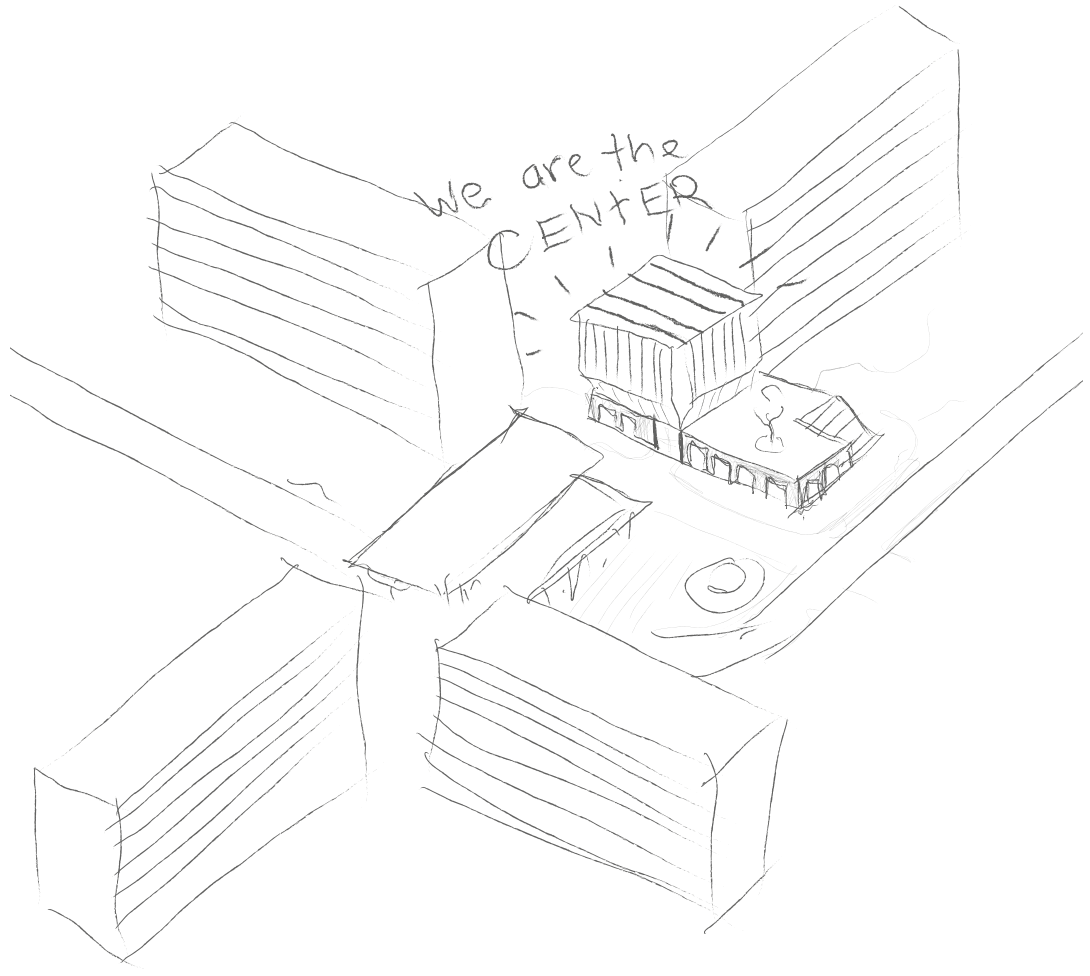
MOBILISING MOLENWIJK

From Automobile Infrastructure to Social Infrastructure:

Transforming a Parking Garage into a Centre for Civic Activity



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Heritage & Architecture | Transitional Identities
Reassembling the Spolia of Social

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INTRODUCTION

In many neighbourhoods in Amsterdam-North the contrast between civic centres and residential buildings could not be more striking: small, modest structures stand in the shadow of colossal apartment blocks. In a rapidly gentrifying Amsterdam-North, action groups such as Verdedig Noord (Protect North) and Red Amsterdam Noord (Save Amsterdam-North) are calling for the preservation of the area's urban identity, while the municipality aims to densify the district amidst growing pressure on the housing market.

This thesis explores the potential of adapting a parking garage—located at the heart of Molenwijk, a typical modernist neighbourhood—into a civic centre. In an increasingly polarised Dutch society, the need for civic spaces that foster interaction is more urgent than ever.

The research investigates the spatial conditions and physical identity of Molenwijk and establishes a tectonic catalogue as a baseline for the neighbourhood's architectural expression. The design aims to answer how automobile infrastructure can transcend its utilitarian role and become a meaningful public space. The design explores architectural and urban strategies for re-socialising a motopian modernist urban plan.

CONTENT

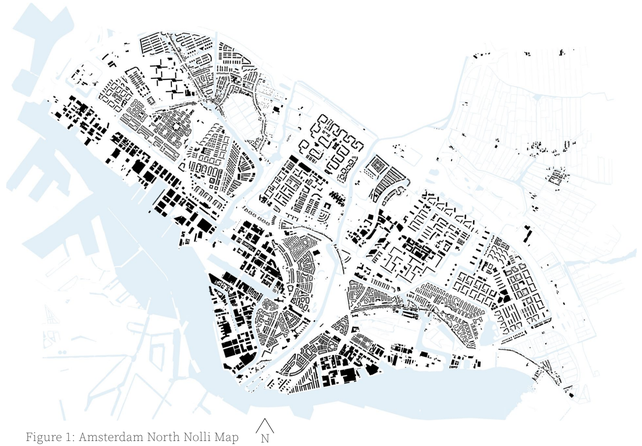
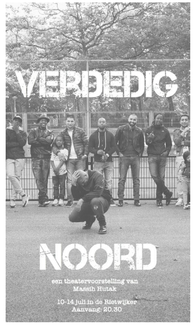


Figure 1: Amsterdam North Nolli Map

THEME OF THE ARCHITECTURE STUDIO



Amsterdam-North's urban identity will undoubtably be contested. The demand for affordable housing is rising, and the Netherlands in facing facing rapid urbanisation (De Jong et al., 2019). An increasing number of people are settling in "the forgotten city district" and socio-economical inequalities are becoming more and more visible (Van Engelen, 2024). Amsterdam-North will be connected to Zaandam; two bridges will cross the IJ river and connect Amsterdam-North to the city centre. Furthermore, 150.000 - 200.000 new homes are visioned for Amsterdam in 2050, many of which will be in city district Amsterdam-North (Gemeente Amsterdam, Ruimte en Duurzaamheid, 2019). The character of North will change as the population of North changes. Meanwhile, action groups are calling for new ways of building communities and gentrification is seen as a growing problem in the eyes of inhabitants of Amsterdam-North (Keulemans, 2020).

Spatial and social change in the neighbourhoods of Amsterdam-North is not a new phenomenon. The social geography of Amsterdam has transformed dramatically over recent decades, driven by intertwined processes of suburbanization, immigration, and gentrification (Savini et al., 2015). Beginning in the 1960s, affluent households departed the delapitated city center for suburban "New Towns" such as Almere and Lelystad, aided by car ownership and government incentives for homeownership (De Liagre Böhl, 2010).
This suburbanization initially drained the central city of its middle class, but since the 1980s, gentrification processes have reversed this trend. Areas like Jordaan and De Pijp have been gentrified since the 1980s (De Liagre Böhl, 2010).
Neighbourhoods further along the periphery of the A10 ring road are now seeing rising property values and an influx of middle-class residents (Van De Kamp, 2021). These neighbourhoods, the so called "garden cities", initially built to house working-class residents, are now facing both physical and social transformations driven by urban renewal policies. These policies, which prioritize reducing social housing in favor of owner-occupied housing, aim to attract middle-class residents and extend gentrification processes (Savini et al., 2015).

This transformation, driven by deregulation, rent liberalization, and the financialization of housing, has made social housing increasingly inaccessible. Post-2008 financial crises further accelerated these trends, pushing for middle-segment housing while reducing affordable options. The policies have exacerbated socio-economic polarization and contributed to the physical and symbolic divide between the areas closer to the periphery of the A10 ring road (Savini et al., 2015).

In Amsterdam, gentrification has been openly embraced as a policy tool to promote a dynamic urban economy, marking a notable departure from the city's earlier focus on urban justice and equity.
In the Netherlands, gentrification is a central, explicit aim which policy-makers are open about promoting. This shift is exemplified by the head of Amsterdam's Planning, Space, and Economy Section, who boldly championed the process in a column titled "Let the Gentrifiers Come" (Gadet, 2015). Such rhetoric reflects the city's pivot toward market-driven urban solutions (Sezer & Maldonado, 2017). These policies extend into the physical realm where demographic transformations of neighbourhoods result in the arrival of new amenities and the disappearance of older ones, as well as the transformation of public spaces, often through the investments into infrastructure.

This transition in the urban identity of Amsterdam-North leads us to the theme of our design studio: Heritage & Architecture: Transitional Identities | *Reassembling the Spolia of Social.* The main question of the studio is: What is the role of civic architecture in the discourse about spatial identity?

As an excercise to get a sense of the architectural state of civic architecture in Amsterdam-North existing civic centers were photographed and drawn as a collective effort of our studio. What impact does architecture have on the existing and new communities of the neighbourhoods of Amsterdam-North, and where do we as architects position ourselves within the discourse about the publicness of architecture?

SITE SELECTION

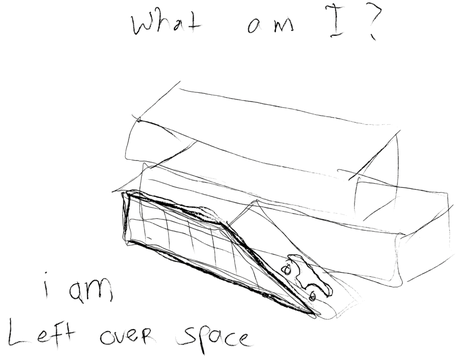
Molenwijk Nolli Map N

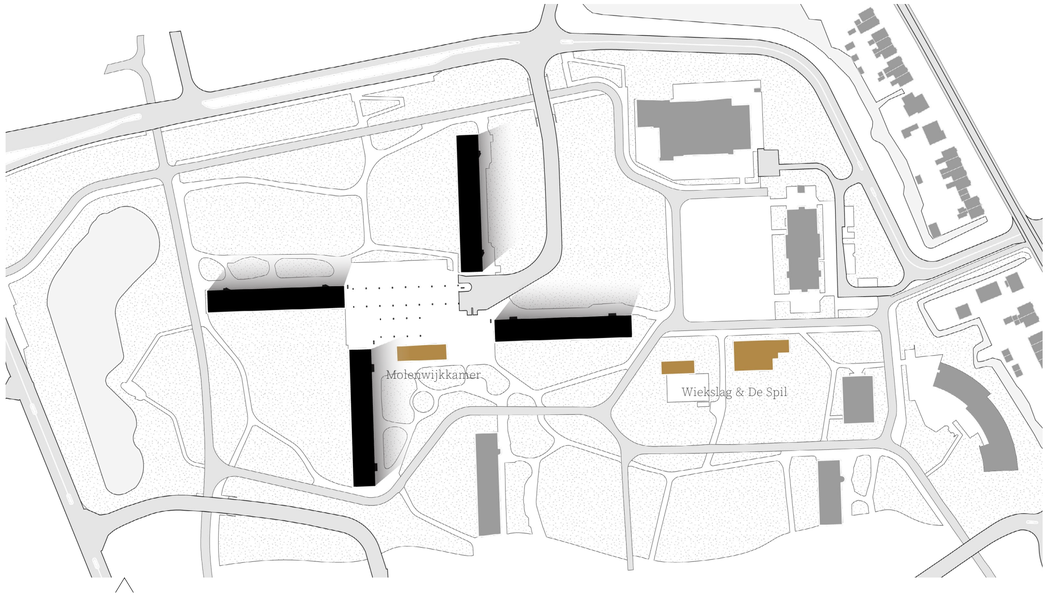
After visiting multiple civic centers in Amsterdam-North, Molenwijk seemed to me the neighbourhood where public institutions were architecturally the least visible and appealing. Two civic centers are left-over construction sheds, one is underneath a parking ramp.

During this research the municipality of Amsterdam issued a participation event for a redesign of the Molenwijk, adding 150 new dwellings, a new elementary school, a youth center and a civic center (Gemeente Amsterdam, 2024). The current residents that spoke up during the participation event on the 18th of november 2024 expressed their concern for newcomers in the neighbourhood. I talked to some municipal representatives, some residents and a social worker active in civic centre *De Wiekslag*. Although the main concerns issued were environmental changes (i.e. noise from the new school, changes in the landscape structure of Molenwijk), the placement and design of the civic center was yet undecided and vague. At the end of 2025 civic centre *De Wiekslag* with adjacent social food destributing centre *De Spil* will be demolished and replaced by a temporary youth center somewhere on the football and basketball Cruyff Court (Gemeente Amsterdam, 2024). In 2028 the construction of a new civic centre is planned..

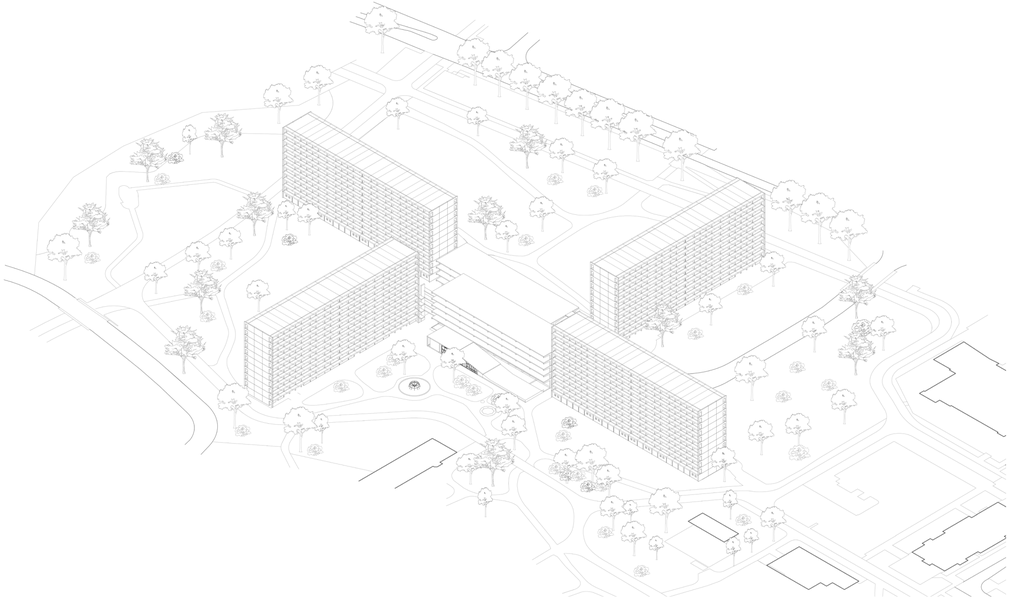
The parking garage that houses a modest civic centre underneath it's ramp struck me most when I visited the Molenwijk for the first time. This infrastructural colossal object that lies in the center of the apartments hints towards a public space. However, the civic center that is underneath the ramp of the parking, the *Molenwijkkamer*, is almost invisible if you're just a passenger. Maybe it wants to stay hidden. *De Wiekslag* and *De Spil* on the other hand are hiding in plain sight. These are small left-over construction sheds are standing in the middle of the fields around the appartment blocks.

This thesis will investigate how adaptive reuse of a parking garage could yield a space of appearance bound to Molenwijk. How can this infrastructural garage become more than just a storage box for cars?

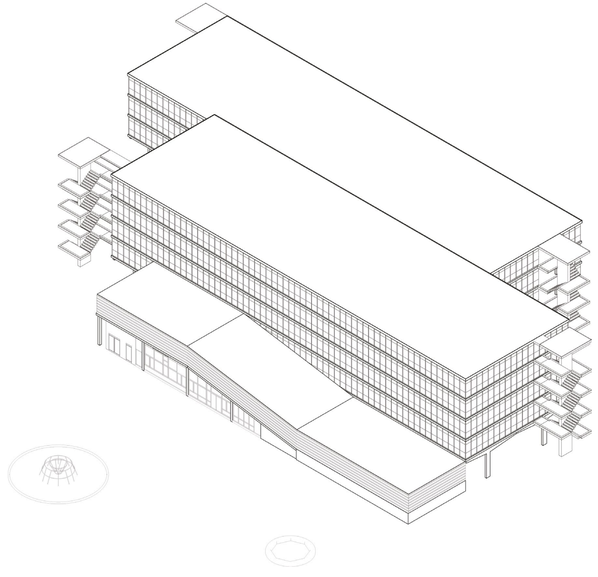




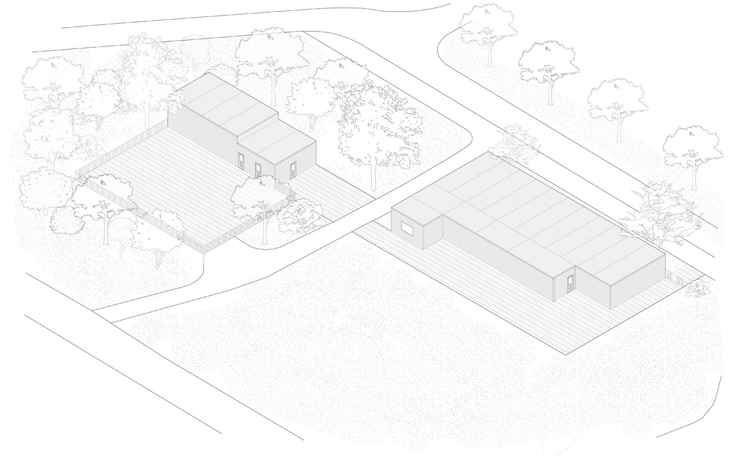
Molenwijk 1 : 1000 N



Molenwijk, Isometric



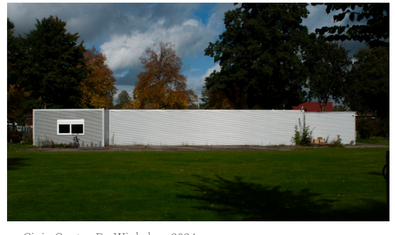
The parking garage in the center of the plan, the ramp towards the first floor houses a civic center underneath.



The left-over construction sheds appropriated as civic centers.

Civic Center Molenwijkkamer, 2024

Civic Center De Spil, 2024



Civic Center De Wiekslag, 2024

HISTORICAL CONTEXT MOLENWIJK

Fritz Behrendt, "The Last Pedestrian" (De Laatste Voetganger), De Telegraaf, 1965.

"a modern city will renew itself from its order concept of movement"

Louis Kahn, 1958.

Molenwijk was built in 1968 as part of Amsterdam's urban expansion to the north, and is a prime example of modernist urban planning in the Netherlands during the 1960s. This era was marked by urban planners grappling with the challenges of accommodating the post-war baby boom population. The rise of consumerism and private car ownership further intensified land use, while extensive motorways connected cities and facilitated suburban growth. The suburbs offered the possibility of living farther from the city without becoming entirely disconnected from it.

Three key technological developments have shaped Dutch society in the 1960s: mobility, household appliances, and telecommunications. In 1960, the Netherlands had only half a million cars, a number that has grown to 8.7 million today (Zijlstra et al., 2022). This surge transformed streetscapes, replacing the empty streets of the 1950s with rows of parked cars, while enabling people to shop at distant discount stores or access sports facilities across town. This shift posed challenges for those without cars, as urban neighbourhood facilities declined (Wassenberg, 2006). The rise of household appliances, particularly refrigerators and freezers, further reduced reliance on local shops by enabling bulk shopping. Meanwhile, the introduction of television in the 1960s, later followed by the Internet and mobile phones, diminished the role of neighbourhood community centers, making people less and less dependent on local activities and facilities (Wassenberg, 2006).

