

The background of the entire page is a detailed architectural cutaway drawing of a multi-story building. The drawing shows the internal structure, including rooms, corridors, stairs, and various levels of the building. The lines are clean and white, set against a light gray background. The perspective is from an elevated angle, looking down into the building's interior.

Marlene Schwarz


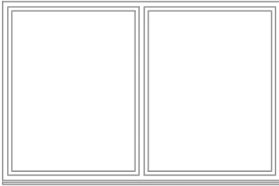
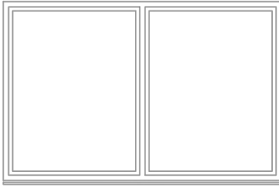



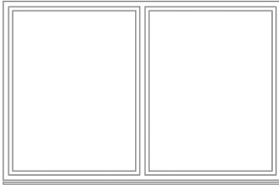
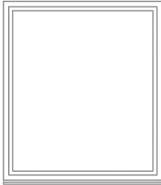


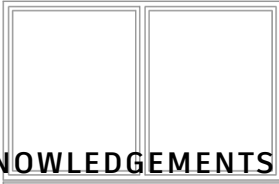
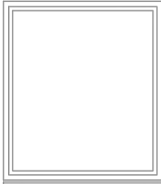



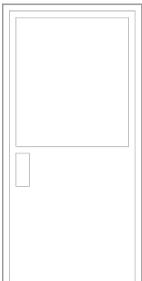


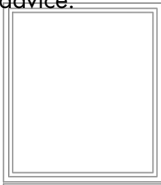





Master Thesis 2026


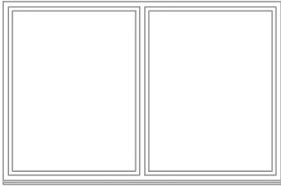
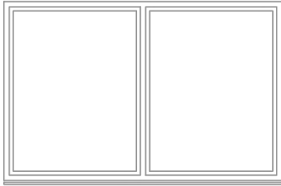
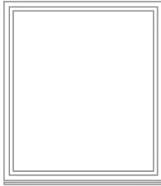



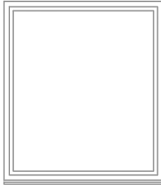


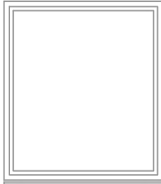


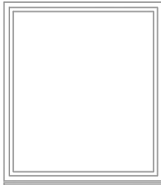

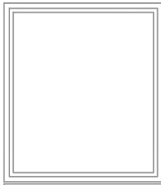
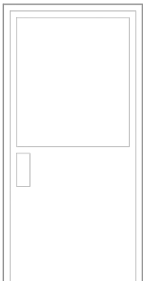





Examiner: Carrie Bobo Gibbs

Supervisor: Mikael Sonnsjö

PLATTENUMBAU

Transformation of a prefabricated panel building

			
			
			
		<p>ACKNOWLEDGEMENTS</p> <p>This work would not have been possible without the support I received from those around me.</p> <p>I would particularly like to thank my supervisor, Mikael Sonnsjö, and my examiner, Carrie Bobo Gibbs, for their support and valuable guidance throughout the semester.</p> <p>I would also like to thank Simone Habendorf and Torsten Klein from the Stendal city archives for their precious help and enthusiasm regarding my research. I am grateful as well to Jurek Brüggem, architect, for sharing his research on the transformation of the Plattenbau, Bastian Sieler, mayor of Stendal, for taking the time to share his knowledge of the city with me, and the two residents of Stendal Stadtsee who wished to remain anonymous, for inviting me into their homes and sharing their story with me.</p>	
 			
	 	 	

			
			
	<p>CHALMERS UNIVERSITY OF TECHNOLOGY</p> <p>ACEX35 Master thesis 2026</p> <p>Plattentumbau Marlene Schwarz</p>		
	<p>Chalmers School of Architecture Department of Architecture & Civil Engineering</p> <p>Architecture and planning beyond sustainability (MPDSD)</p>		
	<p>Building design and transformation for sustainability</p> <p>Examiner: Carrie Bobo Gibbs Supervisor: Mikael Sonnsjö</p>		
			
	 	 	





ABSTRACT

Prefabricated mass social housing buildings, known in German as Plattenbau, are the face of GDR (Deutsche Demokratische Republik) cities. They are the legacy of a country that no longer exists. Built in the 1970s, they are the consequence of engineers and architects' research on extreme standardisation of construction. After World War II, prefabrication was presented as the solution to house as many people as possible in good conditions across Europe. Taking a close look at the Plattenbau heritage reflects the question of collective memory.

Since German reunification in 1989, far from their original appeal, they illustrate the failure of Soviet modernism. Today, more than one million units stand vacant, and entire districts are being demolished. The discrediting of these modern buildings is unreasonably blamed on their architectural features, and this unwanted heritage has, since the fall of the Iron Curtain, been hastily erased from the surface of the earth to make space for other types of housing.

Housing is a human right, yet Europe is still facing a housing crisis. This thesis aims to expose the qualities of the Plattenbau as a resource to provide homes. By understanding the utopian ideology behind prefabrication and the development of living norms, it is possible to recognise the spatial and living qualities provided by this architectural legacy on one hand and the negative impact it had on societies on the other.

Furthermore, the thesis also examines the spatial impact caused by demographic shrinkage. Indeed, uneven demographic changes have an impact on small and medium size towns of the former DDR. They lead, for example, to the under-usage or vacancy of standing buildings. The two mass social housing districts, built in 1975 next to the Hanseatic city of Stendal, are a striking example of the challenges former East German middle-sized cities are facing nowadays.

This work presents both the availability of empty Plattenbau prone to demolition and the shrinking cities phenomenon as incredible opportunities for our generation of architects to think about housing in a post-growth European context. It explores through architectural and spatial interventions the possibility of regenerating Plattenbau as comfortable and spacious homes, following Renée Gailhoustet's theory of living spaces.

The buildings are seen as a composition of removable and movable prefabricated components. In a shrinking city context, the method used is the de-densification of the existing building by removing components and introducing a mixed-use program of living and working environments in the middle of nature. The result of the project aims to show the potential of Plattenbau for transformation.

Image 1. WBS 70.

PREFACE

- p.8 student background
- p.10 research questions
- p.11 research framework
- p.12 introduction

TIMELINE

- p.40 utopian plattenbau
- p.42 dystopian plattenbau
- p.44 german reunification
- p.46 plattenbau stories

BIBLIOGRAPHY

- p.81 literature
- p.85 images
- p.86 figures
- p.87 appendix

PLATTENBAU

- p.20 context
- p.24 project site
- p.28 existing situation
- p.34 prefabricated elements

PLATTENUMB AU

- p.54 reference
- p.56 transformation
- p.66 housing
- p.74 discussion

Tampere
studio urban
planning
2022-2023

Lähiö,
1960-1970

Göteborg
studio transformation
master thesis
2024-2026

miljonprogrammet,
1965-1975

Brussels
studio social housing
2019-2022

cités sociales,
1950-1970

Berlin
studio co-housing
work interior design
2024-2025

plattenbau,
1960-1980



This map shows the academic journey and the constant encounter throughout studios and studies with the modernist heritage across Europe. Later in the booklet, the same map is presented with the travels of the prefabricated panel patent, anchoring the subject in its European context.

PROJECT SITE
Hanseatic City of Stendal
Saxony-Anhalt, Germany
40,000 inhab.

Figure 1. Map European countries outlines.



Image 2. WBS 70.
Image 3. Site visit.

CHOICE OF TOPIC

Last Autumn, during a debate organised after a conference about stone construction, which I attended, an owner of a Belgian blue stone quarry was criticised for his exploitation of natural resources. The quarry representative fired the question back at the architects present in the room:

'Buildings that could last for hundreds of years are being demolished after only sixty-five years... What are you building? Heritage or consumer products?'

I found this provocation very relevant, and it forms the entry point for my reflection about the responsibility of our generation of architects in this field regarding the legacy left behind by the previous one.

PROFILE CONNECTION

This thesis is presented as part of the transformation for sustainability profile of the Architecture beyond sustainability master's degree at Chalmers University of Technology. This profile supports the contribution of research to the urgent transition to a sustainable future through design, putting building transformation at its core.

The work presented in this booklet addresses the issue of the extensive demolition of Plattenbau buildings and its socio-ecological impact. This research, through theory and design, relates to the profile in terms of understanding how we can reduce the impact of construction and demolition on limited natural resources. It contributes to the discourse of shifting the profession of architects to a creator of space within our built environment legacy. The chosen subject, the future of WBS 70 buildings, is an urgent issue, as this resource is rapidly disappearing due to high vacancy rates, which has a significant impact on urban and natural landscapes.

From both a theoretical and practical perspective, this thesis seeks to challenge the prevailing notion of obsolescence of mass social housing. It contributes to the professional debate by proposing an alternative to demolition.

RESEARCH QUESTION

How can the Plattenbau, prefabricated mass housing stock from the 1970s, adapt to contemporary living to avoid demolition?

How can the transformation and conversion of East Germany's Plattenbau buildings preserve this heritage?

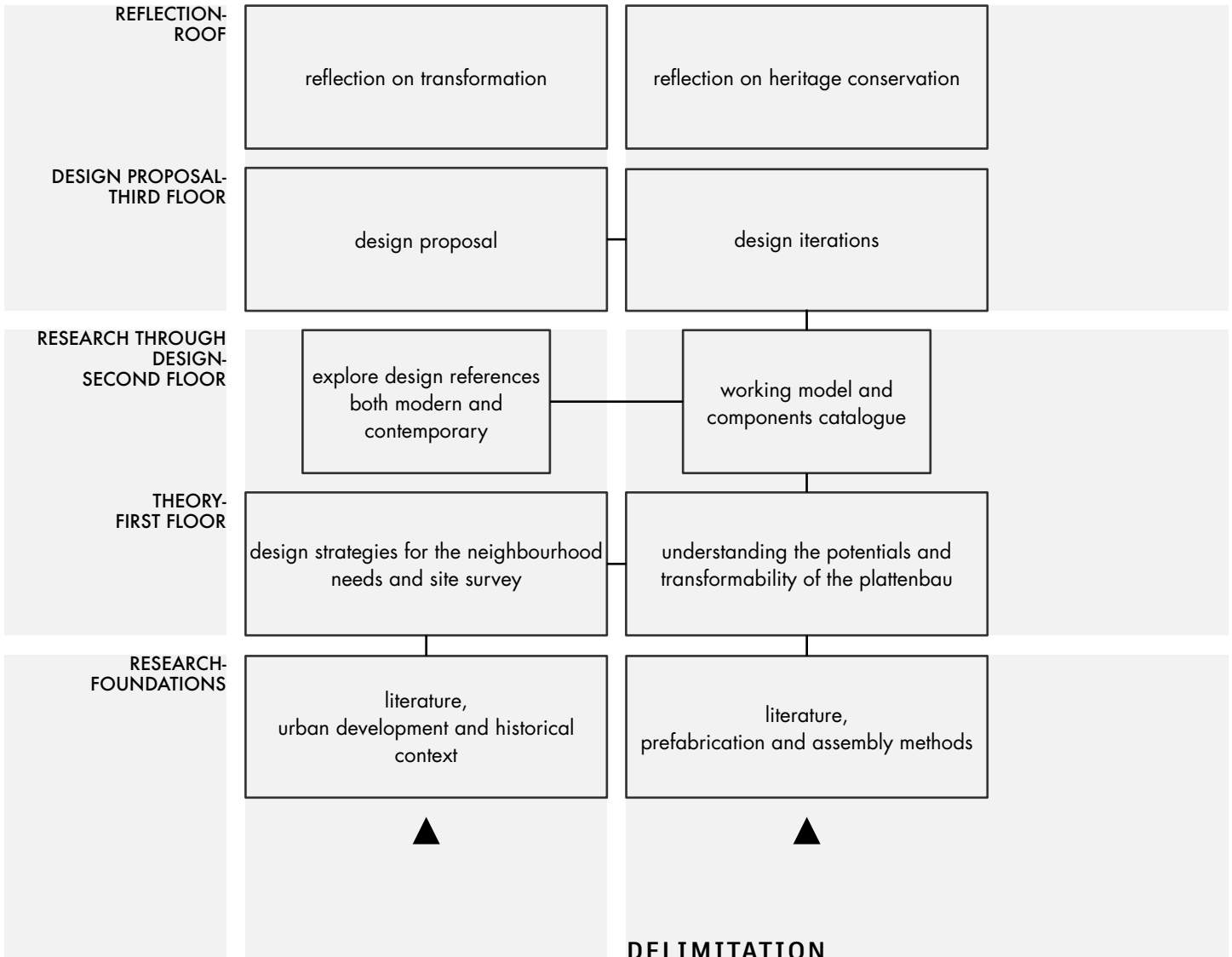
Would a renewed interest in Plattenbau improve the quality of life and prevent vacancy in small and medium-sized towns in eastern Germany?

To what extent do the structural and spatial characteristics of Plattenbau allow for innovative housing models and mixed-use programs?

AIM AND EXPECTED RESULT

This project aims to challenge the notion that WBS 70 buildings are disposable structures and to revive the debate on their future prospects. By examining the context of German reunification and its impact on housing, the project proposes a new, generous use of space to demonstrate the transformative potential of a building chosen as an example. The ambition is to show that the plan's extreme rationality, the simplicity of the materials, and the lack of architectural quality provide a neutral and fertile ground for the creativity and innovation of our generation of architects. The result is a housing project that explores the existing range of concerns and opportunities to familiarise oneself with them, in the hope of working on a similar project in the future.

METHODOLOGY



DELIMITATION

Academic research demonstrates the positive impact of collaborative processes, but such processes are not part of this project. While they provide valuable insights for the design phase, enabling a better understanding of users' needs and a less hierarchical approach, participatory processes require a significant investment of time and effort. For the purposes of this project, an in-depth study of the history of soviet mass social housing and interviews with residents will be considered sufficient to develop the fictional proposal.



BACKGROUND

On the outskirts of the Hanseatic City of Stendal in Germany stands a lone freshly painted building, in the middle of a derelict land. In the early 2000s, the Stendal-Süd neighbourhood, which once filled the area, was almost entirely demolished (Vuletic, 2016). Prior to its demolition, the water and electricity had been cut off. The remaining families from this neighbourhood, which was gradually abandoned, were rehoused closer to the town centre, in similar prefabricated buildings in the Stendal-Stadtsee district.

This extensive demolition programme, funded by federal programmes, was proposed during IBA 10 (Internationale Bauausstellung 2010 / International Architecture Exhibition 2010) in response to the neighbourhood's high vacancy rate. The vacancy rate is the result of a dramatic demographic decline affecting certain regions of East Germany since German reunification (Kërçuku, 2023).

Like most modernist housing districts, the image that comes to mind is that of a social disaster and the explosion of Minoru Yamasaki's Pruitt-Igoe social housing complex (built in 1954) on the 16th of March 1972 (Fallon, Hirsch, Laenen, Serroen, Vandepaer, 2024). The Plattenbau are no exception, and the main vision for their future is their demolition. They are portrayed as obsolete structures whose sole purpose is to be disposed of in a landfill.

Whilst demolition is widely regarded as the solution for Plattenbau, a shift in perspective is taking place, illustrated by the social housing rehabilitation project by Lacaton and Vassal (2017) at the Cité Grand Parc in Bordeaux, to quote just the most famous example. These alternatives are driven by the new concept of the circular economy, bringing along a shift in attitudes (Fallon, Hirsch, Laenen, Serroen, Vandepaer, 2024). Moving away from demolition towards a transformative approach based on the observation of existing structures, the new generation of architects is tackling social and ecological emergencies. However, there is still a lack of references regarding the potential of this heritage.

Over a million homes stand empty in the former East German territories (Koelbl, 2000) while Germany faces a housing shortage of just over a million homes (Pestel Institute, 2026). Although the situation is not quite so straightforward, and housing policy is a more complex issue than a simple arithmetic calculation, in this context of general housing shortage, the demolition of the entire stock of modernist prefabricated housing seems inappropriate. In Berlin alone, 100,000 flats are needed to close the housing gap by 2030 (Pestel Institute, 2026). Furthermore, Berlin's urban development is characterised by urban sprawl, and some neighbourhoods on the outskirts of the metropolis are farther from the city centre than Stendal Central Station.

Image 4. Demolition site.
Image 5. Vacant Plattenbau in Stendal-Süd.

GLOSSARY

Bau and Umbau

Bau translates as construction and umbau as refurbishment.

Plattenbau:

"Buildings created using a specific construction method in which precast panels (of reinforced concrete) are assembled into larger structures, this method is used from 1959 to the reunification of Germany in 1989 " (Simon, 2022).

Hanseatic league:

Description provided to understand the name of the Hanseatic city of Stendal. "One of the most successful trade alliances in history, at its height the league could count on the allegiance of nearly 200 towns across northern Europe." (Morris, 2026).

Shrinking cities:

"Context in which demographic decline is accompanied by a decrease in existing practices and activities, less care of soils and spaces, deterioration [...] and abandonment of the building and infrastructure assets." The term shrinkage describes this phenomenon in a more neutral tone than the word decline previously used (Kërçuku, 2023).

Panel:

A term referring to the prefabricated concrete elements that make up the Plattenbau (Alonso and Palmarola, 2019)

Soviet mass social housing:

social housing, heavily subsidised, offering affordable rents and communal facilities. From the late 1950s, their mass construction became industrialised and standardised (Vihavainen, 2005).

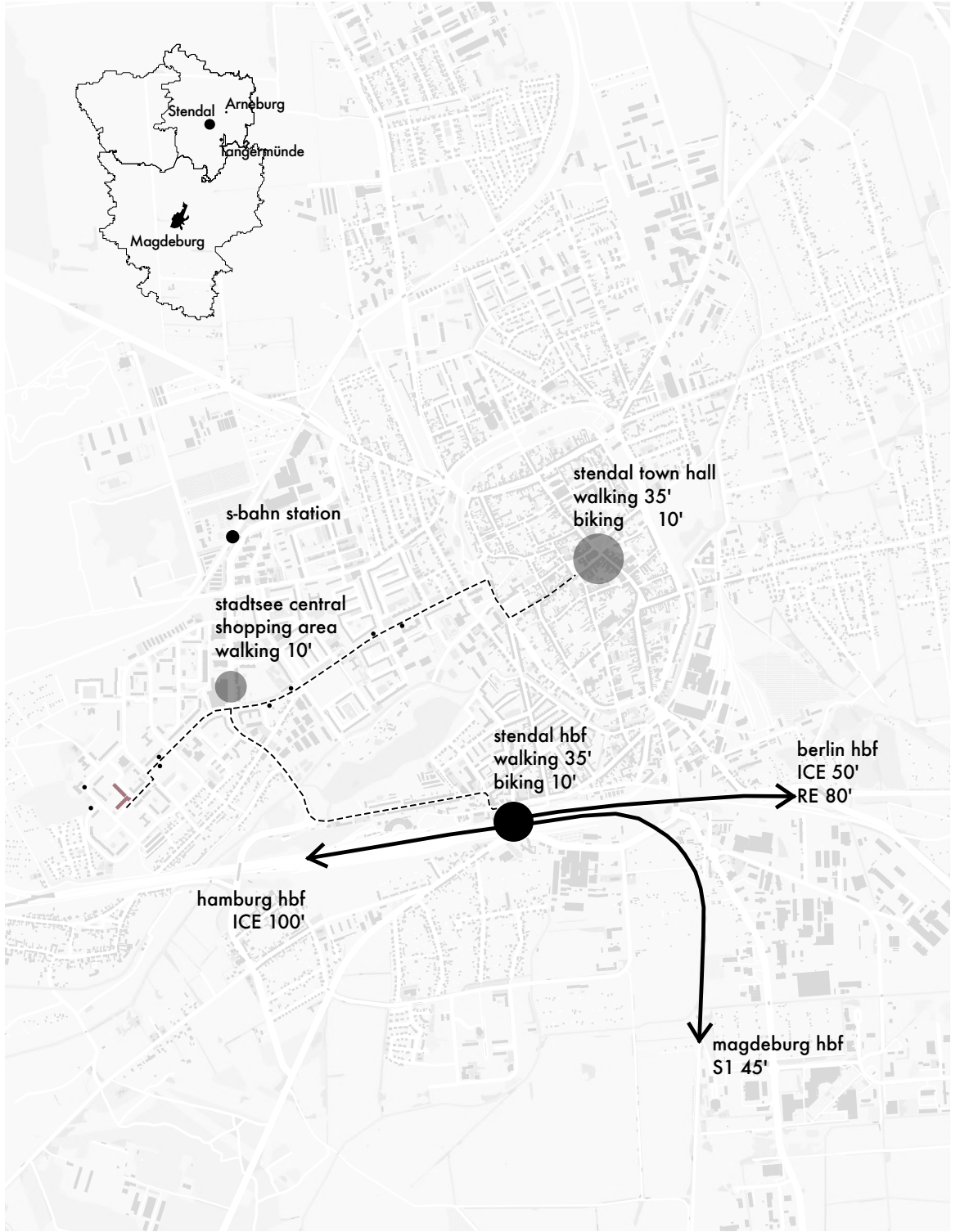
Platte (pl.Platten):

Refers to a prefabricated housing block (Alonso and Palmarola, 2019).

Wohnungsbauserie 70th series: for which the abbreviation WBS 70 will be used.

A type of Plattenbau using a specific panel and construction method developed in 1972 by the architect Wilfried Stallknecht and Achim Felz in the German Democratic Republic (Ludwig, 2020).

EXISTING SITUATION
PLATTENBAU



This map shows the regional and high-speed train connections to the nearby cities. It also shows the distances from the project site to the town centre on foot and by bike.

PROJECT SITE
Stendal-Stadtsee III

Figure 2. Map train connections Hanseatic city of Stendal.



CONTEXT

This master's thesis project focuses on the transformation of a Plattenbau building in the Hanseatic city of Stendal. Although the site has already been partially demolished, several buildings remain, allowing for the exploration options for the adaptive reuse of existing prefabricated housing in order to avoid further demolition.

The Hanseatic city of Stendal is located in the former GDR. With a current population of just under 40,000, the city has experienced a rapid population decline since German reunification. Indeed, since the 1990s, many small towns have suffered from an excess of vacant housing due to population loss caused by a lack of employment opportunities, an ageing population and low birth rates, which today represent a major challenge for the region (IBA, 2010).

This decline presents an opportunity to explore new ways of living. Despite not being long ago, the reality of the GDR era already seems to belong to the past, stored away in museums, and its Plattenbau neighbourhoods are now nothing more than relics of a past era. One might wonder whether, on the contrary, they might not offer a sustainable real estate market. Indeed, despite the population decline, the trend towards single-person households and the trend for more space per person mean that urban sprawl is a reality in Stendal and in the Berlin metropolitan area (Lauf, Haase, 2016). The demolition of the Stendal-Süd and Stendal-Stadtsee neighbourhoods therefore appears to be a waste of precious resources. Since the 1990s, extensive research has been carried out on Plattenbau. This vast body of documentation provides a holistic understanding of the situation and quality of their structures and components.

INFRASTRUCTURE

The district of Stendal-Stadtsee is fairly walkable even if it is situated on the outskirts of the town. The map shows different functions that can be found in the Hanseatic town of Stendal. A ten minutes walk distance from the project site is market with a circle. There is a supermarket and a kindergarten on site. The shopping centre and schools are located at the core of the district. Overall the city benefits from a good social, cultural, administrative and educational infrastructure (Landkreis Stendal, 2021).

LEGEND

- 10min walk
- Grocery stores
- Education
- Religion
- Culture
- Sport
- Health

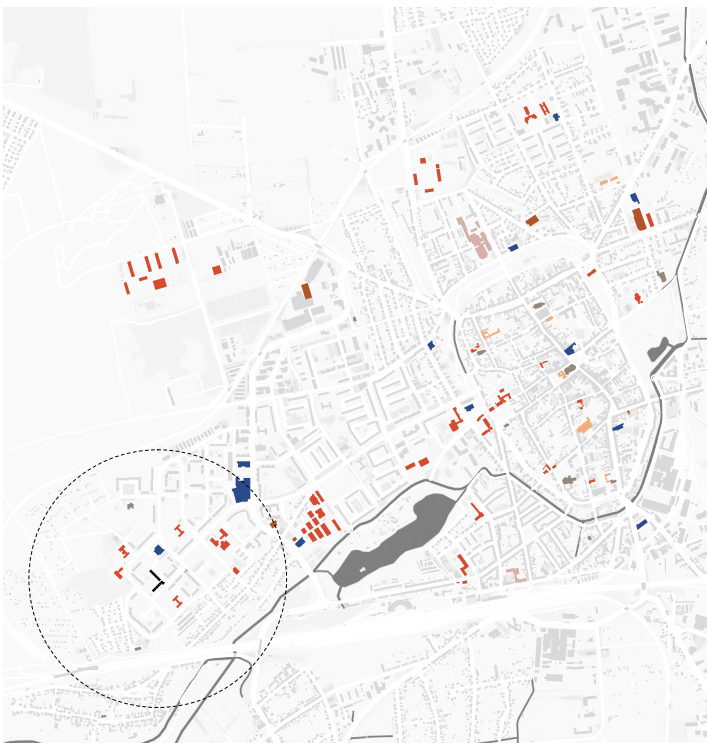


Image 6. WBS 70.

Figure 3. Infrastructure Hanseatic city of Stendal.



Figure 4. Urban typologies Hanseatic city of Stendal.



stendal old town
12th century

THE HANSEATIC CITY OF STENDAL

21

Stendal lies at the heart of the Altmark region in Saxony-Anhalt. The oldest buildings in the centre of Stendal can be traced back to the 12th century. The 14th-century Gothic brick buildings still bear witness to the region's economic importance and wealth at the time, as well as its affiliation with the Hanseatic League. Slightly apart from the medieval city centre which was left to decline, two new districts were built in 1973 : The housing estates of Stendal-Süd and Stendal-Stadtsee. They were intended to house the future employees of a nuclear power station, which was never completed. The historical value of the medieval town centre is recognised in the 1990s. Thus, in contrast to the modernist philosophy, its restoration starts at the expense of the two social housing estates (Landkreis Stendal, 2021).

Today, Stendal has the highest number of vacant buildings in Saxony-Anhalt (IBA, 2010). Its economic activities came to an end with the fall of the Berlin Wall. Job losses led to mass emigration, and a significant proportion of the remaining residents live outside the town in detached houses and commute to work in other regions. However, thanks to its central location and historical significance, the city benefits from a good social, cultural, administrative and educational infrastructure (Landkreis Stendal, 2021).



