the mullions. This should significantly improve their acoustic performance, from 35 dB SRI (Sound Reduction Index) without the inserts to 46-50 dB with them (WFM, 2017). Secondly, the 'perimeter fire and acoustic barrier' is a measure to slow fire spread between floors that also improves acoustic performance.

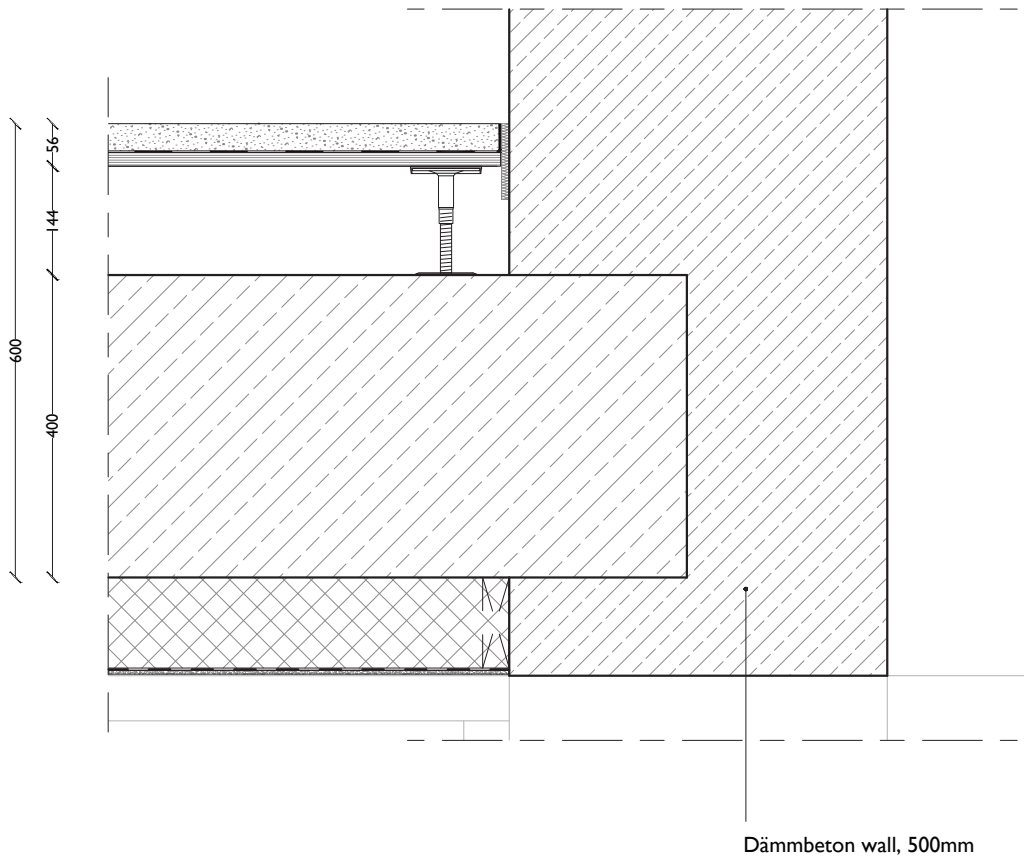




