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Cultural Center in a Paper Mill

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## 01 PREFACE

The Urban Architecture graduation studio focusses on the medium-size urban scale, inaccessible to the regular tools of urbanism. It explores the potential of an architectural intervention as a tool and means for urban redevelopment, looking for projects that reach beyond the scope of their built structure.

This booklet documents my combined design and research graduation project within the Urban Architecture graduation studio. The studio is site-specific, it engages with, and works within a complex existing urban environment. This year the site is located in the city of Maastricht. The focal point is a partially operating paper mill, located on the edge of the city center. The studio's operations are influenced by a guiding theme. For this year the chosen theme is that of the "Glaneur/Glaneuse."

The research design journal introduces the studio theme "Glaneur/Glaneuse" and is subsequently divided into four parts. The chapter "Site" explores the location of the paper mill within the city of Maastricht. It describes the first encounter with the site. The current "Sappi island" can be viewed as a collage through time, forming an inaccessible piece of city infrastructure. It entangles with themes of collage and assemblage that will be deepened throughout the further research. It concludes with our interpretation of the re-assembled factory in a process of puzzling and model making.

"De Papierfabriek" dives into the urban planning phase within the project, it draws upon the work of Colin Rowe and Fred Koetter to expand upon the theme of the type of "Collage city" that can already be found within the factory site. The Urban proposal, created together with Fenna Regenboog and Jolien Streng, is explained. It leads to an altered site and project location.

"Cultural Assembly" explains the proposal for a cultural center within the paper mill. Assemblage theory is introduced as an operative tool/theoretical framework for architectural design. It proposes a method for design research wherein Assembling and disassembling can be used as methods to explore the site and existing structures. Additionally it provides an ad-hoc approach to bringing elements within the design process together.

The three following chapters form the final part. They provide an insight into the process of design research within the framework of themes following out of the earlier project phases. They demonstrate a process of design steps within different phases of the project. From exploring the relationship towards the site through re-use of existing structures, they develop towards the final detailing and finishing of the design for a cultural center in a paper mill.





## 01 GLANEUR/GLANEUSE

This year's site and project is approached through the lens and attitude of a so-called glaneur/Glâneuse. This historic term describes those who reap the leftovers from harvested fields as depicted by François Millet in "Les glaneuses." Originally a right of the poorer classes in society, gleaning is part of a long-standing tradition that carries its way into the modern world.

There the term can be used in a broader sense. Agnes Varda's "Les glaneurs et la glaneuse" (2000) shows us the processes of gleaning through her camera lens whilst depicting the perspectives of various individuals giving their own modern meaning to it. From food scraps to discarded furniture pieces, the gleaners revalue that what society has deemed obsolete and ready to be left behind. They're finding beauty, value and opportunity in the more unlikely places. Besides showcasing a world-view in stark contrast with today's consumerist society and relating to a working class perspective of less glamour, there are obvious links which can be made with themes of sustainability in a world approaching resource scarcity. The gleaners seem to operate with a different awareness of value on everyday items.

When scaled up, gleaning translates itself into a relevant topic for architectural design. In the world of built structures, place and context the modern architect or designer also looks for clues, structures and value within the existing that can be implemented into something new. Holding a strong affinity towards the architectural site and surrounding urban fabric, the role of the glaneur within the Urban Architecture studio allows one to apply a more careful perspective on reuse and re-appropriation of the existing structures and sense of place.

From an architectural point of view, to me, the modern glaneur pursues a strong yet simple principle of sustainability: redeveloping the existing rather than adding anything new. Beyond this obvious use of gleaning, there's value to be found beyond simple materiality within our site. The factory grounds and its urban surroundings hold various layers of quality. It's a vast ever-growing historical site. Its industrial function and history is connected to the city and its inhabitants. The typologies related to different industrial functions tell a story of growth and purpose. Yet as a part of the city

there's unexplored value here also. A changing relationship between city and factory has resulted in inaccessibility and exclusion. The factory terrain hasn't been accessed by the public for years. The new value that can be added to the city of Maastricht by gleaning this vast part of the city's urban landscape provides an interesting opportunity for urban development.







## 02 SAPPI ISLAND

The city of Maastricht is located in the most southern part of the Netherlands, next to the border of Belgium. It's split in the middle by the river Maas that runs through it in a northern direction. The west-bank of the river is home to the old city center. Since 1850 the paper mill is located on the northern border of the city center. Formerly known as the "Royal Dutch Paper-factory" (KNP), the factory was bought by the South African Paper Pulp Industry (SAPPI) in 1997.