Image 7. Model Stendal-Stadtsee I & II on the laying of the foundation stone, Stendal City Archives, Stendal, 1973

STENDAL STADTSEE DISTRICT

LEGEND

- Project site
- Existing
- Demolished

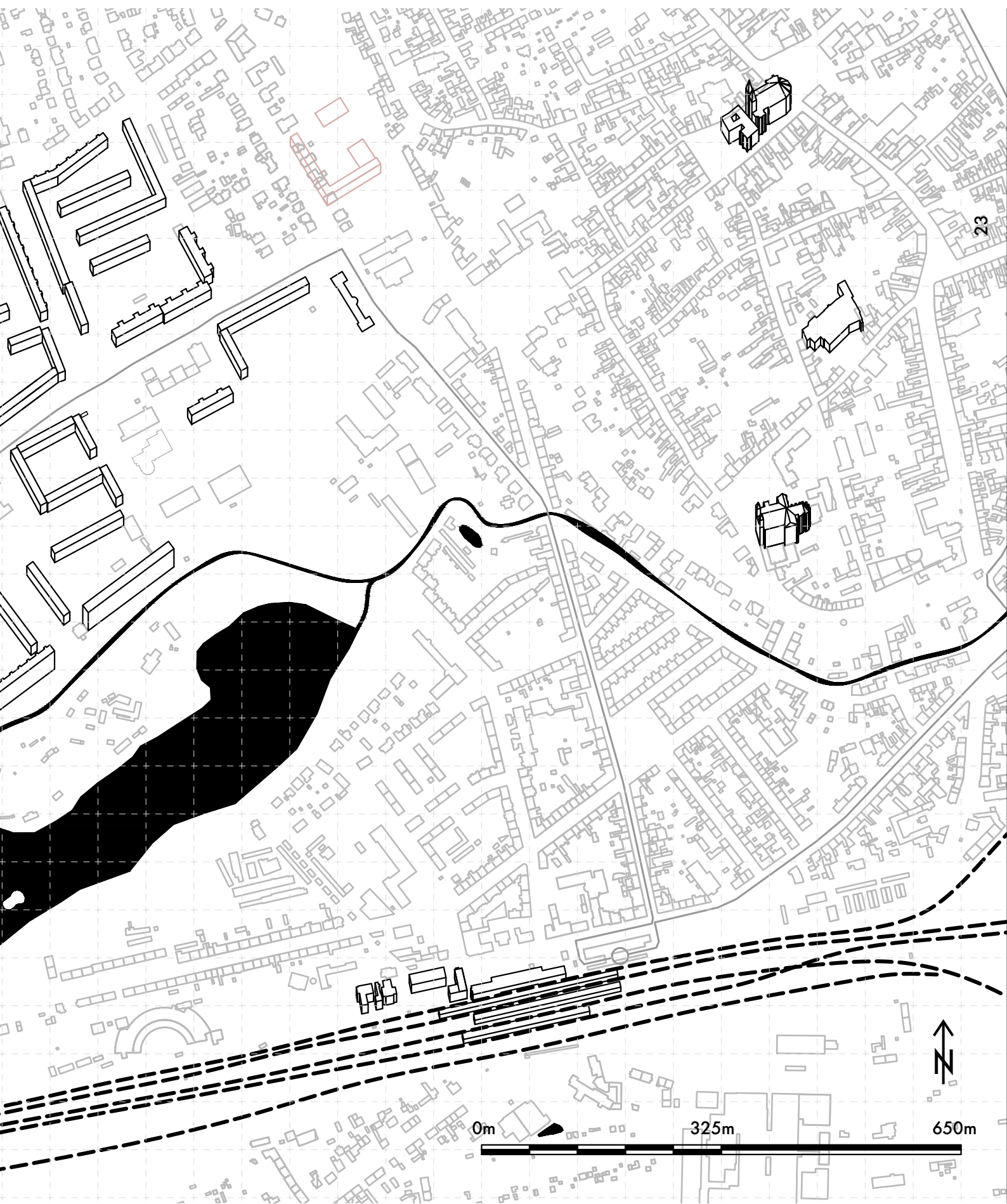
22

SITE

PLATTENBAU



Figure 5. Stendal-Stadtsee district in 2026.



23

0m

325m

650m



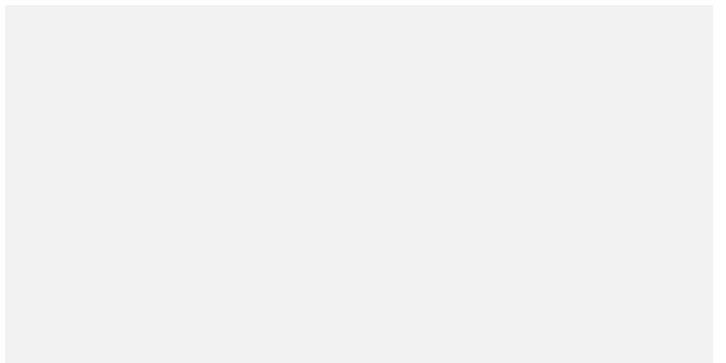
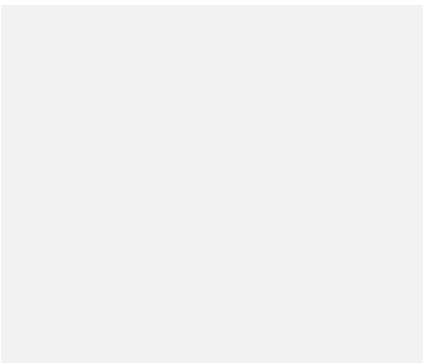
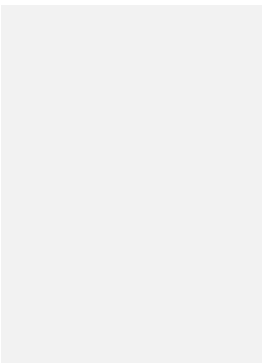
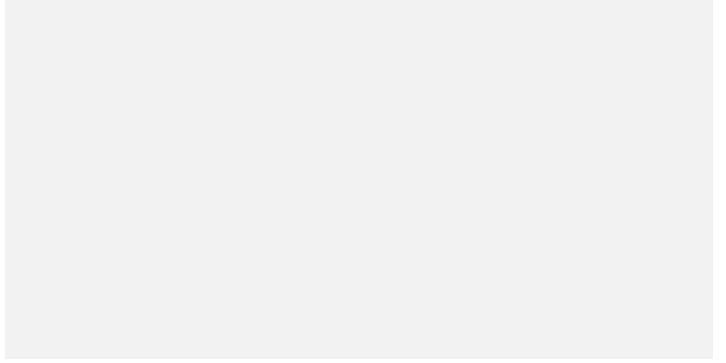
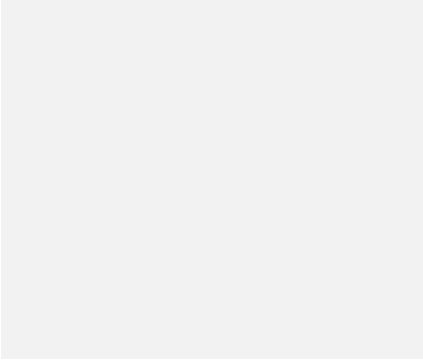
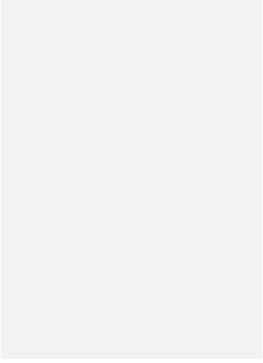
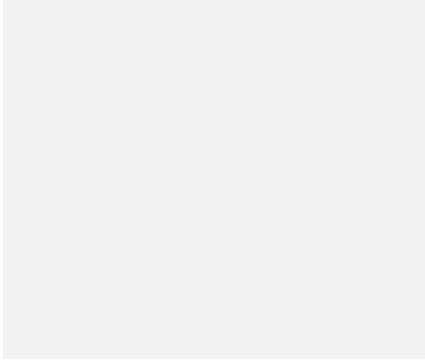
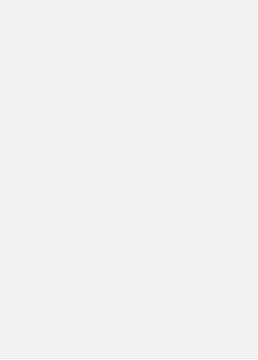


Image 8&9. Original facades, Stendal-Stadtsee, 2026.



STENDAL STADTSEE DISTRICT

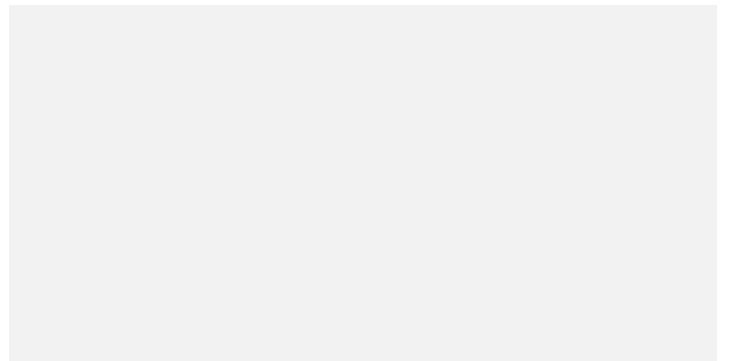
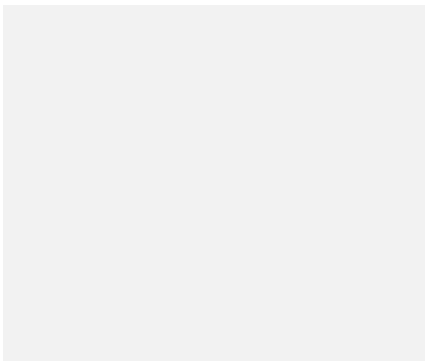
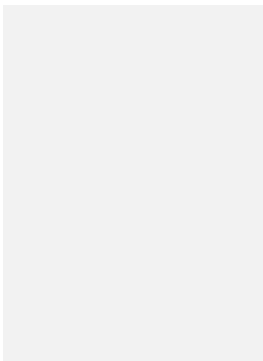
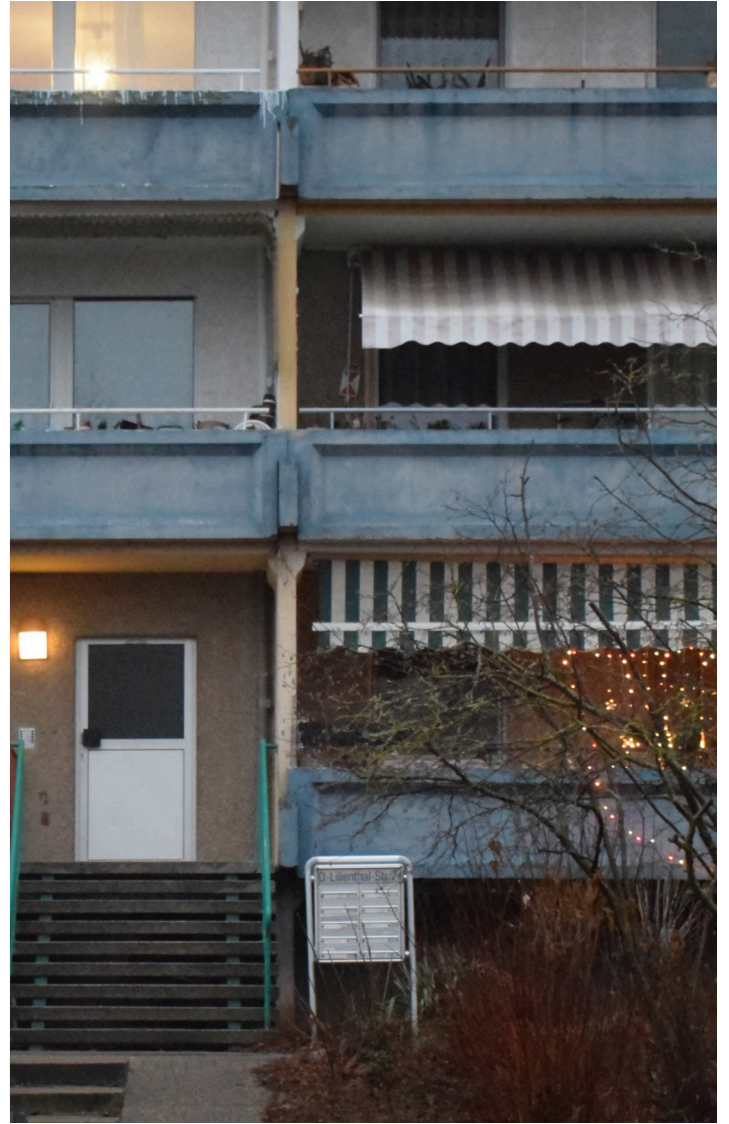


Image 10&11. Original facades, Stendal-Stadtsee, 2026.

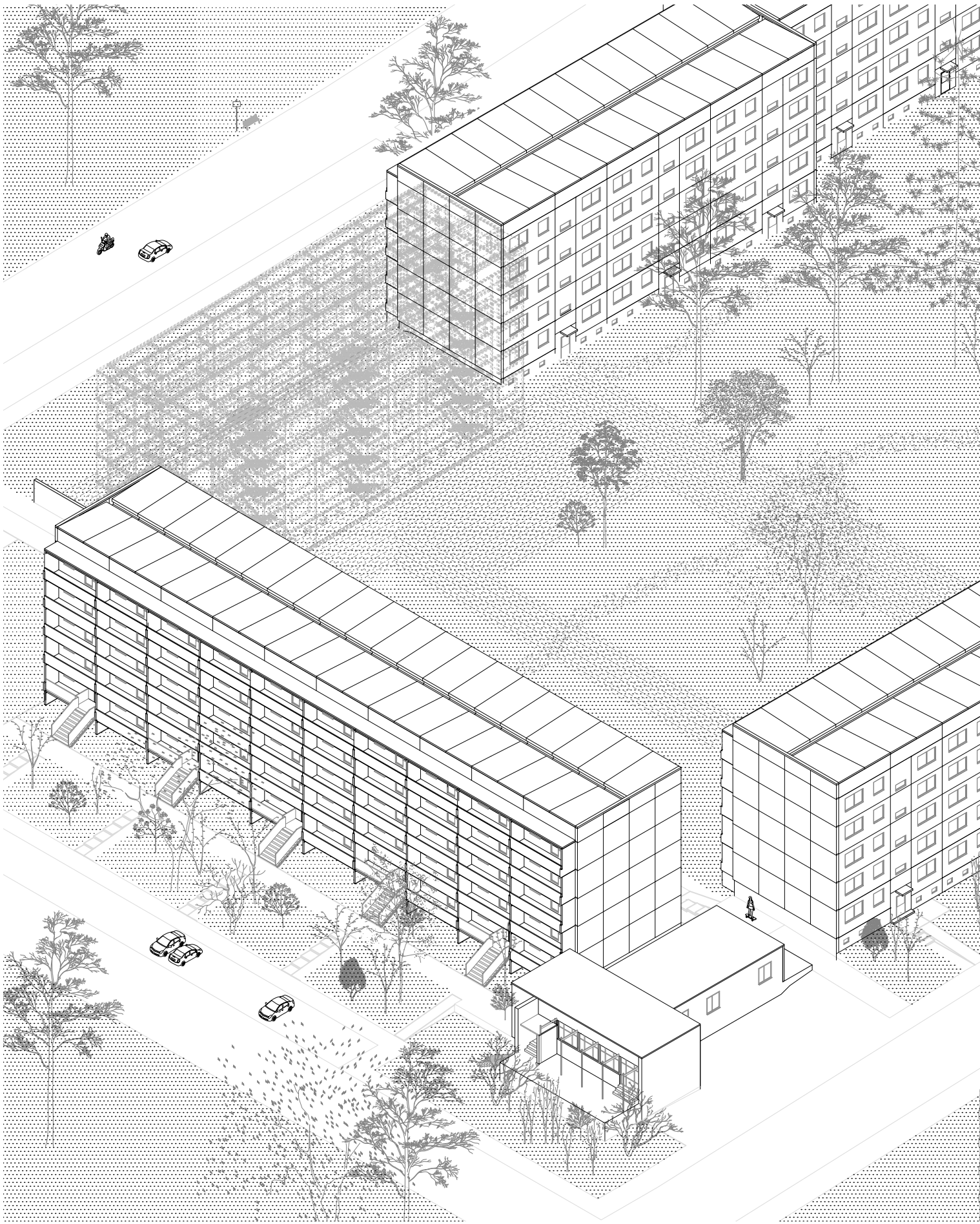
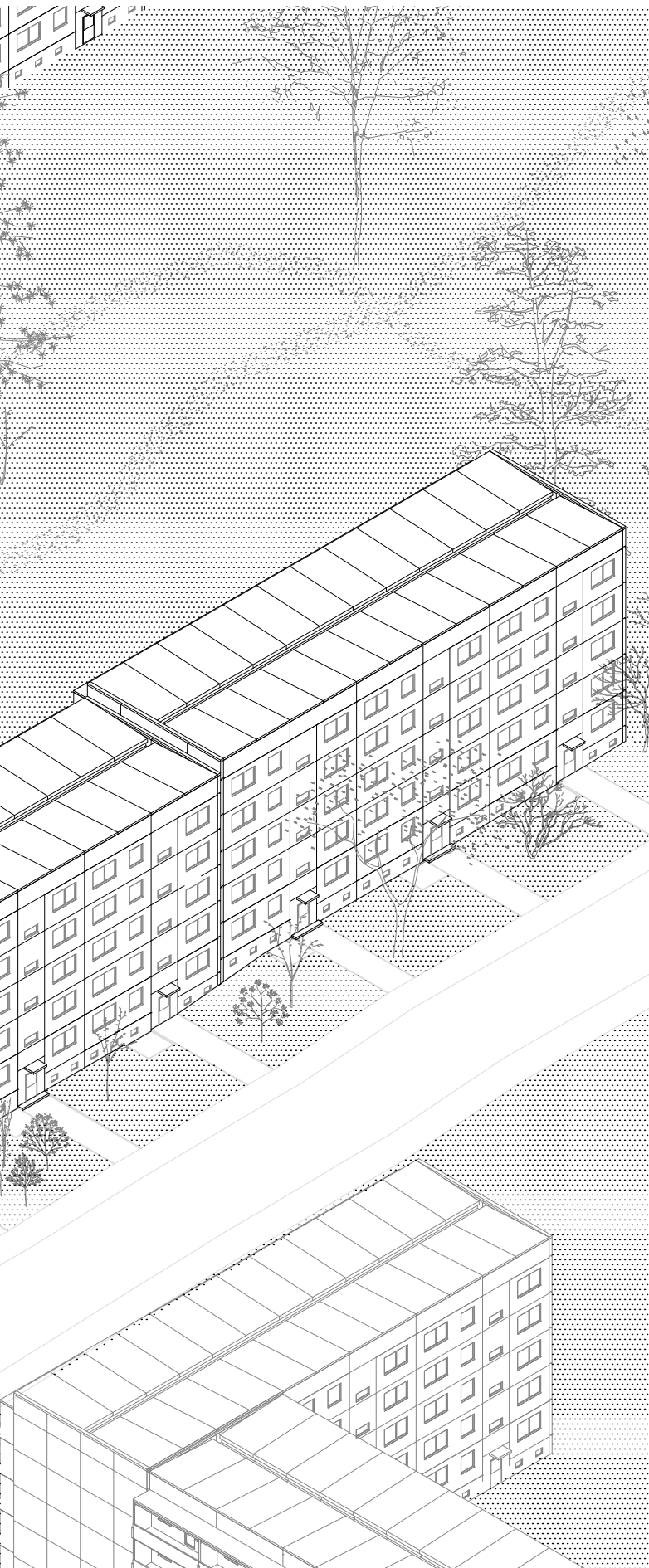


Figure 6. Axonometry existing situation.



CURRENT STRATEGIES

The following attitudes can be observed on the site and in surrounding areas.

DEMOLITION

Buildings are left to decay, and their demolition occurs quietly, one by one. The partial demolition of the excess of housing is strongly supported by the city. However, unbuilding is a viable strategy if care and purpose are suggested for the resulting new plot of land. Otherwise, the results are undefined green spaces that emphasise the feeling of remoteness of the area.

DOWNSCALING

Vacancy makes it possible to introduce important transformations to the buildings. It should therefore be seen as a potential for innovation (van Tuijl and Maarten, 2016). Downsizing is a widely used strategy for preserving Plattenbau, and this topic will be explored further through reference projects. These reference projects demonstrate a significant reduction in building density, offering a solution that is both radical yet suited to the needs of the city.

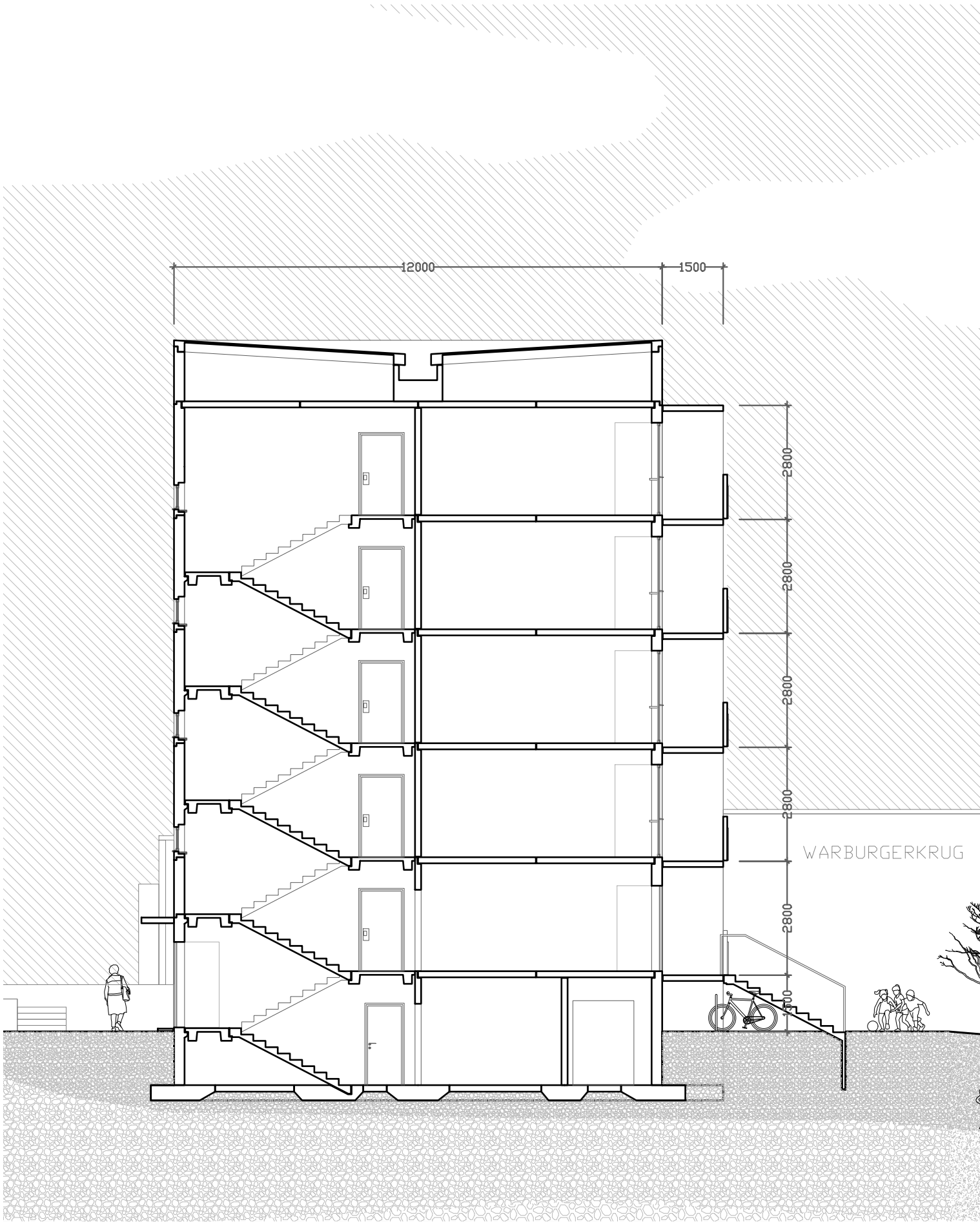
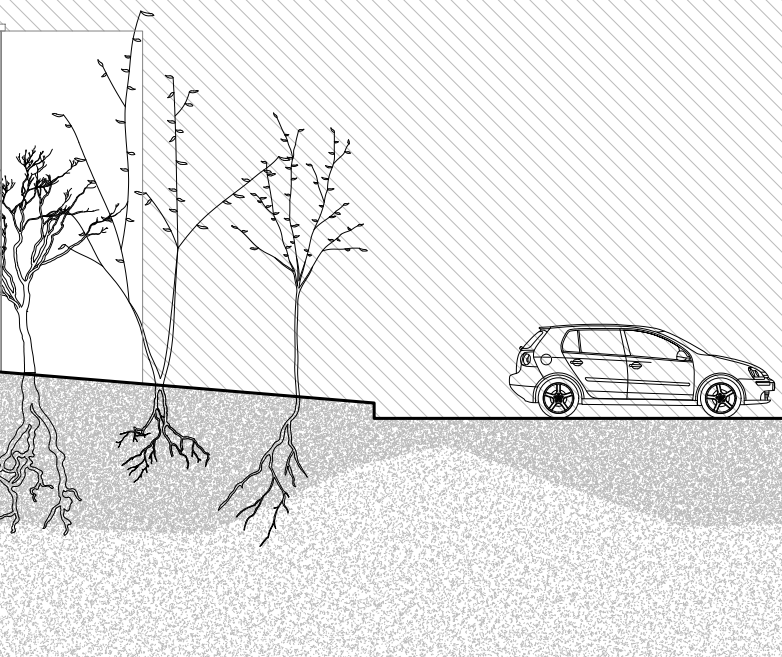


Figure 7. WBS 70, transversal section existing situation.

PREFABRICATED BUILDINGS

When Nikita Khrushchev (First Secretary of the Communist Party of the Soviet Union from 1953 to 1964) puts housing on the political agenda during his election campaign, his aim was to mark a radical break with the Stalinist past and its imperialist architecture. The ambition is to create architecture for the masses, extremely simplified, drawing inspiration from the 1920s rationalist movement. The aim is to avoid wasting time on unnecessary traditional and decorative details and achieve the lowest level of architectural expression. This new aesthetic canon follows the rules of Russian Constructivism, which advocates purifying the elements of construction to reveal their role within the structure. This extreme simplification was intended to dissolve the house as an individual expression of identity.

The construction process is standardised as much as possible. From the mass production of components that constitute a comprehensive building catalogue (see page 32 and 33 for drawings of these catalogue elements) to their transport and installation on site, the process is efficient in terms of both cost and time (Alonso and Palmarola, 2019). The flats all have an identical layout, creating an overwhelming sense of repetition throughout the neighbourhood. There are two types of flats, with two or three rooms, featuring extremely rationalised floor plans. The layout follows a modular grid of 6,000 mm x 6,000 mm on which the prefabricated elements are placed. The flexibility of the floor plans is pragmatic. Indeed, heavy and large elements are not suited to this rapid construction method using cranes (Ludwig, 2020). Thus, the various elements separating the spaces were constructed from lighter components, positioned according to the modular grid (Ludwig, 2020). This process enables rapid construction using non-specialised workers (Alonso and Palmarola, 2019). The bathrooms and the service shaft are prefabricated elements. This "sanitary cell" component allows most of the technical installations to be completed in advance in the factory rather than on site. The kitchen, separated from the living room, is then placed next to the technical shaft (Ludwig, 2020). Circulation spaces, such as stairwells and corridors, are kept to a minimum. This efficient use of circulation spaces is an interesting feature. It allows for a layout centered on the building's core, providing natural light through small windows into the stairwell. Each stairwell serves two traversing apartments per floor. The layout avoids long circulation routes such as corridors or passageways and allows for natural ventilation in floor through apartments.