Since the advent of the automobile, cities have grown increasingly dependent on cars, shaping urban design and influencing visions of future urban environments. Cars became a literal driving force in urban redevelopment (Verlaan, 2019).Before the Second World War, car infrastructure—such as parking garages, expressways, and ring roads—was virtually absent in the Netherlands. This changed in the 1950s and especially the early 1960s, as a booming economy prompted Dutch planners and politicians to reimagine urbanism, recognizing the impact of rising car ownership on living and consumption patterns (Verlaan, 2019).

By 1965 the housing market was strained, government policy favored urban sprawl and planners anticipated a densely populated country unable to accommodate rapid growth (Levine & Van Weesep, 1988). Design solutions were required to address the growing sense of claustrophobia in the Netherlands. Urban planning in the Netherlands reflected an ambivalent stance, balancing post-war modernist, car-oriented development with more sustainable, pedestrian-focused approaches. Op Zoek Naar Leefruimte (In Search of Living Space) (Das et al., 1966) presents a creative vision of a future Netherlands where new technologies facilitate dense urban living, resembling a motopia. Yet, the book also critiques the car as an "asocial parasite" that demands excessive space in the public realm. While cars symbolise personal freedom, their infrastructure—parking garages, motorways, and expansive road networks—encroached on public spaces traditionally dedicated to pedestrians, marketplaces, and communal activities.

This tension between private automobile use and public urban space was central to 1960s urban planning debates. Op Zoek Naar Leefruimte (1966) observed: "Whoever steps from their house into their car takes something of their privacy-mentality with them: after all, it aligns quite well with the enclosed nature of their vehicle *"wie vanuit zijn huis in zijn auto overstapt neemt iets van zijn privacy-mentaliteit mee: deze sluit immers aardig aan bij de beslotenheid van zijn voertuig?"*" (Das et al., 1966, p. 25).

The dual perspective that the Netherlands had on modernity aligns quite well with Marshall Berman's All That Is Solid Melts Into Air (1983), where he defines modernity as the experience of being: *"in an environment that promi-*

ses us adventure, power, joy, growth, transformation of ourselves and the world—and, at the same time, that threatens to destroy everything we have, everything we know, everything we are."

Louis Kahn (1901–1974) was among the most influential architects to address this ambivalent nature of modernity through architecture. In his restructuring proposal for Philadelphia, Kahn envisioned an alternative modern city form, centered on two key elements: an efficient traffic system and iconic civic centers, drawing on his appreciation of historicism and the demands of modern life (Arkaraprasertkul, 2008). His design sought to resolve the city's automobile traffic issues by creating a "logical construct" to protect the city from the motorcar's destructive effects.

"The circumstantial demands of the car, of parking and so forth, will eat away all the spaces that exist now and pretty soon you have no identifying traces of what I call loyalties - the landmarks. Remember, when you think of your city, you think immediately of certain places which identify the city, as you enter it. if they're gone, your feeling for the city is lost and gone…

Louis Kahn, 1961 (Frampton, 1995).

Kahn envisioned urban centers where people, buildings, and services would concentrate at the core, while cars and roadways were relegated to the periphery, preserving the quality of urban life. This design prioritized pedestrian safety and ease of movement within the city (Arkaraprasertkul, 2016). His concept of a "walking city" integrated the "served-servant" spatial hierarchy established in his Richards Medical Research Center (1957–61) (Frampton, 1995). Motor vehicles would enter peripheral "served" spaces via high-speed roadways, park in ramped garages ("servant" spaces), and car-owners would transition to public transit for access to the city center (Arkaraprasertkul, 2016).

Kahn's most controversial proposition was reimagining parking garages as new civic centers—circular parking towers embodying the transition from movement to pause (Ricker, 1957; Arkaraprasertkul, 2008). These large-scale structures, inspired by platonic forms, evoked monumental architecture (figure x.) and addressed the need for a new civic identity. Kahn referred to this as "viaduct architecture," describing these towers as "wound-up streets" where "the street wants to become a building" (Frampton, 1995). Despite its ambition, this metaphorical and nostalgic vision failed to gain wider acceptance (Arkaraprasertkul, 2016).

Kahn's ideas were so influential that Op Zoek Naar Leefruimte (1966) not only depicted circular parking solutions but also explicitly referenced Kahn's 1957 City Tower Project. The book also highlighted the construction of the Coen Tunnel under the IJ River, connecting Amsterdam-North to southern areas, alongside locomotive-centered urban proposals for Amsterdam's future. This automobile-focused approach dominated urban planning culture in the Netherlands and especially the plans for Amsterdam-North.
Amsterdam-North, built largely on reclaimed dredging sites (apart from its medieval "lint-dorpen"), became a hub for urban experimentation (Balk, 1968). Its modernist designs ranged from interwar social-democratic garden cities to post-war projects like Plan van Gool (1966–1972) and Molenwijk (1966–1968) (Ottens, 1979). The geographic isolation of Amsterdam-North made its success dependent on robust motorway connections. These neighborhoods were marketed with promises of freeway access to Amsterdam's city center (Balk, 1968), reflecting the increasing prioritization of car ownership in urban planning. The opening of the IJ Tunnel in 1968 connected Amsterdam-North to the city center. Metaphors comparing car infrastructure to biological systems were common in 1960s media coverage of Amsterdam-North's urban developments. The IJ Tunnel was described as "the umbilical cord that gives life to North", the neighborhood Molenwijk was referred to as "the new beating heart of North" and the parking garages in Molenwijk were even labeled "the heart" of the neighborhood ("Nieuw Hart Komt in De Buikslotermeer," 1968).

Figure 24: Louis Kahn Philadelphia proposal: the protective wall of circulat parking towers (On Monumentality: Louis I. Kahn & the City, 2024).

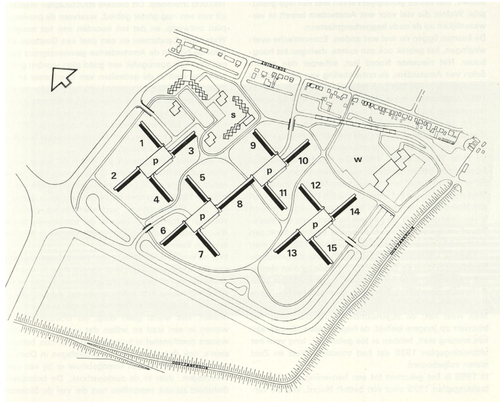


Figure 30: Molenwijk, Urban Design (Balk, 1968).

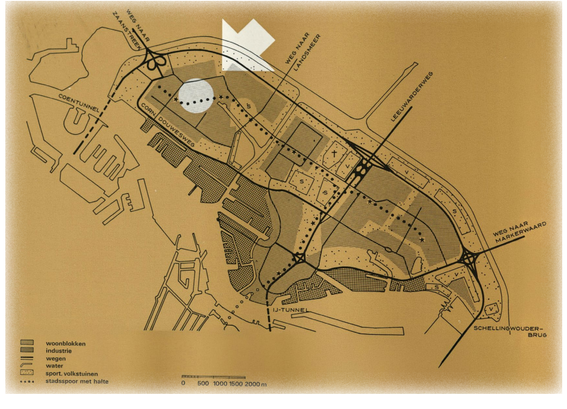
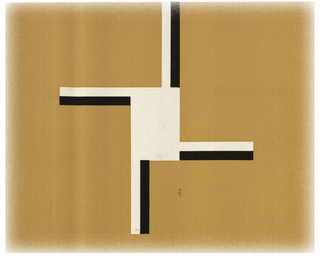


Figure 28: Molenwijk situated in Amsterdam-North, Urban Map (Balk, 1968).

DESIGN OF MOLENWIJK



"The creators of old panorama maps, who meticulously depicted their cities with all their houses and churches from a single viewpoint, likely had little notion of the beauty of a city seen from high above, under changing light, varying by the hour, day, and season. Who once said that all modern suburbs look alike? This is certainly an exaggeration, and the air traveler who soon looks down on Amsterdam, stretching above the silver crescent of the IJ, will surely agree."

Jacob Theunis Balk, 1968.

This is the first verse of how Molenwijk was advertised to the public. What further principles were underlying the design of Molenwijk?

The 1935 General Expansion Plan (Algemeen Uitbreidingsplan, AUP) and its subsequent revisions—the 1958 North Amsterdam Structural Plan and the 1965 South and South-East Amsterdam Structural Plans—laid the groundwork for Amsterdam's post-World War II urban expansion. In 1966, several areas were annexed to support the development of North and South-East Amsterdam. These included portions of Weesperkarspel to facilitate the construction of the Bijlmermeer estate and parts of Landsmeer and Oostzaan for northern expansion.

Oostzanerwerf is a piece of old land north of the Oostzanerdijk—a dike that once protected the unstable marshland ("terra instabilis") from the brackish waters of the IJ, which occasionally breached it, leaving behind pools like Dijkbraak and Kouwenhornbraak (Balk, 1968). Located in the western part of Amsterdam-North, Oostzanerwerf long carried a reputation of remoteness among the people of Amsterdam, conjuring images of struggle and distant, windswept neighbourhoods. Some even viewed it as a dreary liminal zone—neither fully urban nor rural (Balk, 1968). With the opening of the Coentunnel in 1966 and improvements in transportation infrastructure, residents could soon reach western Amsterdam in minutes. Public transport, including connections to Sloterdijk station, further reduced travel times. The 1968 opening of the IJ Tunnel and new roadways, such as the 30-meter-wide Leeuwarderweg, connected Noord to the Rijksweg 7 highway, bringing an end to its sense of isolation (Arcam, 2021).

The development of Amsterdam-North was closely tied to the dredging industry. Material dredged from the IJ and Noordzeekanaal created new, affordable construction sites, enabling the creation of garden cities like Nieuwendam, Buiksloot, and Oostzaan. These early 20th-century neighborhoods were inspired by Ebenezer Howard's Garden Cities of Tomorrow, emphasizing low-density, green living. However, by the 1960s, economic pressures and population growth necessitated a shift toward high-density construction, as seen in the Oostzanerwerf plan. Modern building trends are more sharply evident in Amsterdam-North than in other parts of the city. This is understandable, as North only entered the accelerated phase of housing development after 1960, during a period when new ideas like elevators, central heating systems and improvements in vertical construction were being tested.

In the early 1960s North had a population of approximately 50,000, a figure that had remained stable for many years. By the mid-1960s, this number had risen to over 75,000 by mid-1967. Plans were made to foresee room for up to 100,000 residents in Amsterdam-North, but it reached that level only in 2020 (Witschge et al., 2019).

Molenwijk

The design of Molenwijk is by the hand of architect HBO Klaas Geerts. Klaas Geerts (1932 - 2002) was a Dutch architect whose work drew on the principles of industrial efficiency and modernist ideals. Taking inspiration from the Fordist production style, Geerts sought to streamline urban design by integrating industrial precision into the planning and construction of residential neighbourhoods. His designs often emphasized the separation of traffic flows, reflecting a forward-thinking approach to functionality and safety in urban environments.

In his role with the housing manufacturer INDECO Coignet, Geerts contributed to the realisation of modern, prefabricated housing solutions that could be produced and assembled with remarkable efficiency. Among his notable projects was his involvement in the design of the Bijlmermeer, Amsterdam's bold experiment in high-density urban living. Geerts was in-

strumental in shaping several neighbourhoods in Amsterdam Noord, where his commitment to industrialised methods and functional urbanism left a lasting mark. His work stands as a testament to the post-war ambition to harmonize human living environments with the capabilities of industrial production.

> *"What is now rising on the solid foundation of the dredging site in Oostzanerwerf has very little to do with the ideas of the once highly praised Sir Ebenezer, who presented his concepts in a time when farmers were still chasing after puffing automobiles with flails. Oostzanerwerf is not becoming a village. We live in a city, and we want that to be known."*
>
> Jacob Theunis Balk, 1968.

The buildings in the Oostzanerwerf plan, with fifteen ten-story blocks, showcase a daring arrangement in the form of windmill blades surrounding four parking garages. This configuration not only organizes space functionally but also evokes a distinctly Dutch cultural and historical symbol—the windmill. This was aimed to create a visual and symbolic connection between the modern high-rise buildings and the Netherlands' traditional heritage. There are fifteen of these blades; one, slightly longer than the others connects two parking garages.

The Oostzanerwerf plan, now known as Molenwijk (literally translated: Mill Neighbourhood), claimed to accommodate the diverse housing needs of the time: the 1,256 units include three-bedroom apartments for families and smaller units for single occupants or older adults (Van Gameren, 2011). Larger units provided generous living space compared to earlier developments, reflecting evolving housing standards ("Nieuw Hart Komt in De Buiksloter-meer," 1968). The distribution of the 1,256 housing units, built for the Federation of Amsterdam Housing Associations, is as follows: 860 apartments with three bedrooms, 318 with two bedrooms, and 78 with one bedroom. This choice was deliberate. The average size of an apartment in Molenwijk is 95 m^2, specifically catering to families. The advertisement describes this neighbourhood in a setting, where "the man of the house" can enjoy the last bit of sun in the south-facing livingroom when returning home from the labour of the day". The benches provided in the park surrounding the apartment blocks were for "resting mothers, watching the kids."(Balk, 1968). The Molenwijk was designed for the nuclear family, with some variations in apartment size for elderly or singles. These newly built, large apartments were catered towards people of higher socio-economic classes. The idea was that newly built could tolerate higher rents, while older housing was for the economically poor, drawing the economic power from the city centre to the outer edges of the city (Arcam, 2022).

The design prioritized livability, incorporating park-like green spaces, playgrounds, and amenities such as sheltered play areas visible from kitchen windows. Water features and tree-lined pathways enhanced the environment, aiming to ensure a balance between urban density and outdoor recreation. The concept city that is described by J. Th. Balk consists of a park-like environment with 10 story stacked apartment blocks, a shopping mall in the southwest of the plan with incorporated social functions and in the north-east a school district to educate the children of the neighbourhood. Civic centers were not planned in the neighbourhood, "it was up to the residents to organise themselves and construct one of their own" (Delpher, 1968).

The juxtaposition of the large high-rise blocks against the smaller, traditional buildings of nearby neighborhoods is striking and deliberate. The scale and visibility of the ten-story buildings, combined with their carefully designed layout, create an iconic image of modernity that stands out in the broader landscape.

When the model of new Amsterdam-North was displayed to the public in the Zuiderkerk in late summer 1967, the "Windmill Plan" attracted significant attention: "No one in the future will have difficulty identifying it on the map of the country's capital" (Balk, 1968). However, the reasons for this urban design were not simply to create an impressive model or a picturesque aerial view. The reasons are clearly visible on the ground: the car seeks to leave its mark on the image of contemporary neighbourhoods, but here, in the Oostzanerwerf plan, the car has been given a clear urban planning boundary: "this far and no further."

This locomotive reading of the Molenwijk is paramount to the understanding of the design. Around the approximately thirty hectares of the Oostzanerwerf plan runs an elevated ring road, along which cars can reach the residential blocks—or more precisely, the parking garages connected to those blocks via pedestrian bridges. Four access roads lead from the main road to the parking garages, and each access road features a viaduct for bicycle and pedestrian paths, ensuring that cars cannot venture beyond these roads. The opening of the neighbourhood was celebrated by Alderman Elsevier symbolically driving into the parking garage with his car (figure x.) This event stands as a testament to the mindset the people of Molenwijk had towards the automobile: the car connects.

The Oostzanerwerf plan is, in a sense, a precursor to what would later be widely implemented in the Bijlmermeer: the separation of traffic from residential environments and the "stacking" of cars in parking garages. Completely according to the urban planning ideal of CIAM, with high-rise apartment buildings surrounded by green spaces, elevated motorways, and open areas accessible only to pedestrians and cyclists.

Figure 40: Photograph of Alderman Elsevier opening the Parking Garage by driving in there with his car, 1968 (Stadsarchief Amsterdam, n.d.).

Figure 40: Photograph of Alderman Elsevier opening the Parking Garage by driving in there with his car, 1968 (Stadsarchief Amsterdam, n.d.).

Figure 28: Photograph of Molenwijk in 1968 (Stadsarchief Amsterdam, n.d.).

THREE CRITIQUES ON THE MOLENWIJK PLAN

"A smithy here, a bakery there, then some houses again, which in turn are interspersed with shops and workshops, creating a framework or setting in which one is confronted with and can refer to the diversity of human society. This possibility is now virtually excluded. The various human activities, such as living, working, trading, and relaxing, are now separated into distinct districts. In a residential block, one sees nothing but housing, and this impoverishment of the living environment also leads to a narrowing of thought, especially among children. Bound to the block where they live, they perceive nothing but this one facet of a multifaceted society."

Godfried Bomans (Volkskrant,1968).

The planning of Molenwijk, like much of the urban development of the 1960s, has been subject to critique for its pursuit of economic efficiency at the expense of human-scale urban design. Drawing on Godfried Bomans' reflections and the architectural discourse of the time, including the views of Jaap Bakema, Molenwijk epitomises the pitfalls of modernist planning ideals that prioritised functionality and rationalism over the nuanced needs of a vibrant community.

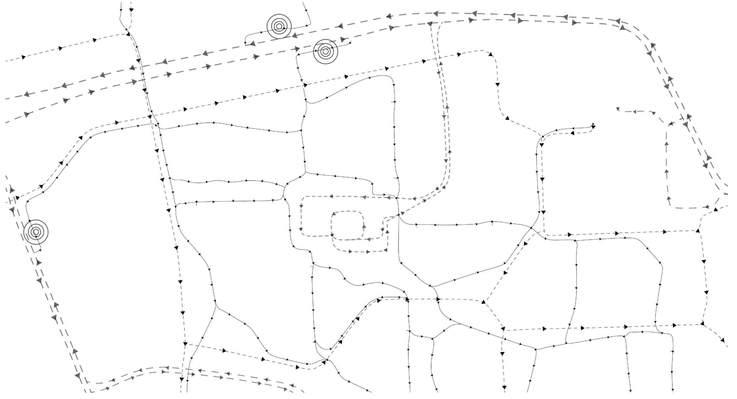
Bomans lamented the separation of human activities—living, working, and socialising—into rigidly distinct zones, stripping neighbourhoods like Molenwijk of the organic intermingling that had historically defined urban life. The monotonous repetition of uniform housing blocks, designed with economy as the primary driver, led to what Bomans described as "soulless storage systems for people." This critique aligns with Bakema's concerns about the erosion of a meaningful architectural framework (referentiekader) that could connect residents to their environment and foster a sense of identity and belonging.