Originally the lines between city and factory were more blurred. The blue-collar workers could walk in and out through the factory gates. They were housed nearby. Through their lives the factory remained connected to the city. The modern factory is disconnected. Mechanization of many of the production processes require fewer workers. The few who still work in the factory don't necessarily live within the city of Maastricht. SAPPI has pulled up its fences and with the canal and basin surrounding the factory terrain their self proclaimed SAPPI island has become detached from Maastricht. The water and fences along its perimeter give it qualities similar to those of a medieval fortes. Its drawbridge is only lowered for those few who belong in its production process. On our first site visits this was a very noticeable part of our experience:

*"How do you connect to-, and understand an inaccessible space? I would argue that, to a certain extent, this is an impossibility. Yet it was the dilemma we faced during our first site visit. Thus understanding it from an outside perspective is the task we took upon us. The factory remained an object for a while. Its layers, atmosphere and inner workings were left out of reach. This changed drastically after a second visit where we did get access to the Sappi paper mill. Suddenly the object became alive. The solid block fell apart into tangible pieces. Interiors, façades and materiality revealed itself. It turned out to be layered beyond its closed façades. Yet the inaccessibility remains, the gates closed behind us when we left."*

Maastricht has a strong historical connection with its industry. And a certain quality can be found in the fact that the Sphinx quarter (through the presence of Sappi) has not entirely disconnected from its functional past. But the area is changing. As a first phase of the urban expansion plan Belvedere: parts of it have been renewed, parts are completely built anew and future plans for

other parts exist. What is the role of operational industry in all this? And should it have a role at all?

Roughly the factory grounds can be divided into two parts: the southern part and northern part, divided by the Fransensingel which runs east-to-west through the paper mill. The southern part contains the oldest structures and smaller volumes, many spaces are obsolete and those in use are mainly used for storing raw materials. The northern part houses the operational industry. The building blocks are larger and more recent. This part is still very much in use.

*"The site resembles a cityscape. Through its coincidental and organic growth it is recognizable, perhaps even successful as a small piece of make-believe urbanity. Contradictory this means it has perhaps succeeded less so as a functional and effective factory complex. The south-side of the factory is no longer in production. It is slowly becoming an urban void, hidden within a maze of built structures. Sappi fills them with trash and treasure, some rooms house office spaces, others store materials and several spaces have become tangible memory palaces of times past. Most spaces are not really used at all."*

The way these places are currently put to use can be seen as Sappi gleaning itself in an inefficient way. Whilst these spaces are often not used to their maximum potential, they do get assigned some role or function. Arguably the sub-optimal use of this "leftover space" is disputable for a location taking up a large area in close vicinity to the city centre. There is definitely opportunity here. Can the existing qualities be put to better use?





## 02 THE COLLAGED FACTORY

The Sappi paper mill has formed a collage of time. Different colours, materials, tubes, beams openings and shapes collide into dynamic compositions. These compositions show a passage of time. The stacked layers show movement. The Sappi paper mill reads as a sequence of scenes through history. Its convoluted built structure is a conglomeration of layers added over one hundred and seventy years.

Rather than tearing down the old and replacing it by something new. The existing structure has been expanded upon when necessary, adding extra floors, changing spaces and adding additional elements. It's way of expansion, according to the demand for paper production rates, has been organic and almost coincidental. New buildings for paper machines require additional storage- and operating spaces. And so the site has been filled up step by step. Through this expansion over time, many spaces have become (partially) obsolete. Its former uses are no longer relevant for the production process. The current production rate and numbers of exported produce are declining.

And so it starts to read as a collage. The juxtaposed layers of material and built form shape an urban tapestry that holds information on history, users, production processes and materiality. In elevations it reads most strongly, the façades and elements on the Fransensingel as depicted on the right can be seen as exemplary for the entire paper mill. Peeling the layers apart reveals the components. Disassembling and reassembling becomes a tool to uncover the factory.

### FACTORY ASSEMBLAGE

In reassembly collage turns to assemblage and can become both a research and design tool. The referenced examples on the following pages show different approaches of collages/assemblages. City of Composite presence (fig. 1) shows a literal collage city, shaped by rearranging and combining floor plans of classical buildings. The Belgian 2021 Venice Biennale piece: Composite Presence (fig. 2) takes a similar approach by constructing an imaginary cityscape combining recently built Belgian architecture. Both result in surprising new combinations. The bottom image consists of the building blocks that make up the current Sappi paper mill. The different blocks and

identities make up a piece of urban fabric that is perhaps interchangeable, if not re-arrangeable on site. At least in design/play elements can be taken out, closely observed an perhaps 'not' put back in their original place.