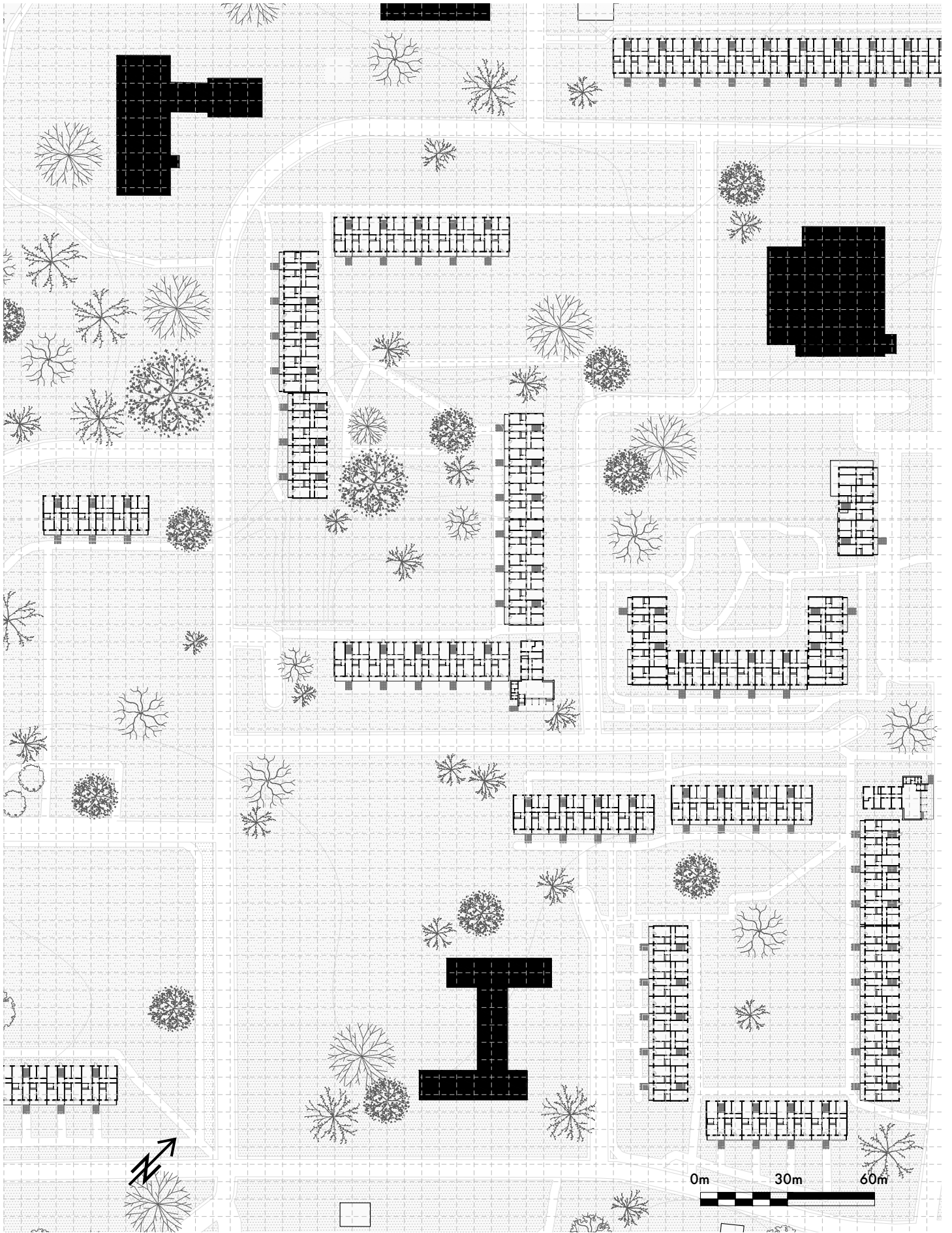


Figure 8. WBS 70, context plan.

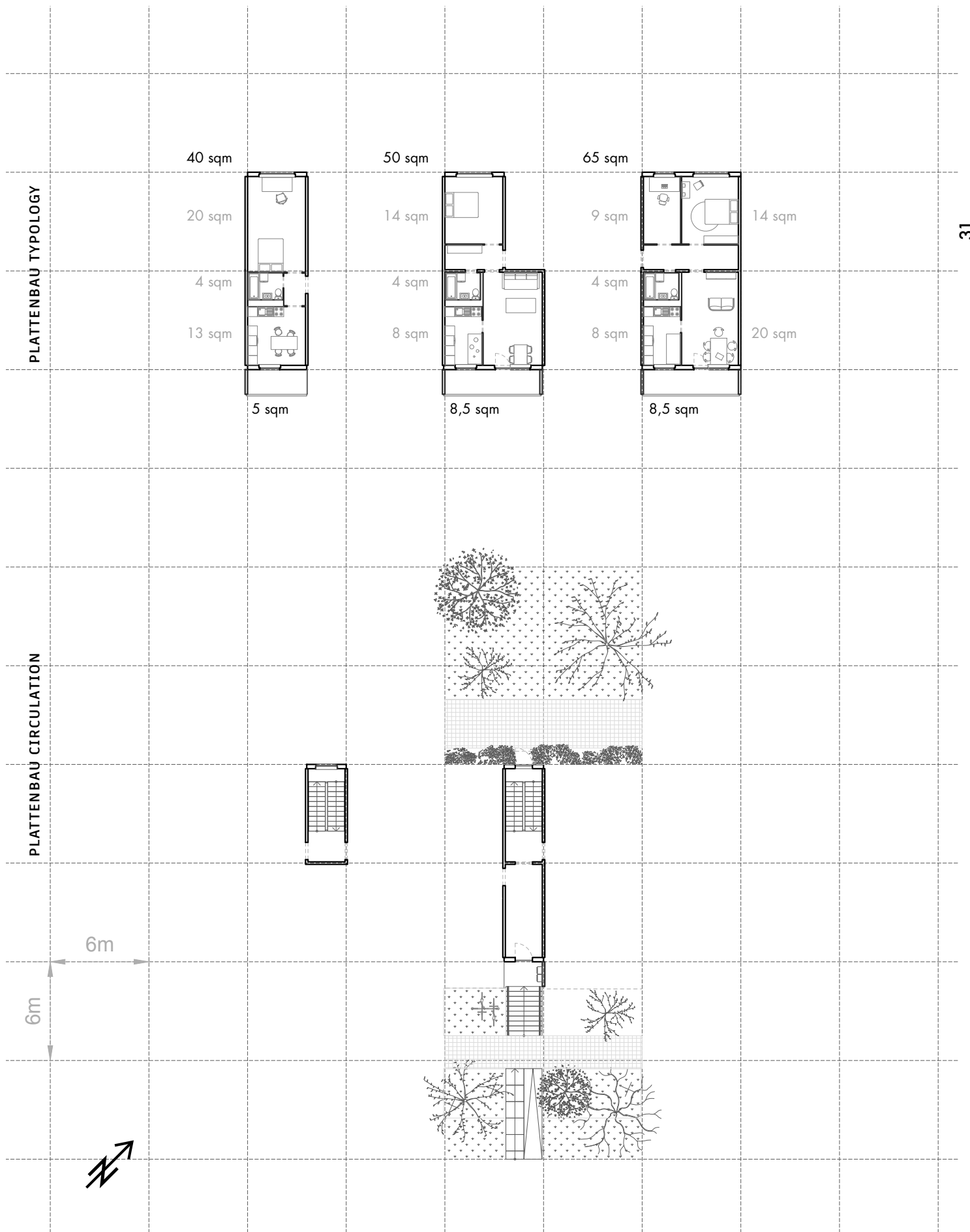
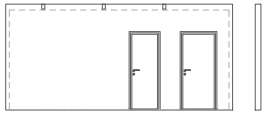
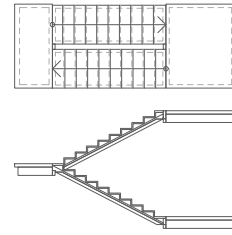


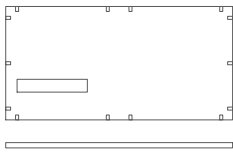
Figure 9. WBS 70, plan.



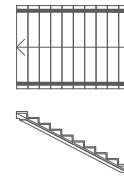
INTERIOR WALL PANEL



STAIR ELEMENT



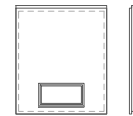
CEILING PANEL WITH OPENING FOR TECHNICAL INSTALLATION



EXTERIOR STAIR ELEMENT



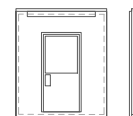
CEILING PANEL



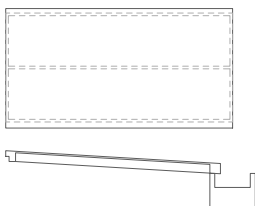
EXTERIOR WALL PANEL - STAIRCASE



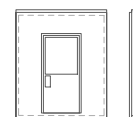
EXTERIOR WALL PANEL - ROOF



EXTERIOR WALL PANEL - DOOR

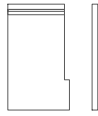


ROOFING PANEL

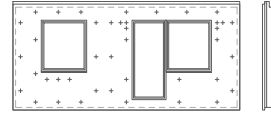


EXTERIOR WALL PANEL - DOOR

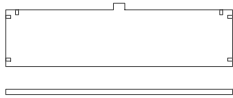
Figure 10. WBS 70, prefabricated elements catalogue.



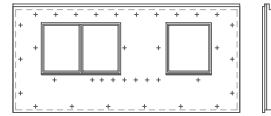
LOGGIA WALL PANEL



EXTERIOR WALL ELEMENT - LONG WALL



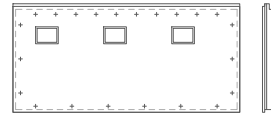
LOGGIA CEILING PANEL



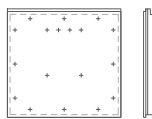
EXTERIOR WALL PANEL – LONG EXTERIOR WALL



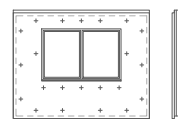
LOGGIA RAILING PANEL



EXTERIOR WALL PANEL - BASEMENT



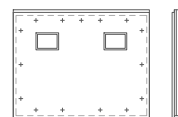
EXTERIOR WALL PANEL- GABLE WALL



EXTERIOR WALL PANEL – LONG WALL



BATHROOM WITH TECHNICAL SHAFT



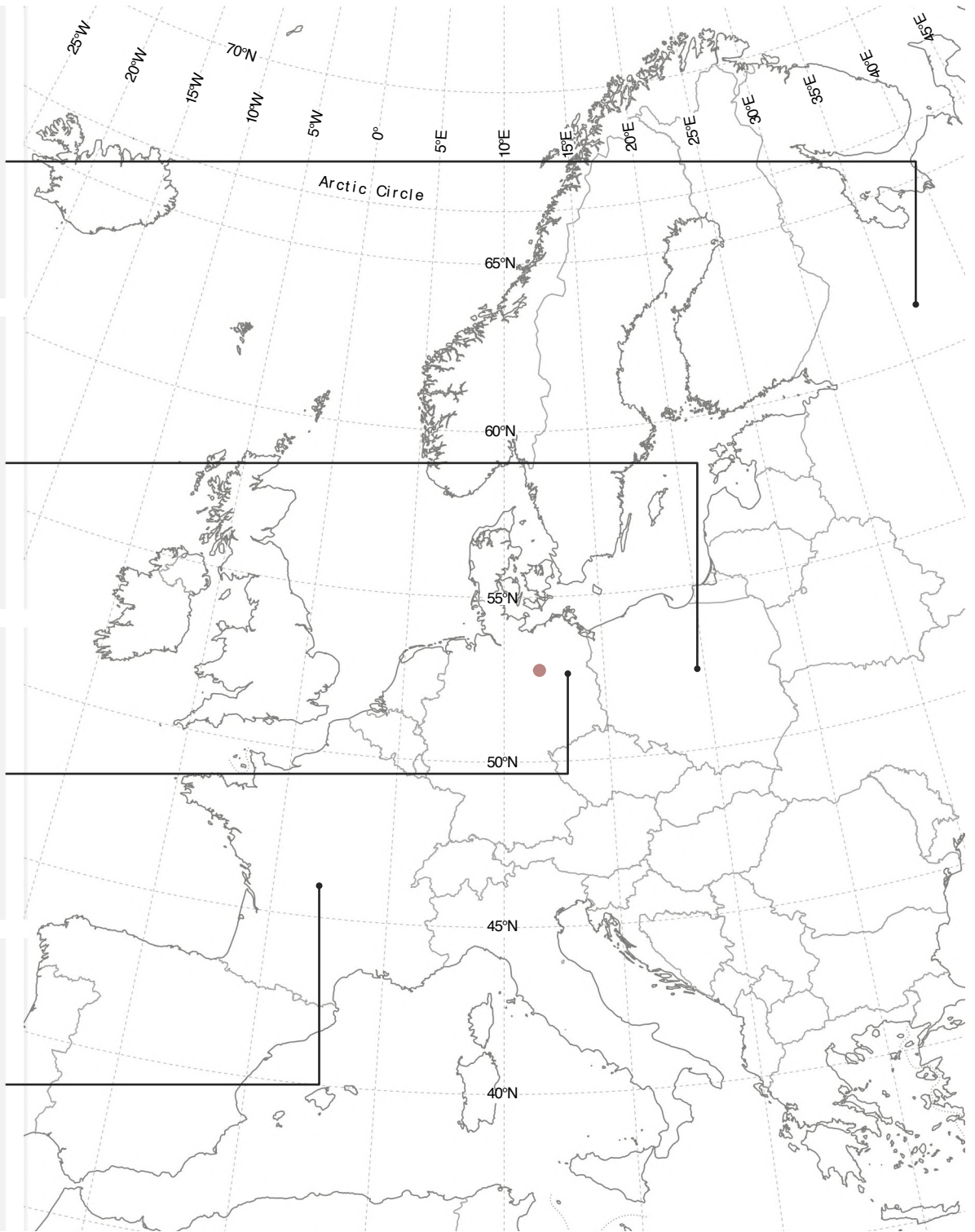
EXTERIOR WALL PANEL - BASEMENT

II-35
USSR
1956

SBO
USSR
1970s

P2
GDR
1963
WBS70
GDR
1972

System Camus
France
1948



The origin and travels of the WBS70 prefabricated elements:

The history of panel development is linked to the history of housing in Europe. We can track the relations between countries by looking at the panels' exportations.

PROJECT SITE
WBS 70

Figure 11. Map European countries outlines.

PREFABRICATED ELEMENTS

The first WBS 70 was developed in 1972 by the architects Wilfried Stallknecht, Achim Felz and Herbert Kuschy, who further improved the standard Platte, suggesting even fewer components than the previous version and would be assembled in the same way across East Germany. This method would make the construction cheaper and easier, therefore more suitable to answer the ambitious housing program.

Indeed, from the first building finished in Neubrandenburg in 1973 to the fall of the wall in 1989, almost 2 million Plattenbau were built out of which 42% are WBS 70 (644 900 dwellings), and their monotone facade became the

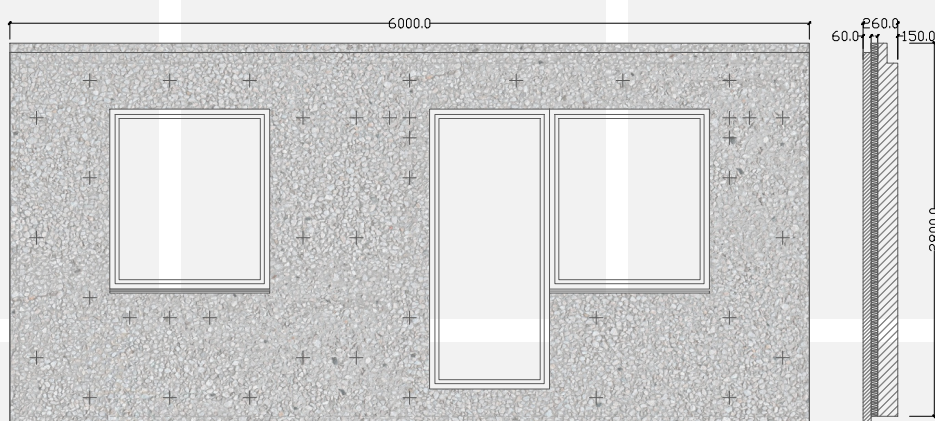


image of the urban landscape (Ludwig, 2020). But the story of prefabricated elements started before the WBS 70 and continued after. About five billion square meters of prefabricated houses were built across the world (Alonso and Palmarola, 2019). The genealogy of the prefabricated panel's patents traces the relations and influence between countries during the 1950s. However, the story and travels of the panels are a phenomenon both in the Western and

Eastern worlds.

On the map, only the genealogy of the WBS70 panels is traced. The French engineer Raymond Camus patented the first prefabricated panels in 1948 to answer the needs for a fast construction method during the post-war housing crisis. This patent was bought by Moscow in 1956 and the Camus panels evolved into the II-35 panels, which were then exported across the USSR. In the GDR, they were developed by the architect Wilfried Stallknecht first as the P2 panels, then, in 1963, as the WBS 70 and played an important role in the DDR housing history.

Initially, the unified catalogue of prefabricated components was thought as a system versatile enough to make multiple designs possible. The Soviet style gave guidelines for an architecture that should follow simplicity, functionality, ease of production, economic materials and clear, readable composition that would be timeless, made possible by the systematic production of the base elements (Alonso and Palmarola, 2019).

Figure 12. WBS 70, prefabricated facade panel.

T I M E L I N E

Foundation of Bauhaus school

1920

Neues Frankfurt movement

1930



Prefabricated panel housing is widespread across the world, and many share similar childhood memories despite the different locations.

UTOPIAN PLATTENBAU

In designing large-scale prefabricated social housing estates, architects drew inspiration from ideas emerging from the movements of the first half of the century. The models presented by the Bauhaus school in the 1920s and by the Neues Frankfurt movement in 1925, initiated by urban planner Ernst May, provided the ideological inspiration for the development of standardised, functional housing. Eager to help spread these ideas, engineers and architects such as Wilfried Stalknecht worked to establish an architectural style based on technological and industrial progress. The prefabrication method is regarded as a virtuous approach because it offers the fairest and most efficient way of providing a large number of homes (Alonso and Palmarola, 2019).

The 1960s marked the heyday of prefabricated housing. The 'Plattenbau' were dream homes for which waiting lists could be as long as two years (Koelbl, 2020). Urban planning principles were adopted to improve residents' living

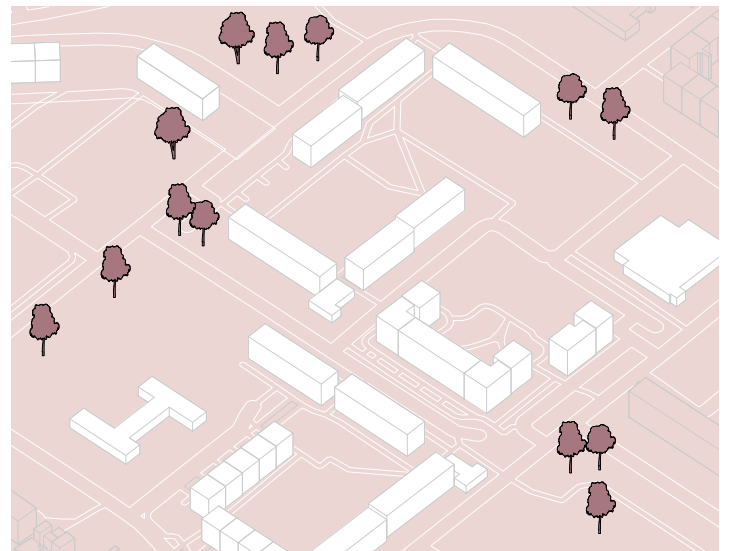
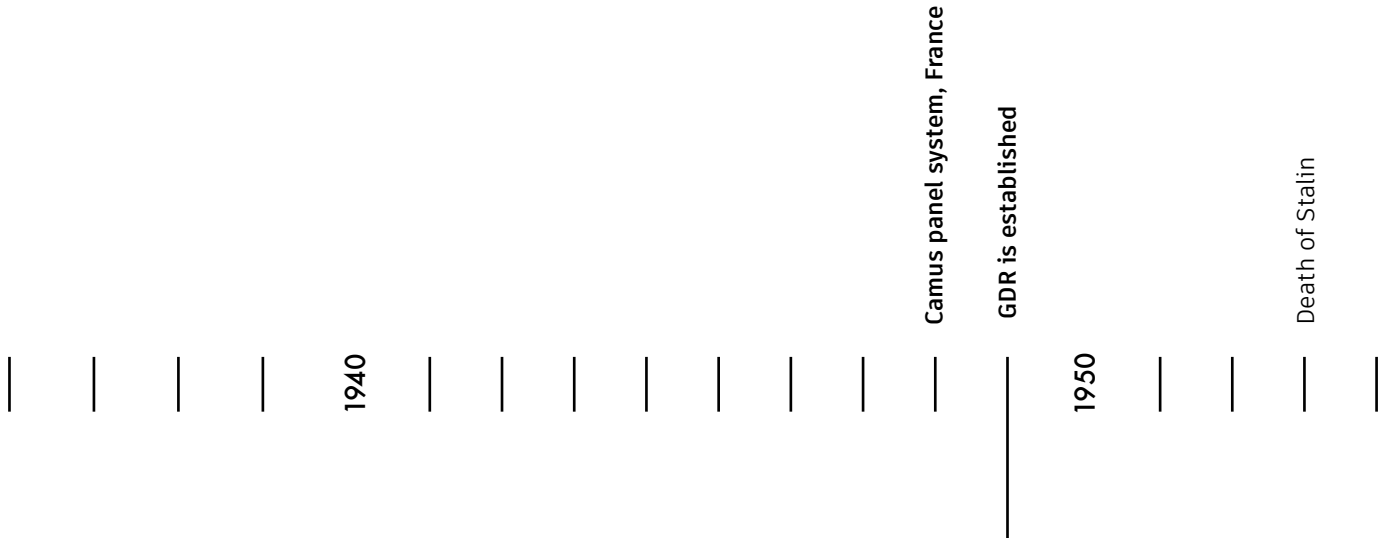


Image 12. Playground in Stendal-Stadtsee.
Figure 13. Plattenbau surrounded by green spaces.



conditions. In Germany, a minimum subsistence level was defined (the 'Existenzminimum' established by Ernst May) to provide functional housing for everyone and to support a healthy and dignified Modern life. Indeed, as city centres were slums, the Plattenbau offered a healthier and more comfortable alternative, surrounded by greenery and away from the old centres. These residential areas are also separated from industrial zones, typically associated with heavy industry (van Tuijl and Maarten, 2016). Thus, they offer a promise of freedom and comfort. Across the socialist territories, approximately 170 million people were to be housed in these residences. As such, the ideal socialist city features a perfectly planned layout, organised by function. Each residential neighbourhood has a sub-centre comprising a Kaufhalle, a clinic, a pharmacy, a post office, restaurants, a school, nurseries and sports facilities (Kërçuku, 2023).

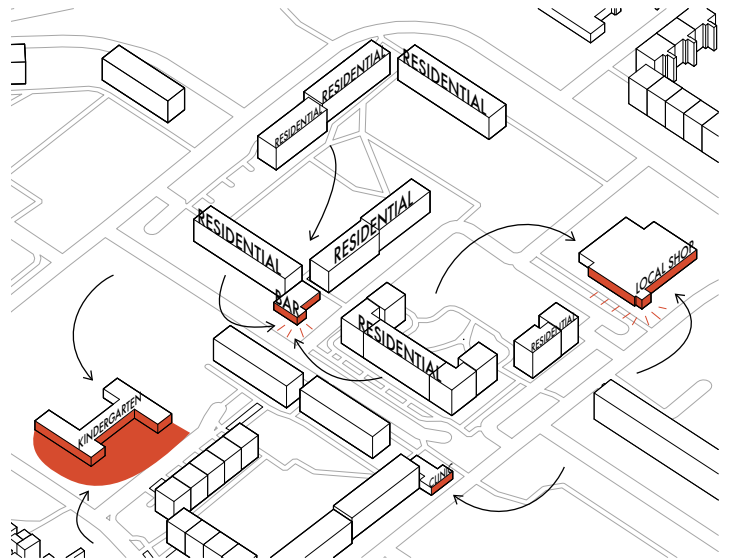


Image 13. Model for the planning of Stendal Stadtsee in 1973, Stendal City Archives.

Figure 14. Map GDR.

Figure 15. Local services: grocery store, kindergarten, bar.

II-35 panel system, USSR

P2 panel system, GDR

WBS 70 panel system, GDR

1960

1970



Image 14&15. Stendal-Stadtsee in 1975, Stendal City Archives.
Image 16,17&19. Construction of a Plattenbau, Stendal City Archives.

1980

“The decisive battle against architectural excess and ornamentation has led to a triumphant new style: a creative aspiration characterised by honest architectural solutions and forms. We have overcome the grave consequences of the cult of personality.”

Georgy A. Gradov, chairman Commission for Theory and Criticism
Conference Central House of Architects, Moscow, 1963

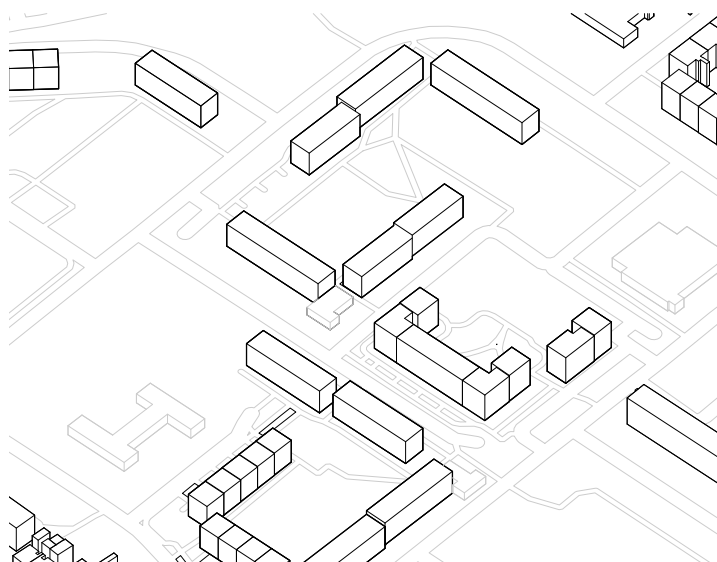
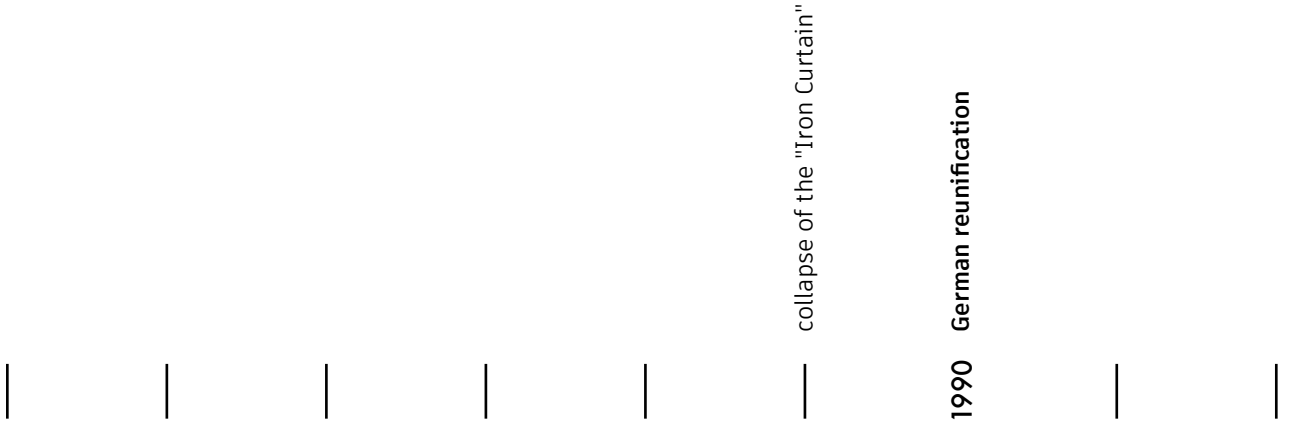


Figure 16. Identical housing blocks.

DYSTOPIAN PLATTENBAU

The 1970s already marked the beginning of the decline of standardised planning. Indeed, criticism of this system began to emerge. For example, the first city presented by Superstudio in their 1971 book, *Twelve Ideal Cities*, criticised the new urban models by depicting dystopian scenes illustrating how humanity might live in such urban complexes. The dream of technological progress aimed at accelerating construction and making housing accessible to all had rapidly turned into an obsession with economic rationalisation. Pre-fabrication becomes merely a tool for achieving political objectives (Alonso and Palmarola, 2019). This economic pressure leads to a decline in quality and a failure to fully exploit the possibilities offered by the pre-fabrication system. The design of housing estates focuses exclusively on meeting urgent housing needs. The result is a lack of spatial quality in buildings designed to accommodate conventional nuclear families, and vast, deserted outdoor spaces (Fallon, Hirsch, Laenen, Serroen, Vandepaer, 2024). Built as autonomous micro-neighbourhoods, they suffer, as is the case with the town of Stendal, from poor connections to the rest of the town, reinforcing segregation and weak social cohesion. These isolated neighbourhoods deteriorate due to a lack of human-scale maintenance. Surprisingly, however, whilst this spatial isolation and lack of maintenance are widely recognised as having contributed to the marginalisation of modern districts, they are not viewed by the majority of the public as critically as the extreme monotony of the façades. The endless repetition of the panels is criticised because it does not align with postmodern tastes, which reject any form of monotonous, radically desaturated and utopian aesthetics (Alonso and Palmarola, 2019).