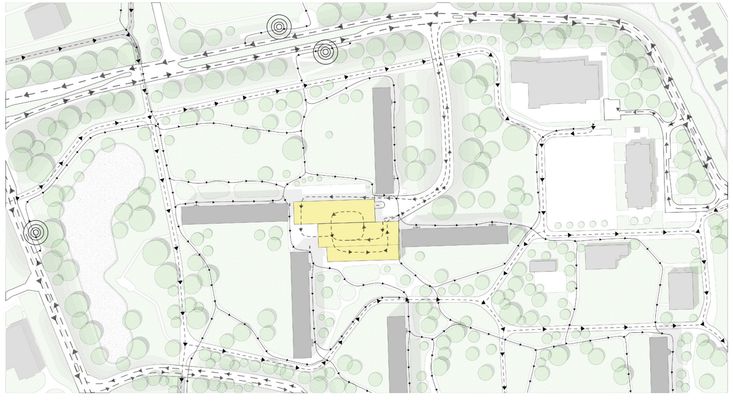
The relentless focus on cost-effectiveness resulted in a verarming van de architectonische expressie—an impoverishment of architectural expression. The aesthetic and spatial monotony, with its lack of diversity or distinguishing features, left little room for the kind of human interaction and creativity that vibrant urban environments thrive on. Children, confined to uniform residential blocks, experienced a narrow and limited view of society, a consequence of the very zoning practices that were meant to improve modern living.

Molenwijk's design, though not explicitly based on Hannah Arendt's framework, can be analysed through her concepts of labour, work, and action (figure x). Residents fulfill their biological needs (labour) within their apartments, meet in the parking structure (action), and leave for their jobs by car (work). The parking structure, central to the neighbourhood, was envisioned as a shared space fostering interaction, reflecting the 1960s optimism about cars and their infrastructure.

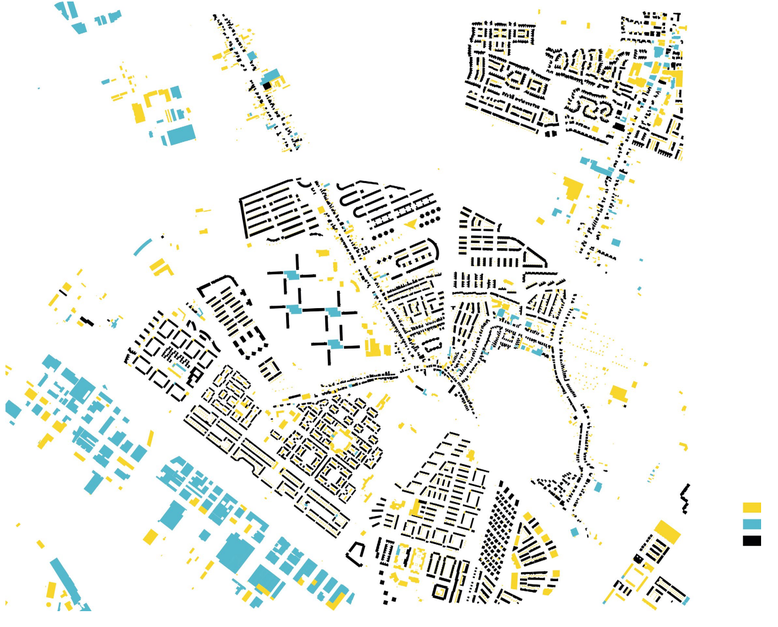
However, analysing this design through Arendt's lens reveals the fragility of structuring action in a utilitarian space like a parking garage. While it symbolised modern mobility and progress at the time, the reliance on car-centric planning highlights the limitations of such spaces in fostering meaningful and lasting public life, particularly as societal values and urban dynamics have evolved. The three main critiques of this thesis are: The Tyranny of the Car, The Inactive Ground Plane and The Anonymity of the Slab. For each of these three critiques varying arguments will be put forward, in text and image. The subsequent design tries to adress these critiques.

THE TYRANNY OF THE CAR

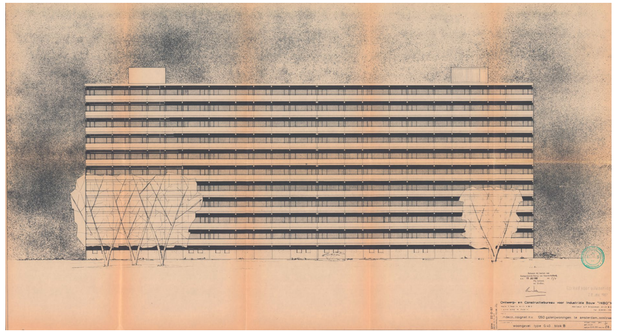




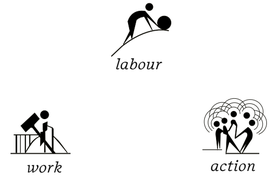
THE INACTIVE GROUND PLANE



THE ANONYMITY OF THE SLAB



RESEARCH: PUBLIC TECTONICS



This thesis builds its theoretical framework on the concept of public space, drawing primarily on the understanding articulated by political philosopher Hannah Arendt (1906–1975). Recent scholarship highlights a growing interest in revisiting Arendt's ideas (Teerds, 2022). While Arendt herself paid limited attention to architecture as a discipline, her arguments are deeply spatial and resonate with architectural thinking (Markell, 2020). Beiner (2016) underscores the importance of taking Arendt's notion of "public space" seriously, arguing that meaningful political action depends on a physical environment that serves as a "stable horizon of civic experience." He calls upon architects to engage in the "deliberate expression of civic identity" by designing spaces that counter the "soullessness" of much modern architecture and design spaces that feel like authentic sites of "grounded worldliness."

Theoretical Framework

The diagram by Mansour et al. (2023) on Urban Identity distinguishes between the material and immaterial dimensions of urban identity. The material dimension encompasses man-made objects, which are separated from the natural world, while the immaterial dimension consists of human activities and the meanings they generate. Through these activities, the man-made world of objects acquires meaning, as it houses and supports human endeavors. To understand public and private spaces, we will first turn towards Arendt's understanding of these terms as described in The Human Condition (1958) that subsequently turn towards human activity as a way to understand these spaces.

Private and Public: oikos and polis

Arendt's understanding of public space is rooted in the historical contexts of Greek and Roman city-states, where the physical and symbolic dimensions of public life were closely intertwined (Teerds, 2024).

Aristotle's *oikos* and *polis* provide a classical foundation for understanding the division between the private and public realm. *Oikos* refers to the private realm. It encompasses family life and the management of the household, including economic activities and the maintenance of basic needs.
The *oikos* is concerned with necessity. *Polis* refers to the public realm: the city-state, the political community where citizens engage in public affairs, governance, and deliberation.

"The polis, properly speaking, is not the city-state in its physical location; it is the organization of the people as it arises out of acting and speaking together, and its true space lies between people living for this purpose, no matter where they happen to be."

Hannah Arendt, 1958.

The polis is the realm of freedom and virtue. It allows individuals to pursue a higher purpose—living a good life—through participation in collective decision making: it is egalitarian in principle (among free male citizens). In the polis, individuals transcend their private concerns to contribute to the welfare and justice of the community. Aristotle sees the oikos as a necessary foundation for the polis (Arendt, 1958). Arendt looks back to the idea of the polis to locate the origin of public places, and in order to understand the modern crisis of public citizenship (Shahbazin, 2021). In order to do this, Arendt (1958) distincts three main human activities: labour, work, and action. These human activities reinterpret the classical divisions of oikos and polis to articulate the shifts in human activity and meaning in the modern world.

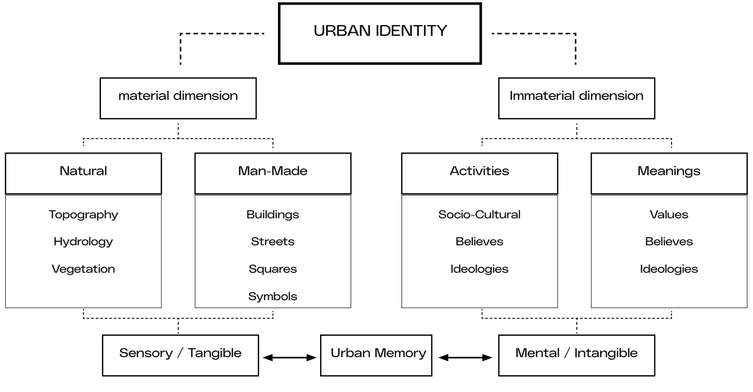


Figure 12: The components of Urban Identity, (Mansour et al., 2023).

RESEARCH: PUBLIC TECTONICS

Labour

Labour corresponds to the activities required for sustaining biological life and fulfilling the necessities of existence (e.g., eating, shelter, reproduction). It is cyclical and never-ending, tied to the natural processes of life. Labour is archetypically private and confined to the household sphere (Arendt, 1958).

labour

Work

Work refers to the creation of durable objects and artefacts that outlast the immediate cycle of biological life. It is the realm of production. Through work, humans transform nature into a human-made world, giving permanence and stability to existence. Work constructs the oven; labour is busy baking bread (Arendt, 1958).

work

Action

"Action needs for its full appearance the shining brightness we once called glory, and which is possible only in the public realm."

Hannah Arendt, 1958.

action

Action is the highest form of human activity, taking place in the public realm and always accompanied by speech. Arendt (1958) ascribes revelatory qualities to these activities, as they allow individuals to express their uniqueness: no one acts or speaks the same way, thus through these activities the actor's identity is revealed (Arendt, 1958). Therefore, action is characterized by freedom, plurality, and unpredictability. Unlike labour and work—which focus on survival and production, respectively—action is concerned with creating meaning and engaging with others in a shared public space. However, action is not without purpose; it seeks to achieve something by provoking and persuading others to join in and re-act. This inherently relational quality means that action and speech depend on public places where they can be both seen and heard (Teerds, 2022).

Arendt critiques the modern age for eroding the distinctions between labour, work, and action, particularly through the intrusion of labour (necessity) into the public realm. This shift, she argues, reduces politics to the realm of economic management (oikonomia), overshadowing the more profound possibilities of collective action and meaningful engagement. Frampton (1979) echoes this critique within the field of architecture, highlighting how the dominance of "labour" and process-driven economic models in modern architectural practices has profoundly shaped the spaces we inhabit (Teerds, 2024). He argues that these models prioritize efficiency and fabrication processes over the creation of spaces that enable human freedom and interaction.

For Arendt, public space is the stage for political action and speech, and architecture plays a crucial role in defining and shaping this space. Political space, as she conceives it, is not merely a backdrop but an active enabler of an open political society (Sjöholm, 2020). The architectural strategies that shape public spaces, therefore, directly influence the potential for action and speech to occur.

Space of appearance

Public space, as a "space of appearance," is fundamentally characterized by plurality. Arendt uses this term to evoke a dynamic image of appearances and disappearances, action and reaction, movement and motion, potential conflict, and continuous change (Teerds, 2022). The space of appearance comes into existence whenever people gather to act together but dissipates when such collective action ceases.

Arendt conceptualizes the space of appearance as both a shared material world and a "space in-between." This "in-between" is not merely natural; it is the human-made architectural world we inhabit (Shahbazin, 2021). This world is characterized by spatiality, durability, and representation, physically structured through elements such as boundaries, thresholds, and spaces (Teerds, 2022). It is within this material framework that public life unfolds. Architecture, as part of this shared world, plays a crucial role in shaping the conditions for public interaction and engagement.

Baird (1995) explicitly engages with Arendt's concept of the space of appearance in the architectural debate on public spaces. Architecture exists within the common world of things, and Baird's work emphasizes its potential to create environments that facilitate human interaction and political engagement. Drawing inspiration from Arendt, Baird (1995) identifies several key design principles for creating meaningful public spaces:

Facilitating Human Interaction: Designing spaces that encourage gathering, interaction, and discourse to foster a vibrant public realm.

Creating Inclusive Environments: Designing spaces that are accessible and welcoming to diverse groups, reflecting societal plurality.

Encouraging Active Participation: Developing environments that invite individuals to engage actively in communal life, supporting democratic practices.

Balancing Permanence and Flexibility: Constructing spaces that provide a durable framework for public life while accommodating changing social dynamics.

Emphasizing Visibility and Transparency: Ensuring public activities are visible, promoting openness and accountability within the community. Visibility, apart from vistas that allow people to perceive space, is also closely related to recognisability of the thing and it can be enhanced through a design that reveals the particulities of artefacts.

Through these design principles, Baird (1995) argues that the space of appearance can be actively facilitated through architectural and urban design. These tactics not only serve as an analytical tool for critiquing existing architecture and urban design but also as an objective for architects and

planners aiming to create spaces that support collective life and political engagement. For this thesis the main goals will be recognisability (visibility), transparency, and permanence and flexibility, in order to facilitate human interaction.

Recognisability of the Thing

For almost two decades, the French Philosopher Bruno Latour has also examined the role of things in relation to the public realm. Latour (2005) introduces an "Actor-Network-Theory" (ANT) that encourages us to see these things not just as symbols but as active agents shaping and being shaped by the social and material networks around them. The purpose here is not, however, to anthropomorphize insentient beings; it is to point out the special role that objects play in associations: they stabilize (Czarniawska, 2006). It is at this point that the definition of 'social' is significantly extended: from 'humans only' to 'all actants that can be associated (Czarniawska, 2006).

In accordance with Latour (2005), Rossi (1982) argues that cities are built on layers of historical continuity, with enduring structures and monuments "urban artefacts" that play a key role in forming a city's identity. Rossi (1982) saw these artefacts as both physical structures and vessels of collective memory, shaping the identity and continuity of the city across generations. What makes an urban artefact can be explained through Arendt's lens. The thing becomes an urban artifact when it has the possibility to outlast a human life , when the thing can break through the cyclical nature of labour and becomes something lasting: the thing enters the realm of work. Painting a house is a labouring act: the paint is exposed to weathering and has to be reapplied every now and then. However the labour is in service of working against the decaying nature of the passing of time, as the object being painted, a house for example is now more capable of becoming an urban artefact, something more permanent than life itself. Human activity picks and chooses it's urban artefacts through maintenance, care and destruction. This is a matter of infrastructure and formal organisation, of narratives that are designed and that express the 'public things'. These 'things' require our special attention to make them appealing, to give them a certain gravity within spatial patterns, and to open them up for public use and communal concern. They will form spaces that allow for collective experiences and remembrances, their appeal is a message: the value we assign to these 'things' as 'the infrastructure of democracy' (Teerds, 2022).

Material Agency and Tectonics

The concept of "the space of appearance" strongly resonates with the writings of Kenneth Frampton (Teerds, 2024). Frampton (2019) stresses the importance of tectonic form as a means of articulating Arendt's idea of the space of appearance. In his conception of the tectonic, structure is not merely a technical element but is intrinsically tied to its visible form and expression (Markell, 2020b).

The visible form of a building, Frampton argues, may either reveal or obscure functions that extend beyond the mere transmission and bearing of structural loads. Mechanical functions—such as heating, cooling, lighting, and waste disposal—can become integral to the building's expression, as demonstrated by Louis Kahn's concept of "served and servant spaces" (Frampton, 1995). However, Frampton (1995) goes further, suggesting that architecture should also reflect functions performed by human beings. These include the maintenance and cleaning of the building, as well as the broader range of social activities that involve circulation into and out of the space (Markell, 2020).

For Frampton, architecture is fundamentally about disclosure. It makes the tectonic qualities of a work—both material and social—visible and available for public attention and critique. This includes the arrangement of material elements by which a building transmits and bears loads, as well as the social arrangements that underpin its construction, maintenance, and the diverse human practices it accommodates (Markell, 2020).

"To the extent that architecture remains suspended between human self-realization and the maximizing thrust of technology, it must of necessity become engaged in discriminating among different states and conditions; above all perhaps among the durability of a thing, the instrumentality of equipment, and the worldliness of human institutions. The tectonic presents itself as a mode by which to express these different states and thereby as a means for accommodating, through inflection, the various conditions under which different things appear and sustain themselves."

Kenneth Frampton, 1995.

Through tectonic expression, architects reveal the structure, materials, and craftsmanship of a building, emphasizing its rootedness in human labour and its connection to the environment. This honesty and clarity create a space that fosters visibility, openness, and engagement, key qualities of the space of appearance. These ideas suggest that civic centers are not only functional spaces but also rich, active participants in the public realm through their material presence and the way they are constructed.

Bastardizing the Tectonic: Forming an Analytical Framework for Architectural Design Practices

Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture (Frampton, 1995), draws on Gottfried Semper's theory of the four elements of architecture (Die vier Elemente der Baukunst) to analyze how architectural projects articulate tectonic expression. These four elements, as reinterpreted by Frampton, are Mound, Framework/Roof, Hearth and Infill Wall (enclosure).

Mound

mound

The mound refers to the foundation that anchors the building to the earth, grounding it within its site and context. The mound is a crucial element for understanding how architecture engages with the landscape and its cultural or environmental surroundings (Frampton, 1995).

Framework/Roof

frame

The framework encompasses the structural skeleton of a building, which supports both the roof and the spatial configuration of the architecture. The roof, as part of the framework, provides shelter and defines the boundary between interior and exterior spaces.
Frampton (1995) showsemphasizes how architects expose or celebrate the structural mechanics of the framework and roof, integrating tectonic honesty with aesthetic expression. This category explores how structure and shelter converge to shape architectural form and meaning.
The visible expression of the framework and roof demonstrates the interplay of material, craftsmanship, and function, often serving as a key aspect of the building's tectonic identity (Frampton, 1995).

Hearth

hearth

The hearth symbolizes the core of human dwelling and the primal element of architecture, representing the focal point around which communal life is organized. Frampton (1995) extends this concept to include any central feature or organizing principle in architecture that fosters social interaction and serves as the symbolic heart of a structure. Frampton (1995) examines how architects embed symbolic or spatial centrality into their designs, often reflecting the hearth's historic role as the locus of gathering (Frampton, 1995).

Infill Wall (Enclosure)

infill

The Infill Wall or Enclosure consists of the vertical boundaries that define interior spaces, providing privacy and separating the interior from the exterior. Frampton (1995) focuses on how architects treat the facade and walls as more than functional barriers, exploring their materiality, texture, transparency, and relationship to the surrounding environment. He emphasizes how these elements can reveal cultural and contextual connections, contributing to the architectural narrative.

Frampton uses Semper's four elements as a lens to examine how architects design buildings that resonate both materially and culturally. The framework/roof category, in particular, is central to many of the projects he explores, as it reflects the balance between functional necessity and poetic expression. Across all four elements, Frampton highlights how material choices, structural logic, and craftsmanship contribute to architecture's tectonic and cultural significance.

The terms stereotomic, tectonic, and atectonic offer a deeper conceptual lens for analyzing how the elements of architecture—mound, frame, hearth, and enclosure—relate to their materiality, construction, and cultural meaning.

Stereotomic

stereotomic

Stereotomic derives from the Greek "stereos" (solid) and "tomē" (to cut). It focuses on building through the manipulation of mass—for instance, carving or stacking blocks of stone, concrete, or other massive materials.

Tectonic

tectonic

Tectonic comes from "tekton" (builder or carpenter), emphasizing framework and assembly. It highlights how lighter, discrete elements (beams, columns, joints) are put together to create a structural frame.

Atectonic

atectonic

Atectonic refers to construction that conceals or obscures its structural logic. Rather than celebrating mass (stereotomic) or revealing the framework (tectonic), atectonic architecture disguises how it is built.

Towards a poetic architecture

Frampton's categorization highlights how a building's construction can either reveal or conceal its structural logic, and how these choices carry cultural, aesthetic, and ethical implications. Stereotomic architecture celebrates mass and groundedness, aligning closely with the mound and, to some extent, the hearth, as they embody permanence and a connection to the earth. Tectonic architecture emphasizes structural clarity, craftsmanship, and assembly, predominantly represented in the framework and roof, but also influencing the hearth and parts of the enclosure when construction is celebrated and made visible. In contrast, atectonic architecture prioritizes surface treatments that obscure structural logic, often seen in enclosures that mask their construction, focusing instead on form or symbolic representation.