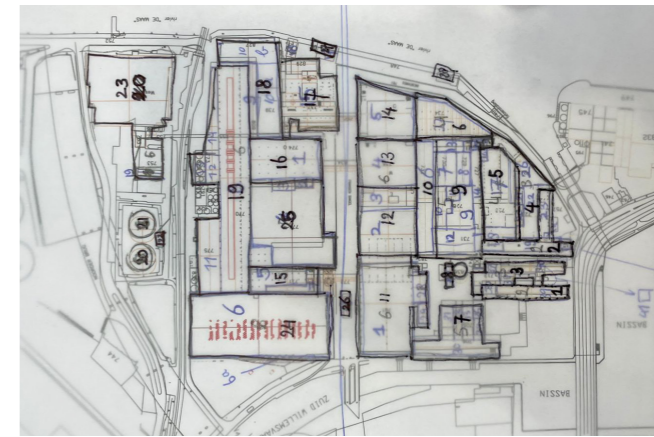
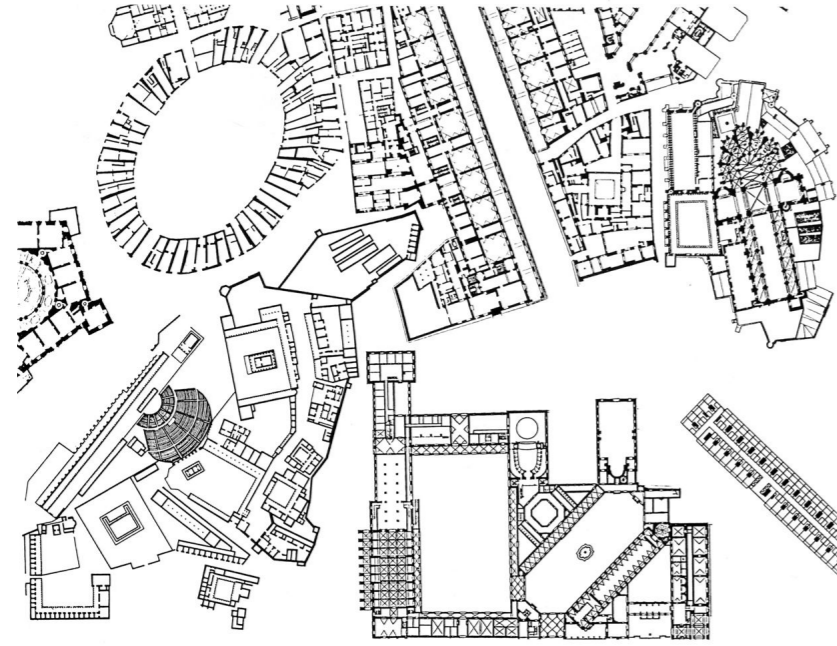
### CITIES, FACTORIES AND FACTORY CITIES

To further uncover the factory we reconstructed it from the ground up. Together, a short site visit, a picture of a safety plan and an archive full of incomplete drawings turned out to be sufficient material to construct a ground floor plan. It revealed the routes for production and programming with clarity. Beyond that it added to the city comparison on an interior level. The structure behind the brick façades is made up of inner streets storage spaces, room for production, offices and development.

Now that it was put together in drawing it could be taken apart again and further modelled into our final take on the Sappi paper mill.









## 02 ASSEMBLING THE FACTORY

In a process of deconstruction/construction or disassembling/reassembling the factory model becomes a playful tool to engage with the factory. Each piece resembling one or several building blocks. In their correct configuration they assemble into a recognizable representation of the paper mill. The blocks differ in size and shape. Their colouring marks the period in which they were constructed. The darker tones of red mark the older, earlier parts of the factory. The lighter tones represent the newer areas.

Several tales are told: the gradient running from the southern edge of the base towards the north clearly depicts a direction of growth and a slow change of time periods in which parts of the factory were built.

The elongated shapes marking the east-west direction belong to the halls that served the paper production machines. Their size and shape are determined by the linear process of paper making. As horizontal lines in the built landscape, they contrast the vertical line projected by the river Maas.