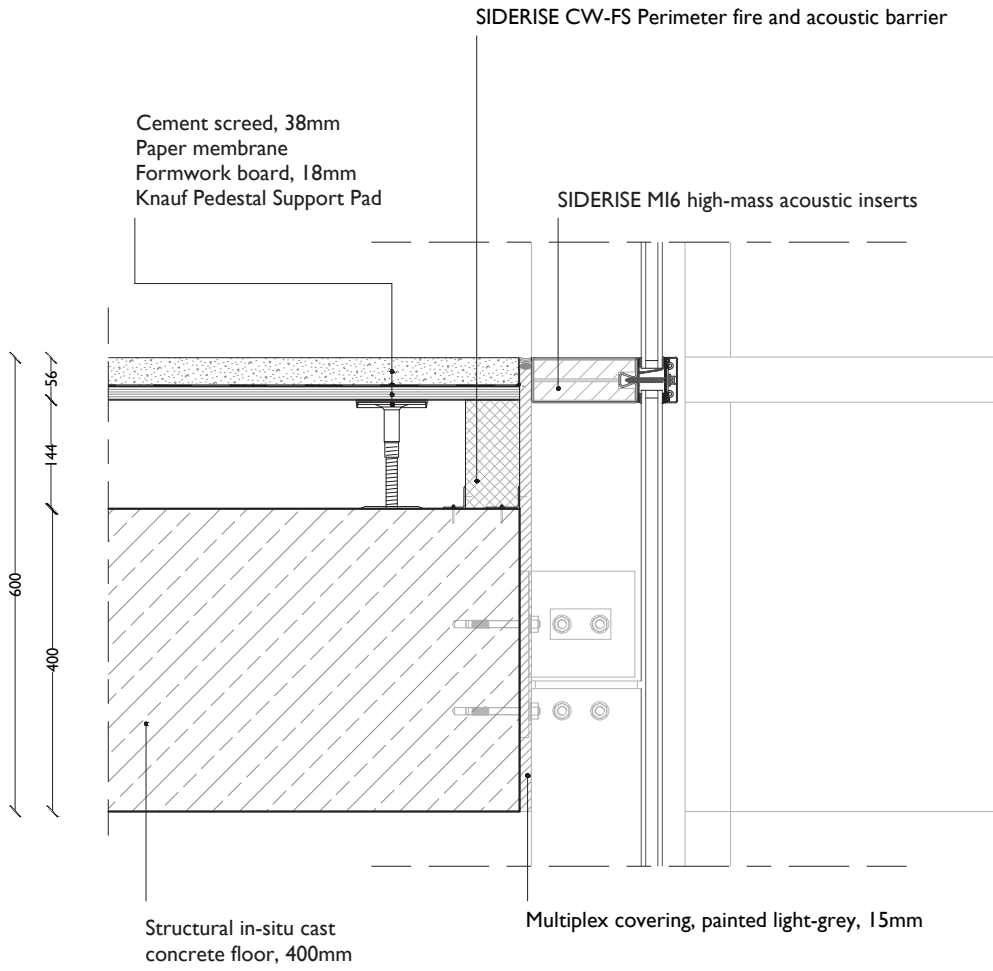
1:10 | Detail A



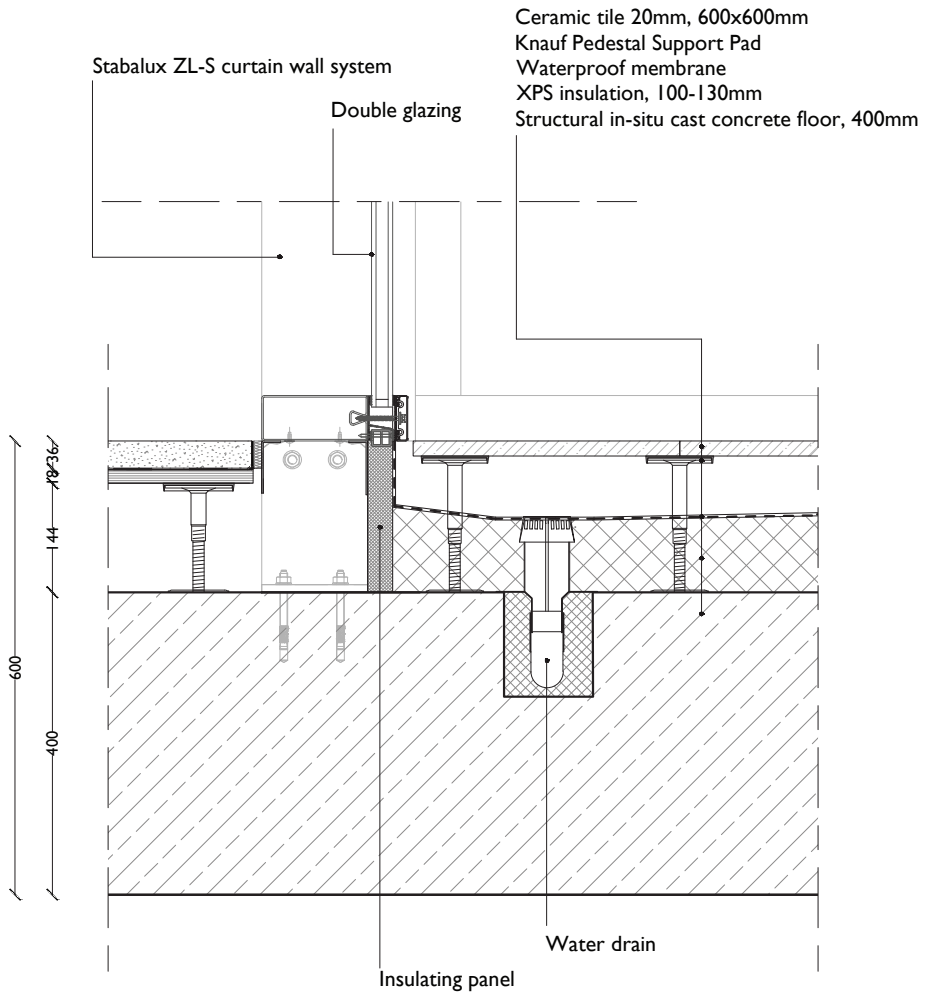
Detail B | 1:10



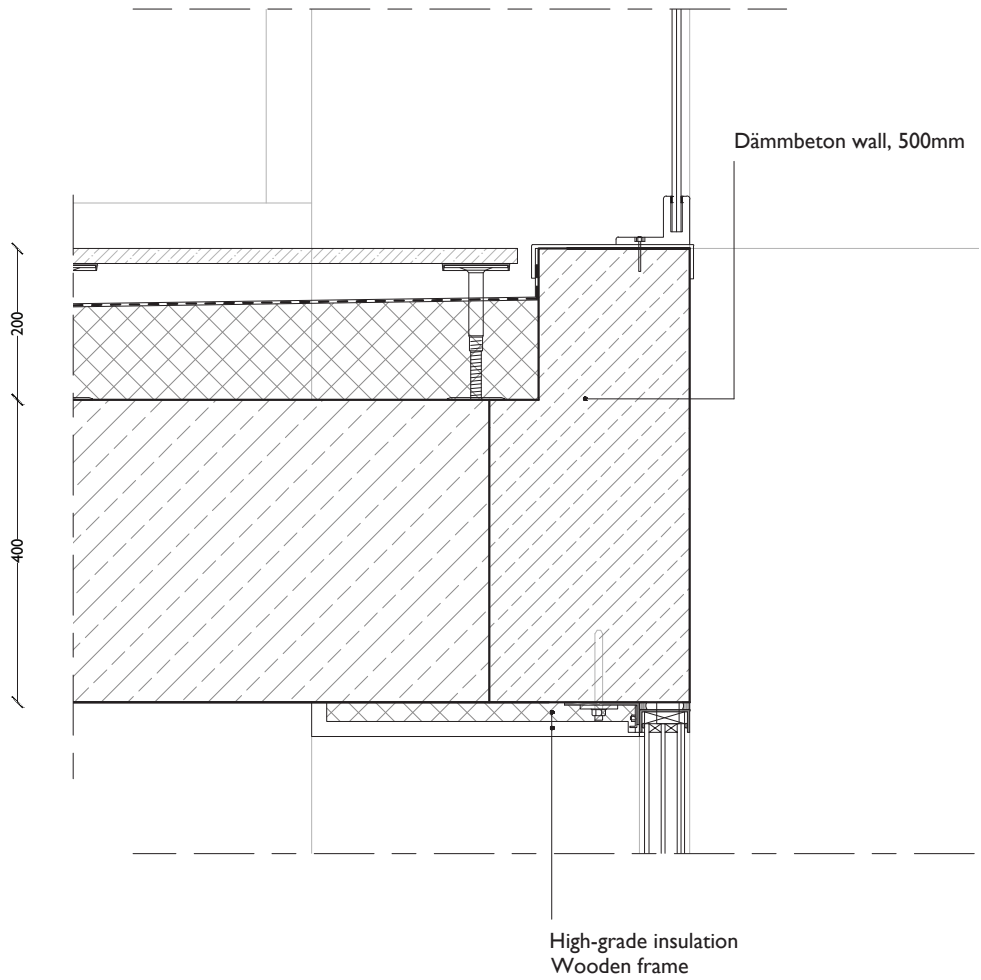
1:10 | Detail C



Detail D | 1:10

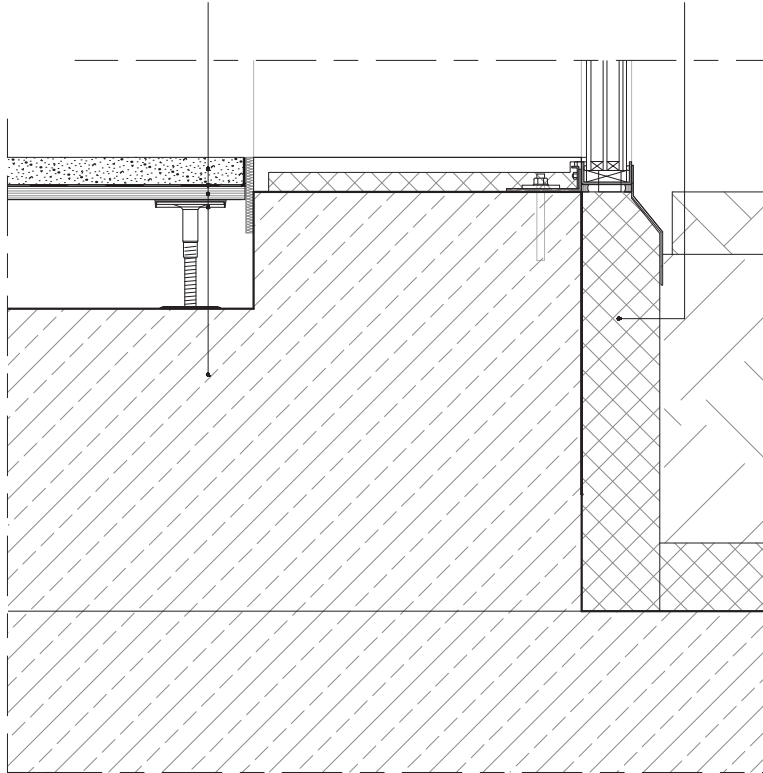


Detail E | 1:10



1:10 | Detail F

Cement screed, 38mm
Paper membrane
Formwork board, 18mm
Knauf Pedestal Support Pad
Structural in-situ cast concrete floor, 400mm
Rigid insulation, 550x10mm



1:10 | Detail G

CONCLUSION

The issue of producing contemporary and innovative architecture that is at the same time sensitive to its historical surroundings is tackled by both David Chipperfield and Miroslav Šik. Chipperfield speaks of 'The Third Way' while Šik refers to 'Verfremdung' as the means to achieve this. The two design philosophies are very similar and have the same approach to context. Namely that they consider it as an inevitable given that needs to be read, interpreted and transformed. The latter must always be done in moderation. Šik sets achieving an 'ensemble' as the ultimate objective, where new and old buildings exist in perfect harmony and synthesis.