Frampton (1995) uses these distinctions to critique architectural practices that neglect tectonic expression or rely excessively on atectonic design, undermining cultural and material authenticity. By relating stereotomic, tectonic, and atectonic qualities to Semper's four elements, Frampton establishes a framework for analyzing how architecture can balance the primal (mound and hearth) with the constructed (framework/roof and enclosure), advocating for designs that meaningfully engage with their context and resist placelessness.

There is no direct, linear relationship between Arendt's theory and specific tectonic objects, yet the totality of a design can be critically assessed through Arendt's framework. By integrating Semper's elemental building principles with construction methods rooted in the history of a neighborhood, architecture can forge stronger ties to place and identity. This approach highlights the tectonic articulation of human activities, moving beyond mere labour to encompass action. Incorporating Arendt's insights into architectural analysis from the outset can reveal how neighborhoods function and where they fall short in facilitating collective engagement and meaningful public life.

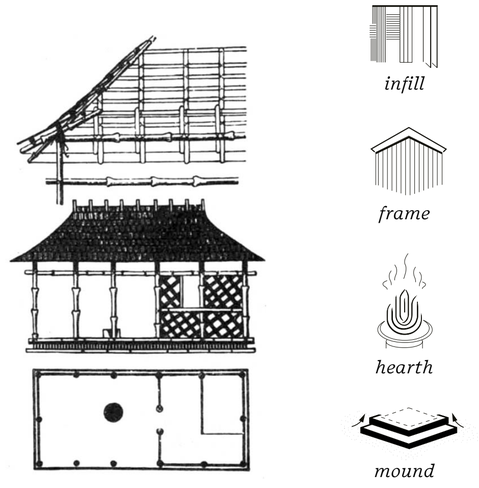
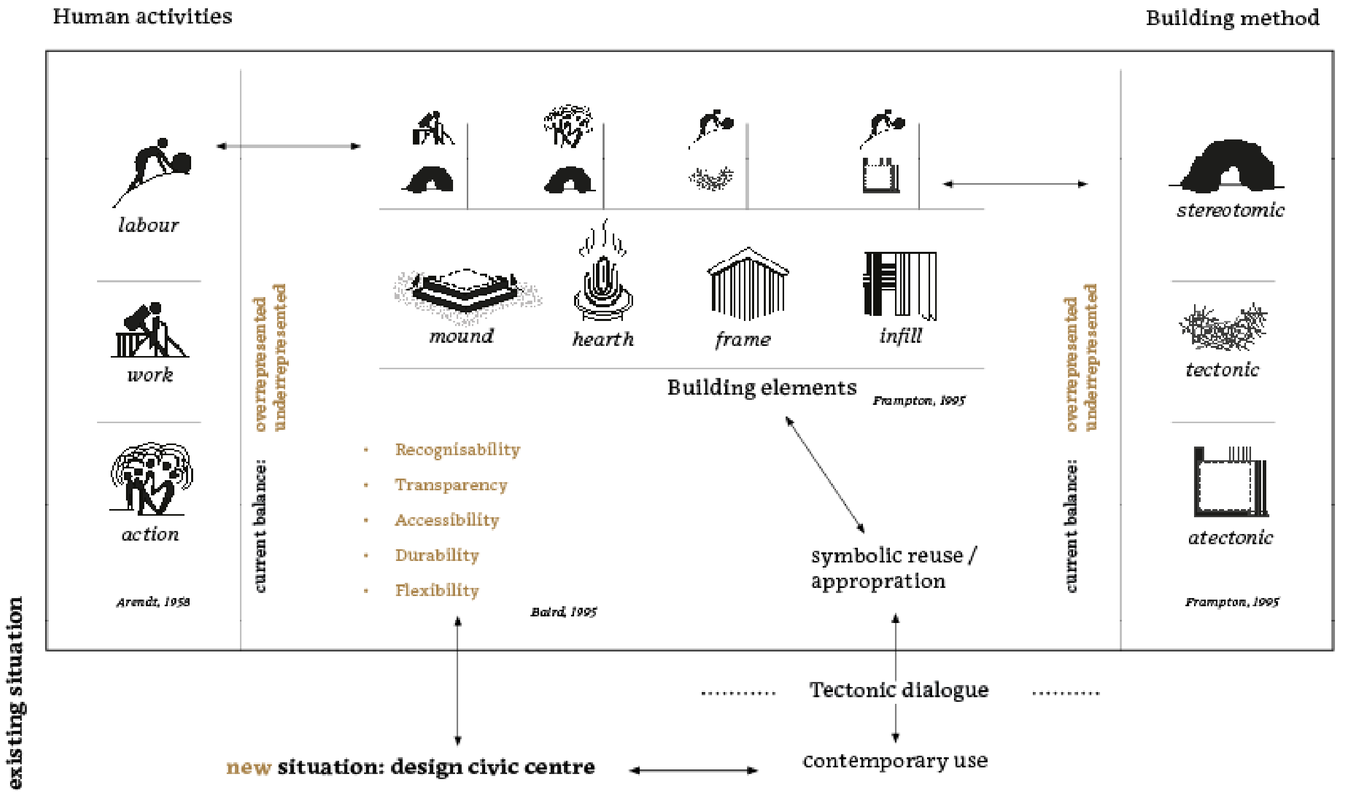
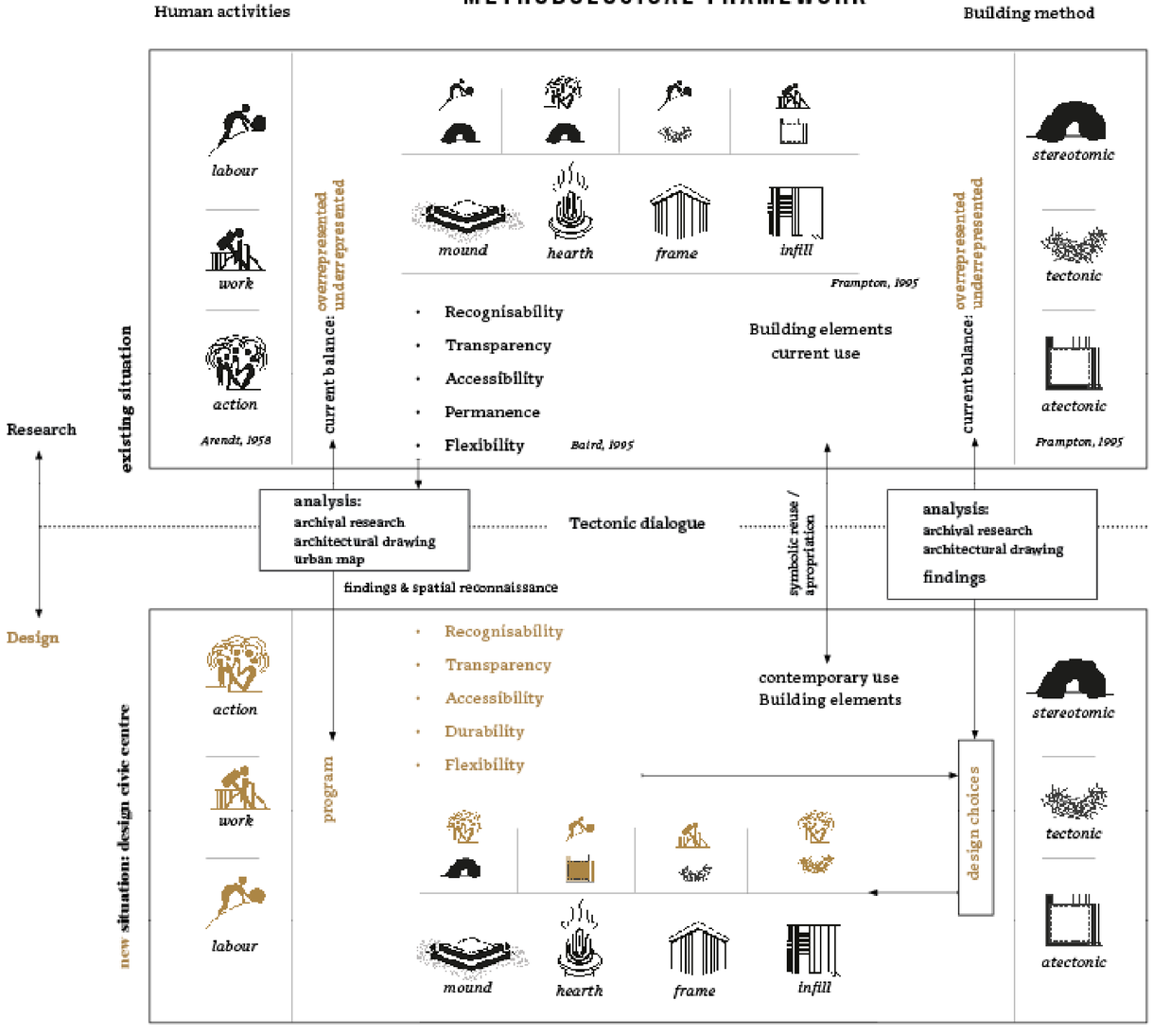


Figure 14: Gottfried Semper's primordial dwelling, (Frampton, 1995).

THEORETICAL FRAMEWORK



METHODOLOGICAL FRAMEWORK



RESEARCH: PUBLIC TECTONICS

3.1 What tectonic traditions are found in typical housing block design in the borough of Molenwijk?

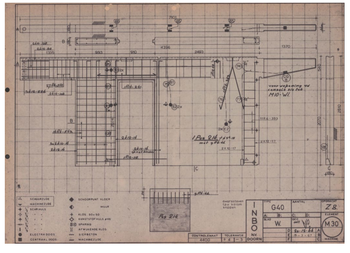


Figure 43: Molenwijk Galery Flat (Galerij Flat) (Gemeente Amsterdam, n.d.).

Coignet in the Nehterlands

The origins of modern concrete trace back to *pisé*, an ancient technique of ramming earth between wooden formworks to build walls. This method, initially dismissed as primitive, proved revolutionary by introducing the efficient use of local materials and the concept of shaping and compacting structures—principles that laid the groundwork for modern molding and casting methods in construction (Wang, 2013).

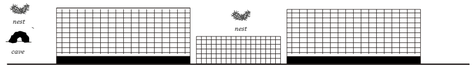
In the mid-19th century, François Coignet (1814–1883), a French engineer and chemist, advanced pisé by replacing earth with a mix of lime and industrial byproducts such as slag and coal ash. His 1852 chemical factory near Paris showcased concrete's potential, with walls, vaults, and stairs made entirely of unadorned concrete (Mateus, 2023). His theories on hardening—emphasizing air and water exposure—further refined concrete's applications, envisioning it as an "endless stone" adaptable to progressive urban architecture.

The industrialization of construction during the 19th and 20th centuries saw the rise of modular concepts and prefabricated concrete systems. By the early 20th century, prefabrication extended from individual concrete elements to full building systems, influenced by Fordist and Taylorist principles. Early modernist architects, such as Walter Gropius, embraced prefabrication and rationalized housing, envisioning "industrial assembly factories" that would allow for individualized housing options akin to "the individual house off the shelf"(Kolbeck et al., 2023).

Contractor Dura introduced the Coignet system to the Netherlands in 1956. The comparison between the building industry and the automated production of motor vehicles by Henry Ford, was articulated by H.H. Veringa, spokesman for the three Dutch Coignet factories, in September 1968: "With regard to construction, we are roughly at the stage Ford was in when he built his Model T, but at the moment we are on the brink of a new era in which infinite variation can also be achieved in industrial construction" (Delpher, 1968). The three housing factories—Dura-Coignet in Rotterdam, Indeco in Zaandam, and Neduco in Helden-Beringe—were pioneers of industrial construction in the Netherlands. Part of an international family of housing factories, they utilized the innovative concrete building system developed by François Coignet (Delpher, 1968).

Molenwijk was almost completely built out of prefabricated concrete building elements. The frame of every flat consists out of elements that were concrete castings made in the INDECO Coignet factory in Zaandam. The next section will cover how these elements form the whole of molenwijk and what their material properties are. The gallerijflats could be constructed in short times, since the parts were prefabricated in the INDECO Coignet factory in Zaandam, only 3 kilometers from Molenwijk. The next section will analyze the specific parts that make these gallerijflats.

Figure 42: Oost West Noord Best (Delpher, 1968).



The Molenwijk's construction is characterized by the extensive use of prefabricated concrete elements of the type INDECO Coignet G40. It demonstrates a balance between stereotomic and tectonic building approaches. The prefabricated components, made of reinforced concrete and gravel concrete, are structurally robust and engineered for efficient assembly.

The framework of the apartments is mainly composed of three key prefabricated elements: the structural wall panels, floor slabs, and façade panels. These components aremanufactured off-site and designed to interlock with precision. The reinforcement bars in these elements were tied together using iron wires on-site, and the joints were subsequently grouted with concrete, ensuring structural integration. The structural stability is thus ensured by the system as a whole, as all the parts are connected, apart from one dilation joint between two frame panels halfway through the building. These elements are somewhat ambivalent to describe through the theoretical frame. Concrete is in essence a stereotomic building material stemming from pisé building methods. Reinforced concrete hides the tectonic reinforcement iron inside of the element, making it atectonic at the same time. However, since the whole of Molenwijk is made up from pre-fab parts, it becomes a tectonic entity: the joint between the elements become the primary focuspoint of construction.

The concrete frame elements, include pre-designed openings for windows, doors, and shafts (Figure 3). These panels also integrate specific details, such as cantilevered consoles for supporting the exterior balustrades. These consoles, which protrude through the building envelope, are prone to thermal bridging and environmental degradation—a common oversight in 1968, when climate control considerations were less advanced.

The Meranti wooden window frames form the envelope (Figure 4). One element is a completely prefabricated façade for a single dwelling. These pre-assembled façade units, crafted with luxurious Meranti wood, were factory-fitted with window frames, enabling efficient on-site installation. This prefabrication method highlights the tectonic precision of the Molenwijk design, where individual dwelling units were visually and structurally integrated into the broader modular system.

The staircases (Figure 5) are adjacent to elevator shafts and directly connected to the building's central heating system, located on the roof. This gas-heated system was a technical novelty at the time, reflecting a modern approach to centralized climate control. The stairwell serves not only as a vertical circulation core but also as a stabilizing structural element, anchoring the prefabricated framework. The balustrade and staircase thus get the label "hearth", as they are the key places where services run through or where people gather and move.

The ground floor, primarily constructed from in-situ poured concrete, forms a "mound" that serves as a foundation for mounting the prefabricated frame. This integration of stereotomic mass and tectonic assembly underscores the project's structural coherence. The end wall (kopgevel) elements are ambivalent in their nature, these elements are part of the framework, but make a profoundly stereotomic impression when viewed head on, since the joints are barely visible.

Despite the innovative use of prefabrication, technical challenges arose, particularly with the cantilevered consoles supporting the balustrades, which extend from the interior's climate-controlled space to the exterior. While these elements demonstrate a practical use of prefabrication, they also underscore the limited attention to thermal efficiency and durability.

Staircaises as the heart of the building: conceptualizing staircaises that way links them back to the critique that Frampton (1979) has on modern architecture. He states that much of modern archtiecture is overly "labour" focused. Staircases in general are for cyclical activities, the locomotion between places. However, staircases are more than capable to give space to make encounters possible. They need to be designed in a way that makes appearances between individuals possible, and not to be hidden in some closed off service core that is inherently associated with labour. The focus on the joining of elements result in the idea that the galery flat as a type can be described as a *tectonic frame* with a *stereotomic* mound.

Figure 46: framework dwelling (own image).

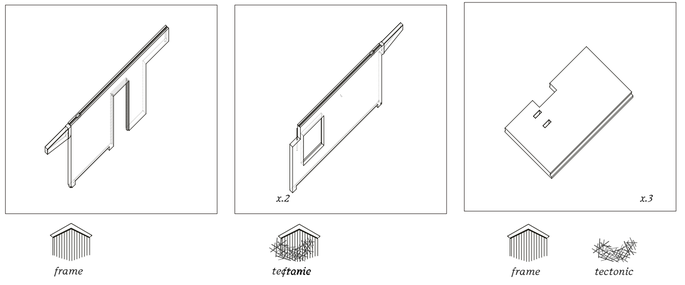


Figure 47: Mound dwelling (own image).

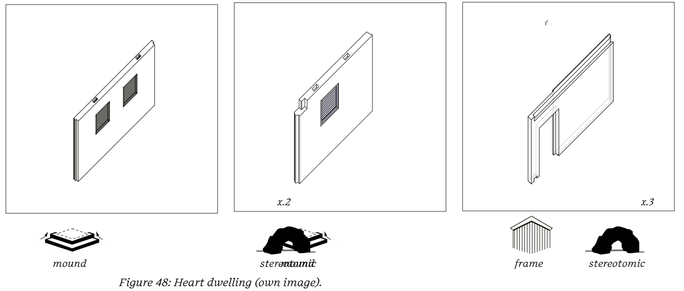
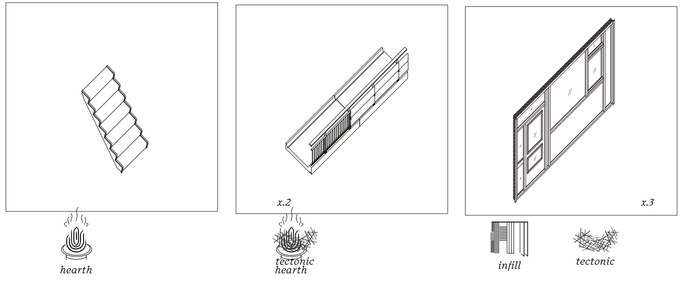


Figure 48: Heart dwelling (own image).



3.2 What tectonic traditions are found in civic centre design in the borough of Molenwijk?

The Parking Garage

The parking garage in Molenwijk is not a civic center in it's whole. To understand the civic center underneath the parking ramp (Molenwijkkamer) it is necessary to tectonically analyse the garage. The garage has a split level parking system, two parts make the whole, with ramps in the middle to connect the decks(figure x). One larger ramp connect the ground floor to the first floor. The parking has space for about 370 cars, providing at least one parking spot for every household in the complex. The southern deck has three levels and the northern deck has four. In contrast to the galeryflats, the parking garage is not made out of pre-cast concrete elements; it is completely constructed from reinforced in-situ cast concrete. Probably since these parking garages were not meant to be widely implemented across the country. T-shaped trabeated column / beam combinations carry the floors (figure x). The whole complex, while being cast in-situ, has a tectonic identity. This is because the pouring edges are chamfered and the whole construction is an open concrete skeleton. The garage originally had an open nature, one could see through the whole complex, but after some years a facade system was installed hanging from floor to floor, protecting the automobiles better against weathering (figure x). On each corner there is a staircase that is also in- situ cast concrete (figure x). They connect to the galeries of the galeryflats, making walking distances from car to home as small as possible.

Somewhere in the past fences and barriers were installed, giving the parking garage a closed off nature. In the middle of the garage, where the large ramp stars inclining a dark corner formed.

Molenwijkkamer

In 2018 artist organisation Framer Framed opened The Molenwijkkamer underneath the parking ramp. It is a simple structure made out of wooden window frames mounted on a small parapet of cobblestones(figure x). This simple structure can be classified as tectonic.

Wiekslag en de Spil

The most ephemeral of all structures in Molenwijk are civic center De Wiekslag and food distribution center De Spil. These building are essentially construction sheds ffigure (x). They consist of a wooden frame, but this is completely obscured by the corrugated steel plate facade. Therefore these structures can be classified as *atectonic*.