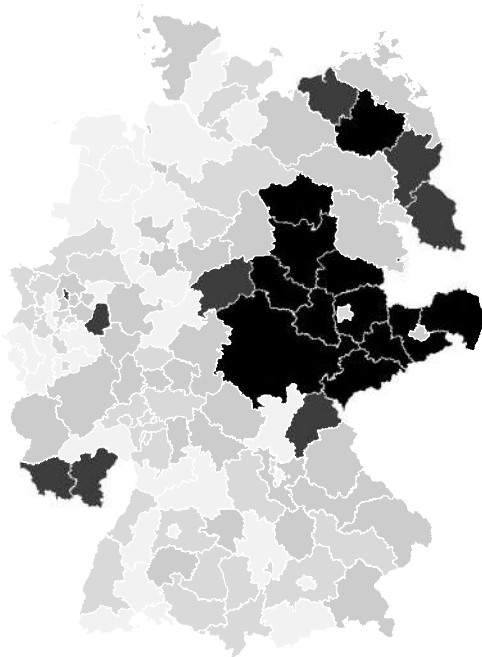
During the 21st century, large housing estates have been stigmatised and marginalised, and efforts have been made to demolish them; however, it is conceivable that these prejudices will fade and that these estates will regain their value, just as was the case with pre-war buildings that were considered outdated in the 20th century (Simon, 2022).



GERMAN REUNIFICATION

The Berlin Wall fell in 1989, and German reunification took place within a relatively short period of time, leading to a complete and drastic reorganisation of the political and industrial landscape in the eastern territories (Kerçuku, 2023). Trends then shifted towards Western models, and housing was no exception. They lead to a desire for individualisation and privatisation of residential space. Another dramatic impact on socialist housing estates is the mass exodus of the population to the West in search of work (Kerçuku, 2023). Indeed, following the reorganisation of industry, there is a shortage of work opportunities leading to a significant demographic decline; now accentuated by the ageing population and lower birth rates, generalised phenomena across Europe (Kerçuku, 2023). Prefabricated housing, therefore, faces the following challenges: the exodus of residents to the west and the desire for detached houses in the suburbs. Added to this is the encouraged return to city centres, the urban planning strategy favoured during the reorganisation of towns and cities.

This urban reorganisation took place in several stages (Kerçuku, 2023). In the early years following reunification, efforts are made to prepare for urban growth whilst denying the phenomenon of population decline, which was already quantifiable, and the façades of large social housing estates are renovated and painted. Towards the end of the 1990s,



LEGEND

- Strong housing overhang
- Housing overhang
- Balanced market
- Housing deficit
- Strong housing deficit



Figure 17. Housing market situation in Germany at the end of 2022, pestel institute.
 Figure 18. WBS 70, vacancy and decay.

2000

the spatial impact of population decline is measured. Initially, a strategy of temporary uses ('Zwischennutzungen') is adopted in the hope that cities would regenerate (Dubeaux, 2017). The term 'shrinkage' is introduced by sociologists Haussmann and Siebel to describe the phenomenon of the irreversible shrinking, in terms of population and space, of cities (Dubeaux, 2017). In response to this phenomenon of shrinkage, federal funding programmes such as Stadtumbau Ost in 2002 were introduced to finance demolition. This demolition was carried out in the hope that the devaluation of certain parts of the city would lead to the regeneration of others. In the case of the Hanseatic city of Stendal, the demolition of prefabricated social housing on the outskirts of the city was carried out in order to increase the density of the city centre. The regional project aimed to keep the city centre alive as it is recognised for its historical significance. By improving public services, the aim is to make the old town attractive to families with children and thereby reconcile family life with working life (IBA, 2010).

The key characteristics of post-reunification decline are: suburbanisation, deindustrialisation, emigration and an ageing population. They represent a major challenge for the 21st century, not just in Germany, which is why it is important to reopen the debate on the future of declining large housing estates.

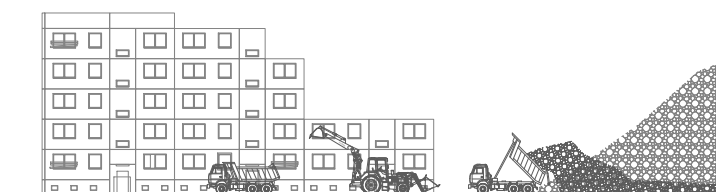


Figure 19. WBS 70, demolition and landfill.
Image 20. Vacant WBS 70 in Stendal-Süd.





The sources consulted for this study describe how residents of Plattenbau blocks are victims of marginalisation and stereotypes.

PLATTENBAU STORIES

Today, attitudes towards Plattenbau differ greatly. There is a huge gap between revulsion and fascination. Some would describe late modernism standardised buildings in pejorative terms, emphasising its ugliness and the lack of safety in residential neighbourhoods. The media paints a rather gloomy picture of life in these prefabricated districts. Yet others do indeed find a certain poetry there, an attitude that is particularly prevalent among artists, photographers and film directors. Through the eyes of contemporary artists, one can find beauty in large, prefabricated housing estates. These works play an important role in shifting perspectives regarding the value of their preservation. This fascination can also be historical or nostalgic. A term described with humour enthusiasts of the former East: *Ostalgie* (Maleschka, 2026).

However, the aesthetic approach focuses on physical structure. More important to consider is the residents' lived experience. Here too, opinions differ significantly. The study interviewed residents of the buildings. To preserve anonymity, the study uses the typological atlas letter X of Renée Gailhoustet (see page 45); they will therefore be referred to as 'Monsieur X' and 'Madame X'. These umbrella terms are used not to address the gender of the protagonists, but to introduce the description of social housing residents provided by the architect and theorist Renée Gailhoustet in her typological atlas publication at the letter X of her "Architectural Alphabet".

Following these discussions, two generalisable but non-exhaustive profiles are presented, reflecting two divergent attitudes towards living in prefabricated housing. Monsieur X does not live in a Plattenbau by choice. The two-room flat he was allocated by the Hanseatic city of Stendal, for which he pays 500 euros a month, is only a temporary solution before they can settle into a permanent home. The walls are thin and cold, and mould has taken hold in the corners of the ceiling. Having recently sorted out his papers to remain in Germany, he lives on the third floor with his family. The majority of families in the neighbourhood are of foreign origin (Sieler, 2026). The single bedroom

X (MONSIEUR OU MADAME)

C'est-à-dire le locataire HLM.

Quand un architecte construit pour un client défini, aux ressources de préférence confortables, il apprend à mieux le connaître, engage un dialogue, il découvre complicités ou conflits avec le futur habitant. Malgré le rêve toujours présent d'une participation des usagers, les logements à venir dans la construction sociale ne connaissent pas le visage des futurs occupants. C'est pourquoi il nous paraît vital de ne pas assimiler le logement à une cellule, de prévoir des relations entre les pièces, les volumes, les espaces extérieurs, aussi variés que possible, où chaque individu puisse trouver la coquille qui lui convient. Madame X, irréductiblement, est un individu."

X (SIR OR MADAM)

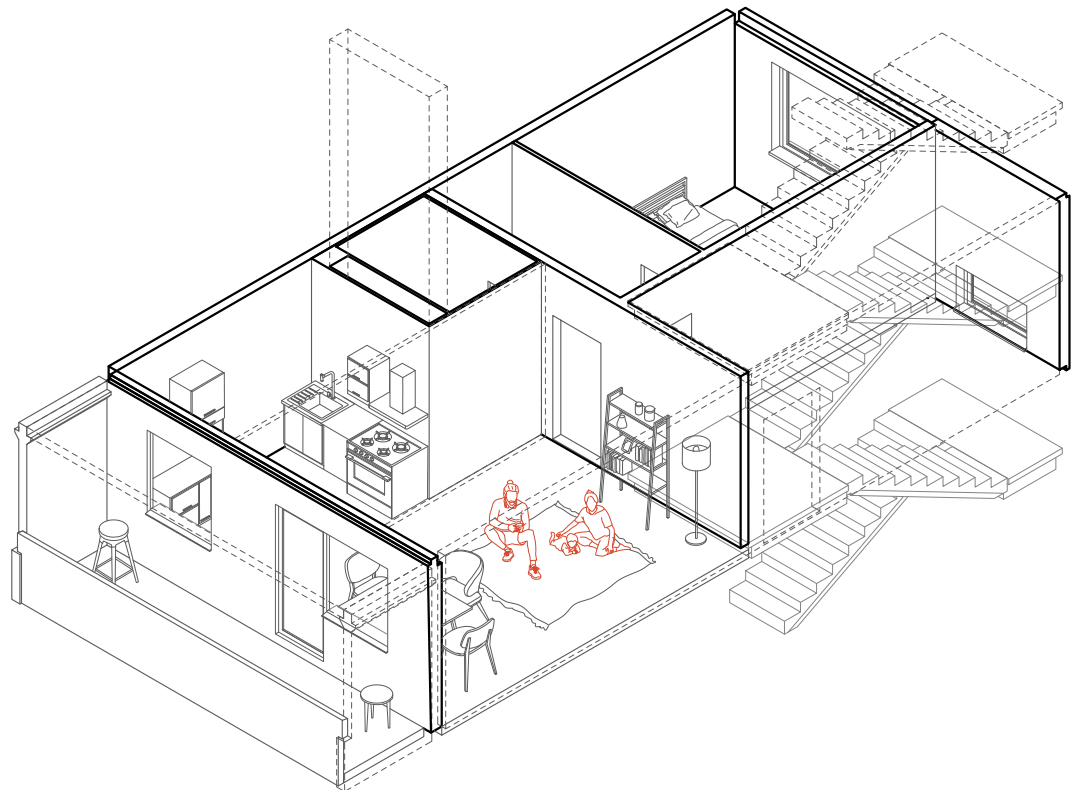
That is to say, the social housing tenant.

When an architect builds for a specific client, preferably one with comfortable resources, they get to know them better, engage in dialogue, and discover areas of agreement or conflict with the future occupant.

Despite the ever-present dream of user participation, future social housing developments do not know the faces of their future occupants.

This is why we believe it is vital not to treat housing as a cell, but to plan for relationships between rooms, volumes, and outdoor spaces that are as varied as possible, where each individual can find the shell that suits them. Madame X is, uncompromisingly, an individual.

Renée Gailhoustet (1929-2023),
Architecte Architectural Alphabet,
France, 2009



accommodates the couple and their newborn baby. The stroller stays in the hallway by the entrance as it is too bulky to take up the stairs. Mr X's daily life revolves around German lessons whilst he waits to find work. It was on his way out for a Sunday promenade around the nearby lake that he agreed to share his experience.

Madam X lives in a Plattenbau by choice. She has always lived in a Plattenbau. The interior of the three-room flat she rents for 700 euros a month has been renovated and the building's façade has been painted. However, because the walls are poorly insulated, the flat gets very cold in winter. The lack of a lift is her only concern; she chose to move to

Figure 20. Original layout, Monsieur M's apartment.

2030

2040

the first floor a year ago to spend her retirement there. On the first floor, there is still half a flight of stairs to climb. She gets around by bike and prefers to store it in her flat. The rooms are small, but the interior space is sufficient for her. The bathroom opens onto the outside and is spacious enough to accommodate a shower with a seat. The south-facing balcony overlooks a garden well maintained by the municipal authorities. The flat is cross-ventilated and every window looks out onto trees and green spaces, which delights her. It was over a cup of coffee in her living room that she agreed to share her experience.

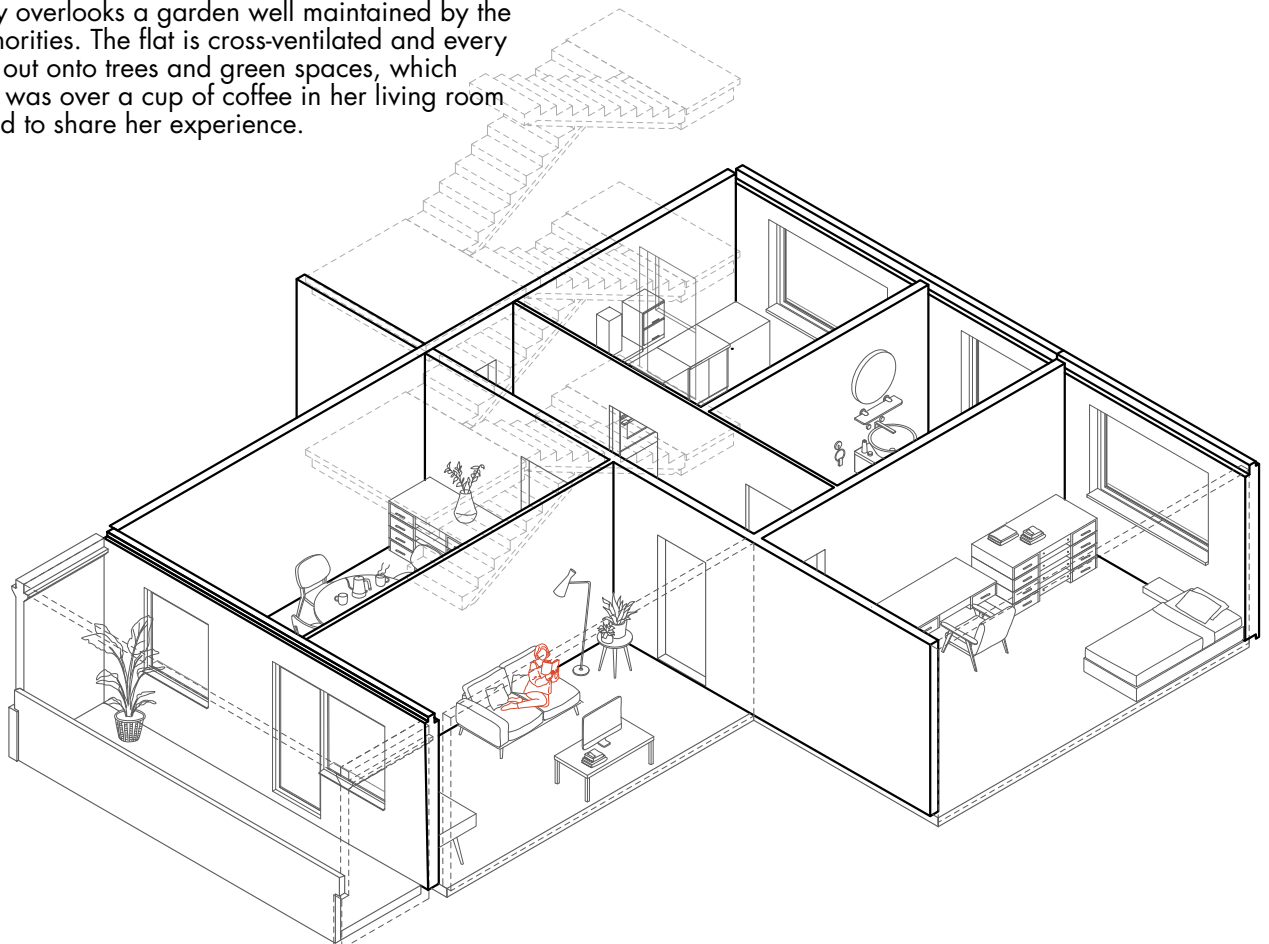


Figure 21. Renovated layout, Madam M's apartment.



PLATTENBAU STORIES



The housing estate companies are desperate about the unmanageable vacancy situation. The journal der Spiegel quotes a worker at SWG who says,

“ There is only Dynamite left to help” (Koebl, 2020, p. 88).

Image. 22. Stendal-Stadtsee representation in the Journal der Spiegler, 2020.

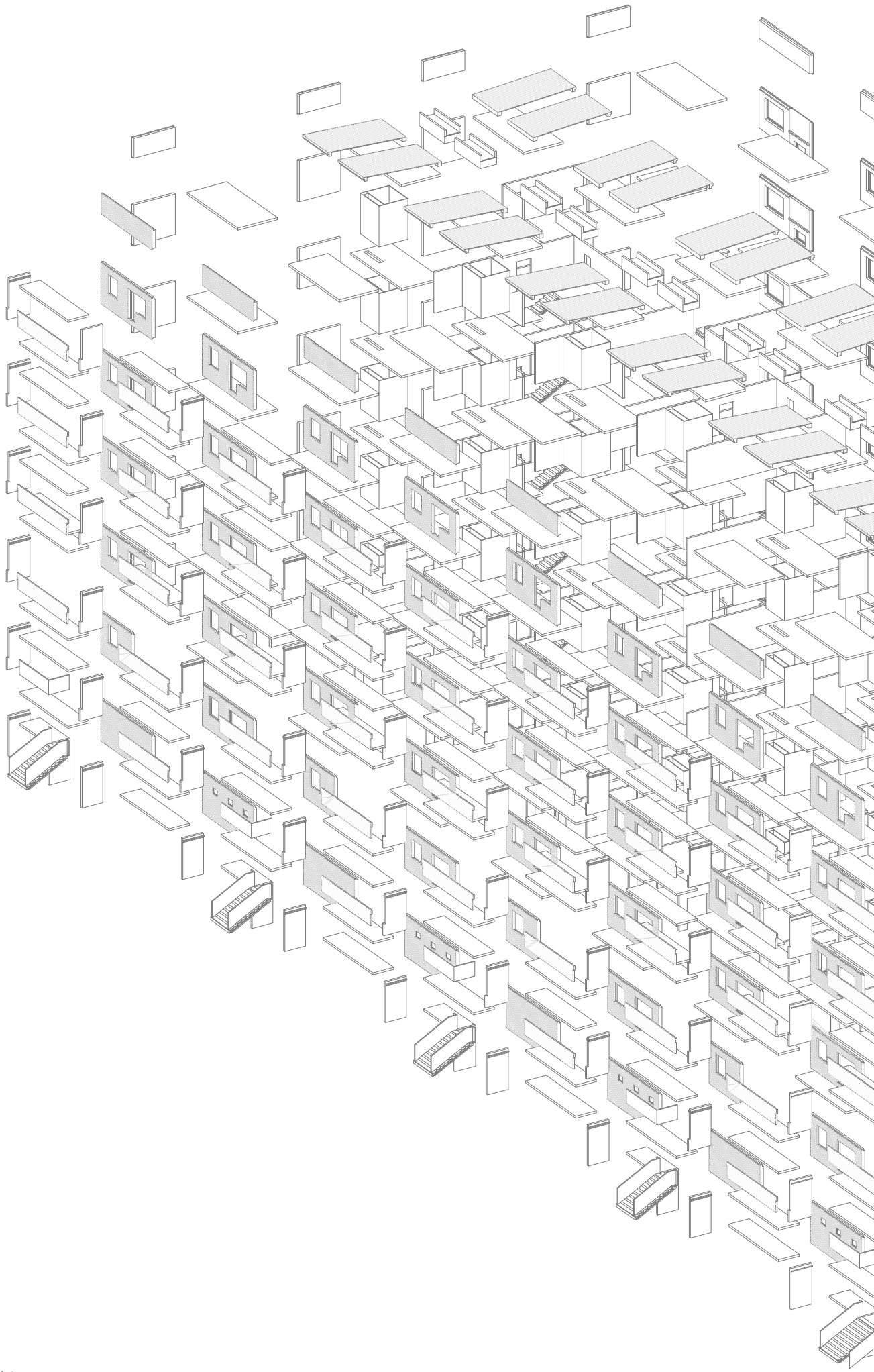
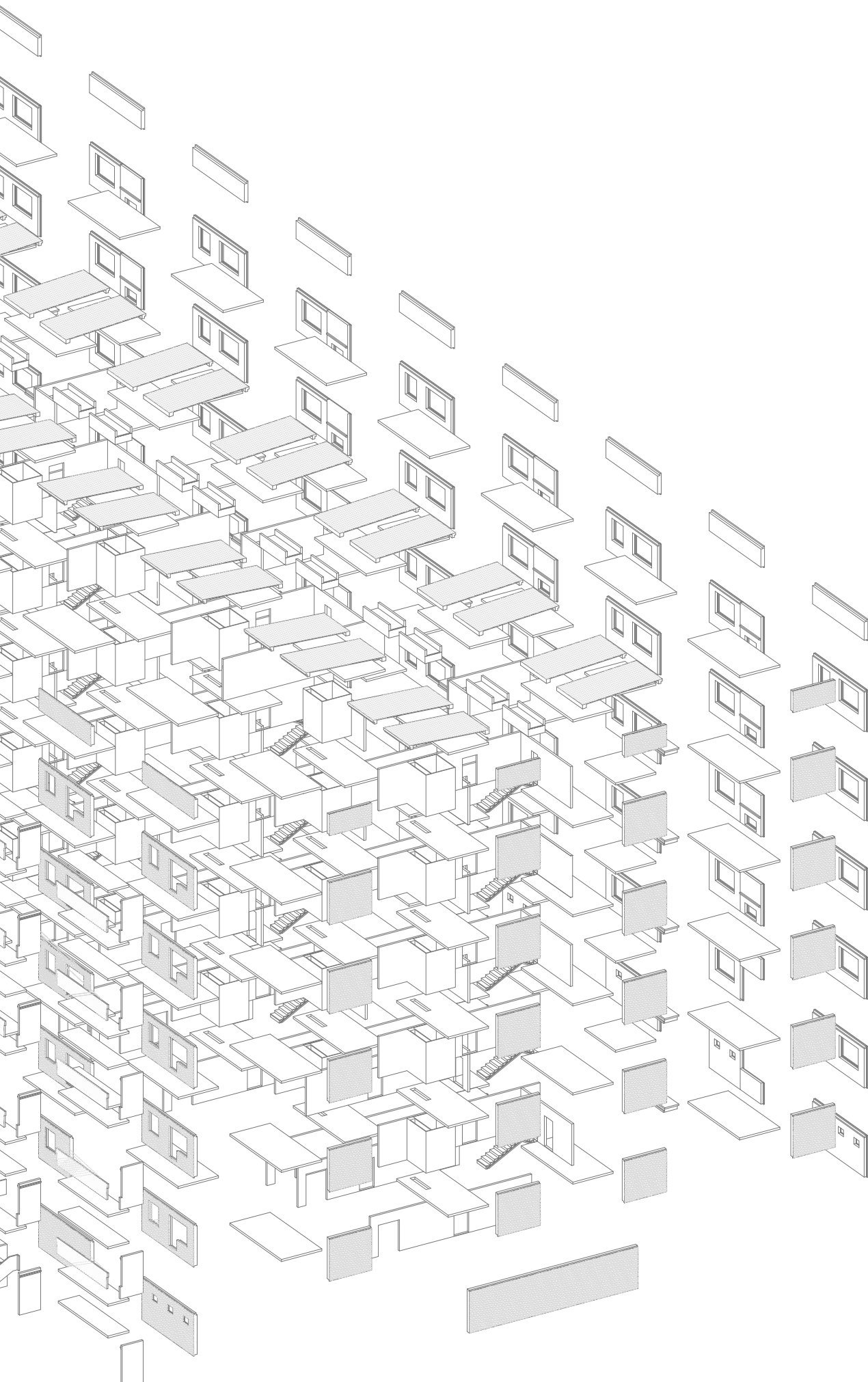
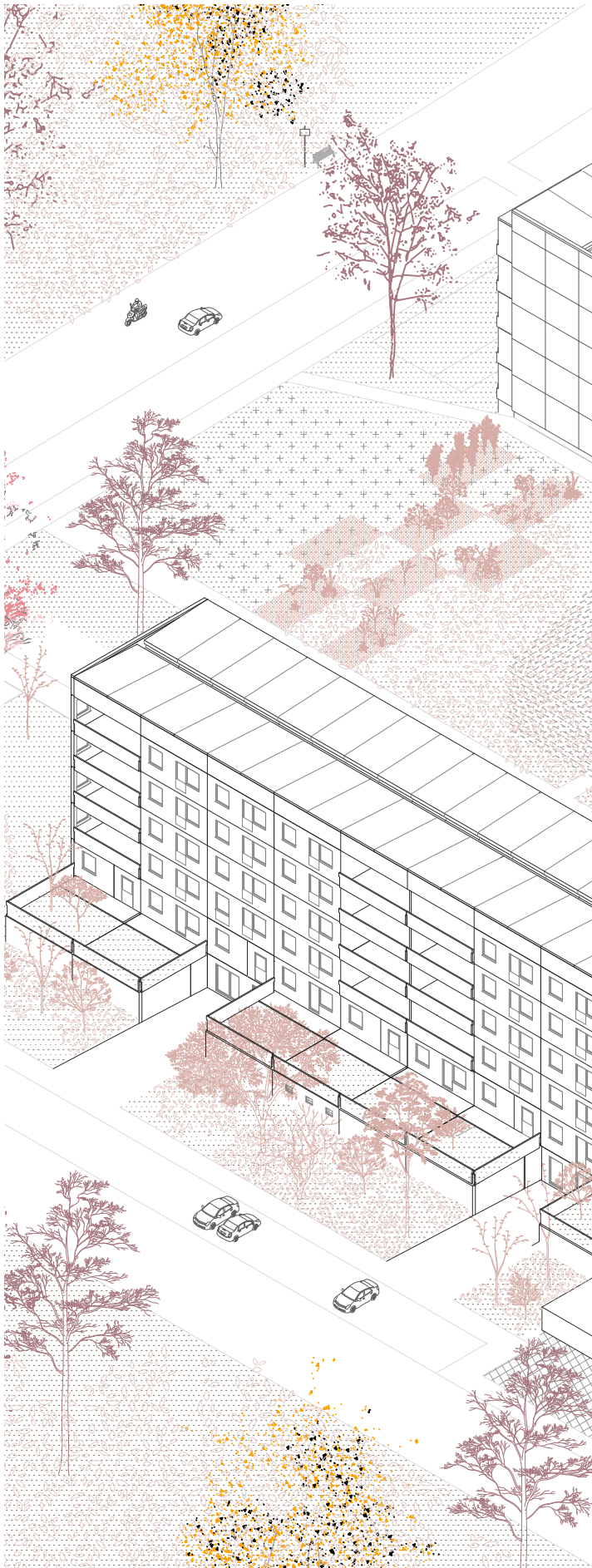


Figure 22. WBS 70, (de)composition.



TRANSFORMATION DESIGN
PLATTENUMBAU



TRANSFORMING PLATTENBAU

The adaptability of mass-produced social housing is a key issue in the debate on the city as a renewable resource (van Tuijl and Maarten, 2016). This chapter introduces the discussion on the future of the modern housing stock, specifically that of the Plattenbau. While it has been previously examined, more is needed to explore opportunities for their preservation. Needless to mention, the situation regarding this vast housing stock is urgent: it is ageing rapidly with little maintenance, as it stands unoccupied and was built under the utopian impulse of a state that no longer exists.

Looking on the history of the rise and decline of the Plattenbau sheds light on the political influences shaping the construction and maintenance of housing. As the question of built space (or excess built space) is central, architects and the Architecture discipline has a responsibility and a role to play in the conservation of this heritage. In the face of environmental challenges, the trend is towards circularity and reuse, a promising trend for the regeneration of Plattenbau, offering an alternative perspective to the *tabula rasa*, a *modus operandi* now a century old.

The study of three projects involving the regeneration of modern heritage has helped to expand a personal catalogue of references for a typology that is still under-represented. The first is the masterplan for the regeneration of the Peterbos housing estate in Brussels, which operates on multiple scales, from the neighbourhood down to individual dwellings, and addresses a range of technical and social aspects. This holistic project offers an insight into the various complementary approaches required to tackle the complexity of the subject. The second is the work of Stefan Forster Architects, who have been working on the radical transformation of Plattenbau since German reunification. The third is the ongoing work of the undjrekbrüggen practice, which focuses on the typological transformation of Plattenbau. This last project is currently under construction in the town of Stendal.