This approach has been central to the design of the cultural center. 'Verfremdung' is achieved by developing a method that results in an abstraction of the type. The steps of this process are:

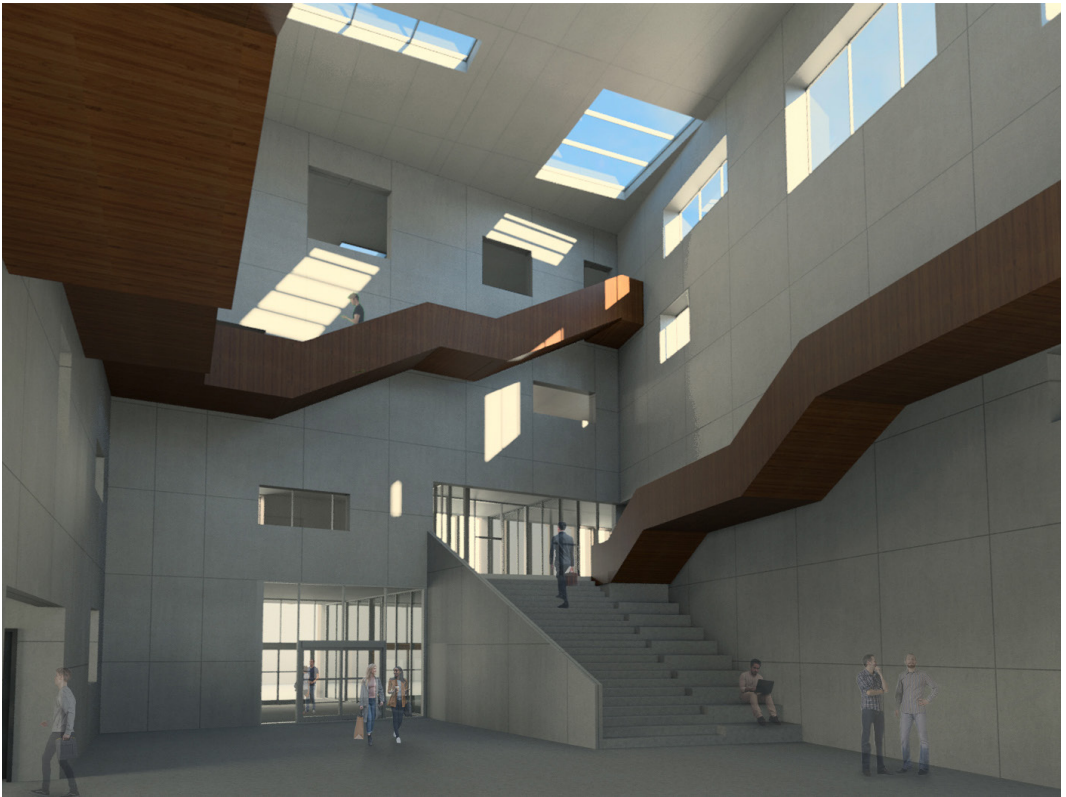
- Giving the definition for the Berlin Type by naming the formal characteristics
- Developing a specific archetype that represents the type
- Gradually, in a step-by-step fashion removing details that are not deemed inherent to the type
- Transform and add elements to further individualise and give character to the design