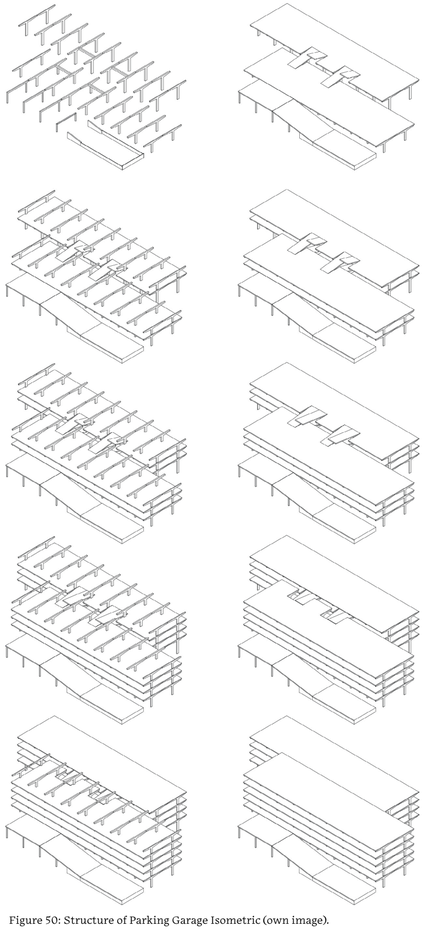


Figure 50: Structure of Parking Garage Isometric (own image).

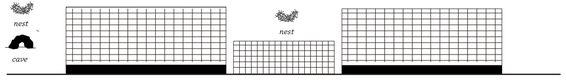


Figure 51: Schematic catergorisation building methods (own image).

Figure 52: Southern Elevation (own image).

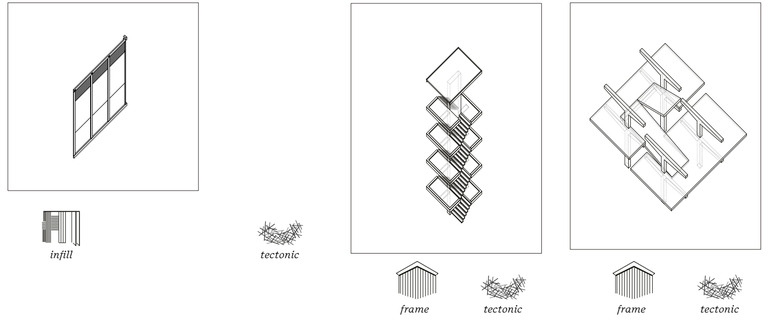


Figure 53: Building Elements Parking Infrastructure (own image).

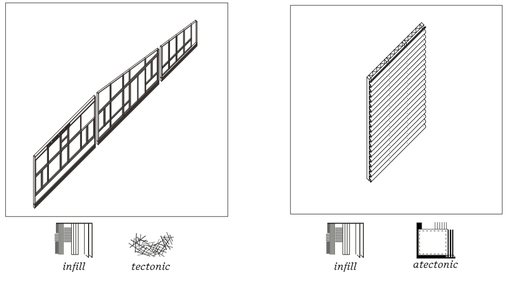
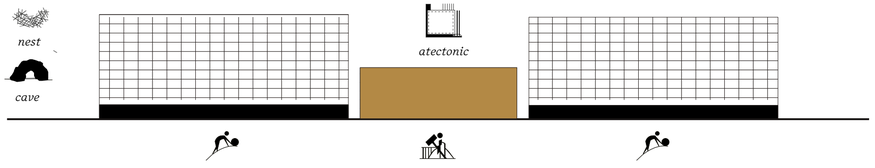
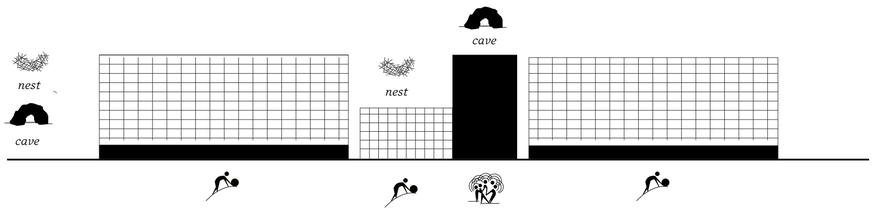


Figure 54: Building Elements civic architecture (own image).

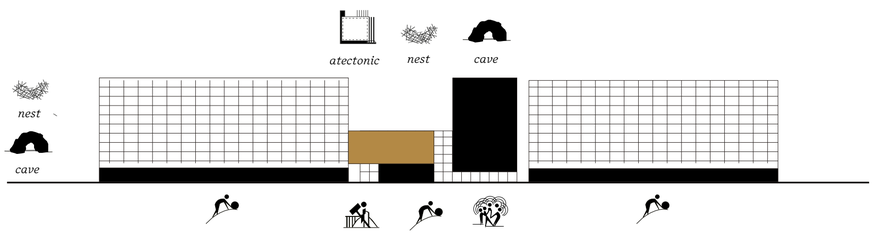
DESIGN PRICIPLES



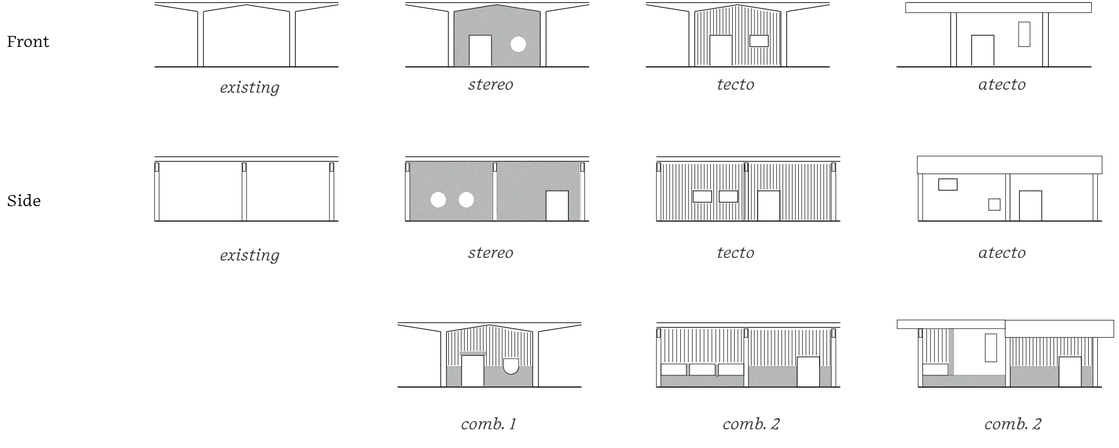
recognisability & transparency



recognisability & transparency

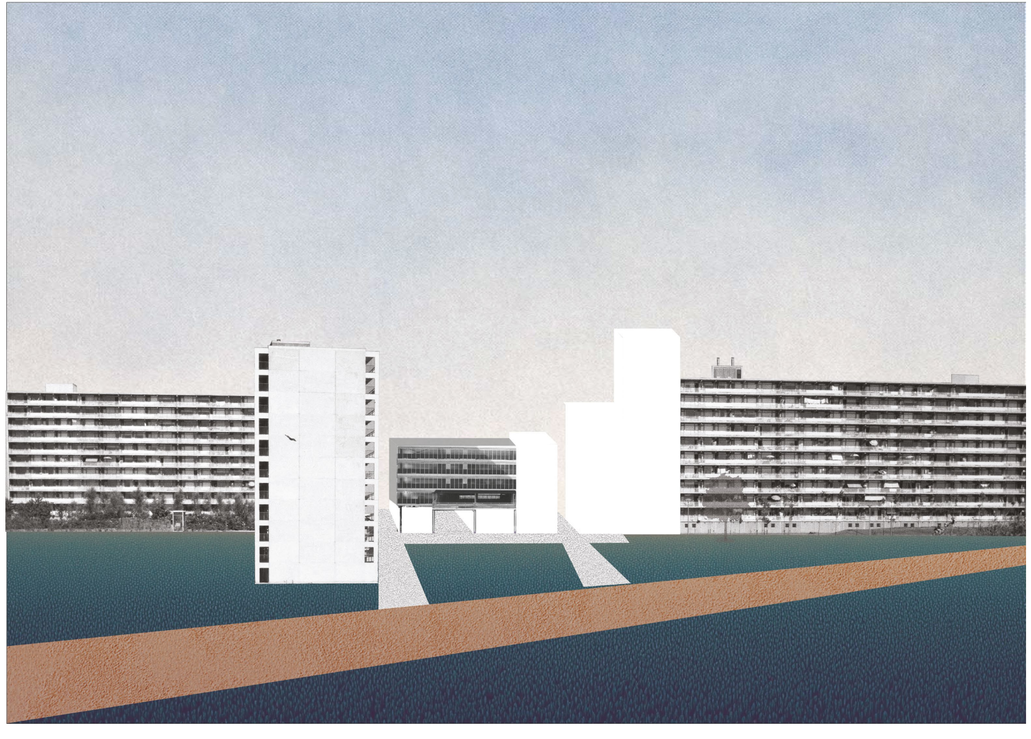


DESIGN PRINCIPLES



COLLAGE STUDY

COLLAGE STUDY



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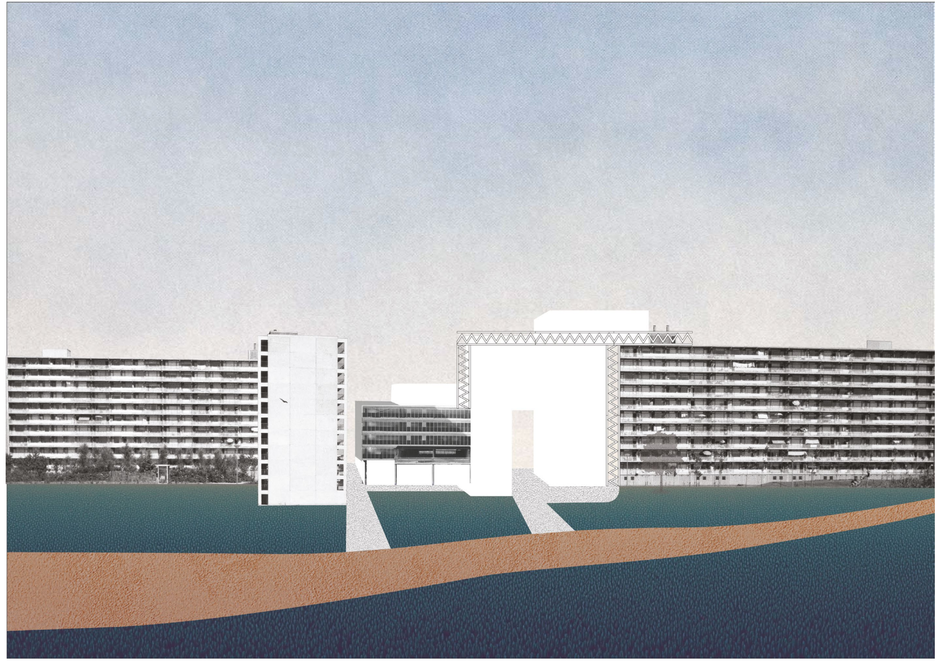

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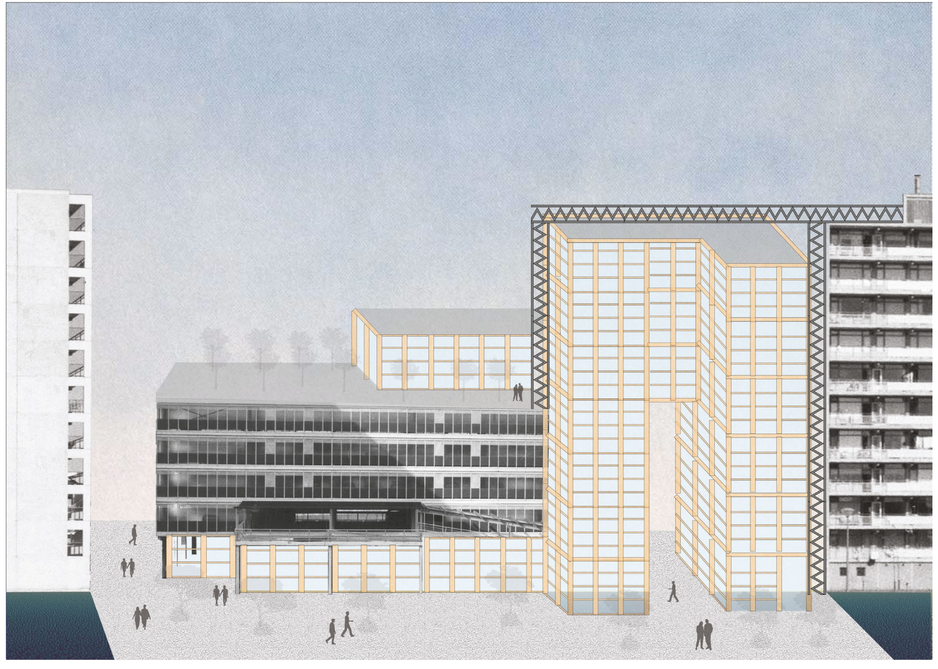

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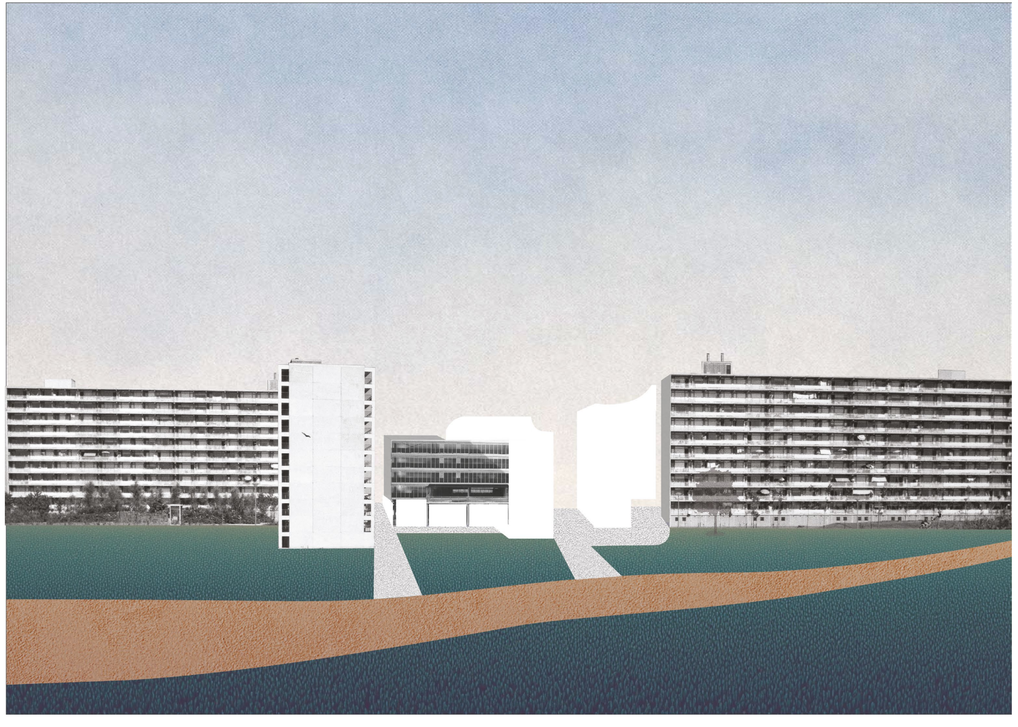

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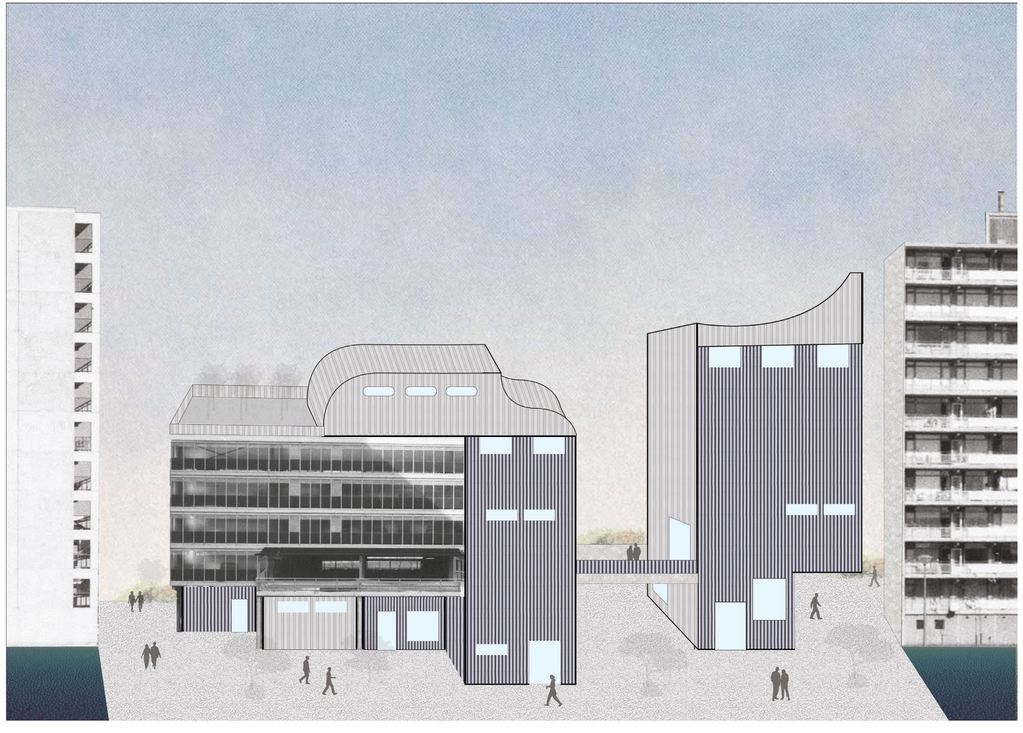