The size of the blocks expands the further you move into the newer parts of the factory. The northern part is setup with more clarity. Rather functional compared to the southern side where shed upon shed is constructed to fill the gaps between the larger functional production spaces. Whereas the south grows organically, almost coincidentally, the northern part is constructed in a more planned fashion.

The earlier mentioned cityscape can be read within the singular volumes or building blocks shown on the next pages. Tiny sheds and smaller blocks are alternated with buildings of more importance. There's a range of functions and shapes. There are mundane shapes and striking icons such as the power plant. The models of the historical changes on the Fransensingel portray historic layers of use on the factory terrain. The top image shows a scene from 1750 with the fortifications still in use. The scene from 1861 shows a growing paper industry, replacing the fortifications and slowly expanding northwards. The current situation projects the high walls of warehouses facing the Fransensingel. A projection towards 2040 takes the plans of the municipality into considerations, showing the planned road on the factory grounds.

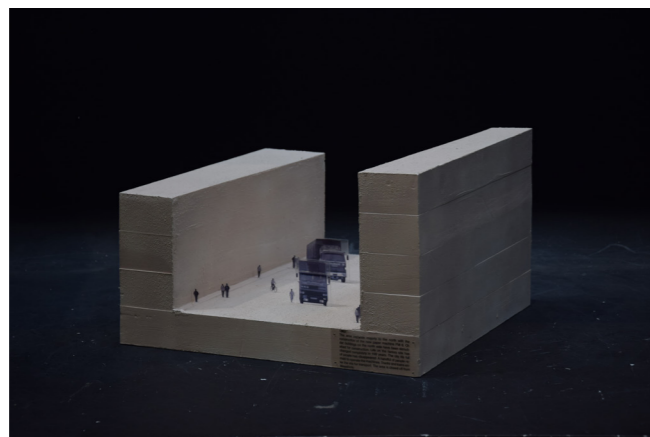
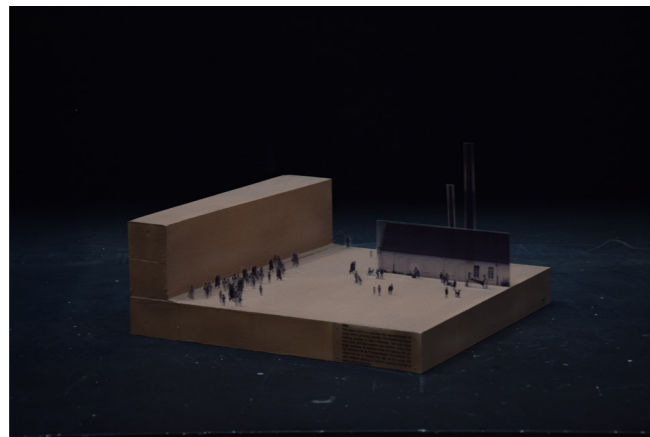
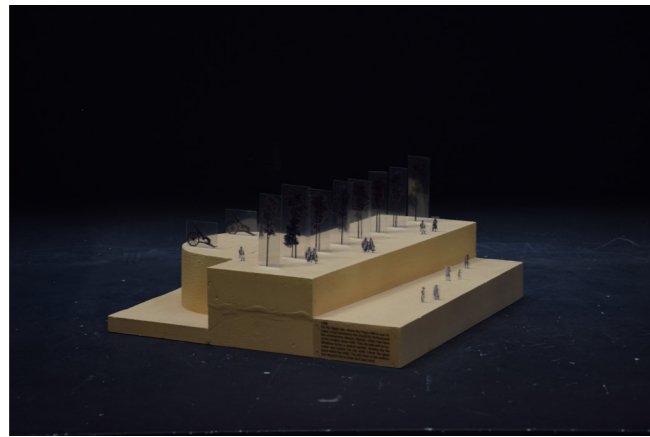
### THE MODEL AS A RESEARCH TOOL

There's an initial difficulty in grasping the scale of the site. Its vastness and complexity are difficult to comprehend. Reconstructing the factory on top of a plan drawing suddenly makes it tangible. Physically making it means going through the archives for plans, sections, measurements and a timeline. The model coming together means achieving an understanding of the factory structure. The abstraction into several topics (time, shape, size) results in findings that are suddenly visible without a thousand layers of built clutter obscuring the observations.