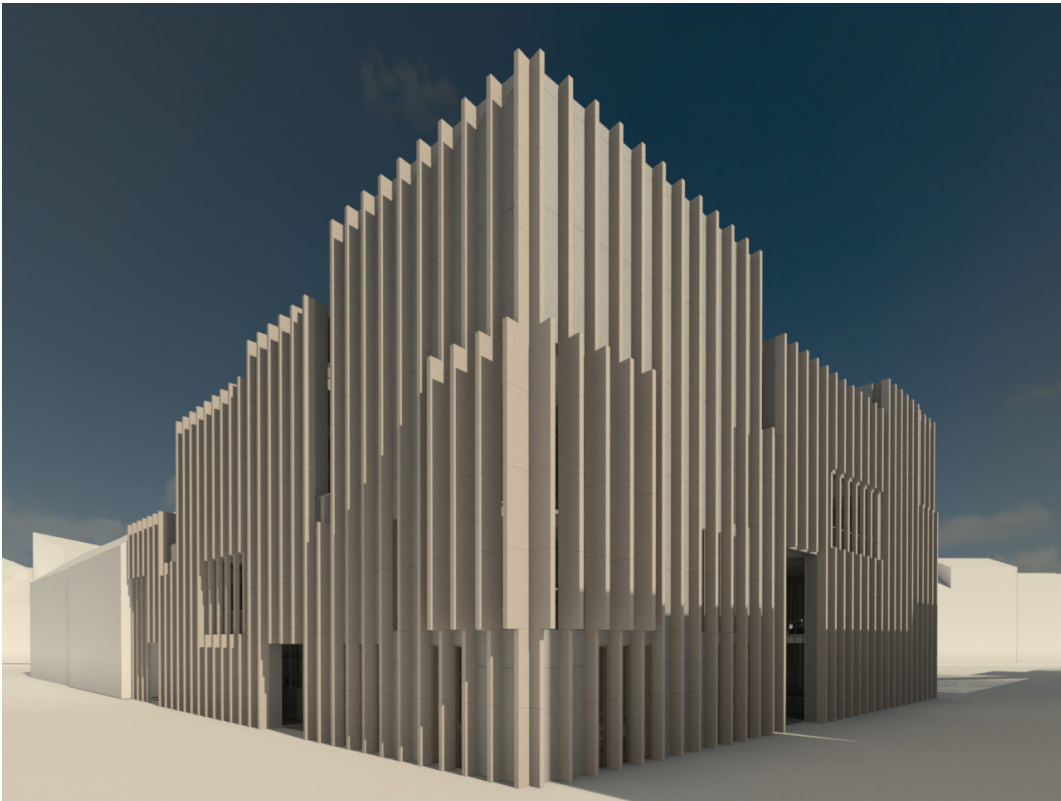
Being as ambiguous and subjective as it is, this process carries with it the danger that one can easily get carried away and go too far in 'abstracting'. It is therefore essential to constantly evaluate every step against the context and with the end goal in mind. While content with the results of the design, I fear that I might not have done the latter enough. I am the most critical of the façades' design where I am uncertain whether I succeeded in designing a building that is 'unmistakably Berlin'. The excessive verticality of the slats is perhaps too alien to the area. The slats were intended to facilitate a dynamic experience that transforms with the viewer's changing perspective,

which they accomplish to do. All-in-all, I do believe that the building can stand on its own, independent of typology and regardless of it not fully satisfying Šik's definition of an 'ensemble'.

The building's interior, more specifically the atrium, is what I am the most pleased about. The very quality that drew me to the Canteen photograph is successfully expressed in the interior's atmosphere. The contrasting materials allow the monolithic concrete and the formally independent staircases to enhance each other's effects on the space's atmosphere.