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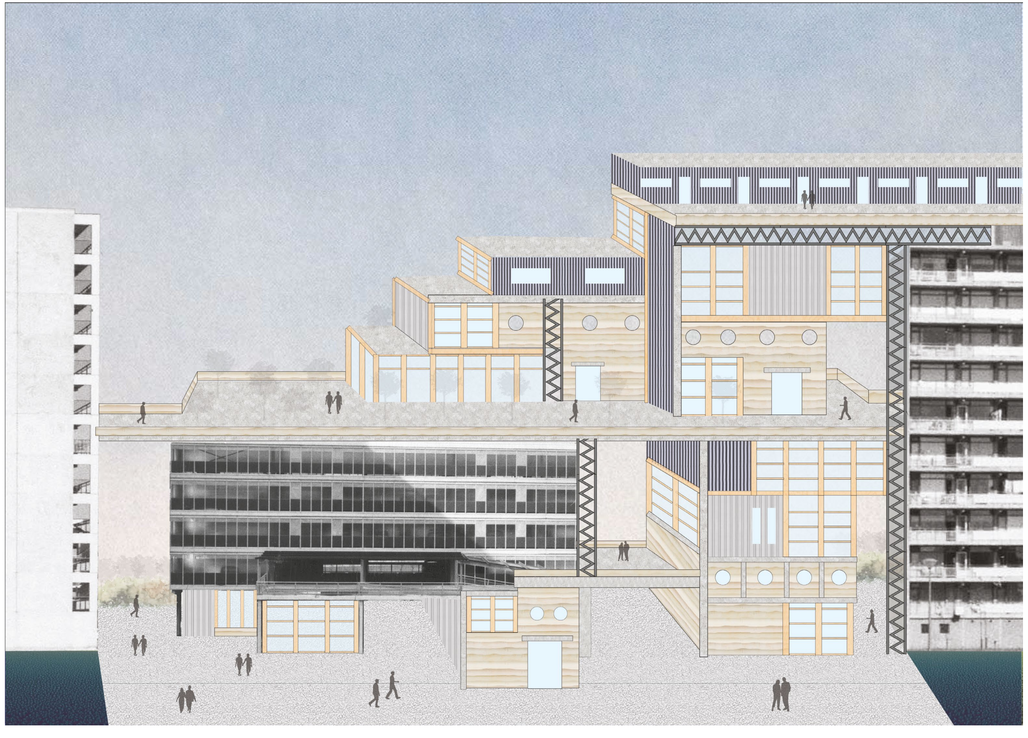
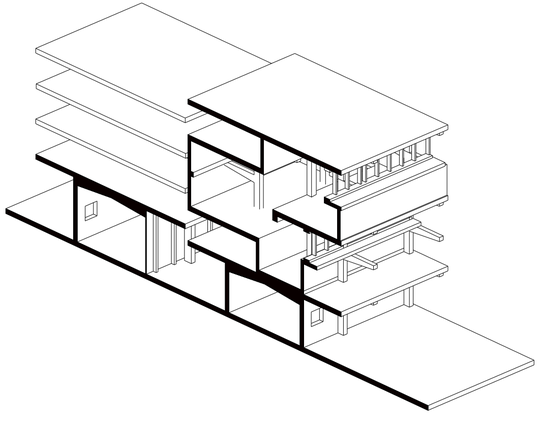
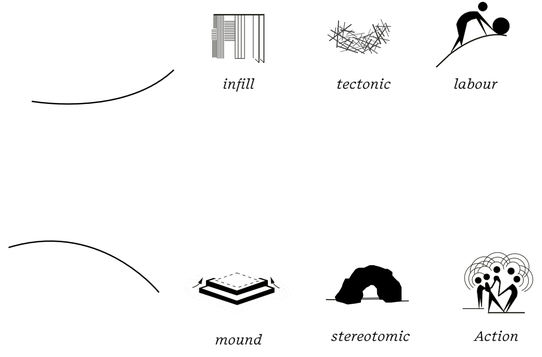




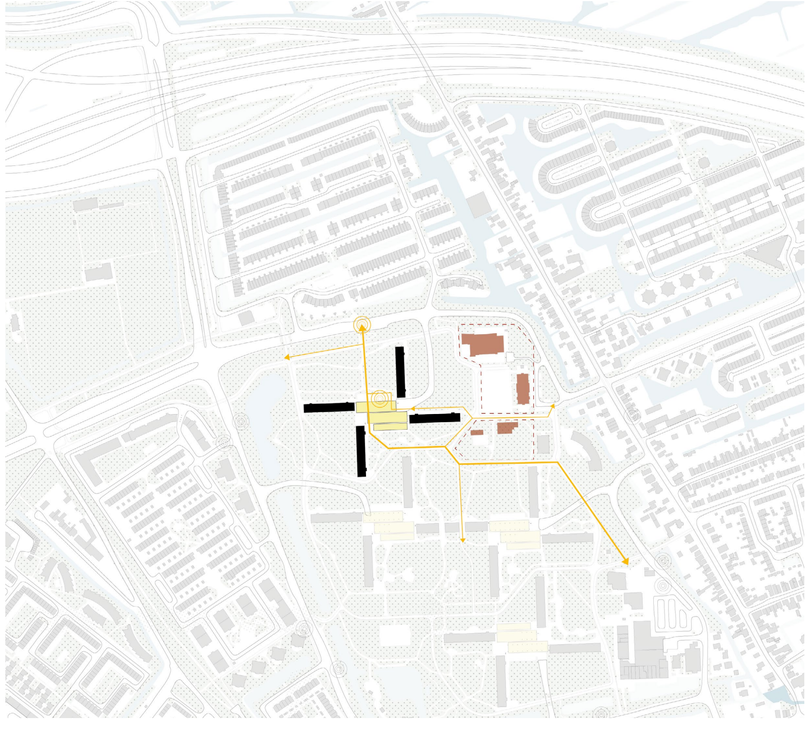


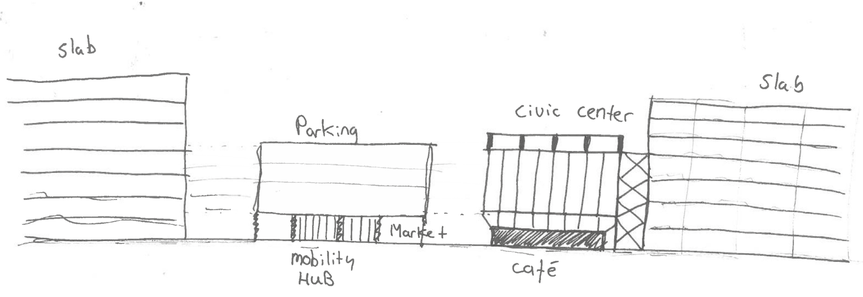
DESIGN

Molenwijk is part of the Dutch heritage of post-WWII urban planning. Built in 1968, the plan consists of 1,256 dwellings in 15 slabs, each cluster of four centred around a parking garage that once promised social interaction. Nearly 60 years later, the garages are inaccessible and dilapidated. This design seeks to fulfil the social promise of the Molenwijk Plan by reimagining one garage as the civic heart of the neighbourhood. It is treated as if it were a monument, preserving half its original function while transforming the rest into a civic centre facing a market square. By layering new programmes onto the structure, the project honours the memory of the car without erasing it. Step-downs in scale reintroduce the human dimension. A modern interpretation of the classical Greek temple offers orientation within the abstract plan, while appropriable surfaces and adaptable features invite future users to shape the space as their own.

PROGRAM

Programmatic Infill




slab
Parking
Civic center
Slab
Market
mobility
HUB
café

Design Goals:

Orientation:

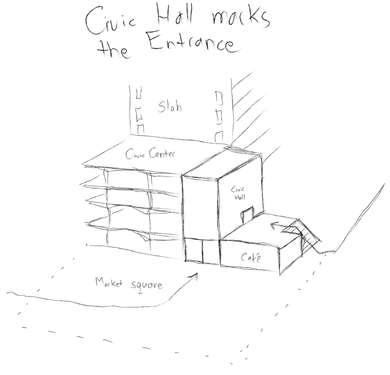
Mark the Center of Molenwijk by **Standing Out** from the Slabs

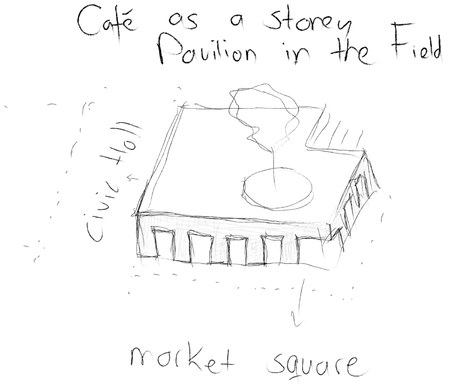
Representation:

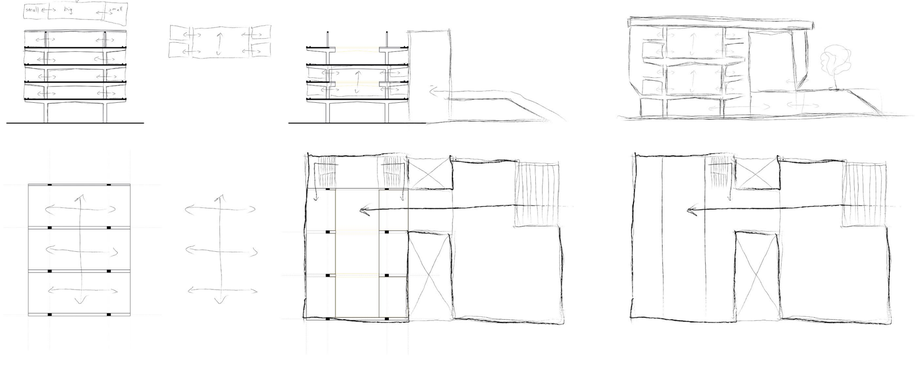
Architecture that Represents a Sense of **Civic / Infrastructural Pride**

Appropriation:

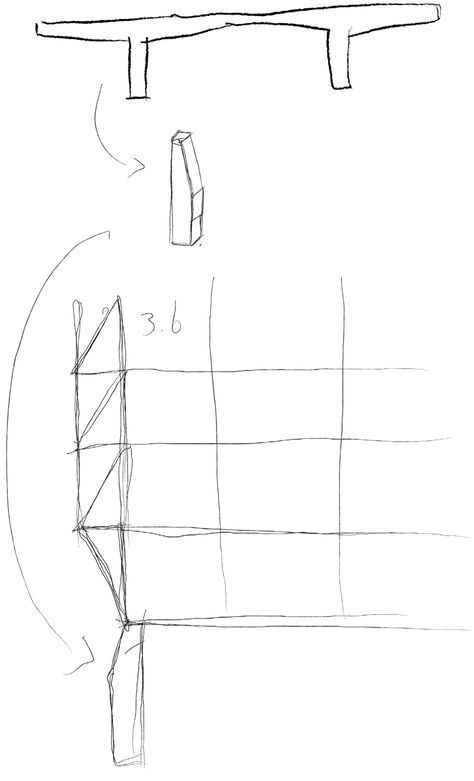
Architecture that **allows** users to **Appropriate**