Then the model becomes a means of transferring information. The blocks are marked, the wooden boards connect them with their built location. But it is meant to be engaged with. Blocks can be picked up, put down, taken out and reshuffled. Over the first half of the semester the model becomes a tool for conversation, linking interior images to places, explaining the factory to those who haven't been inside yet. A tool for many of the developing urban plans.











### 03 COLLAGE CITY

In short: Colin Rowe and Fred Koetters “Collage City” (1978) is an argument against the modernist approach to urban design, favouring the diversified and democratic cityscape over the totalitarian infill of an utopian ‘tabula rasa.’

However in writing, it is a rather long and exhaustive play of complex terms and endless name dropping, directed towards the architectural and scholarly elite. Shamefully so, for hidden within their convoluted terminology lies an interesting point of view on modern architecture and urbanism.

Rowe and Koetter cast a light on the shortcomings of the modernist movement and its influence on urbanism and the developing mid 20th century cityscape. With Le Corbusiers plan Voisin as the ultimate unfavorable example, they argue for a collaged or bricolaged urbanism that takes into account a wider, democratic approach and results in an urban environment changed, filled and adapted over time. Rather than crushing the old to be replaced with the new, the collage city combines old with current and new. It’s the collision of the three that enriches the city. The ensemble of smaller design moves allows the city to slowly built itself up, by its organically growing needs and demands.

#### **COLLAGED FACTORY**

There’s a sense of similarity between the words of Rowe and Koetter (1978) and the factory city we found on the Sappi grounds. If we perceive it as a city landscape, its growth is undoubtedly organic, coincidental even. It took the paper mill a hundred and seventy years to transform into the entangled factory structure it is today. The ever-expanding growing process of the paper mill includes the demolishing, replacement and adaptation of buildings.

The larger factory halls were often constructed using repetitive grid based structures. This allowed for necessary adaptation over time. Outdated sheds and warehouses became enveloped by new structures or were simply removed when additional space was needed. Floors were added to several structures. In other places they were removed.

This process remains visible in discolouration, cut marks and material

changes. Furthermore, this process is still ongoing. Most recently it can be observed in changes made to a large warehouse on the Fransensingel where the building will be minimized by three grid lines to create space for a new intended road.

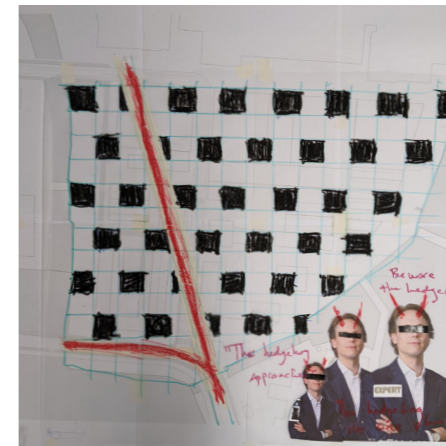
Can the paper mill thus be described as an ideal result of urban planning as per Rowe and Koetters “Collage City (1978)?” Hardly. Not surprising considering the fact were not dealing with an actual city. Although we can make the comparison, it simply does not operate as pleasant, varied urban space, nor is it meant to. In other ways it does deliver though. The organic growth, using time as an important design element, has resulted in a varied architectural landscape. Changing structures, sizes and roof-scapes create a diverse interior experience. Different structural techniques tell a successive story of built history. For a part of the factory, adaptability has made it possible to elongate the lifespan and use of the buildings.

#### **COLLAGED URBANISM**

Beyond being an approach in understanding the paper mill as a type of cityscape, Collage cities (1978) critical angle regarding urban planning potentially motivates a different approach for design and planning in the urban phase of the project. Rowe and Koetter (1978) describe two different design approaches within their work. That of the hedgehog, who is the linear modernist thinker. The one realising a singular idea. An the approach of the fox, who is adaptable, ever changing and varied. “*The hedgehog has one idea, the fox has many.*” It lead to a type an urban approach that tries to accompany bigger moves with smaller incisions. An approach well fitted to those within the role of the glaneur/glaneuse. Beyond drafting up a fixed urban plan it has lead us to work on a phased proposal, involving time as a decisive factor within design. The collages (“*The hedgehog has one idea, the fox has many*”) attempts to uncover the layered potential within our first drafts for an urban plan.