One challenge is to instill an urban spirit into single-use zoned neighbourhoods and to address their social

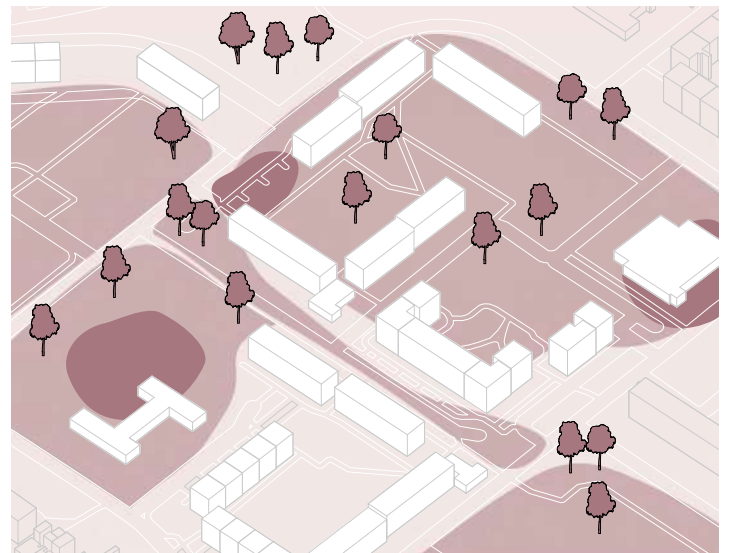
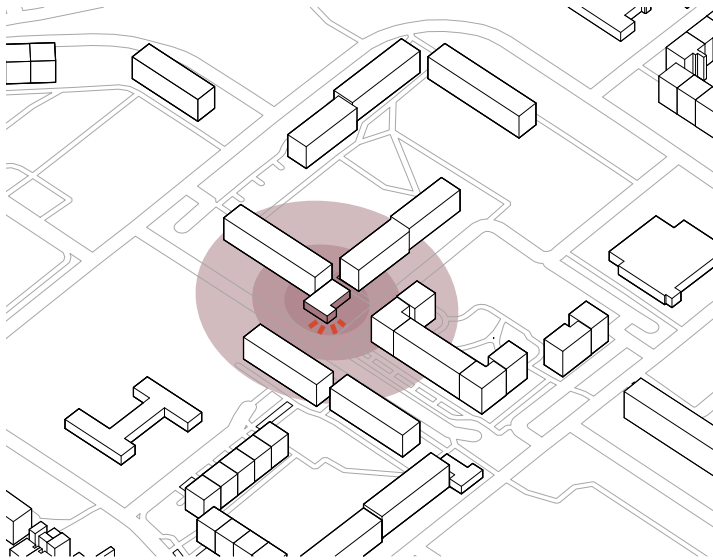


Figure 23. Axonometry transformation.

Figure 24. Planning the outdoor environment.



segregation (Fallon, Hirsch, Laenen, Serroen, Vandepaer, 2024). The Peterbos regeneration project tackles this issue by developing a landscape design for the area around the apartment blocks. The neighbourhood is being reintegrated into the city and the housing reconnected to the ground through the development of infrastructure, in addition to the renovation of the housing units.

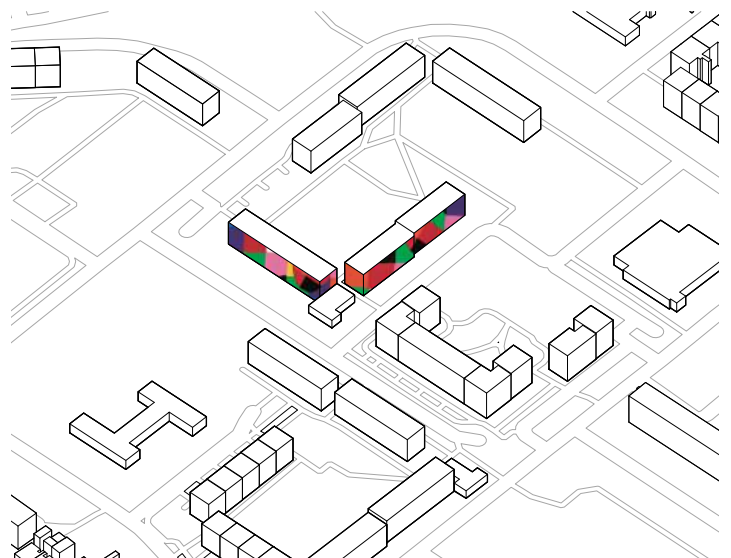
The case of the town of Lienefeld-Worbis in Germany is similar to that of the town of Stendal. When its Plattenbau blocks began to stand empty, a competition was launched to transform the buildings of the modern district. While the postmodern approach elsewhere was beginning to address monotony by painting the façades, architect Stefan Forster proposed a more radical alternative to meet new expectations regarding housing. This approach is better suited to the long-term sustainability of the Plattenbau, as it is not enough to simply insulate the building envelope and replace the technical installations without interventions that could improve the habitability of the dwellings (Fallon, Hirsch, Laenen, Serroen, Vandepaer, 2024). Through his work, the architect demonstrates the many plastic possibilities of the precast modular system. He addresses the neighbourhood's challenges by proposing a break from monotony and seriality, combined with the privatisation of outdoor and living spaces. The projects introduce changes in internal layouts, reorganising kitchens, bathrooms and balconies that no longer meet current needs. To reduce the number of prefabricated units, partial demolition is planned and rubble is converted to fill, providing cost effective disposal and new soil for private gardens and terraces. These concepts of individualisation mark a complete rejection of the communist and post-communist principles. They follow a postmodern aesthetic that breaks from the universality and uniformity (Alonso and Palmarola, 2019). Paradoxically, it is the very urban and architectural characteristics that have been criticised which offer such a degree of transformability. Indeed, level zero architecture and extreme rationalisation can be interpreted as a neutral material basis for development (Fallon, Hirsch, Laenen,

Figure 25. Public function that gives identity to the area.
Figure 26. Towards greater diversity.

Serroen, Vandepaer, 2024).

In Stendal, some buildings have had their number of storeys lowered from five to three or have been given new, colourful loggias. In 2022, the budget originally allocated for the demolition of a building was reassigned to an architectural firm for a conversion proposal. The project proposed by Architect Jurek Brügggen involves a complete change in the typology of the flats, transforming them into multi-storeys 'familienhaus-haus' (a house of family homes), the most popular type of housing among Germans at present (Brügggen, 2025). By introducing this idea, the Plattenbau becomes the canvas for a repeatable yet non-systemic conversion system, the advantage of which is that it offers a variety of different homes. Consequently, monotony and repetition are broken by making the most of its potential. The six-metre-by-six-metre structural grid is maintained, allowing for conversion without altering the structure, as it is in good condition. The aim of this transformation strategy is to provide spacious yet affordable housing. By offering larger dwellings through the combination of storeys, the project seeks to achieve appropriate de-densification in cities where the population is declining. As a result, architecture becomes a tool for regulating the process of urban shrinkage. This transformation aligns with a philosophy reflected in the architect's practice: working to make such residential areas more attractive rather than further densifying already dense cities. As with Forster's transformations, the dramatic changes are designed to put the Plattenbau in the spotlight.

In both cases, such a radical transformation is only possible because the buildings are completely vacant. Here we can already see the creative opportunity made possible by the phenomenon of shrinkage. However, both firms propose radical and irreversible changes. By altering the façade, the architectural identity is significantly altered; here, the nature of the original building and its interpretative framework are lost. The transformed Plattenbau are indistinguishable from new buildings (Maleschka, 2026).



Document type:
South Elevation

Theme:
Programatic
distribution

FUNCTIONS

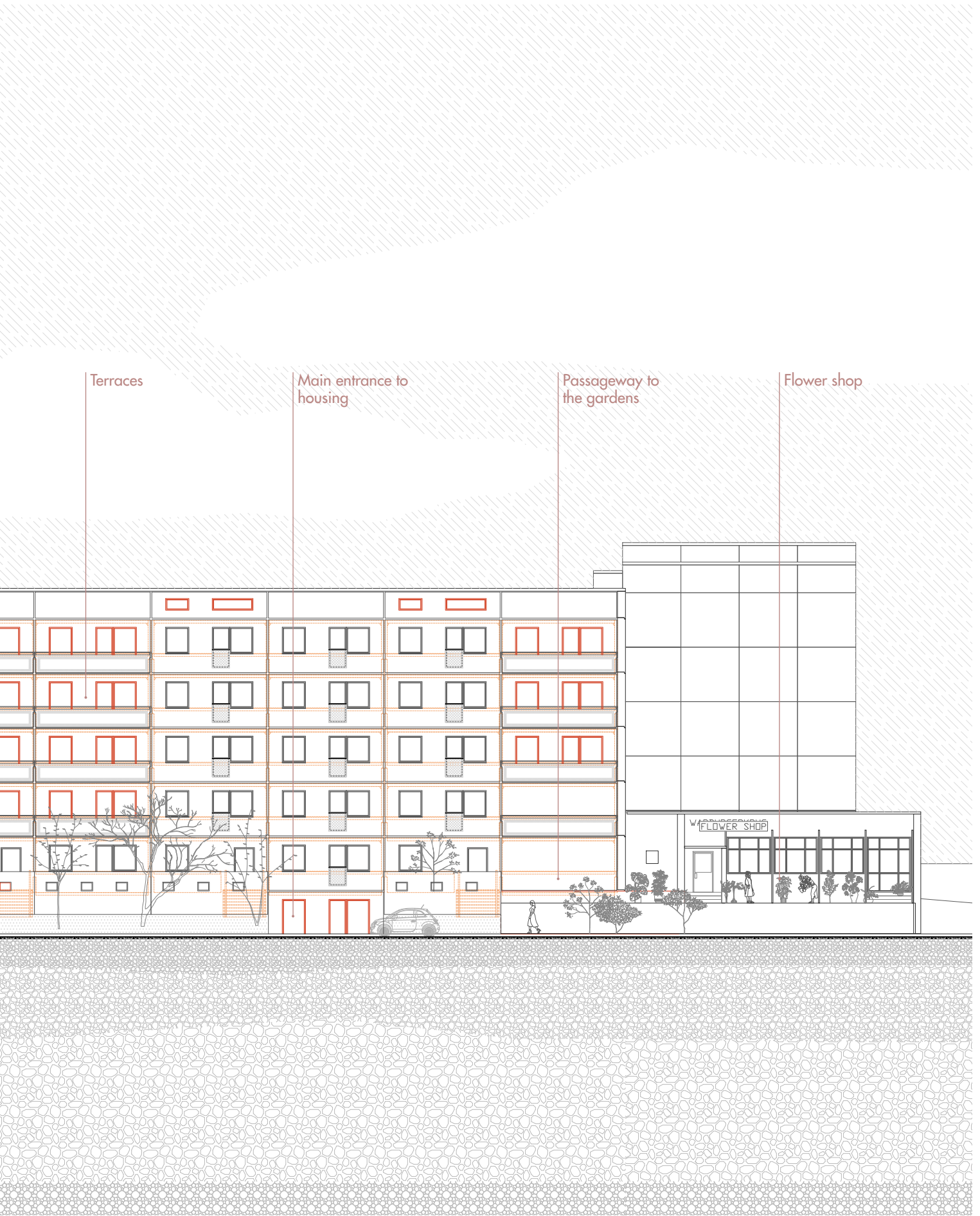
TRANSFORMATION



Legend:

- Existing
- Addition
- Reuse
- Demolition





Terraces

Main entrance to housing

Passageway to the gardens

Flower shop

Document type:
Transversal section

56

Theme:
Circulation

Scenario:
An ageing
population and
families with
young children

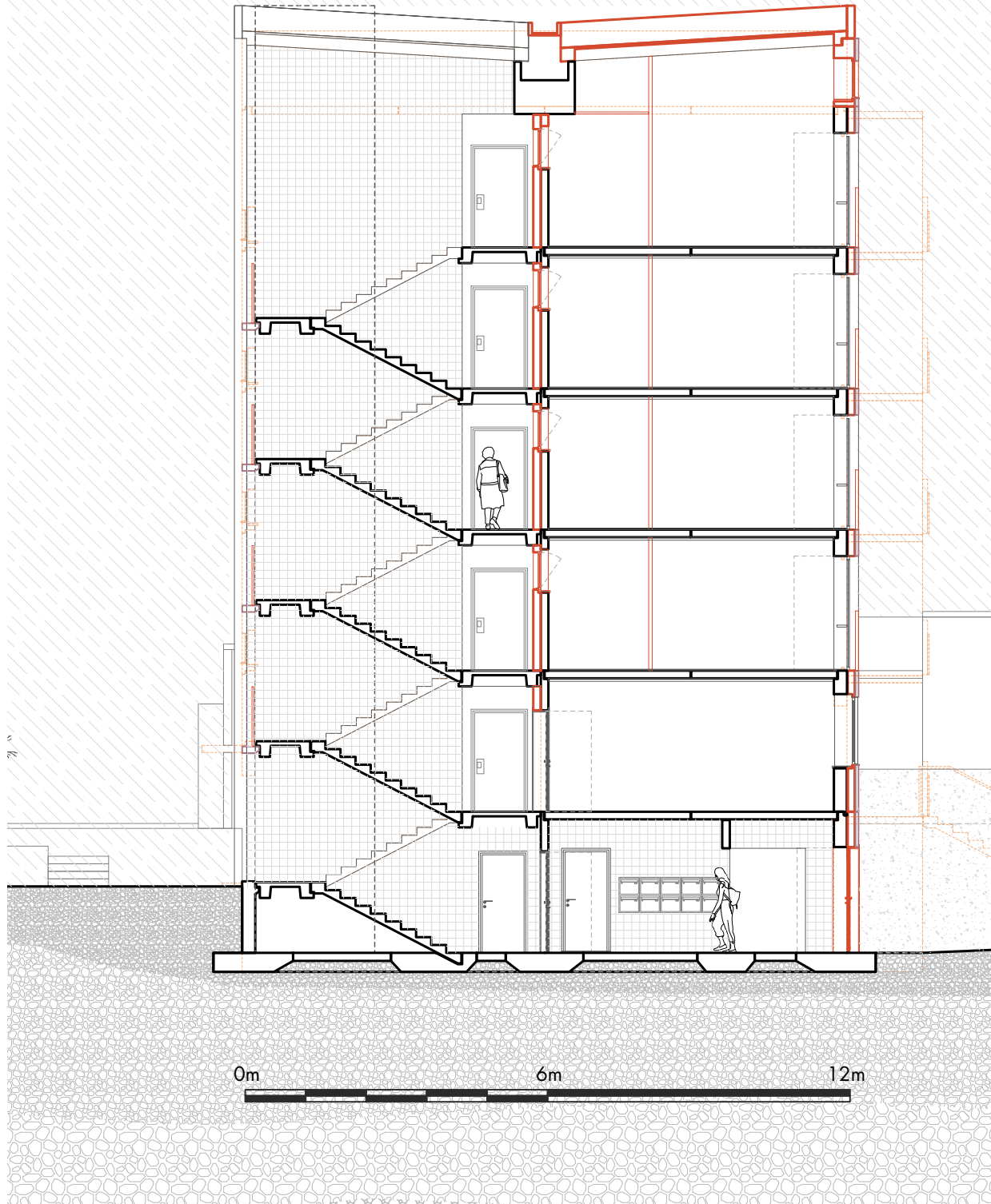
Construction work:
Installation of a lift

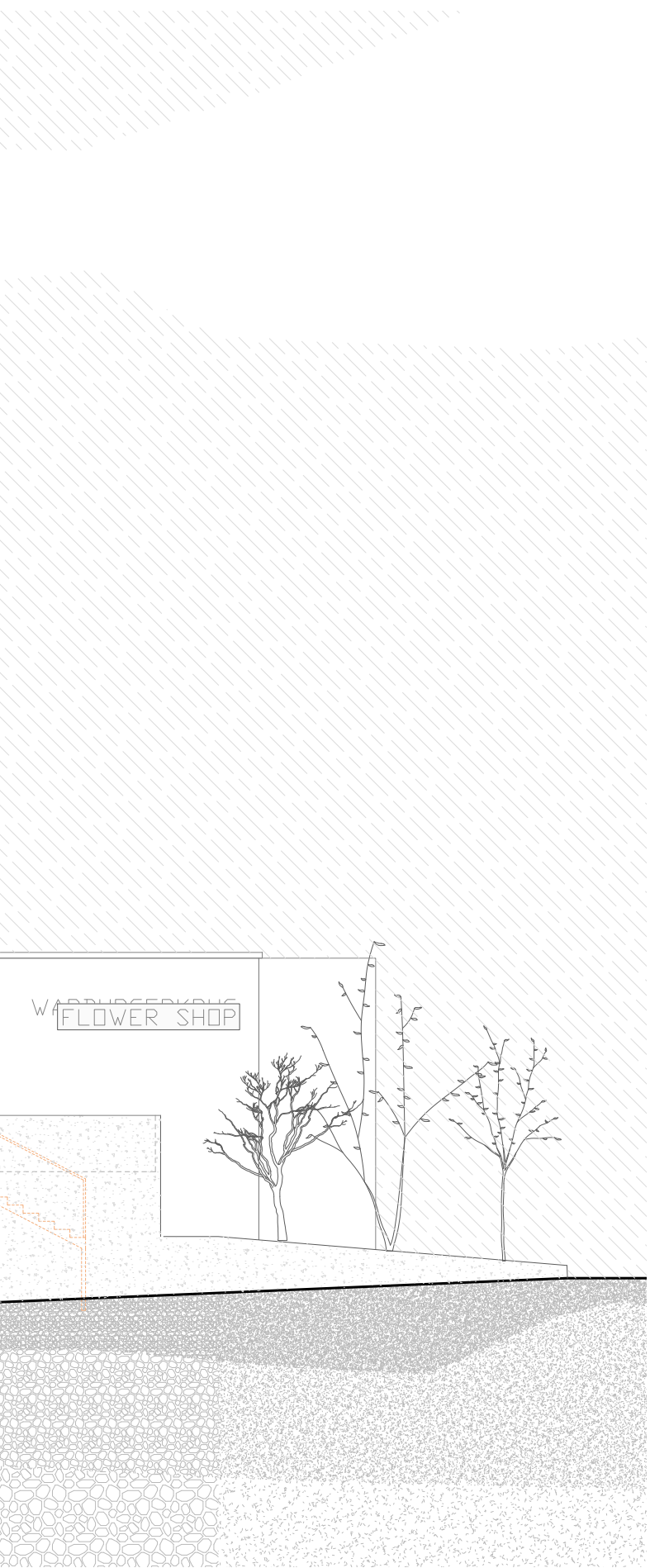
CIRCULATION

Legend:

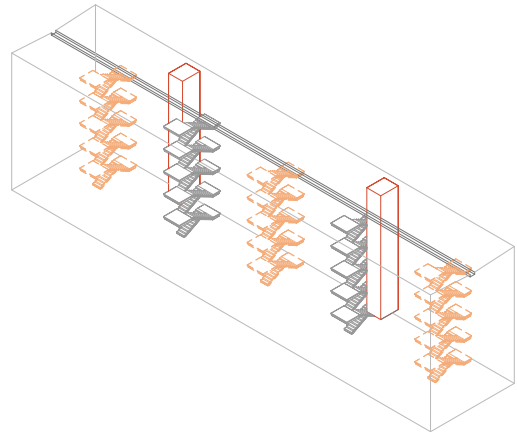
- Existing
- Addition
- Reuse
- Demolition

TRANSFORMATION





locations and frequency:



CIRCULATION

The existing building is composed of 5 stories with 10 apartments per floor, distributed by 5 staircases. Elevators must be placed to make every apartment accessible. The elevator should serve 2 or 3 apartments per floor. Currently, there are 50 apartments between 40 and 60 sqm. As there is no need for this high density, the idea is to work only with the extraction of elements and offer between 20 and 30 more spacious apartments, between 40 and 100 sqm each.

The only demographic change that is certain is the ageing of the population. Therefore, the apartments will be accessible, and the other staircases can be removed. This is the occasion to bring natural air into the building mass, allowing every room, even the bathrooms, to have a window. The first issue addressed in the design process is accessibility, as it is a key factor in ensuring long-term access to housing for all. This is particularly relevant in a rural region with an ageing population. This ageing of the population is an inevitable consequence of human progress and must be taken into account in the design process. A shift in perspective is also necessary: senior citizens are not a vulnerable social group, but rather a group that plays a role in the community (depending on their age, state of health, citizenship and economic power) (Kërçuku, 2023).

Document type:
Transversal section

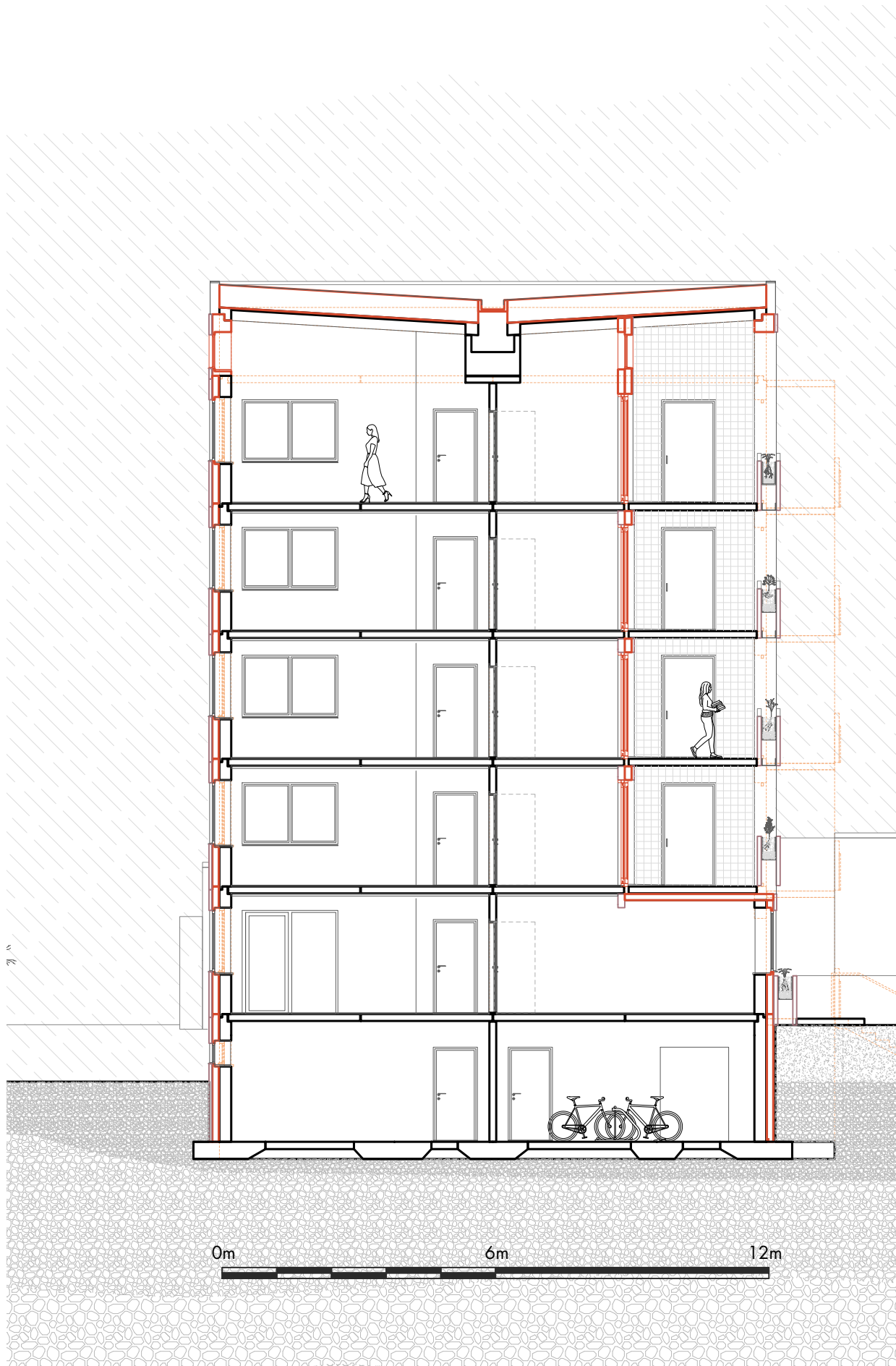
Theme:
Terraces

Scenario:
Desire for larger
balconies

Construction work:
Demolition of the
existing balconies
and creation of
terraces

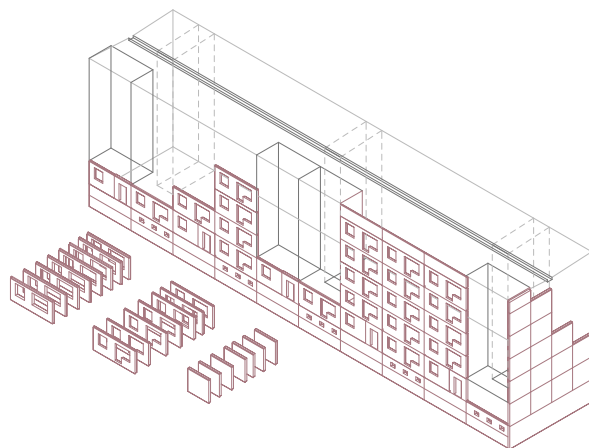
Legend:

- Existing
- Addition
- Reuse
- Demolition





locations and frequency:



URBAN ENVIRONMENT

In essence, prefabricated housing estates are not to blame for their own neglect; rather, it is the inhumanly scaled urban planning and strict functional separation that have given rise to dormitory towns without any urban quality. As the literature review explains, although some transformations have improved the quality of life for some, others, despite offering renewed spaces and materials, still face the same challenges today. The complexity of the issue extends beyond simple spatial interventions in housing. The same applies to the temporary occupation of public spaces awaiting renewed interest; the proposals envisaged must demonstrate a long-term ambition.

The aim of the project is to use raised gardens on the ground floor facing south to create a connection with the ground and the surrounding urban environment.