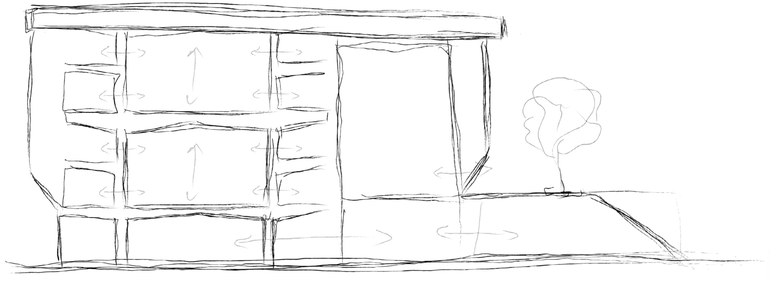




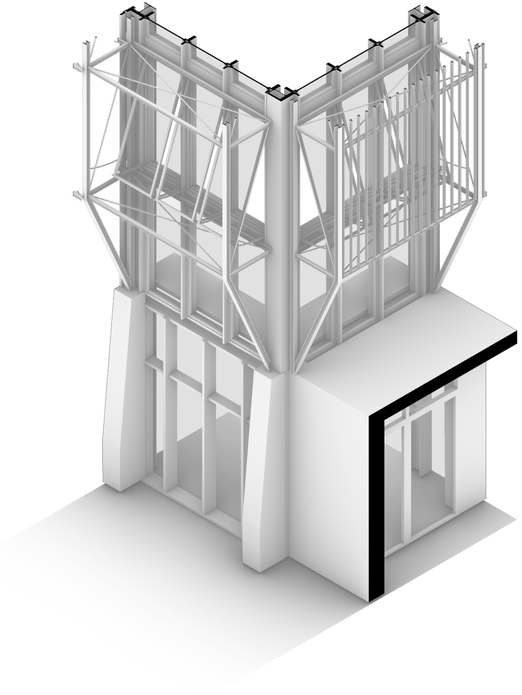


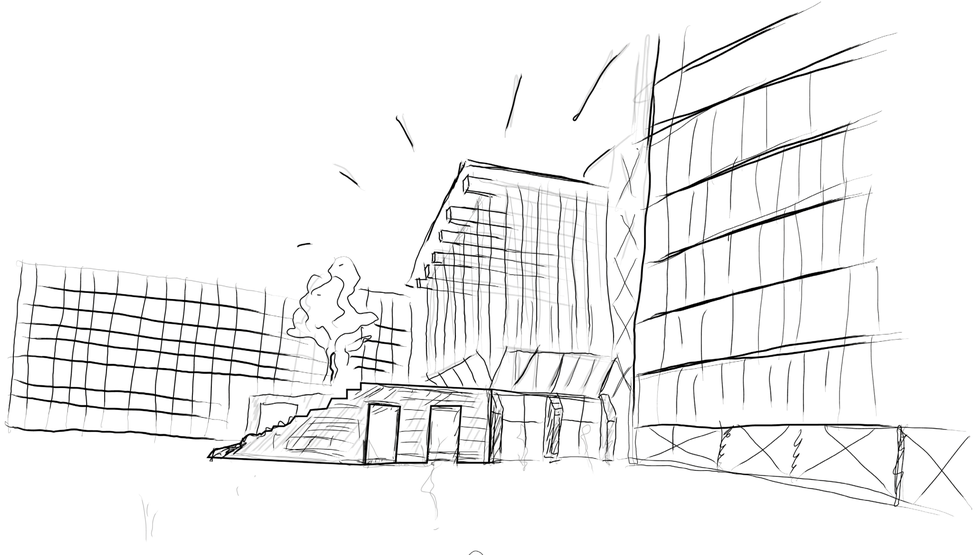
ARCHITECTONIC CONCEPTS



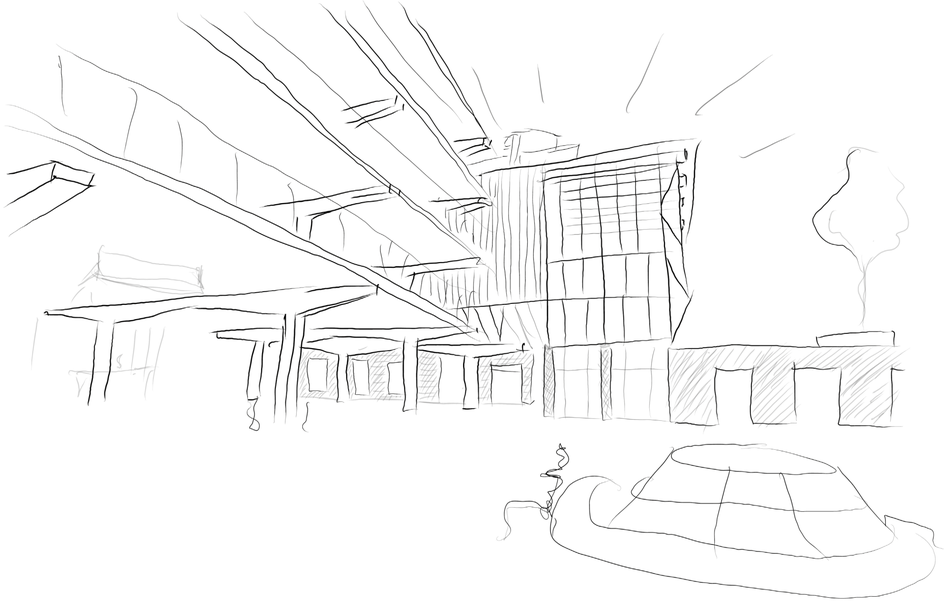


Marks the Entrance

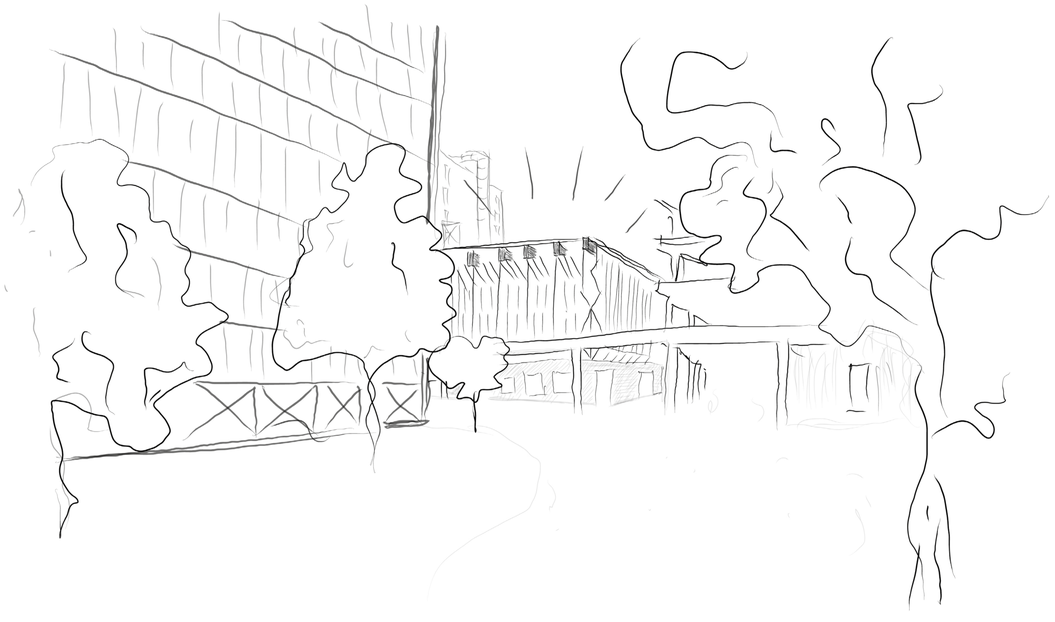




the Park

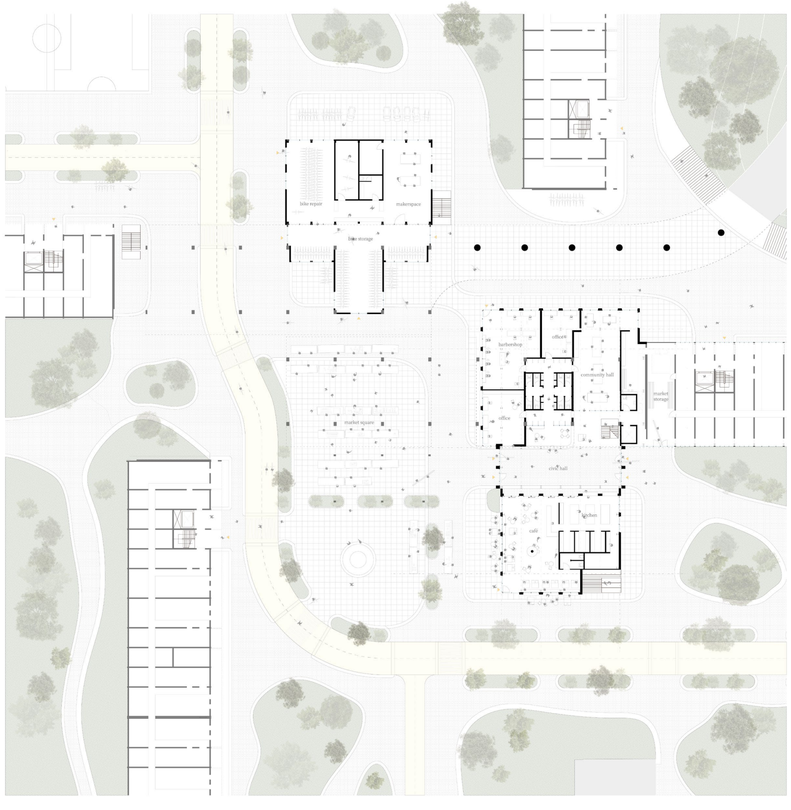


the square



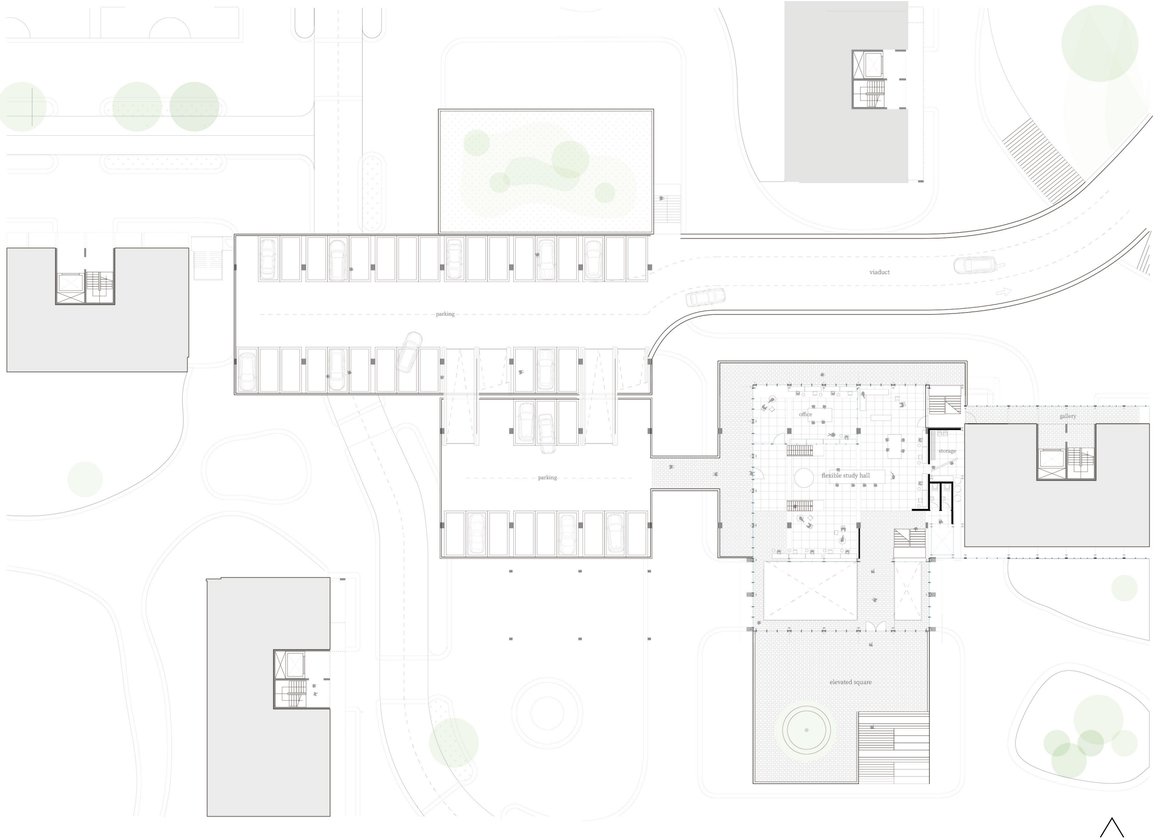
the park

GROUND FLOOR PLAN 1 : 200



N

FIRST FLOOR PLAN 1 : 200



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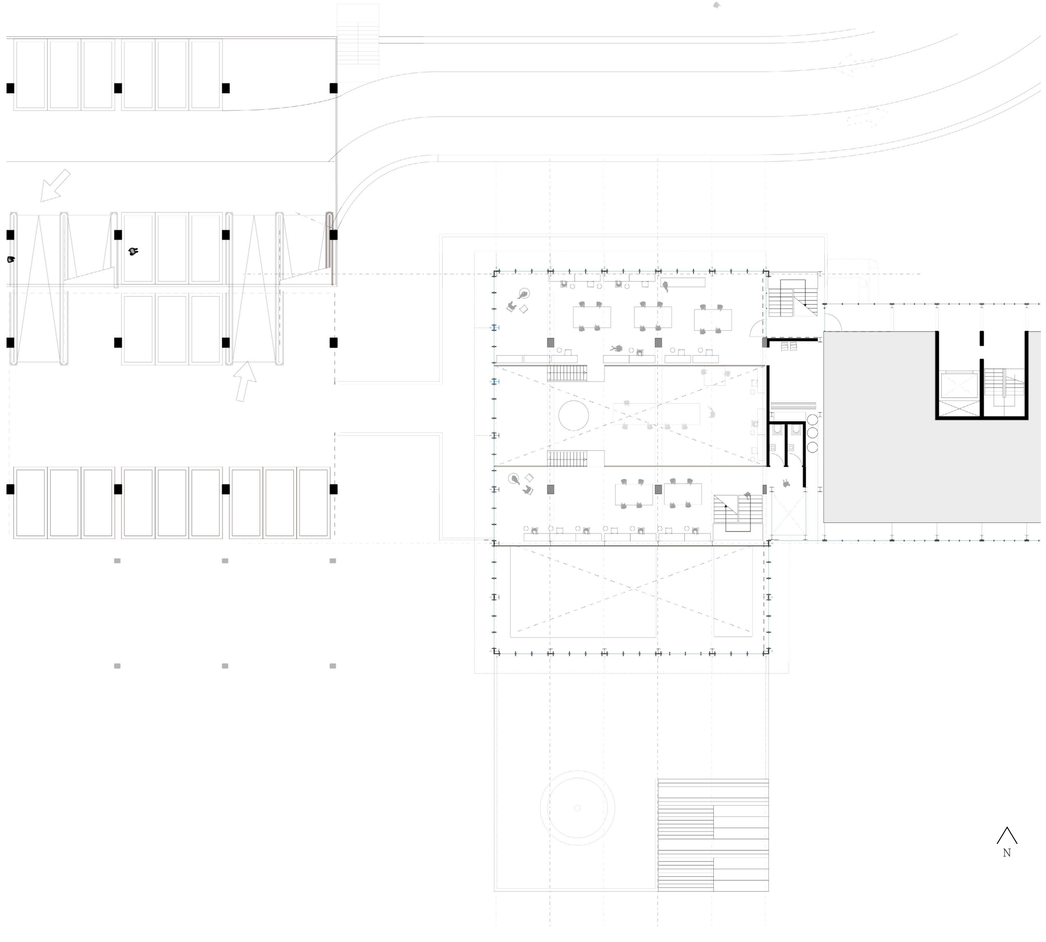
FIRST FLOOR PLAN MEZZANINE 1 : 100



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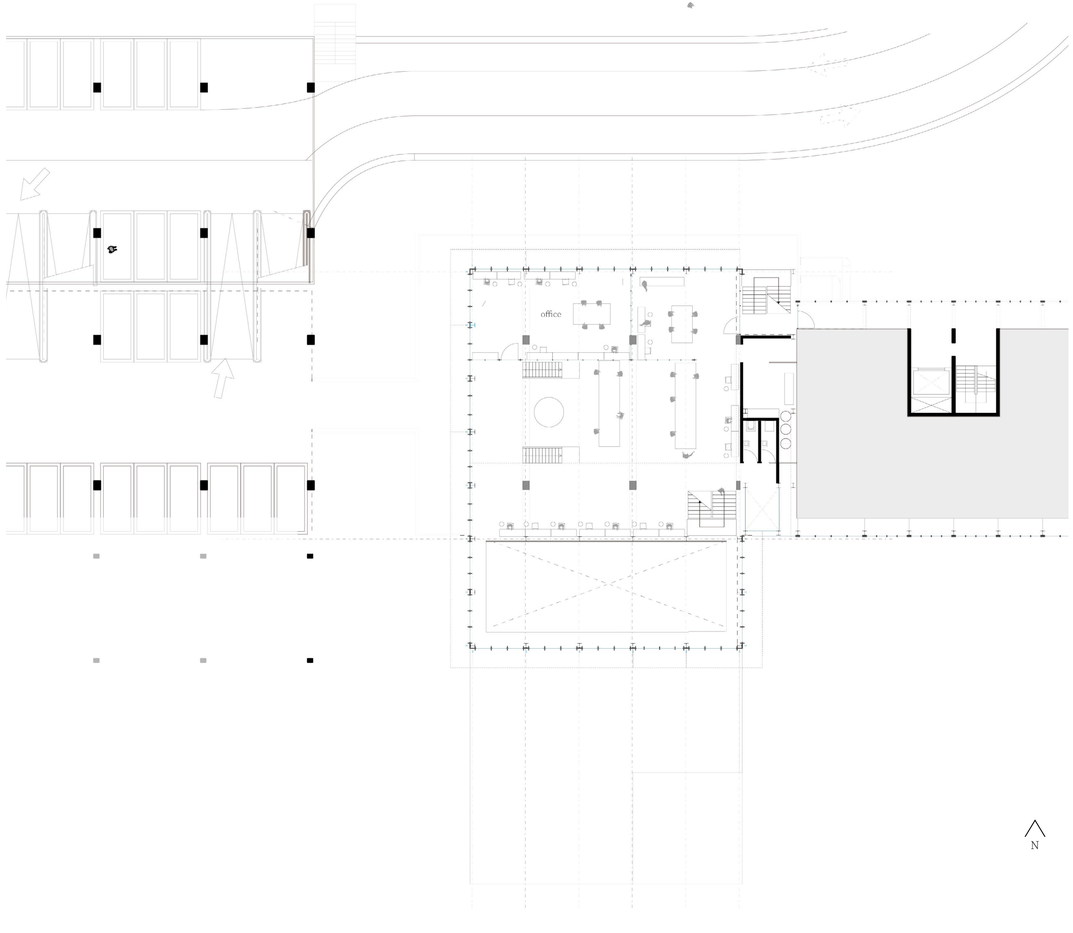
SECOND FLOOR PLAN 1 : 100



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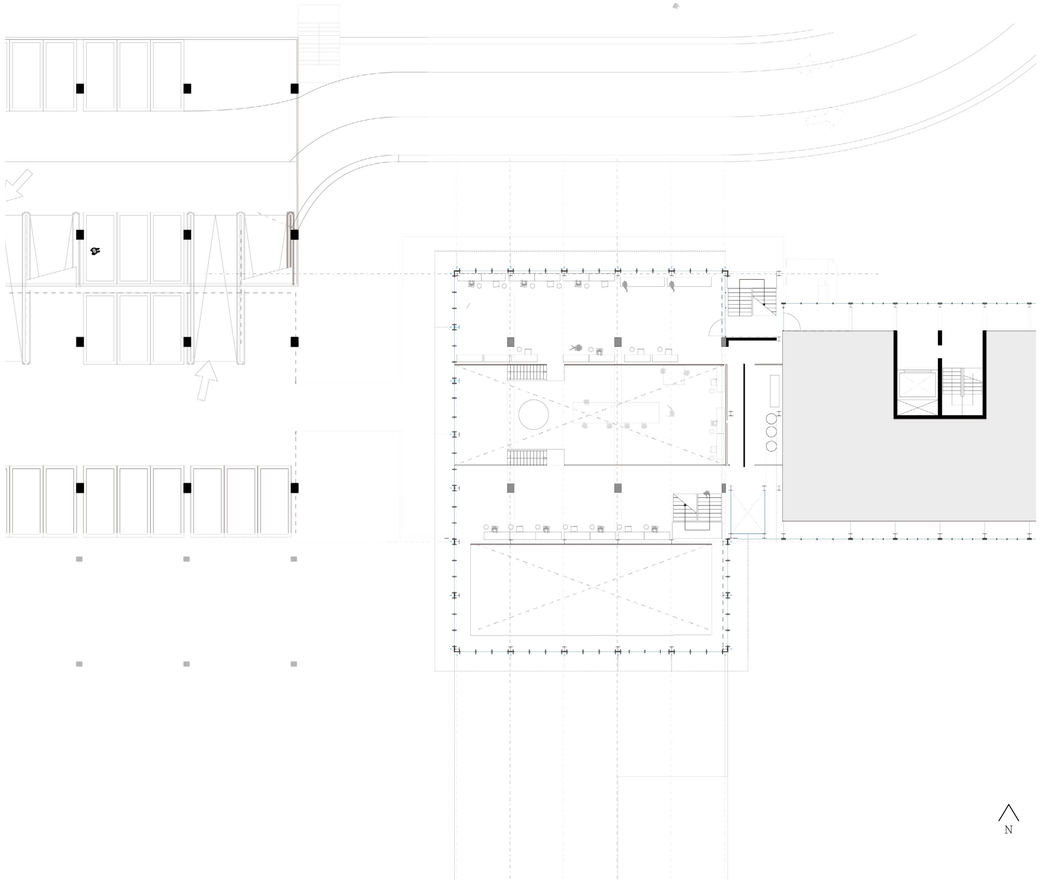
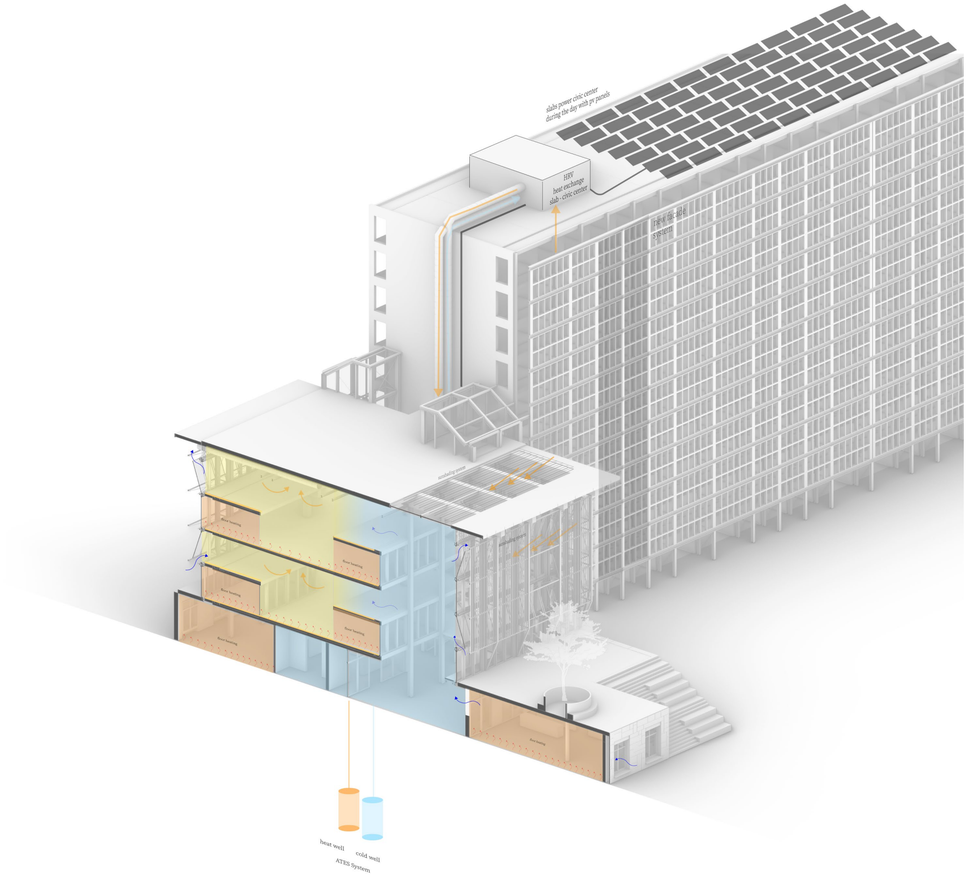
SECOND FLOOR PLAN MEZZANINE 1 : 100

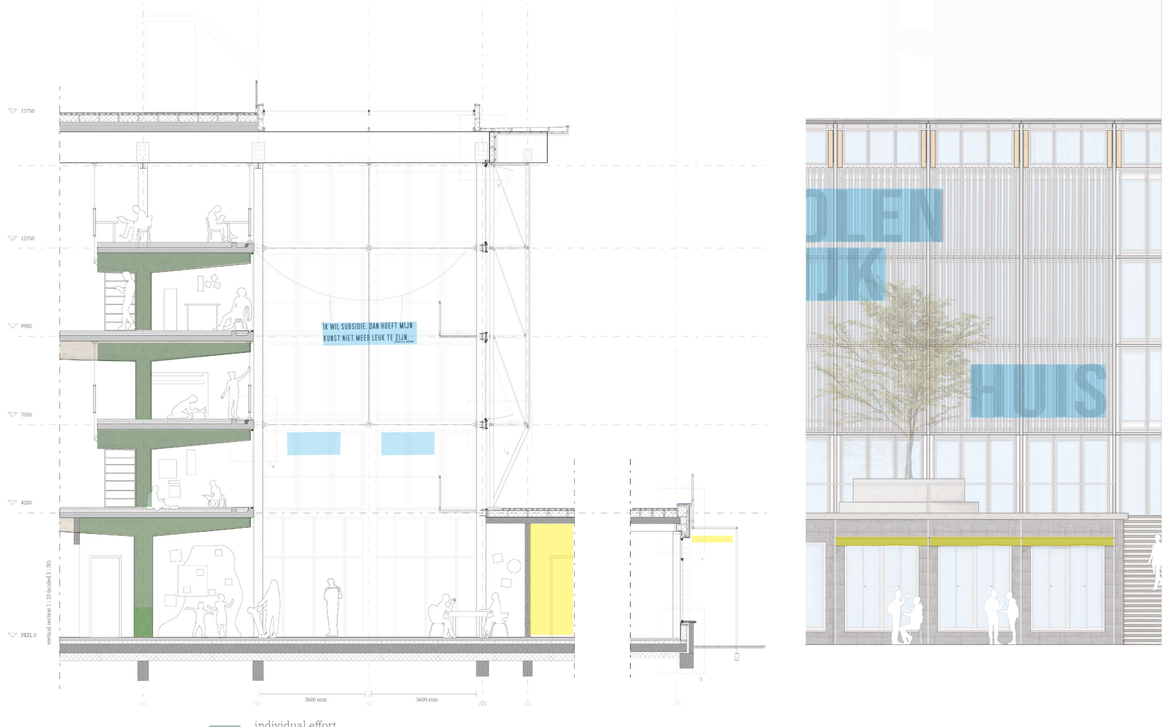




FRAGMENT 1 : 20

vertical section 1 : 20 (scaled 1 : 50)

APPROPRIATION

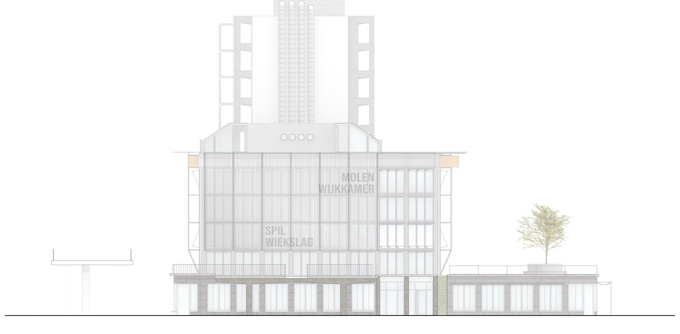


vertical section 1 : 20 (scaled 1 : 50)