### 03 URBAN PLAN

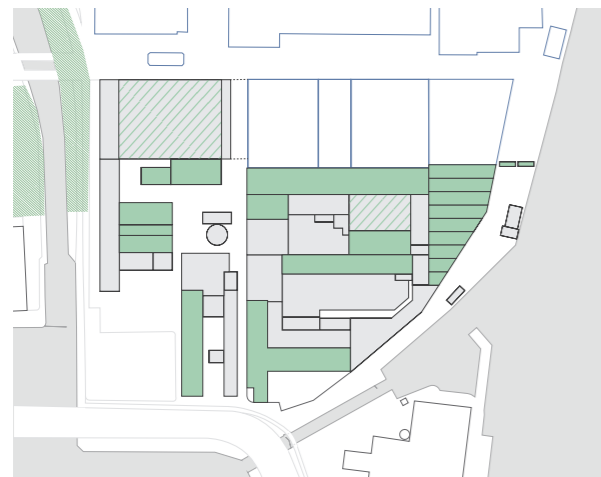
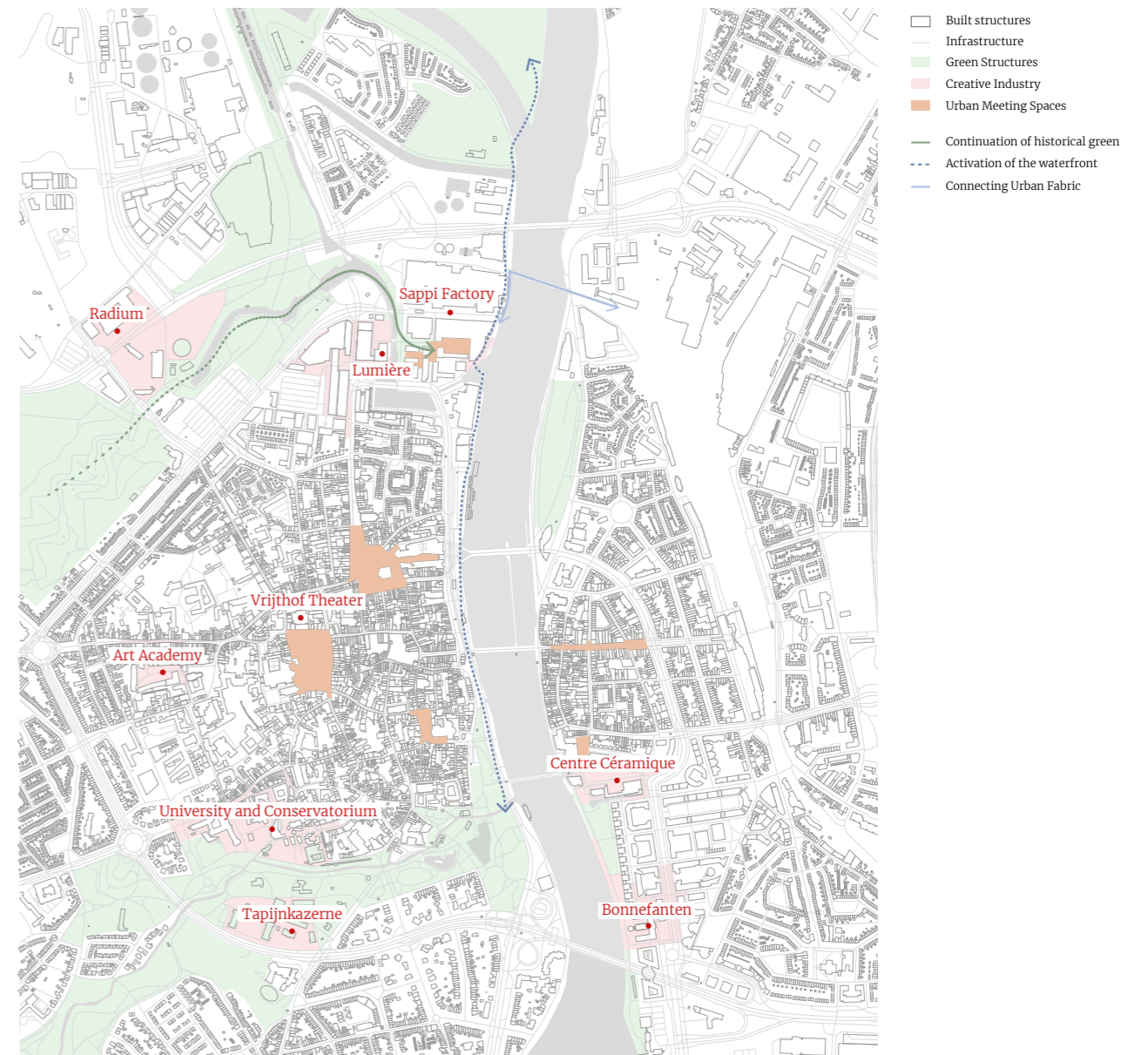
The urban plan was developed together with Fenna Regenboog and Jolien Streng. Our interest within the city and site was mainly peaked by the factory grounds. Following three different earlier research topics: City and factory, Overhead underneath & in-between and Migrant cities, we had three different takes on opportunities or problems connected to the site. Aside from those, individual research into collage/assemblage, nature and the literary city also determined our approach.