Document type:
Detail Section of
the North Façade

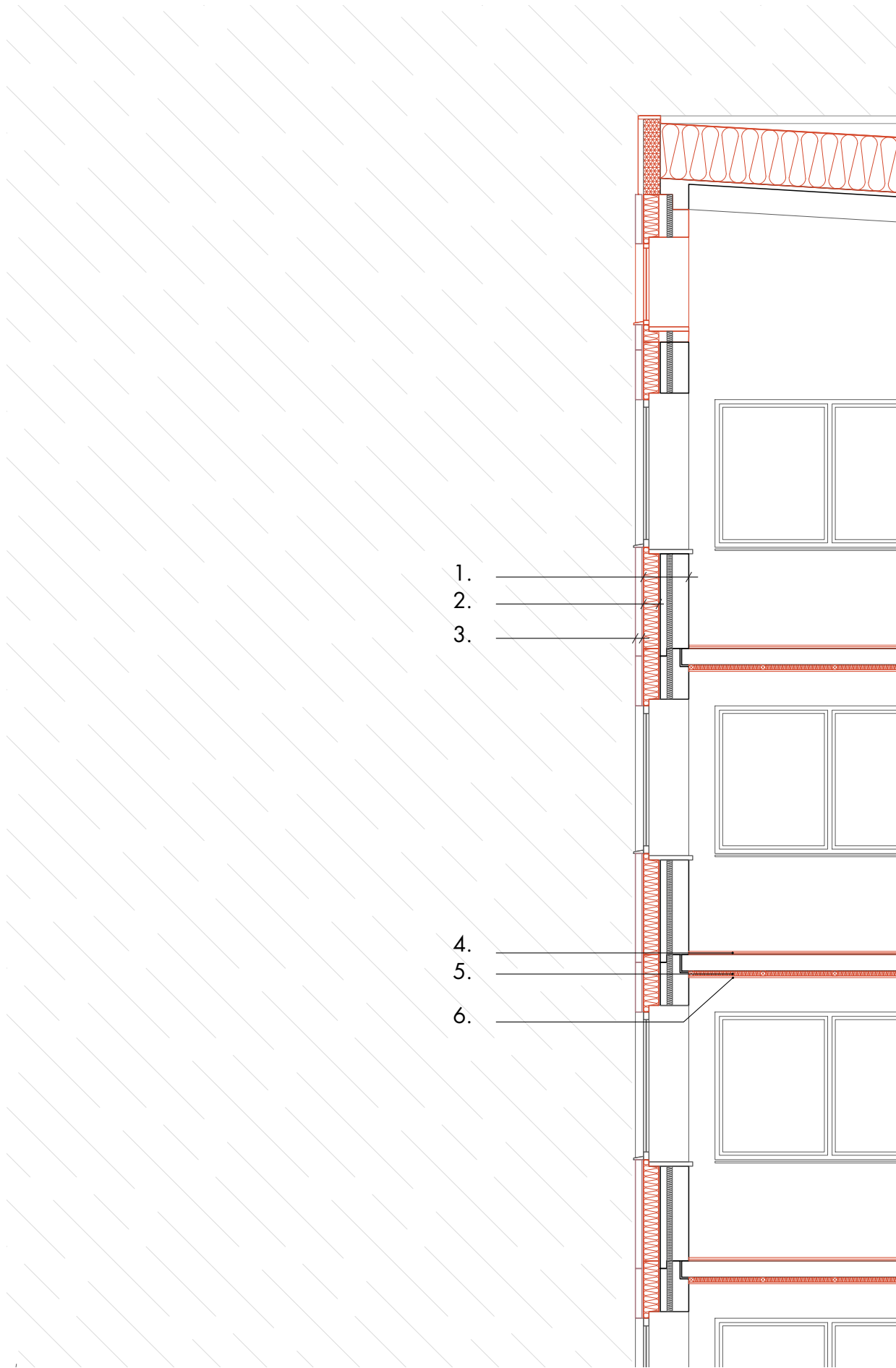
Theme:
Comfort

Scenario:
Sound and Thermal
Insulation

Construction work:
Insulation of the
exterior facade and
installation of new
roof and flooring
materials

Legend:

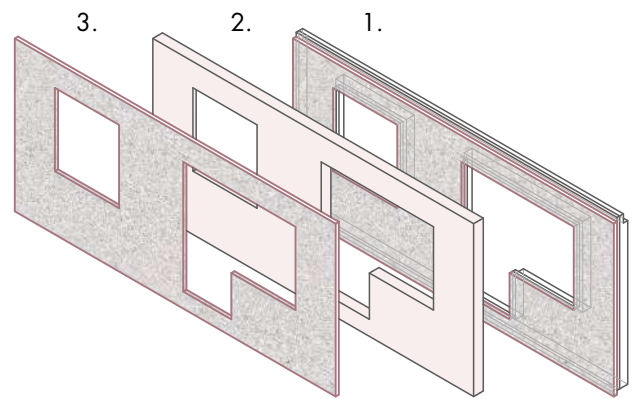
- Existing
- Addition
- Reuse





Exterior wall

1. Existing panel 260mm
2. Insulation 150mm
3. Reused facade panel 50mm



Floors

4. Linoleum + sound-absorbing flooring 30mm
5. Sound insulation 50mm
6. Gypsum ceiling

Document type:
Detail Section of
the South Façade

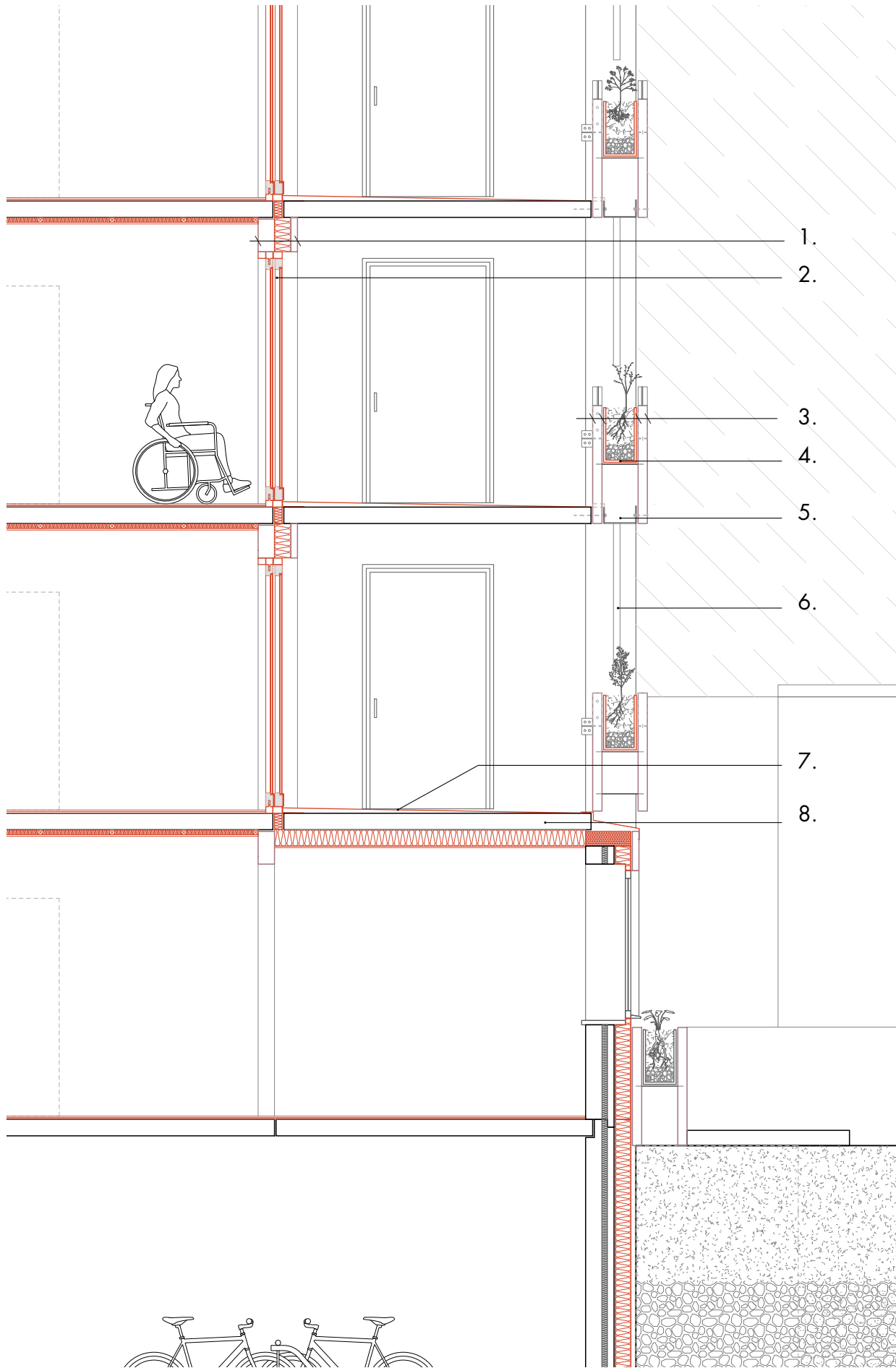
Theme:
Terraces

Opportunity:
Reuse of old
balcony railings

Construction work:
Fixing the old
railings to the slab
and façade

Legend:

- Existing
- Addition
- Reuse





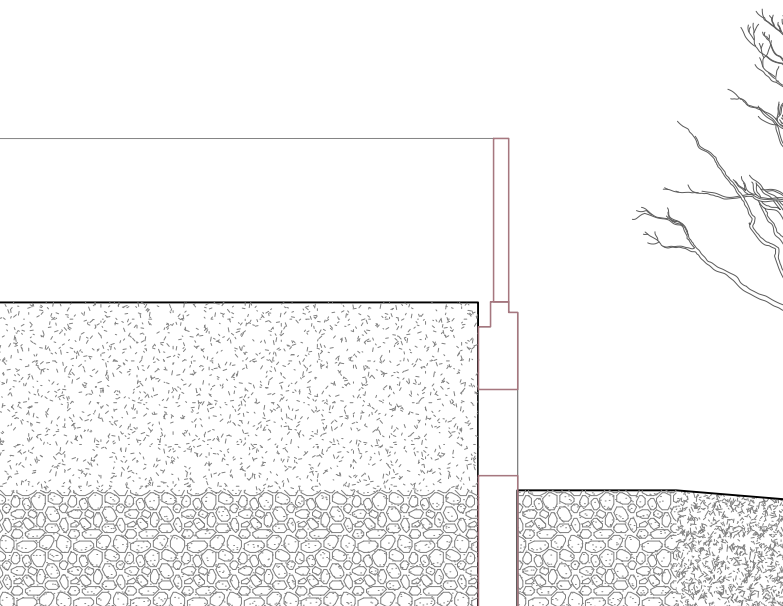
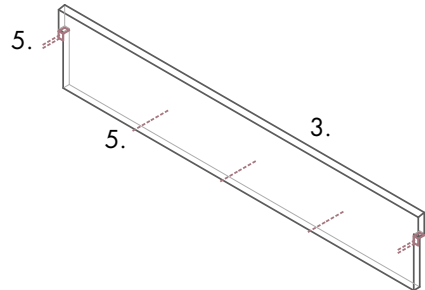
Exterior wall

1. New facade element 360mm
2. Sliding glass door

Terrace railing

3. Reused loggia railings
4. Ceramic plant pot
5. Metal anchors
6. Water drain

WAPDRUGERKONG
FLOWER SHOP



Terrace slab

7. Waterproof membrane + poured concrete 30mm
8. Existing slab 140mm

Document type:
Ground Floor Plan

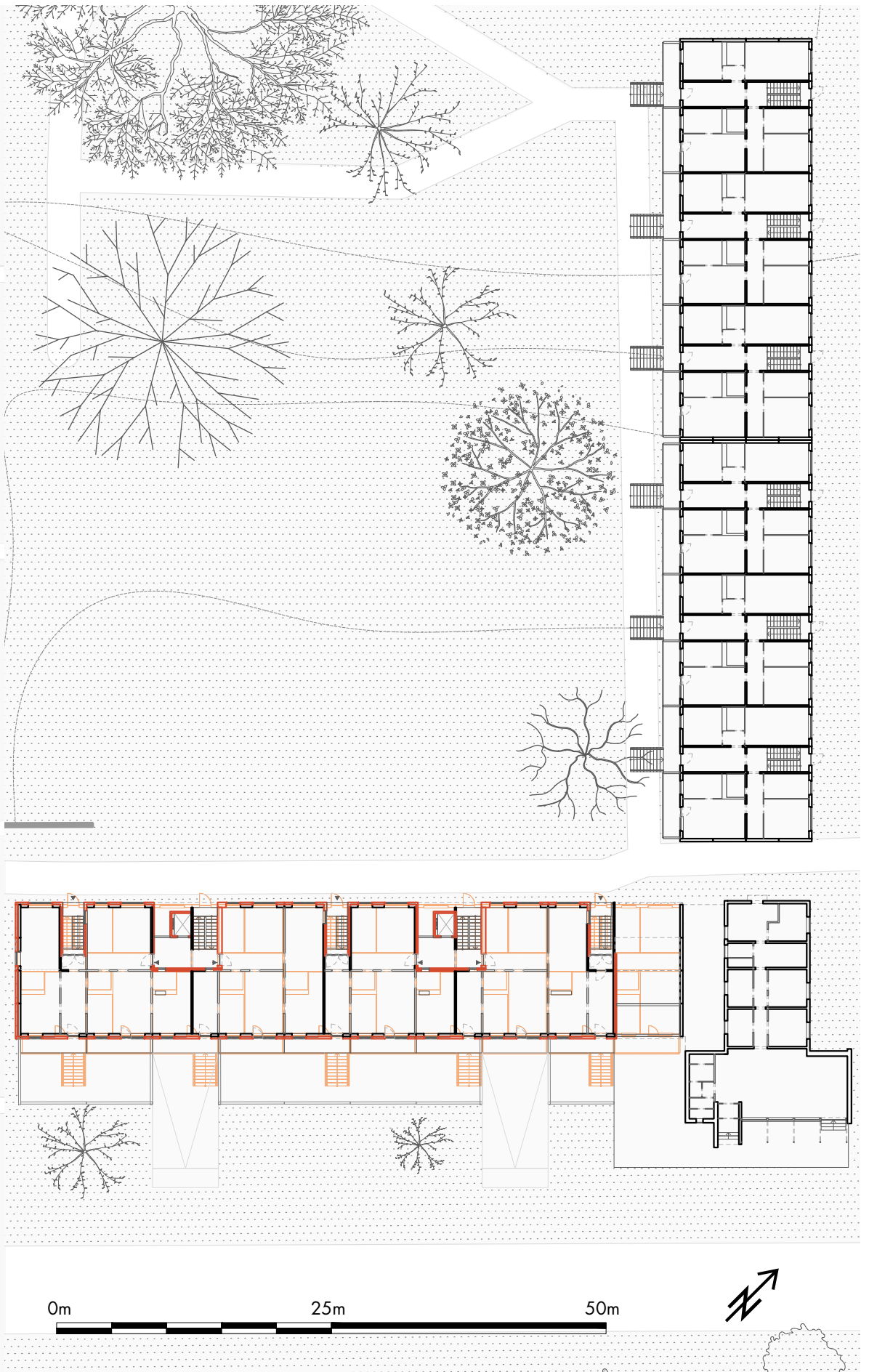
Theme:
Enflade Rooms

Opportunity:
Long Building
Layouts

Construction work:
Opening of
doorways in the
load-bearing
structure and
rearrangement of
circulation layout
(see Figureure page
67)

Legend:

- Existing
- Addition
- Reuse
- Demolition

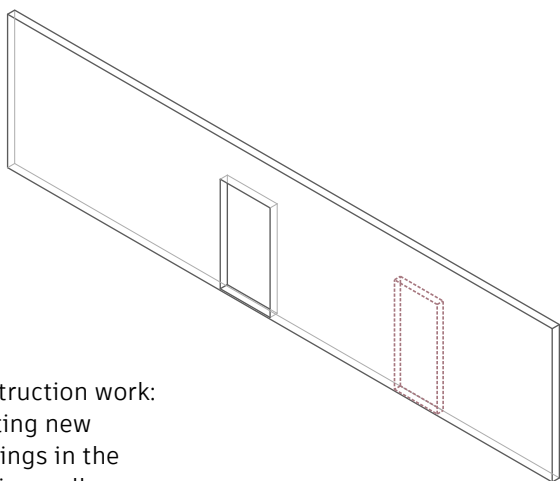


FLEXIBILITY

The aim is to present the plattenbau legacy as a flexible canvas suitable for contemporary housing. Every apartment has a different floor plan. In this proposal, the ground-floor dwellings have frontal access and a private garden in the inner courtyard. The upper floors can be accessed via two shared entrances.

The staircases are open to the exterior, and common spaces are distributed around the vertical circulation. These common rooms have several purposes. They ease the entrance's layout; it is not just about going up and down a corridor, but to walk through spaces where life happens. These co-room rooms are for all the inhabitants. Then the + rooms are individual rooms with privileged access to one apartment. For people working from home to have an office separate from family life, or for older teenagers wanting some privacy. They are meant to belong to the adjacent household, but it would be possible to separate them entirely.

Inside the apartment, the rooms with walls are facing north, and the inner courtyards are smaller and more intimate than the common spaces placed around the balconies or winter garden.



Construction work: Creating new openings in the existing walls generates a series of rooms in enfilade taking full advantage of the building's length.

Legend:

- Existing
- New opening

SERIAL TRANSFORMATION

The proposed approach involves working on a serial transformation drawing from the systematic construction principle of Plattenbau. The aim is to maintain affordable housing.

The limitation of this approach is its dependence over time on a stable economy; the extreme repetitiveness of the elements weakens the construction's adaptability in case of a missing resource during the transformation work (van Tuijl and Maarten, 2016).

To ensure its success, the transformation must allow for a degree of temporal flexibility. Indeed, an excessive focus on long-term objectives limits the ability to react and adapt. This project could go further by proposing a phased process rather than a one-off event. For example, by presenting the transformation along the timeline. Using time as a tool allows us to move away from the finished product goal that played such a significant role in the decline of the Plattenbau.

Document type:
Upper Floor Plan

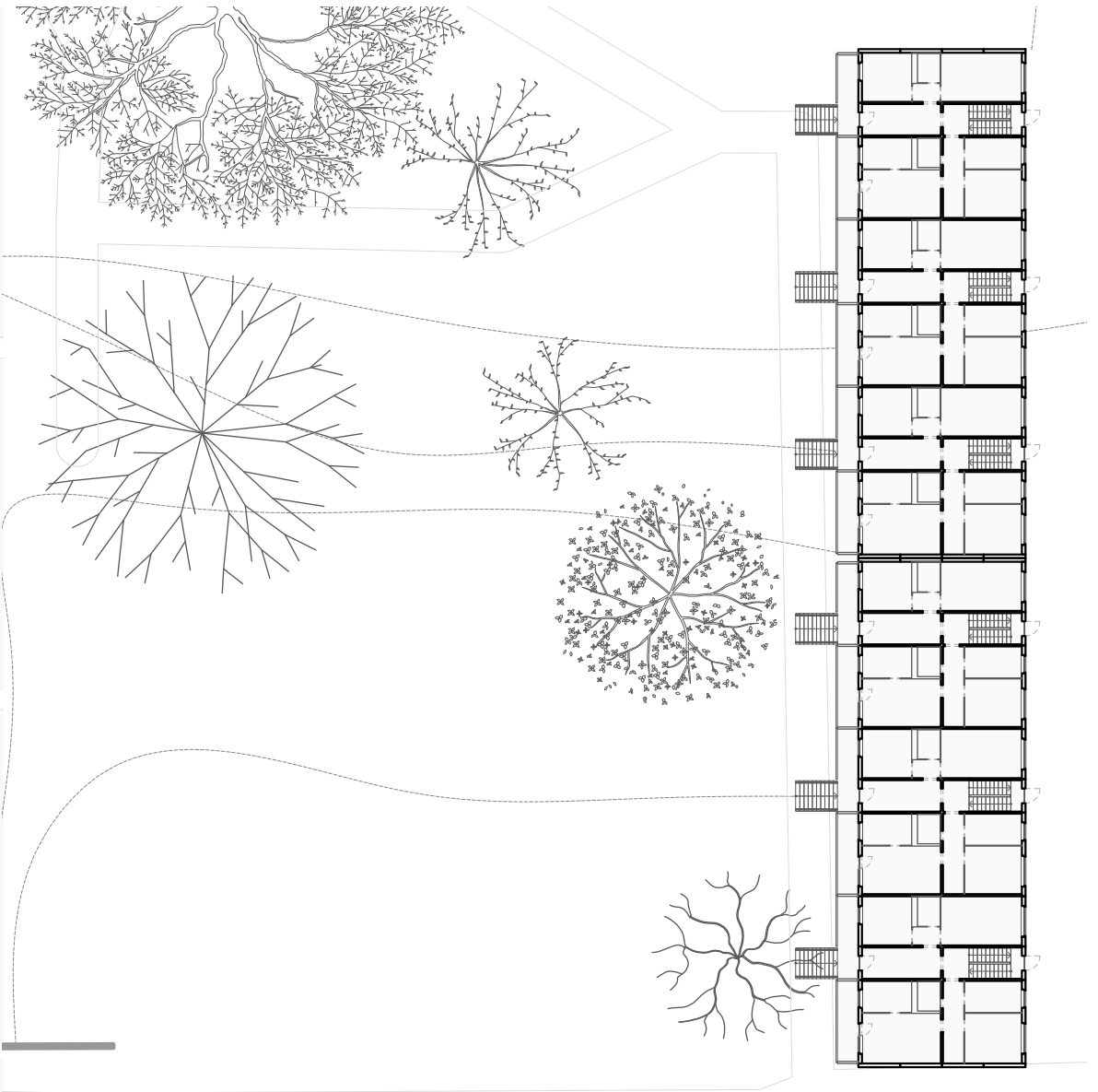
Theme:
Enflade Rooms

Opportunity:
Long Building
Layouts

Construction work:
Opening of
doorways in the
load-bearing
structure and
rearrangement of
circulation layout

Legend:

- Existing
- Addition
- Reuse
- Demolition



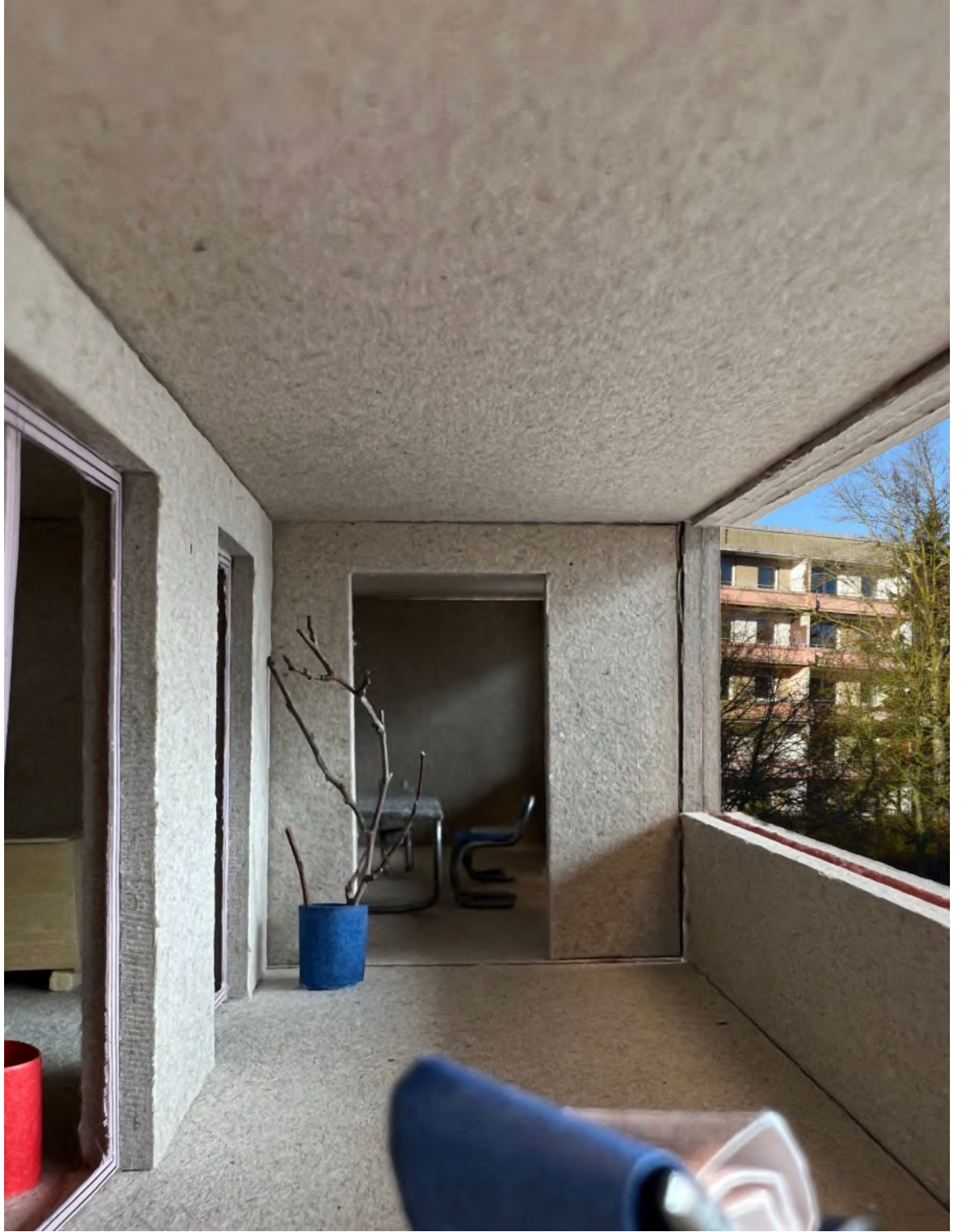


Image. 23. Terrace, model picture.

Document type:
Upper Floor Plan

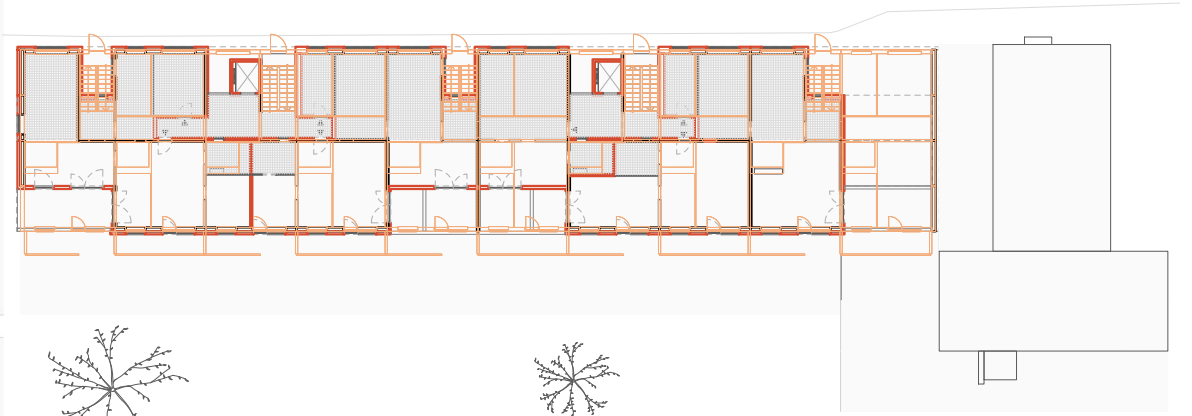
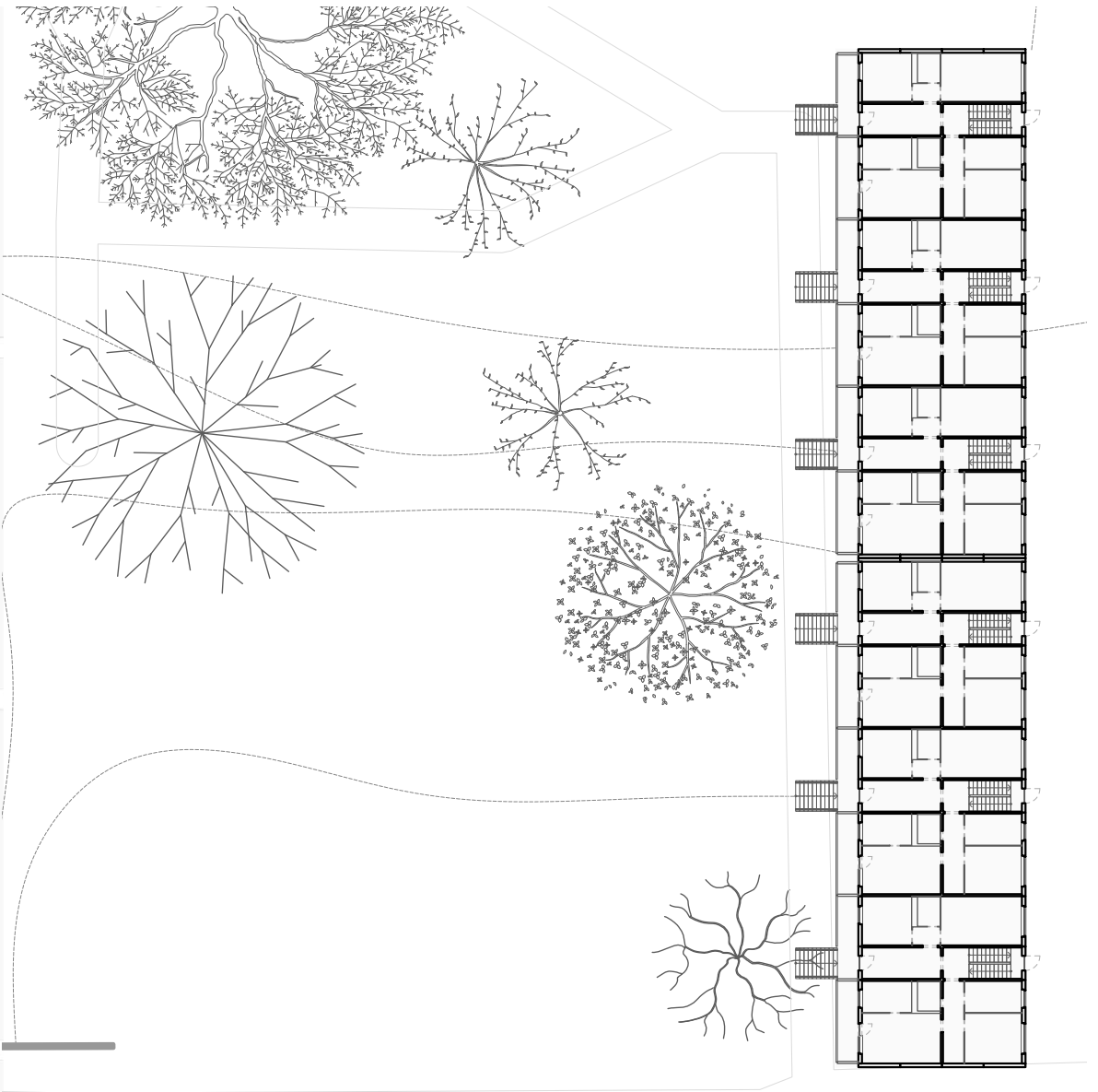
Theme:
Enflade Rooms

Opportunity:
Long Building
Layouts

Construction work:
Opening of
doorways in the
load-bearing
structure and
rearrangement of
circulation layout

Legend:

- Existing
- Addition
- Reuse
- Demolition



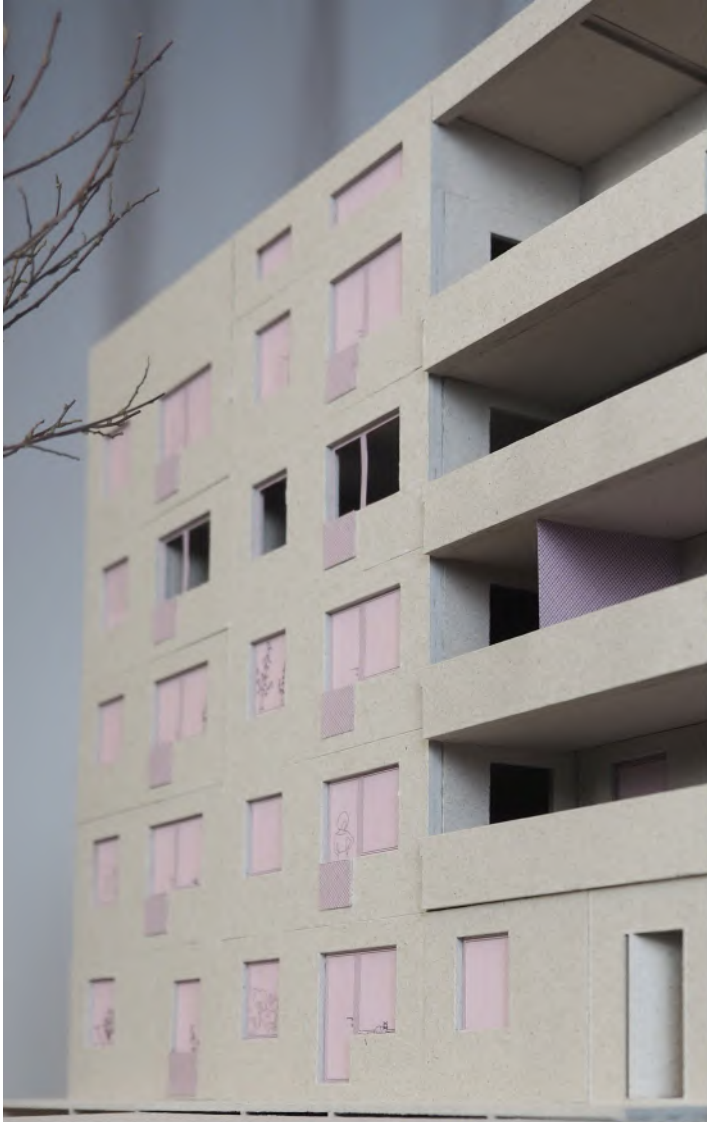


Image. 24. South facade, model picture.