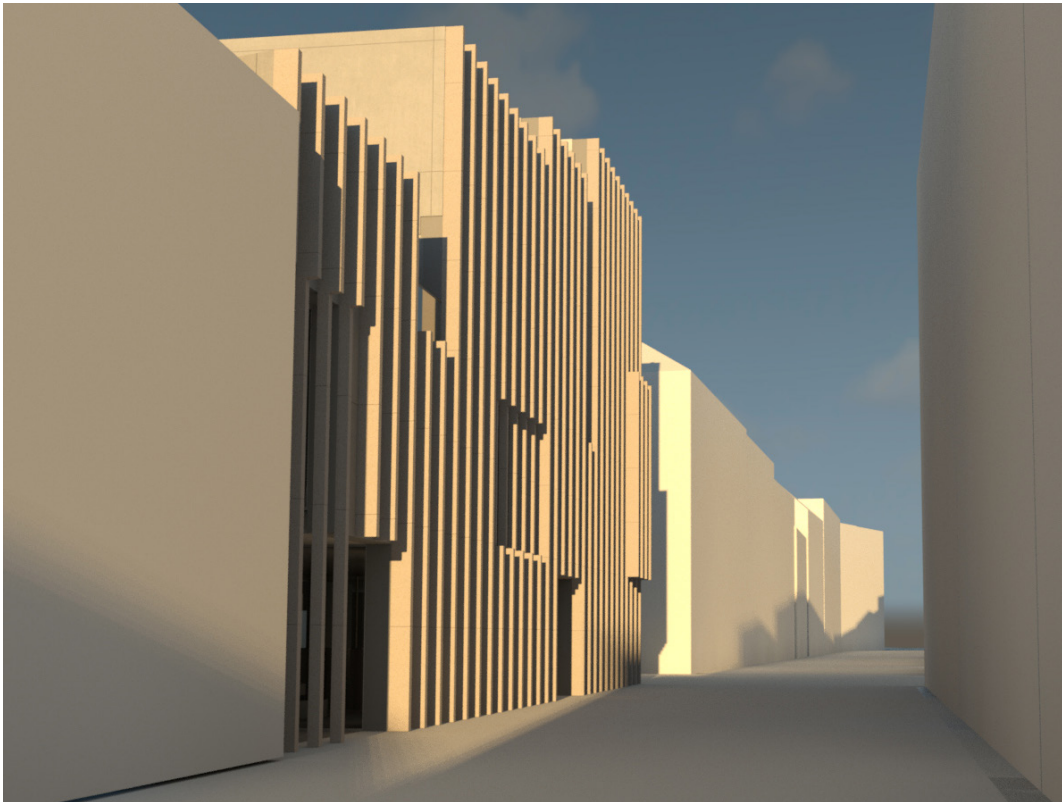


REFLECTION

Looking back at the previous year, I can only say that I am very happy with my choice for this graduation studio. I was told it would not be easy and that expectations are high. This turned out more true than I ever thought and was evident in my less-than-smooth process. Despite this - perhaps because of it - I am endlessly grateful that I chose it.

The studio taught me a great deal about architecture and how creative thoughts are conceived and how direct references affect them. It taught me even more about myself and how to better conduct myself when communicating ideas. I learned the importance of writing down my thoughts for giving them form and specifying them.

By delving deep into the thinking processes of two great architects, I became even more fascinated by the architectural profession and excited about my future career.



ACKNOWLEDGEMENTS

I would like to thank all three teachers for always being there when I ran dry creatively. I would like to thank Jacob for his countless timely moral pushes exactly when I needed them; Jan for his unchanging high standards and honest criticism without which I would not be where I am; and Sergio for his 'funky' ideas that forced me think outside the box, the box where I was stuck for a long time.

I would also like to thank all the Masterly Apprentice members for their advice, criticism and helpful discussions. I want to especially thank the members of my generation, some of whom have grown to be more than mere colleagues.

Finally, I would like to thank my parents for their patience and always being there for me, in good times and bad.

REFERENCES

Literature

Strebe, A. (2018, April 23). *Historie: Spandauer Vorstadt - Joachimstraße 20*. Retrieved from <https://mitte-bitte.de/historie-spandauer-vorstadt-teil-2/>

Quincy, Q. & Younés, S. (1999). *The true, the fictive, and the real : the historical dictionary of architecture of Quatremere de Quincy*. London: A. Papadakis.

WFM. (2017, October 05). *Flanking Paths Acoustics - Reduce Flanking Noise Between Rooms*. Retrieved from <https://www.wfm.co.in/flanking-paths-acoustics/>

Images

[1] Bing Maps. (n.d.). Retrieved from <https://www.bing.com/maps>

[2][5][7] Google Maps. (n.d.). Retrieved from <https://www.google.com/maps>

[3] Bildindex der Kunst und Architektur, Altes Ballhaus, Retrieved from <https://www.bildindex.de/document/obj20554797>

[4] Berlin, Mitte, Joachimstrasse 20, Buergerhaus.jpg. (2017, March 23). Wikimedia Commons, the free media repository. Retrieved from https://commons.wikimedia.org/w/index.php?title=File:Berlin,_Mitte,_Joachimstrasse_20,_Buergerhaus.jpg&oldid=238230382.

[6][8]-[11] Original work