Initial research concluded the following, regarding the location of the Sappi factory: It provides an opportunity to bring the Frontenpark further into the city. It is currently cutting off an extended route along the river Maas. The disused railway bridge could connect the northern side of the east- and west-bank. And as a location it could easily fit into, and add to the network of meeting spaces and cultural hotspots in the city keeping urban expansion northwards with the new plan Belvedere in mind.

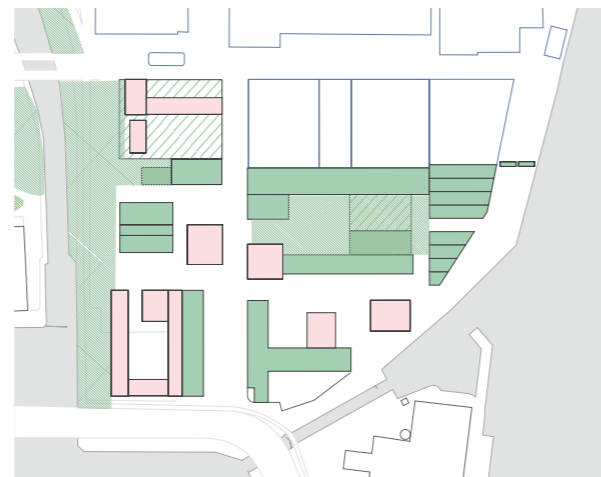
Seeing the south side of the factory falling into disuse we marked a boundary to divide the parts necessary for the Sappi factory to operate and the parts that could become available for development. Thus we arrive at Sappi south as the scene for our intervention on the urban scale.

To us, the role or responsibility of the Glaneur/Glaneuse as a guideline to taking action meant carefully re-evaluating the existing situation on the site. We visualised our approach in a little diagram of the apple tree: first picking up the fallen apples, then the low hanging fruit before using the ladder to move over to harder to reach spots.

We carefully catalogued the factory infrastructure and its potential for re-use and re-appropriation. Taking value by structure, former program, architecture and paper production functionality into account. A process of de-assembling the “Sappi-city” and reinstating its important puzzle pieces. In some places this means keeping structures as redevelopment projects. With other buildings it’s about holding on to the “industrial bones” to maintain strongly connected to the site and its history. In those cases pieces become characterizing parts of our urban plan. In a few instances we can make use of existing infrastructure: the railway overpass as a walking/cycling bridge and the wharf underpass as a means of crossing northwards without interfering with the operational part of Sappi (see: p. 33).



30 Remaining and demolished (grey) buildings



Remaining and new (pink) buildings



Factory site within the city, Factory site within the Sphinx neighbourhood, Process of gleaning



### 03 URBAN PLAN

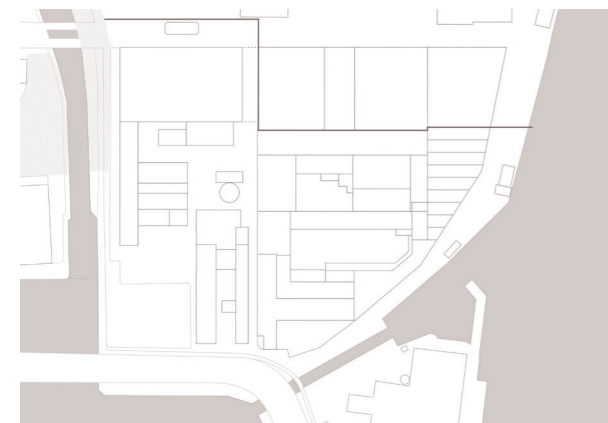
The urban plan is phased in an attempt to allow space for adjustments and to stick with the element of time as a decisive design factor for de Papierfabriek, paying homage to its constructed past. The starting point is the current state of the southern part of the factory site.