Image. 25. Interior, model picture.

HOUSING THEORY

As standardised housing develops across post-war Europe, the architect Renée Gailhoustet and the theoretician Jean Renaudie propose an alternative vision that goes against the standardisation and functionalism, which they believe are responsible for the decline in innovative architecture (Scalbert, 2004). In 1961, they built La Maladrerie in Aubervilliers, near Paris.

Their vision for architecture is based on a genuine desire for difference. The architect works with unconventional geometric grids to create spaces that offer diagonal views across the apartments. The floor plans are designed to encourage social interaction. Whether it be the layout of the dwellings or the vast communal spaces, they are conceived as a succession of spaces and views without predefined functions and without divisions by walls and doors. This is a more sensitive approach to embrace the 'desires that cannot be anticipated' (Scalbert, 2004, p50). This individuality of the dwellings is a characteristic usually reserved for the middle class; Gailhoustet and Renaudie's ambition is to make it accessible to social housing (Scalbert, 2004). By focusing mainly on the ambition to provide spatial qualities and opportunities for interaction, rather than simply responding to specific needs, they offer an architectural approach that moves away from consumerist trends.

Moving away from a consumerist attitude also means redefining housing as a human right rather than as a commodity that can be discarded (Fallon, Hirsch, Laenen, Serroen, Vandepaer, 2024).

Renée Gailhoustet's architectural approach, as expressed throughout her work, is characterised, among other things, by the use of a complex geometric grid. However, this sociological and political approach to housing is entirely applicable to the regeneration of Plattenbau estates, drawing on their strict grid structure yet taking into consideration the need for adaptability and creating more opportunities for residents to meet.

Document type:
Upper Floor Plan

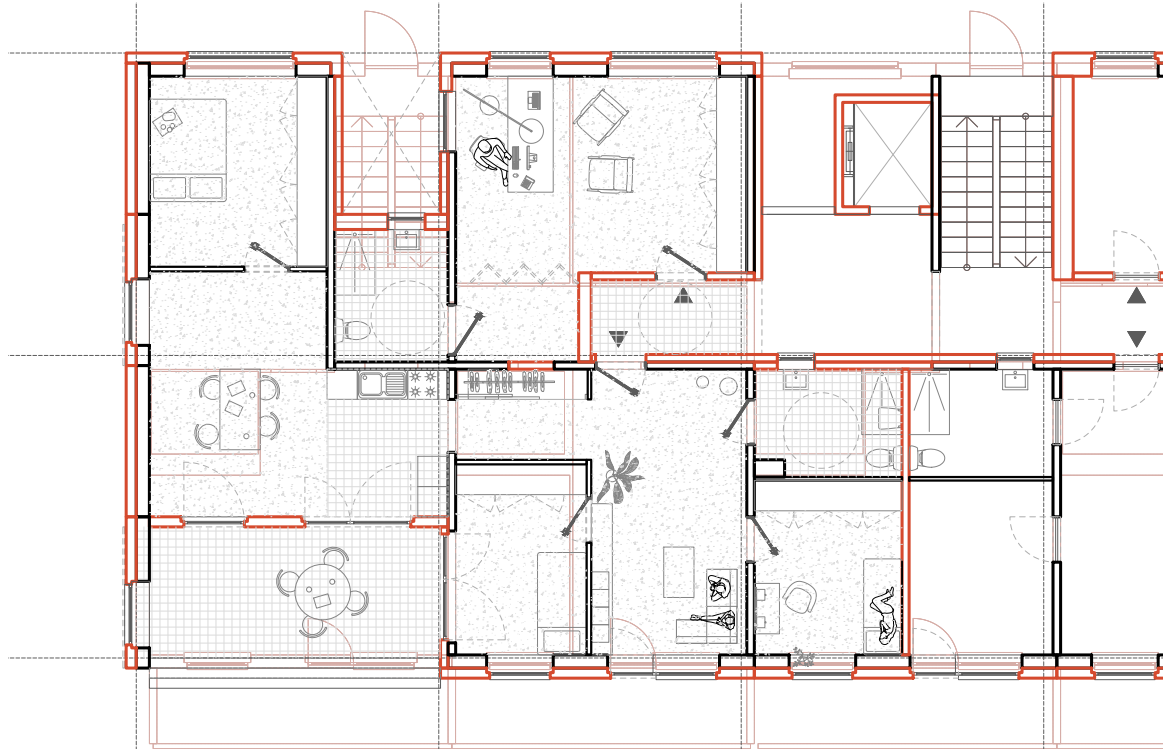
Theme:
Cross-ventilated
apartments

Scenario:
Changes in Family
Composition and
Work Habits

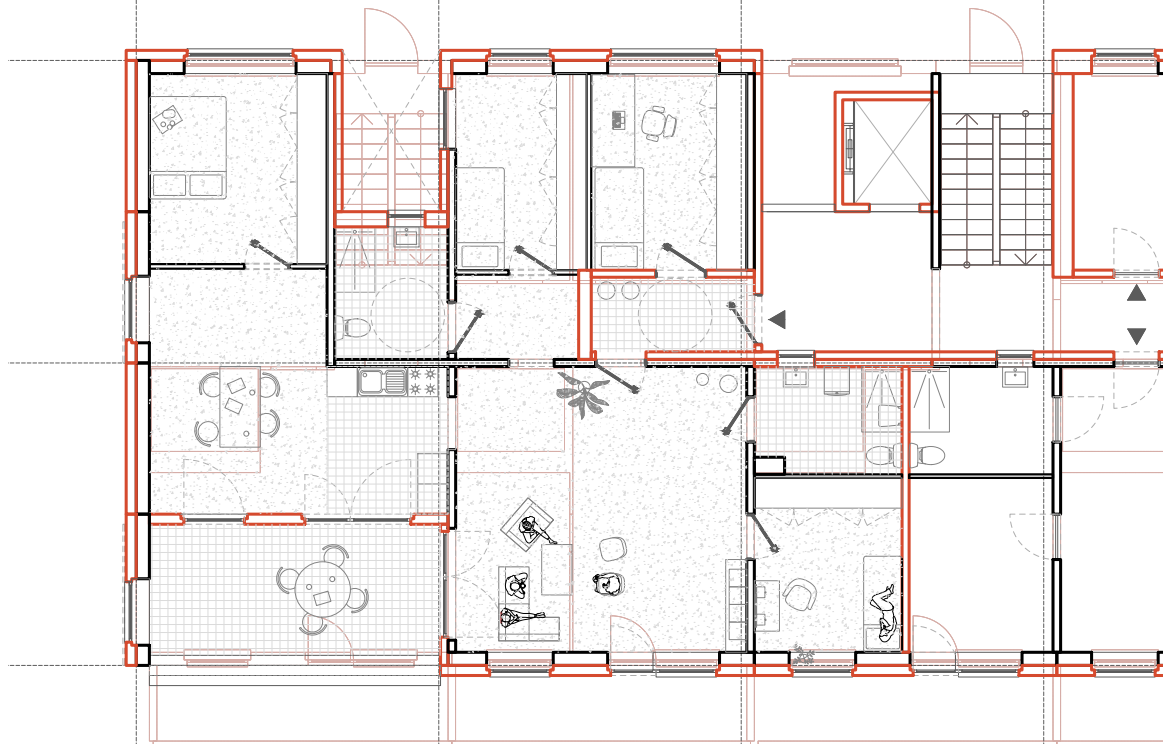
Construction work:
Entrance corridor
and facade
insulation

Legend:

- Existing
- Addition
- Reuse
- Demolition



90 sqm + 30sqm



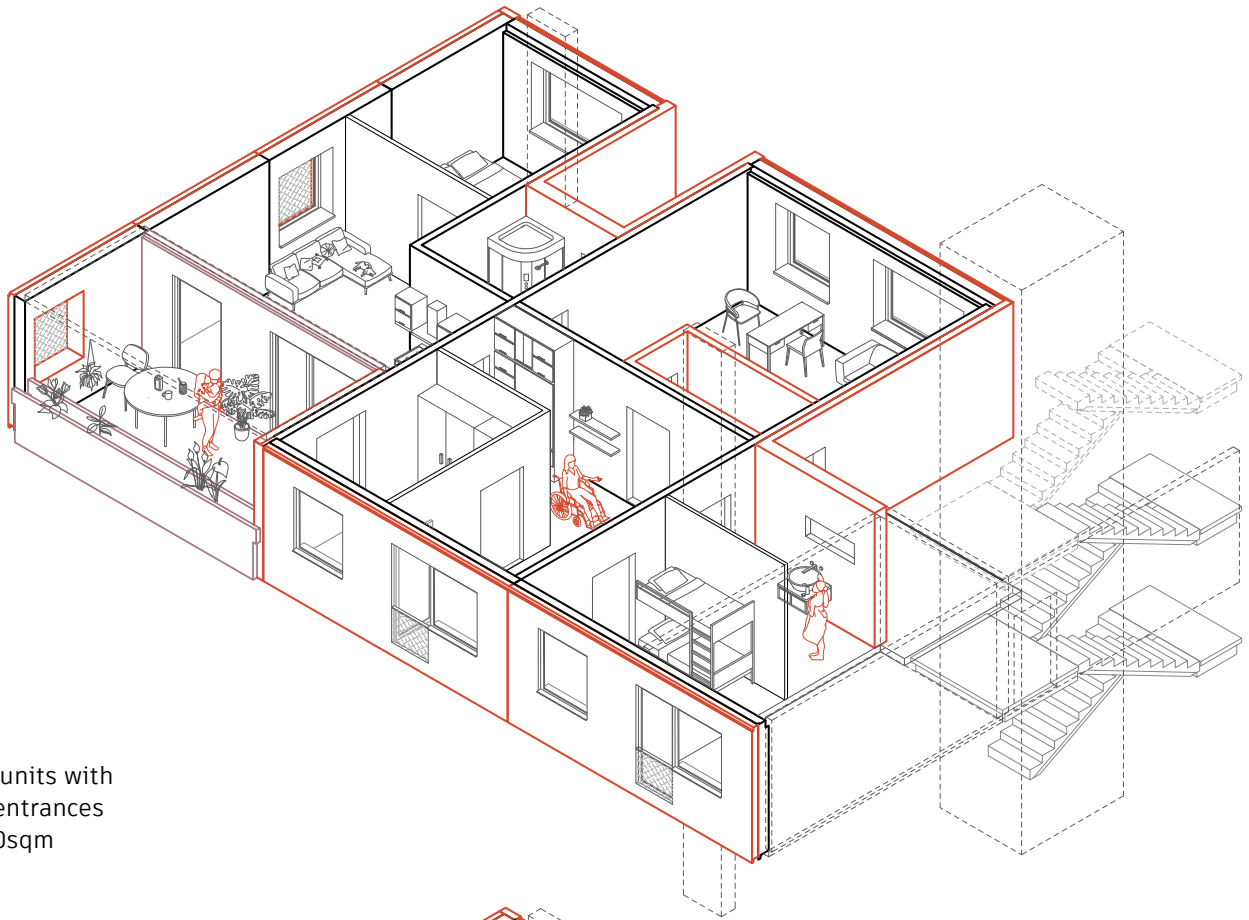
120 sqm

0m

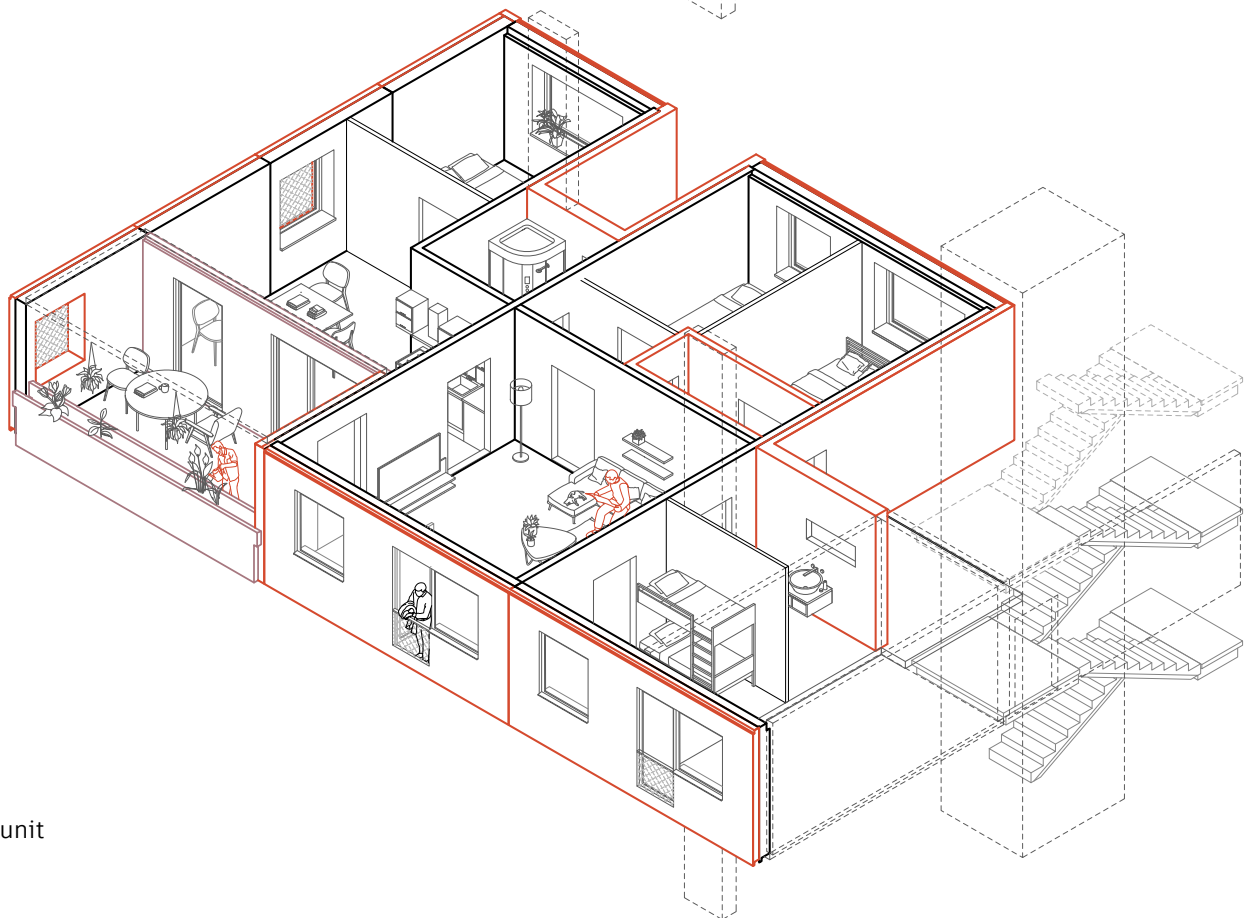
6m

12m





Option 1:
layout two units with
separated entrances
90sqm + 30sqm



Option 2:
layout one unit
120sqm

Document type:
Axonometric
Drawing

Theme:
Living with
Neighbours:
Entrance and
Greeting Sequence

Scenario:
A Shrinking City
and Increasing
Vacancy

Opportunity:
The additional
rooms are located
close to the
vertical circulation

Legend:

- Existing
- Addition
- Reuse
- Demolition

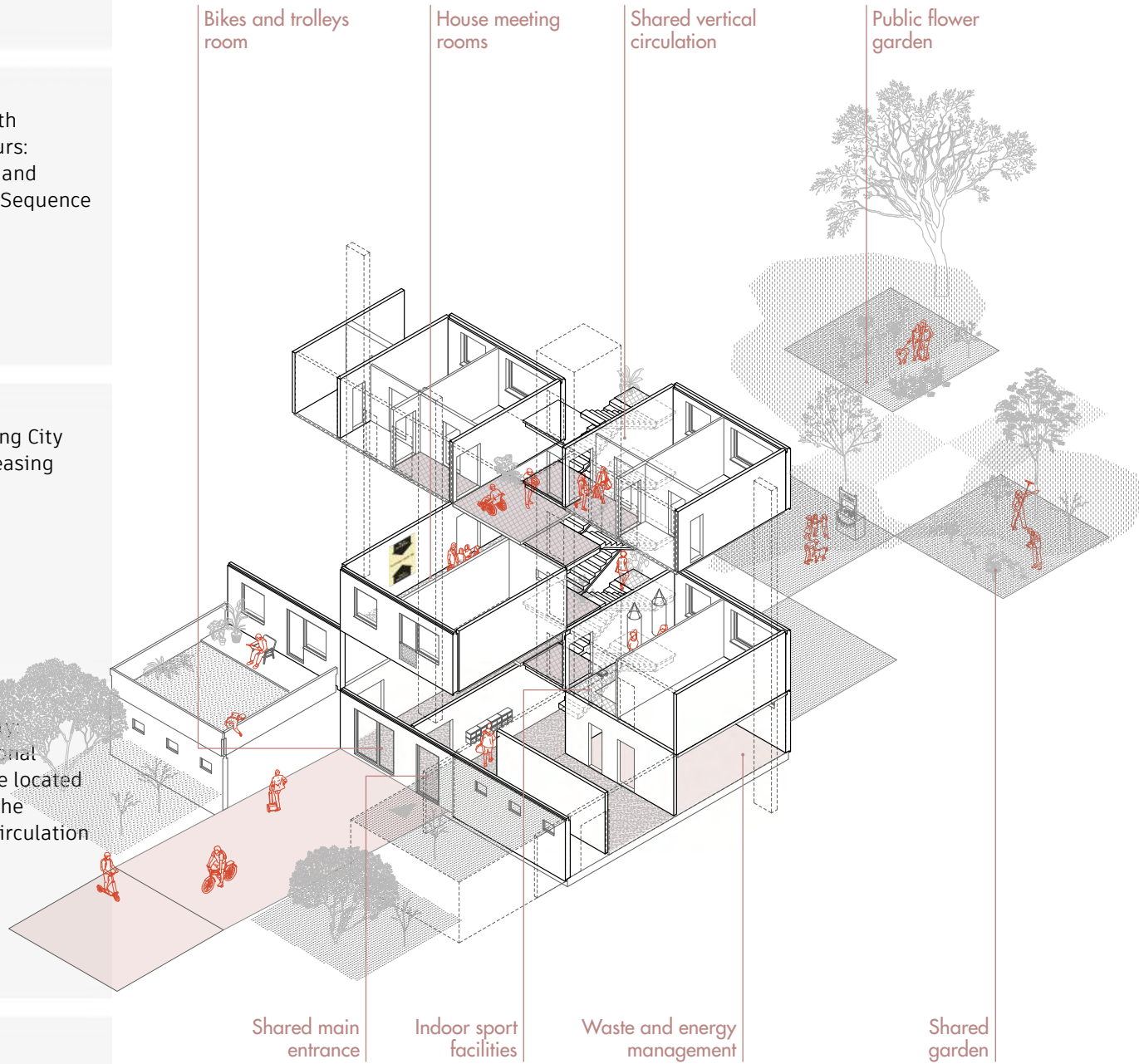


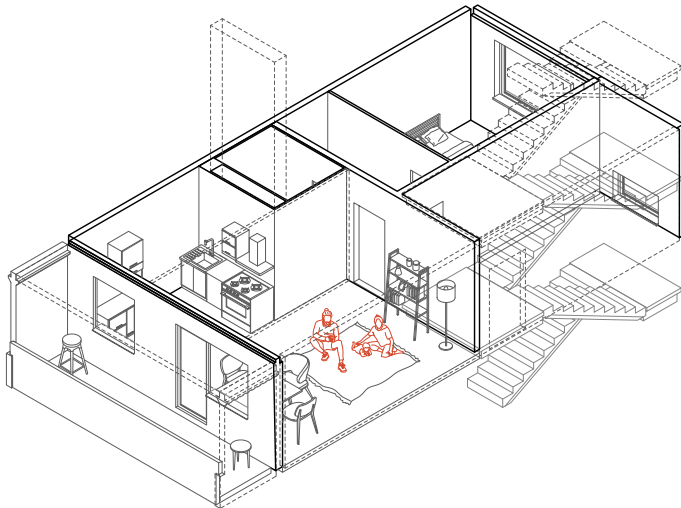


Image. 26. Model picture.





Existing situation

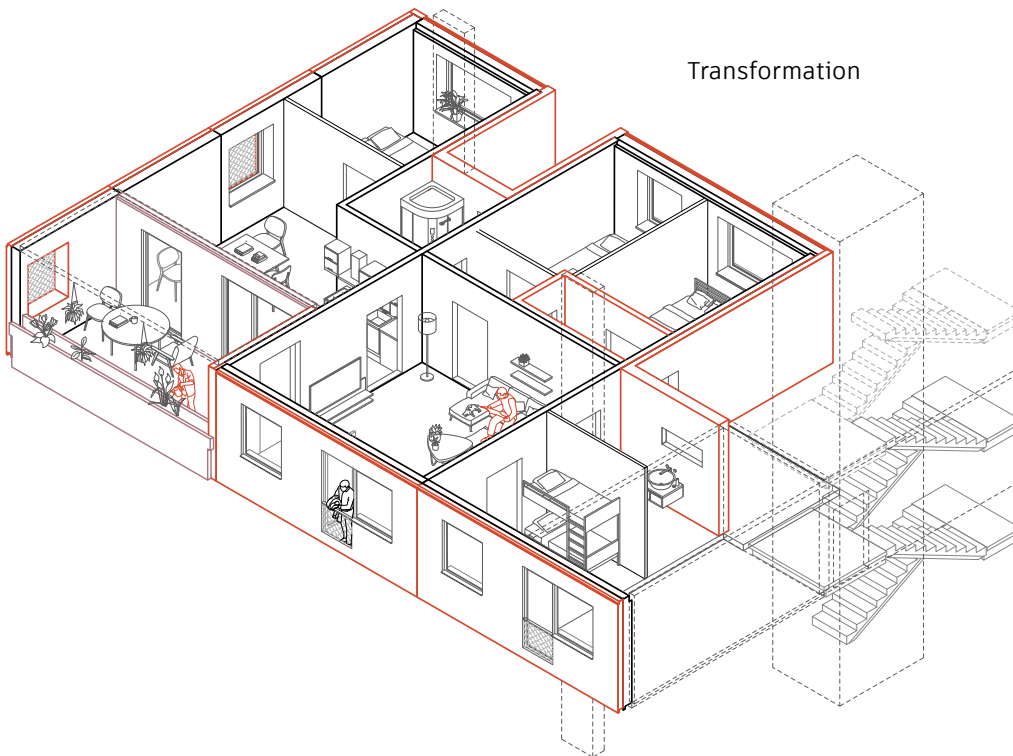
**EXISTING QUALITIES**

- + Cross-ventilation
- + High ceilings (2.8 m)
- + South-facing balconies
- + Spacious rooms with windows
- + Efficient layout, no long corridors
- + Covered and wide staircases

EXISTING DEFICIENCIES

- Overall, limited living space
- Poor sound insulation
- Poor thermal insulation
- Bathroom without a window
- Extremely functional layout
- Standard layout for a nuclear family
- Separated from the urban surroundings, with a staircase leading to the entrance
- Five floors without an elevator

Transformation

**DESIGN QUALITIES**

- + Cross-ventilation
- + South-facing terraces
- + Spacious rooms with windows
- + Covered and wide staircases
- + Flexible layout
- + Bathroom with a window
- + Improved acoustic comfort
- + Improved thermal comfort
- + Lower density
- + External staircase
- + Installation of a lift
- + Connection to the ground floor
- + Interaction with the street

DESIGN DEFICIENCIES

- Reduction in ceiling height
- Change in façade composition
- Loss in distribution efficiency and increased corridor space, but this allows for wheelchair access and provides storage capacity

DISCUSSION

The outcome of the transformation presented in the booklet adopts a relatively moderate attitude in terms of altering the Plattenbau, even though the references studied highlight their high degree of transformability. This approach is motivated by a desire to understand the building as a whole and to take the time to reflect on the right to housing. It also involves seeking a proposal that transforms the building from within. An approach working from the core towards the exterior thus preserves the volume and appearance of the existing building. While a more radical approach may be a tool to counter stigma, it completely erases the language and expression of the design of that era, making it impossible to distinguish renovated buildings from new ones. Modernity has brutally imposed large complexes on the city, we must now learn to appreciate this heritage, its landscape character and its identity, to avoid repeating the same mistakes: erasing prefabricated housing to replace it with detached houses.