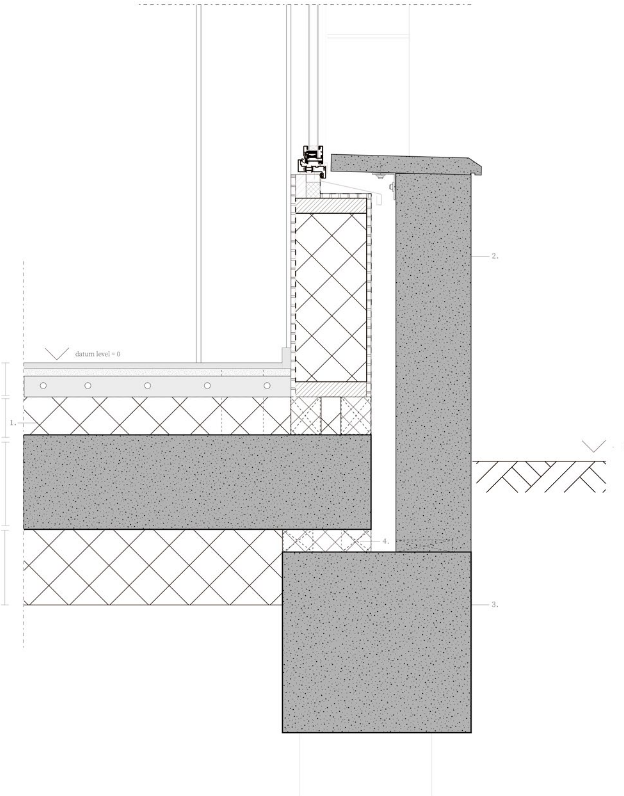
individual effort
private effort
collective effort

FACADES

FACADES



DETAILS



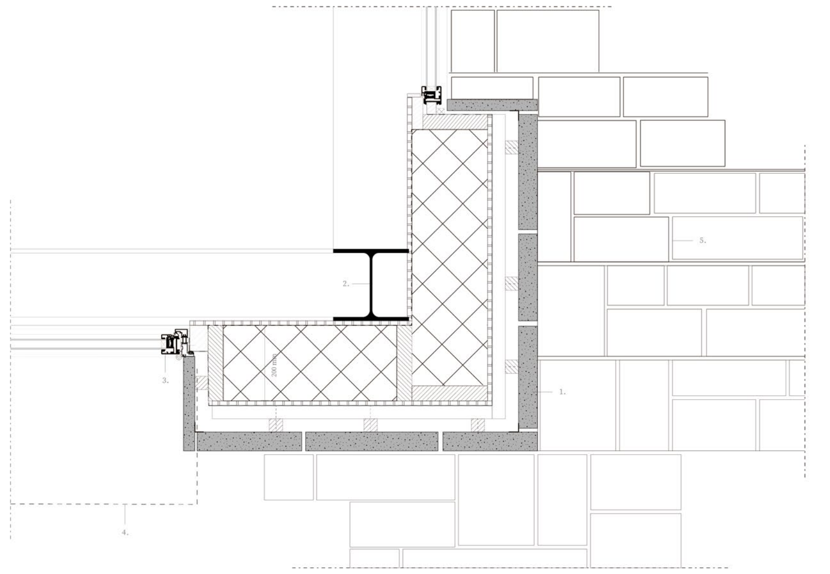
New - Addition - Café Foundation
Vertical Section
Scale 1 : 5

1 - Floor construction– EPS insulation 160 mm (λ 0.034) R.C. ≈ 4.71, cast in-situ concrete floor slab 180 mm, XPS rigid insulation 75 mm (λ 0.035) R.C. ≈ 2.14, Fermacell underfloor heating panels 35 mm, self-levelling compound ±5 mm, linoleum finish, total R.C. ≈ 6.85

2 - Reused concrete support for bench integrated into deep window reveal

3 - Deep foundation with driven piles

4 - Rigid thermal break block



New - Addition - Café Facade
Horizontal Section
Scale 1 : 5

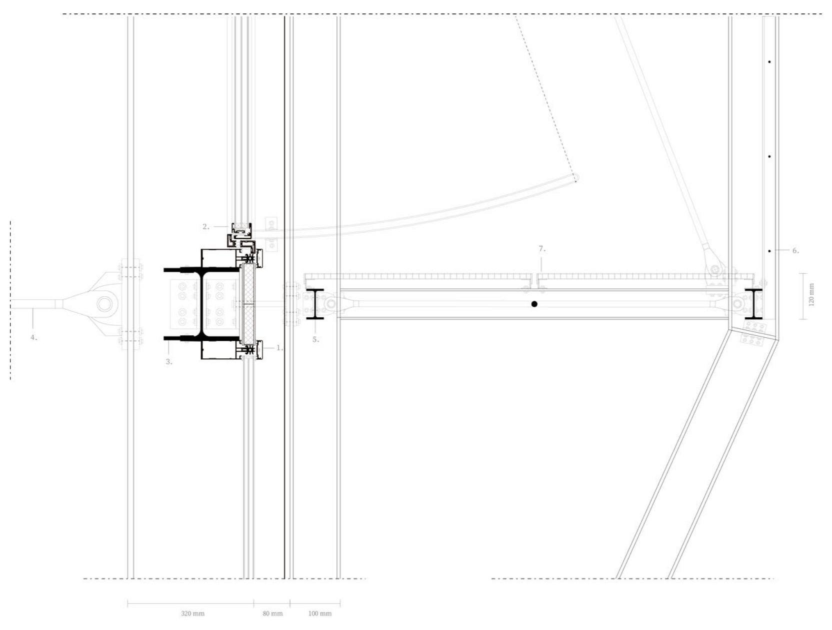
1 - Facade construction - multiplex plate 15 mm, VPC (vapour control layer),200 mm Knauf λ 032 mineral woolinsulation R.C. ≥ 5,8, multiplex plate 15 mm, WRB (weather resistant barrier, vetilated cavity 35mm, reused concrete slabs 30 - 55 mm 20 mm, built on-site

2 - HEA 240

3 - Methermo XL XUD aluminium side hinged openable window

4 - Reused concrete support for bench integrated into deep window reveal

5 - Public staircase cladded with reused concrete, build in-situ



New - Addition - Civic Hall Facade
Vertical Section
Scale 1 : 5

1 - Facade construction - Curtain wall system – thermally broken aluminium profile structure 45 × 60 mm, horizontally repeated at 1080 mm intervals. Exterior profile elements connected via an insulated click-fit system. Thermal bridge between interior and exterior structure interrupted by high-performance rigid insulation sandwich panel, 30 mm thick. Glazing system consists of triple glazing units with argon-filled cavities, total R.C. ≈ 1.76 $m^2 \cdot K/W$.

2 - Opening windows integrated into the curtain wall, configured as outward-opening tilt windows (top-hung).

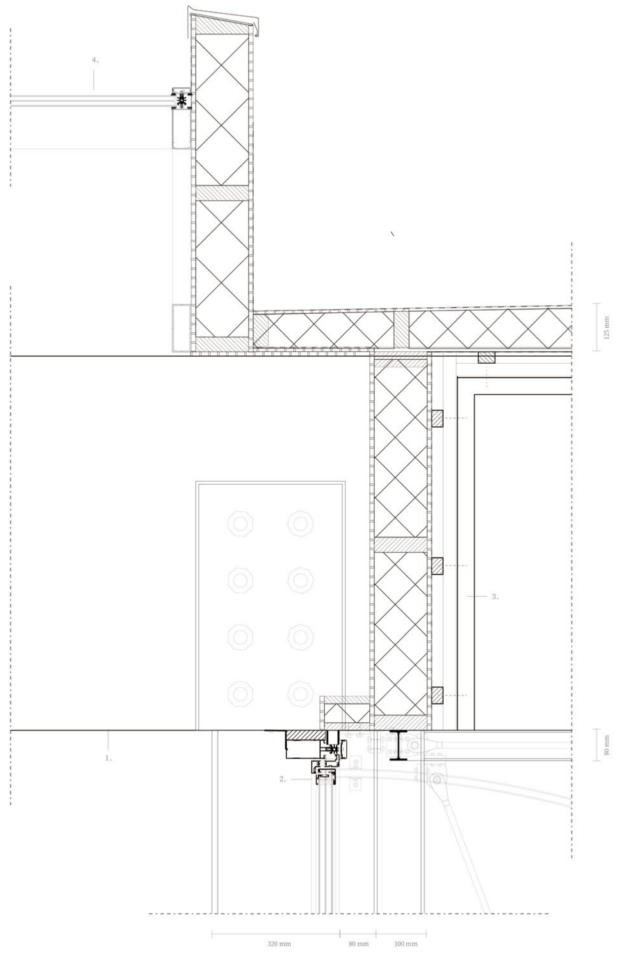
3 - HEA 240 beam

4 - Tension cable for appropriation, users are allowed to hang up to 100 kg of misc

5 - IPE 100 beam

6 - Aliminium corner profile sun shading system

7 - Dejoroster maintenance catwalk



New - Addition - Civic Hall Roof Ending
Vertical Section
Scale 1 : 5

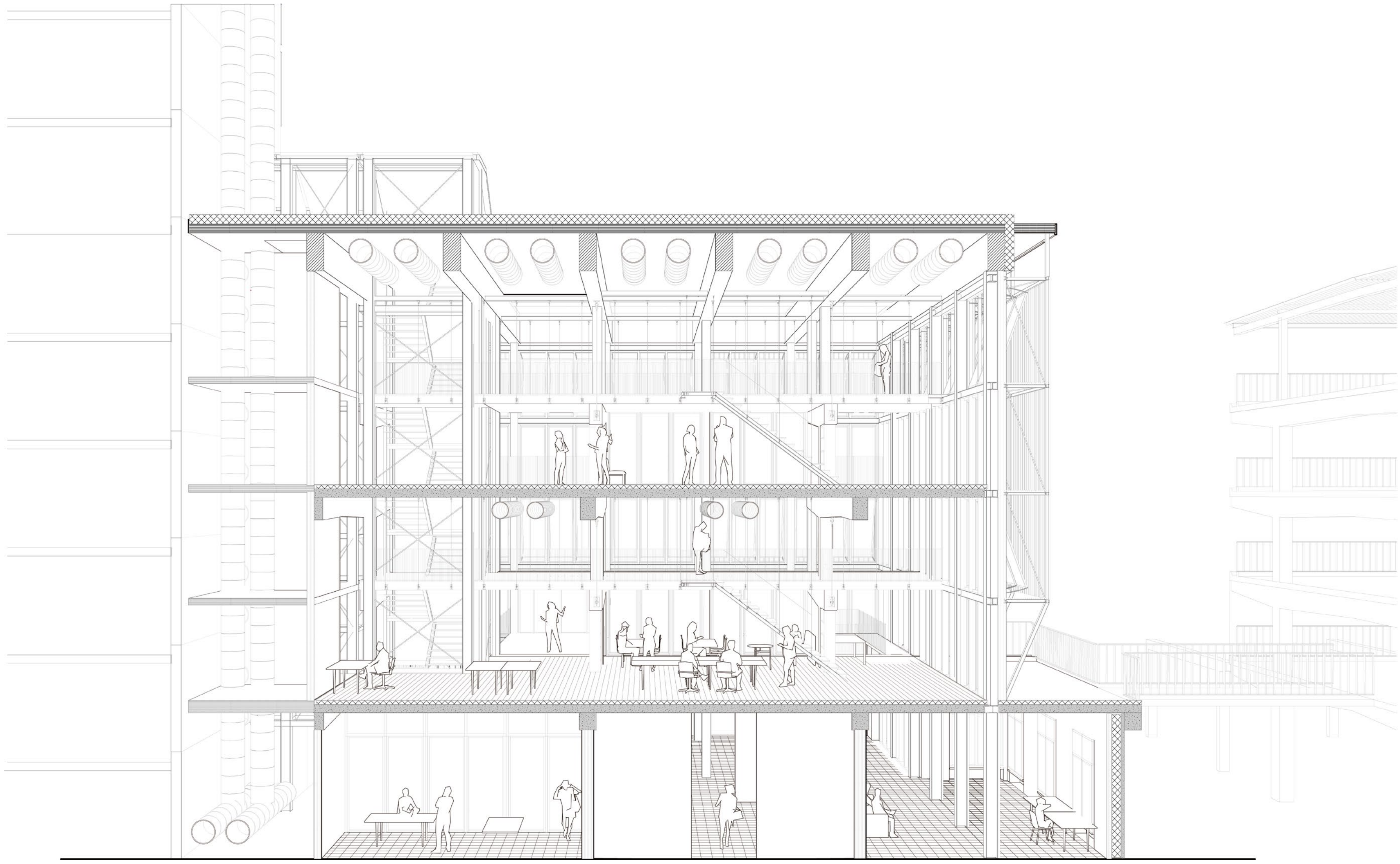
1 - 1200 x 450 mm CLT Beam

2 - Opening windows integrated into the curtain wall, configured as outward-opening tilt windows (top-hung).

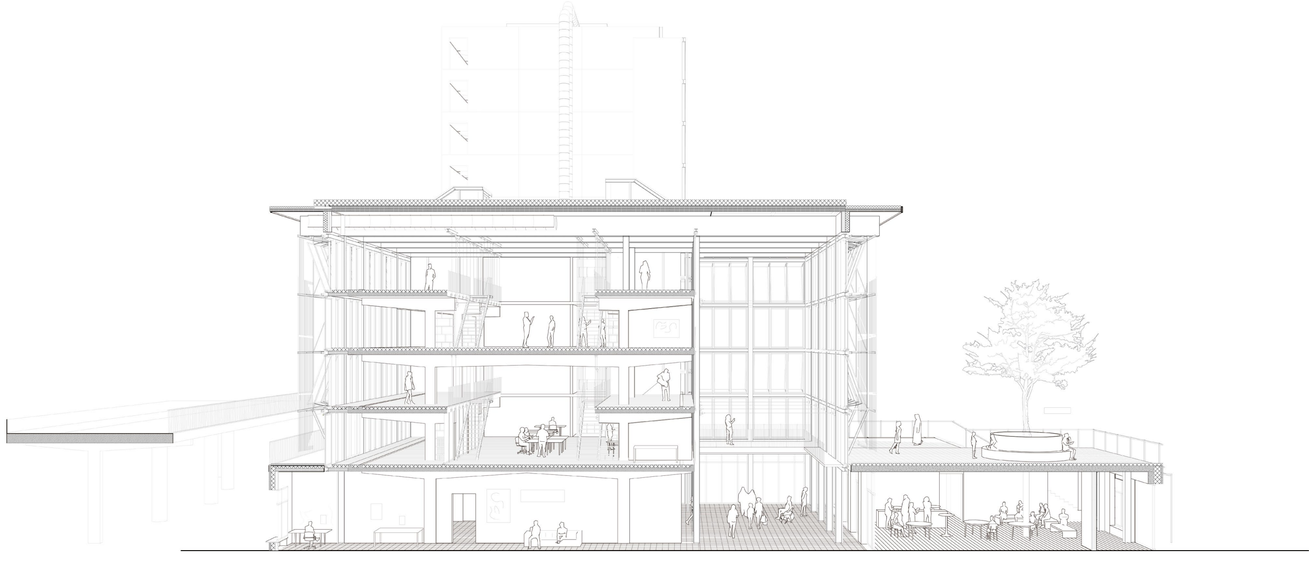
3 - Metadecor aluminium facade system

4 - Roof window, own construction system resting on the CLT beams

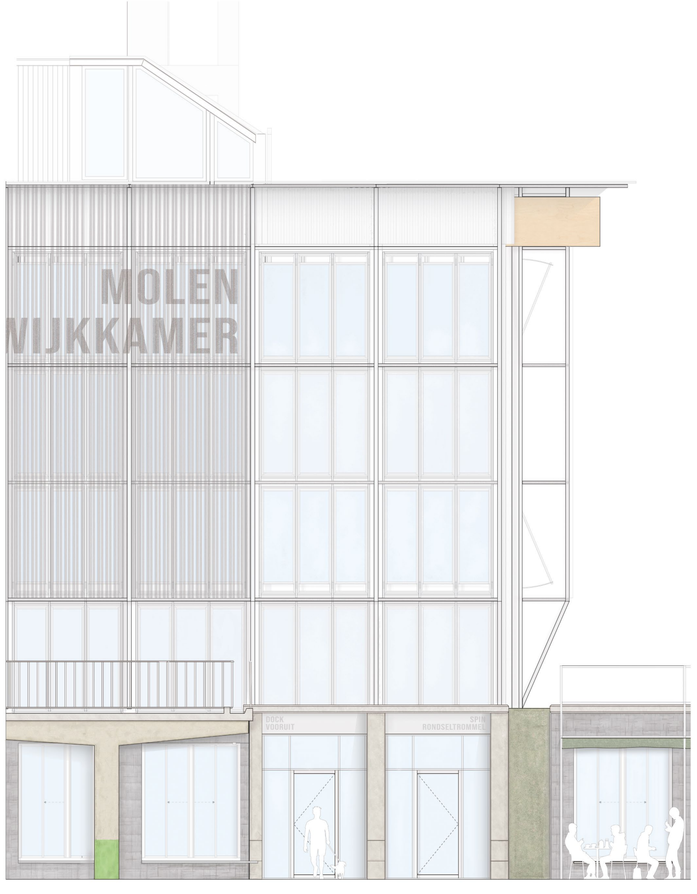
SECTION



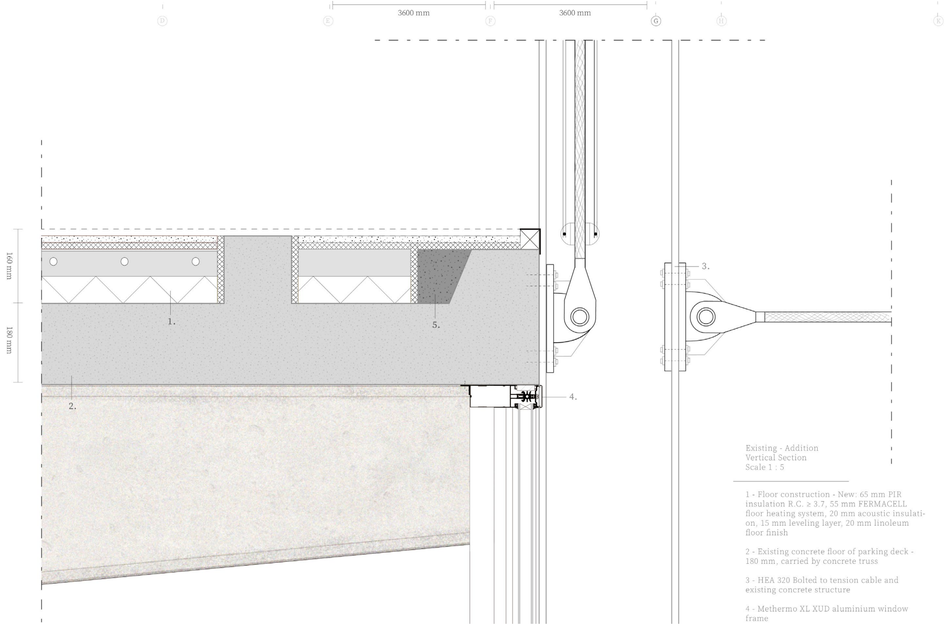
SECTION



FACADE FRAGMENT



DETAIL



Existing - Addition
Vertical Section
Scale 1 : 5

1 - Floor construction - New: 65 mm PIR insulation R.C. ≥ 3.7, 55 mm FERMACELL floor heating system, 20 mm acoustic insulation, 15 mm leveling layer, 20 mm linoleum floor finish

2 - Existing concrete floor of parking deck - 180 mm, carried by concrete truss

3 - HEA 320 Bolted to tension cable and existing concrete structure

4 - Methermo XL XUD aluminium window frame

ertical detail 1 : 5

Appropriation

- individual effort
- private effort
- collective effort

PRIORITIZE SOCIAL INFRASTRUCTURE

Appropriation
- individual effort
- private effort
- collective effort