Nevertheless, this conservation approach is far from being purely superficial (even if, after a semester of research, it is difficult not to develop a certain fascination with the endless repetition of identical elements and the resulting aesthetic); it attempts to reconcile itself with a phenomenon mentioned in Kërçuku's writings, an important resource for understanding the context of the Plattenbau, that of "renovation fatigue". Although the illustrations in the booklet are intended to be full of human life, it is essential to mention here the impact of these changes on the current residents. The people living in the prefabricated flats in Stendal, though this is a widespread phenomenon in mass housing estates, are being moved from one Plattenbau to another as buildings are demolished. If we consider the short lifespan of these buildings, 50 years, we realise that some residents lived surrounded by construction work during their construction, experienced the construction work again 25 years later during the first wave of renovations, and today find themselves living among demolition sites. Beyond the ecological issue lies the question of the residents' living environment. The fact that demolition is the only prospect also creates a sense of uncertainty and temporary accommodation, with no chance to become attached to the place.

Finally, it is important to note that while demolition generates waste, so does renovation. From an environmental perspective and in terms of the prudent use of resources, reuse is preferable, but renovating and transforming buildings also have an environmental impact. Demolition is also a source of jobs. Having studied this topic, the case for demolition appears to be logical, giving more green spaces to otherwise decaying buildings that stand vacant further decreasing the appeal to live in the area. Yet I maintain that it cannot be accepted as the new normal without a continuous search for alternative solutions, as it treats housing as a disposable commodity.



Image. 27. South facade, model picture.

CONCLUSION

This speculative project explores the situation of Soviet-era prefabricated housing using the tools of architectural practice, namely space and design. It seeks to present the Plattenbau as a valuable legacy left by the previous generation of architects, rather than a burden. The project addresses various themes that architecture must adapt to in order to meet contemporary housing needs. The needs taken into account include the wide variety of family units, working from home combined with family life, spacious housing as a quality, an outdoor space that extends living areas, flexibility over time, and a relationship with the building's surroundings.

Drawing from these trends to develop my proposal, this design exercise allowed me to explore why Plattenbau blocks are left to decay, why they are being demolished, and how they have gone from being dream homes to unwanted buildings.

How can the Plattenbau, prefabricated mass housing stock from the 1970s, adapt to contemporary living to avoid demolition?

This booklet suggests the possibility of extending living space within the existing structure and of making choices, even within social housing, as an added value. Finding ways to collectively plan the site, for example, the outdoor spaces, and deciding how to develop the vacant spaces is also seen as a way of bringing life back into these long buildings, by extending residents' daily lives across the available space.

Although much research has been carried out on the subject of Plattenbau, this thesis is relevant to the architectural discourse on regeneration: the buildings are there, they are still standing, and academic discourse encourages working within the existing environment. I believe we should work on one building at a time, paying attention and care to each Plattenbau, and increasing the number of architects and different perspectives on the issue. However, this means losing the sense of infinite unity so emblematic of that era and of the GDR's Plattenbau. Ideally, we would need a much broader approach, involving interdisciplinary and inter-professional collaboration, to reintegrate the large number of empty Plattenbau into the urban landscape, highlight the transformation projects already carried out, initiate discussions, and map the empty structures or the rich inventory of elements they are composed of.

When entering the architectural profession, we must recognise our responsibility towards the built heritage inherited from previous generations of architects, and ask ourselves what we are building: lasting heritage, or consumer products?

BIBLIOGRAPHY

LITERATURE

Alonso, P. I., & Palmarola, H. (2019). Flying Panels, how concrete panels changed the world (ediciones UC). DOM publishers.

Architectes, P. B. (n.d.). Versailles. Pierre Blondel Architectes. Retrieved 5 November 2025, from <http://www.pblondel.be/detail-projet/versailles/>

ArkDes, & Studentlitteratur. (2017). 99 Years of the Housing Question in Sweden (Daniel Movilla Vega). Studentlitteratur AB.

Autorenkollektiv an der Architekturabteilung der ETH Zürich. (1972). «Göhnerswil». Wohnungsbau im Kapitalismus. <https://www.buchantiquariat.ch/?itemID=50875>

Bergevoet, T., & van Tuijl, M. (n.d.). The Flexible City, sustainable solution for a Europe in Transition. nai010 publishers. (Original work published 2016)

Calzado, R., & Meurer, J. (Directors). (2025). The Great Together [Documentary]. Docar Films.
Chaljub, B., & Gailhoustet, R. (2009). La Politesse des maisons (Actes Sud).

Dirrschmidt, S. (2023). Der Stadtseeher. Rückblick 2023. Mein Stadtsee. Meine Stadt. Druckmanufaktur Holz, (Stadtteilmanagement Stendal-Stadtsee).

Dr. Preller, B. (2010). 2002 – 2010 IBA Stadtumbau // Less is Future. IBA Stadtumbau. <https://www.internationale-bauausstellungen.de/en/history/2002-2010-iba-stadtumbau-less-is-future/>

Drieschner, A., & Nadolni, F. (2019). Shaping Everyday Life: Bauhaus-Modernism in the Gdr / Alltag formen Bauhaus-Moderne in der DDR. M Books.

Dubeaux, S., & Cunningham Sabot, E. (2017, July 14). Maximizing the potential of vacant spaces within shrinking cities, a German approach. FACTSHEET - PETERBOS. (n.d.). Bma. Retrieved 6 May 2026, from <https://bma.brussels/en/factsheet-peterbos-2/>

Fallon, H., Hirsh, N., Laenen, S., Serroen, F., & Vandepaer, T. (2024). Real Life Brussels, transforming and renovating aging social housing. BMA Brussels, CIVA Brussels, KU Leuven Faculty of Architecture.

Flakin, N. (2024, February 15). The Joy of Concrete: The unexpected story behind Berlin's divisive Plattenbau. The Berliner. <https://www.the-berliner.com/berlin/plattenbau-architecture-social-housing-ddr-german-history/>

Germany Revives a Building Style With a Bleak History: Prefab Housing. (2025, August 23). Bloomberg.Com. <https://www.bloomberg.com/news/features/2025-08-23/germany-is-giving-prefabricated-mass-housing-a-second-chance>

Grawert, O. (Director). (2024). Power to Renovation: A Question of Values [Documentary]. S+. <https://youtu.be/5ESAAqamex4?si=rU21fHE3Gs5-BCCs>

Grawert, O. (Director). (2025, July 24). Profit motivated the housing crisis [Conference]. TEDx. https://youtu.be/2ENMWPx9_0?si=JVcoYxN42olH0nNA

Günther, M. (2024). Bauen und Wohnen 2024 in Deutschland. Verbändebündnis „Soziales Wohnen“. Pestel Institut gGmbH Hannover.

Günther, & Streufert. (2024). Bevölkerungsstand (Statistisches Landesamt Sachsen-Anhalt Öffentlichkeitsarbeit Kostenfrei als PDF-Datei verfügbar-

Bestell-Nr.: 6A119). <https://statistik.sachsen-anhalt.de>

Kahnert, M. (2024, October 8). So sollen aus DDR-Plattenbauten in Stendal-Stadtsee Einfamilienhäuser entstehen. <https://www.volksstimme.de/lokal/stendal/so-sollen-aus-ddr-plattenbauten-in-stendal-stadtsee-einfamilienhauser-entstehen-3929218>

Kasiske, M. (2003, April 1). Der flexible Plattenbau [Archiv-Artikel]. taz.de. <https://taz.de/Der-flexible-Plattenbau/1826663/>

Kërçuku, A. (n.d.). *Shrinking Cities in Reunified East Germany*. Routledge. (Original work published 2023)

Koelbl, S. (2000, September 10). Finale in Belgrad "Heute schreiben wir Geschichte". DER SPIEGEL Nr. 41, 88–89.

Konrad, J. (Director). (2025). Der Plattenbau [Documentary; Youtube video]. ARTE. <https://youtu.be/uM-vmndrThQ?si=9lHhGQkVZWQdMj0B>

Lacaton & vassal. (n.d.). Retrieved 26 April 2026, from <https://www.lacatonvassal.com/index.php?idp=80>

Landkreis Stendal. (2021). Regional Monitor 2021. https://www.landkreis-stendal.de/de/datei/anzeigen/id/804502,1037/gesamtpraesentation_regional_monitor.pdf

Landkreis Stendal. (2022, November 21). [Regional - Monitor 2021]. Wissenswertes - Daten- Fakten - Karten - Trends, Germany. <https://www.landkreis-stendal.de/de/regionalmonitor-2021.html>

Lauf, S., Haase, D., & Kleinschmit, B. (2016). The effects of growth, shrinkage, population aging and preference shifts on urban development— A spatial scenario analysis of Berlin, Germany. Elsevier Ltd, Land Use Policy.

Léveillé, A. (1978). Genève 1850-1975. Il était une fois! Sera-t-il toujours? ETH Zürich, Zeitschrift Und Schriftenreihe Für Architektur Und Kunst = Revue et Collection d'architecture et d'art, Rénovation urbaine. Le cas de Genève(Werk archithese 15-16), 14–28.

Löwe, C. (2025). *Wohnen im Plattenbau: Darstellungen von Familien und sozialistischen Gemeinschaften in Kinderliteratur und -filmen aus der DDR der 1980er Jahre*. Routledge, (DOI: 10.1080/00393274.2025.2552222).

Ludwig, R. (2020, October 13). WBS 70: Die wandelbare Einheitsplatte der DDR | MDR.DE. mdr.de. <https://www.mdr.de/geschichte/ddr/alltag/familie/wbs-siebzig-flexible-einheitsplatte-plattenbau-wohnen-100.html>

mdr.de. (n.d.). Ostdeutschland: Leerstand in der Platte | MDR.DE. Retrieved 5 November 2025, from <https://www.mdr.de/geschichte/zeitgeschichte-gegenwart/politik-gesellschaft/leerstand-plattenbau-abriss-rueckbau-verkauf-platte-100.html>

Meibauer, J. (2021). Images of the Socialist City: The Stalinallee and Plattenbau. In *The Visual Culture of East German Picturebooks 1945–1990*. De Gruyter.

Meuser, P. (2025). *Patterned Panels. Mosaic Façades by the Jarsky Brothers in Soviet and Uzbek Tashkent: 1969-1999*. DOM publishers.

Moreno, M. P. (2020, October). Renée Gailhouster's typological atlas: An architectural "Alphabet". *VLC Architectura* 7, No. 2.

Morris, C. (2026). Hanseatic League. BBC News. https://bbc.co.uk/news/extra/A2MFANtn3Z/hanseatic_league

Müller, N.-C. (Host). (2026, February 28). DDR-Plattenbau als Kunst: Martin Maleschka über das Schwinden der Heimat und warum Beton politisch ist [Broadcast]. https://open.spotify.com/episode/6Msa4Hq4arZEwH37Nur2Gy?si=hx_AiPN1Tyi2J1tQHxYZMA

Oswalt, P., Mittmann, E., & Gretzinger, K. (Artwork). (2010). Hansestadt Stendal Central Town in a Rural Region. Less Is Future. Catalogue for the Final Presentation of the IBA Urban Redevelopment 2010. <https://web.archive.org/web/20160314191257/http://www.iba-stadtumbau.de/index.php?hansestadt-stendal-en>

Papagni, A. (2024, May 15). Le bureau et l'appartement personnel de l'architecte Simone Guillissen-Hoa, l'une des premières femmes architectes de Belgique, est désormais classé. *Ans Persoons*. <https://anspersoons.prezly.com/le-bureau-et-lappartement-personnel-de-larchitecte-simone-guillissen-hoa-lune-des-premieres-femmes-architectes-de-belgique-est-desormais-classe>

Pelsmakers, S., Hoggard, A., Kozminska, U., & Donovan, E. (2022). *Designing for the Climate Emergency. A Guide for Architecture Students*. RIBA Publishing.

Pestel-Institut: Sozialer Wohn-Monitor 2026. (n.d.). Deutscher Mieterbund. Retrieved 18 April 2026, from <https://mieterbund.de/themen-und-positionen/studien/pestel-institut-sozialer-wohn-monitor-2026/>

Quartiers de demain | Consultation internationale. (n.d.). Retrieved 6 May 2026, from <https://quartiers-de-demain.archi.fr/projets/vers-un-heritage-vivant>

Rikka, V. (2025, January). Une œuvre à la loupe—La Maladrerie, Aubervilliers—Renée Gailhoustet. Centre d'archives d'architecture contemporaine Archiwebture. <https://archiwebture.citedelarchitecture.fr/documents-du-mois/document-la-maladrerie-aubervilliers-renee-gailhoustet-33/n:55>

Scalbert, I. (2004). *A Right to Difference: The Architecture of Jean Renaudie*. Architectural Association Publications.

Simon, J. (2022). *Plattenbau Berlin, urbane wohnarchitektur-ein fotografischer rundgang*. Prestel.

Spreefeld Berlin / fatkoehl Architekten. (n.d.). Retrieved 6 May 2026, from <https://fatkoehl.com/en/housingmixed-use/spreefeld-berlin/>

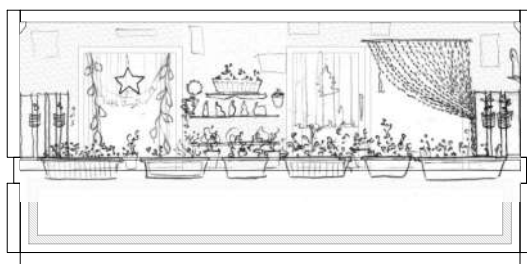
Stendal. (n.d.). Bundesinstitut für Bau-, Stadt- und Raumforschung. Retrieved 18 April 2026, from http://www.staedtebaufoerderung.info/DE/WeitereProgramme/Stadtumbau/Praxis/Praxisbeispiele/praxisbeispiele_node.html

Vihavainen, R. (2005, April). *Housing in Russia – Policies and Practices*. Department of Sociology. https://blogs.helsinki.fi/respublica/files/2008/08/rp05_interim_housing.pdf

Vuletic, V. (2016, June). Stendal, Räumlicher Schwerpunkt: Fördergebiet 'Stadtsee'. Bundesinstitut für Bau-, Stadt- und Raumforschung. http://www.staedtebaufoerderung.info/DE/WeitereProgramme/Stadtumbau/Praxis/Praxisbeispiele/praxisbeispiele_node.html (N.d.).

IMAGES

- Image 1, WBS 70, Author, Stendal, 2026.
 Image 2, WBS 70, Author, Stendal, 2026.
 Image 3, Site visit, Schwarz Elisa, Stendal, 2026.
 Image 4, Demolition site, Author, Hamburg, 2026.
 Image 5, Vacant Plattenbau in Stendal-Süd, Author, Stendal, 2026
 Image 6, WBS 70, Author, Stendal, 2026.
 Image 7, Model Stadtsee I&II on the laying of the foundation stone by Anton Günter, Stendal City Archives, Stendal, 1973
 Image 8 to 11, Original facades in Stendal-Stadtsee, Author, Stendal, 2026.
 Image 12, Playground in Stendal-Stadtsee, Author, Stendal, 2026.
 Image 13, Model for the planning of Stendal Stadtsee in 1973, Stendal City Archives.
 Image 14, Construction 16 Annenstraße in 1975, K. Heiden, Stendal City Archives.
 Image 15, Construction Fritz Hedens Ring in 1975, K. Heiden, Stendal City Archives.
 Image 16 to 19. Construction of a Plattenbau from 12.06.1980 to 04.07.1980, unknown, Stendal City Archives.
 Image 20, Vacant WBS 70 in Stendal-Süd, Author, Stendal, 2026.
 Image 21, Partially vacant WBS 70 in Stendal-Stadtsee, Author, Stendal, 2026
 Image 22, Stendal-Stadtsee representation in the Journal der Spiegler page 88, Koelbl, S. (2000, September 10). Finale in Belgrad "Heute schreiben wir Geschichte". DER SPIEGEL Nr. 41, 88–89.
 Image 23 to 25 Grey cardboard Model of a section of WBS 70, Author, Goteborg, 2026.
 Image 26, Exhibited model of WBS 70, Author, Goteborg, 2026.
 Image 27, Grey cardboard Model of a section of WBS 70, Author, Goteborg, 2026.



FIGURES

- Figure 1, Map European countries outlines, inspired from Natural Earth open source data. www.naturalearthdata.com
- Figure 2, Map train connections Hanseatic city of Stendal, Author, Affinity Designer, 2026. Background map inspired from OpenStreetMap.
- Figure 3, Infrastructure Hanseatic city of Stendal, Author, Affinity Designer, 2026. Background map inspired from OpenStreetMap.
- Figure 4, Urban typologies Hanseatic city of Stendal, Author, Affinity Designer, 2026. Background map inspired from OpenStreetMap.
- Figure 5, Stendal-Stadtsee district, Author, AutoCAD, 2026.
- Figure 6, Axonometry existing situation, Author, AutoCAD, 2026.
- Figure 7, WBS 70, transversal section existing situation, Author, AutoCAD, 2026.
- Figure 8, WBS 70 in Stendal-Stadtsee III plan, Author, AutoCAD, 2026.
- Figure 9, WBS 70 apartment plan, Author, AutoCAD, 2026.
- Figure 10, WBS 70 prefabricated elements catalogue, Author, AutoCAD, 2026.
- Figure 11, Map European countries outlines, Derived from Natural Earth open source data. www.naturalearthdata.com
- Figure 12, WBS 70 prefabricated facade panel, Author, AutoCAD and Affinity Designer, 2026.
- Figure 13, Plattenbau surrounded by green spaces, Author, Affinity Designer, 2026.
- Figure 14, Map GDR, Author, Affinity Designer, 2026. Background map inspired from Günther, M. (2024). *Bauen und Wohnen 2024 in Deutschland. Verbändebündnis „Soziales Wohnen“*. Pestel Institut gGmbH Hannover.
- Figure 15, Local services, Author, Affinity Designer, 2026.
- Figure 16, Identical housing bocks, Author, Affinity Designer, 2026.
- Figure 17, Housing market situation in Germany at the end of 2022, Günther, M. (2024). *Bauen und Wohnen 2024 in Deutschland. Verbändebündnis „Soziales Wohnen“*. Pestel Institut gGmbH Hannover.
- Figure 18, WBS 70 vacancy and decay, Author, AutoCAD, 2026.
- Figure 19, WBS 70 demolition and landfill, Author, AutoCAD, 2026.
- Figure 20, Original layout: Monsieur M's apartment, Author, AutoCAD, 2026.
- Figure 21, Renovated layout: Madam M's apartment, Author, AutoCAD, 2026.
- Figure 22, WBS 70 (de)composition, Author, Rhino, 2026.
- Figure 23, Axonometry transformation, Author, AutoCAD, 2026.
- Figure 24, Planning the outdoor environment, Author, Affinity Designer, 2026.
- Figure 25, Public function that gives identity to the area, Author, Affinity Designer, 2026.
- Figure 26, Towards greater diversity, Author, Affinity Designer, 2026.

APPENDIX

Use of AI:

AI tools have been used exclusively as support for translation and spelling in the written text (they have not been used to generate, reformulate, or condense text). All documents are drawn by the author or referenced above and all the pictures are taken by the author or referenced above, if editing was done it was made manually.

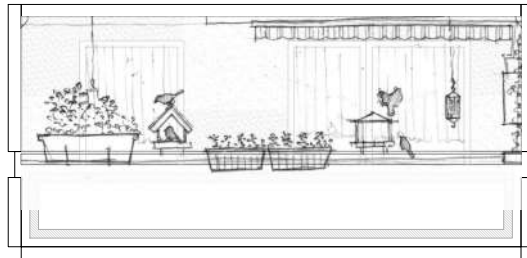
AI tools include DeepL.com, Grammarly and Perplexity AI.

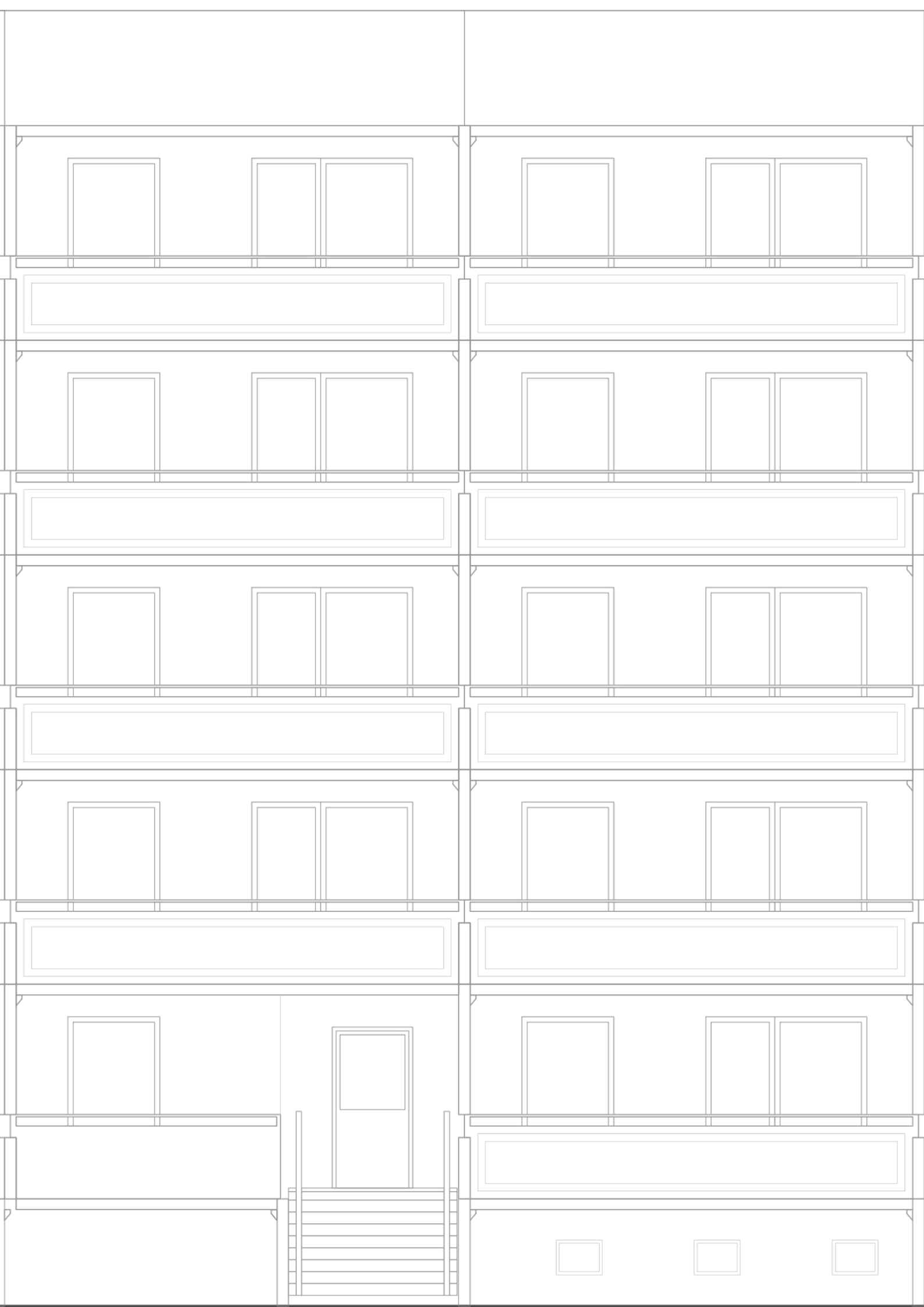
DeepL.com has been used to help with translation of text such as definitions and Renée Gailhoustet (1929-2023), Architecte Architectural Alphabet, definition of X (Madame ou Monsieur).

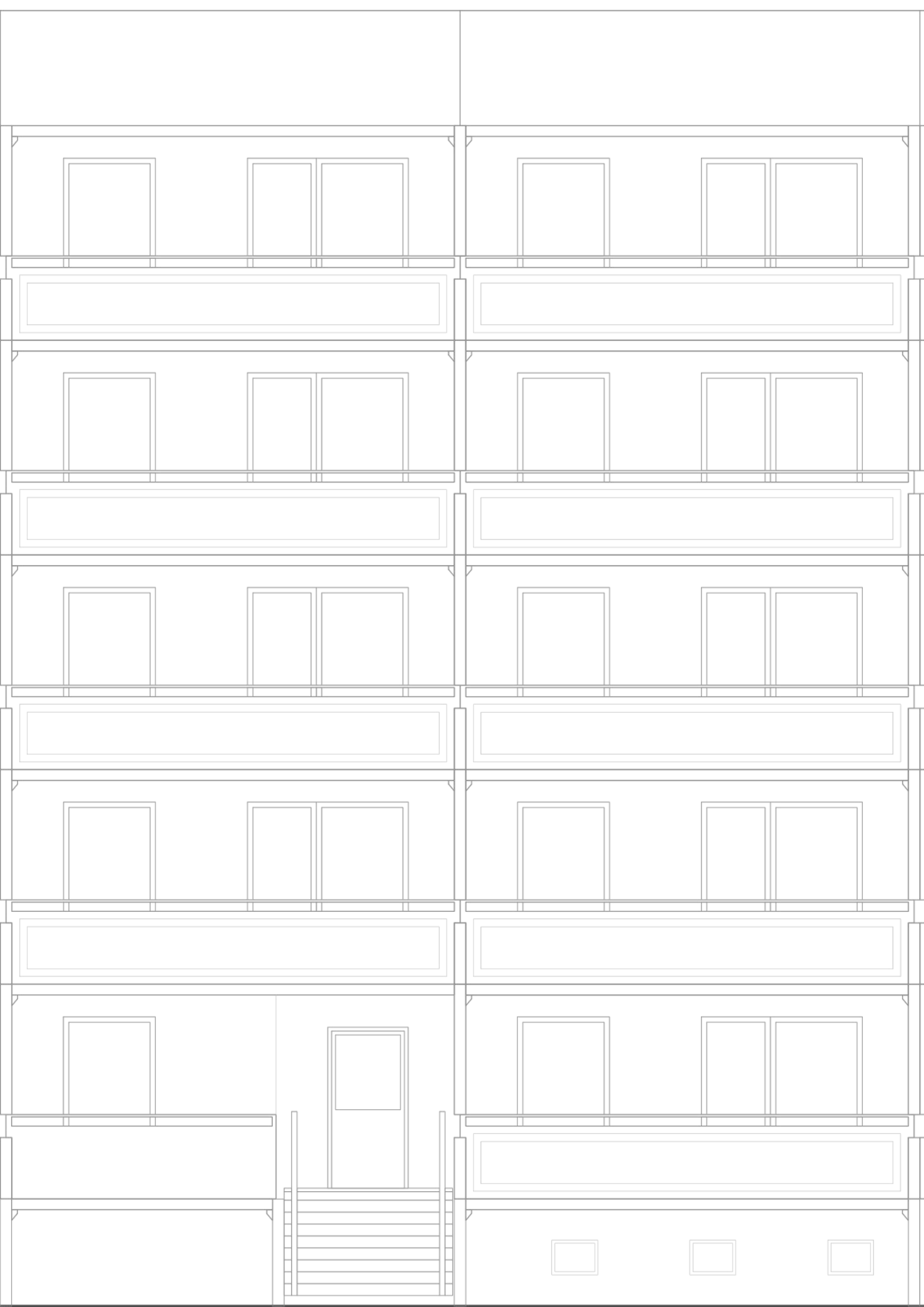
Grammarly was used to improve spelling.

An example of a prompt inserted in Perplexity AI chat:

“Highlight the spelling mistakes in the following text: [text]”.







PLATTENUMBAU

The work presented in this booklet addresses the issue of the extensive demolition of Plattenbau buildings and its socio-ecological impact. It seeks to challenge the prevailing notion of obsolescence of mass social housing and contributes to the professional debate by proposing an alternative to demolition.