Our first step in developing the docks is meant to attract people towards the area. Combining food and drinks with a cultural oriented program, we hope this area can develop into the type of hangout that's not unfamiliar to a lot of river or harbour based cities, but hasn't yet arrived to Maastricht. It forms a continuation of a walking route along the Maas and is a promise to what is yet to come.

We strengthen that atmosphere in our following phase adding housing alongside public infill to both new and existing structures. The urban parks and lively waterfront provide argument to visit. A library and cultural center form a new public hotspot in the city. We slowly move towards connecting east and west.

The plan we head towards in a third phase adds the new street and tramlines on the north-south axis formerly present in the factory layout, with housing alongside it. We finalize the connection to Lumière and the axis that runs east to west through our site.

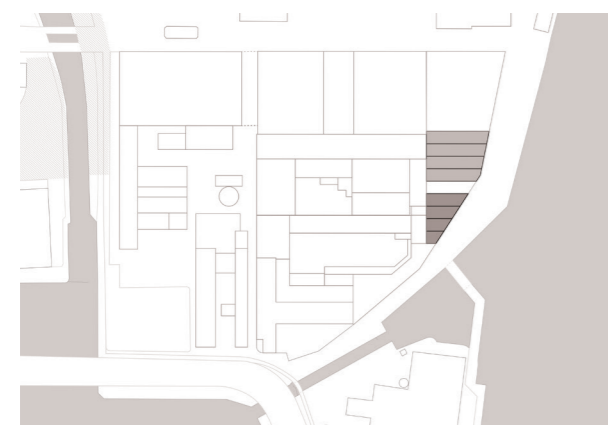
The following pages further illustrate the proposed plan for the Papierfabriek. We worked heavily with the 1:500 scale model of the site and neighbouring area as a tool to test the volume studies of the urban plan. The hand drawn visualisations provide an idea of what this place could become, without making it a fixed proposal, leaving room to the imagination.



Starting point



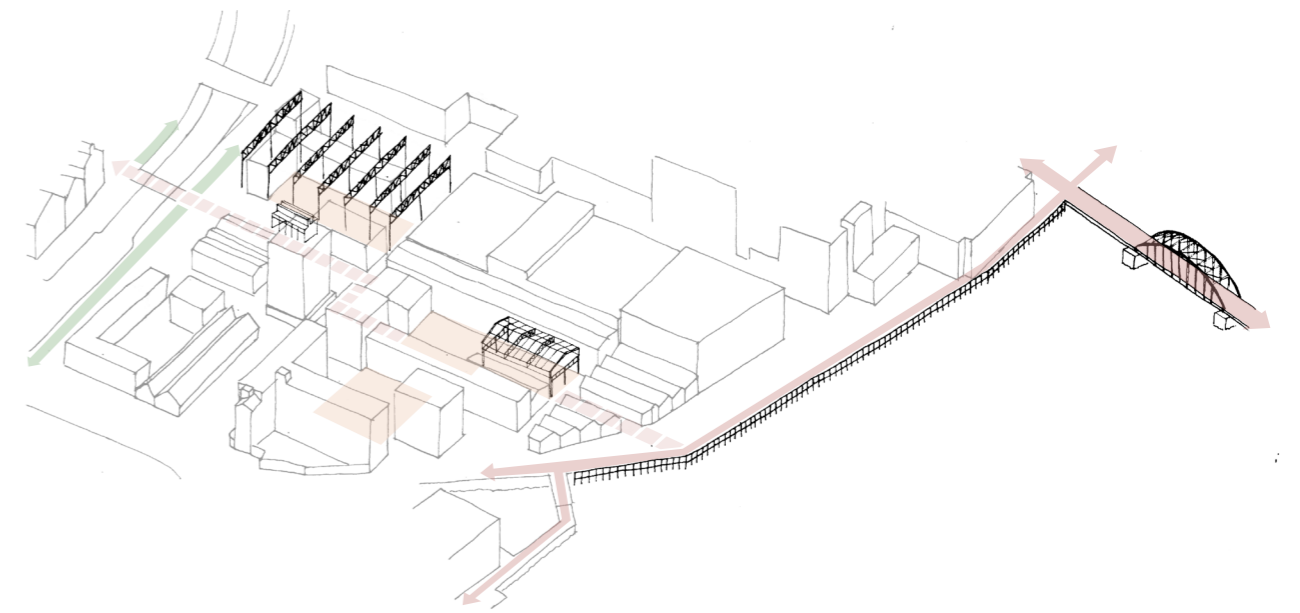
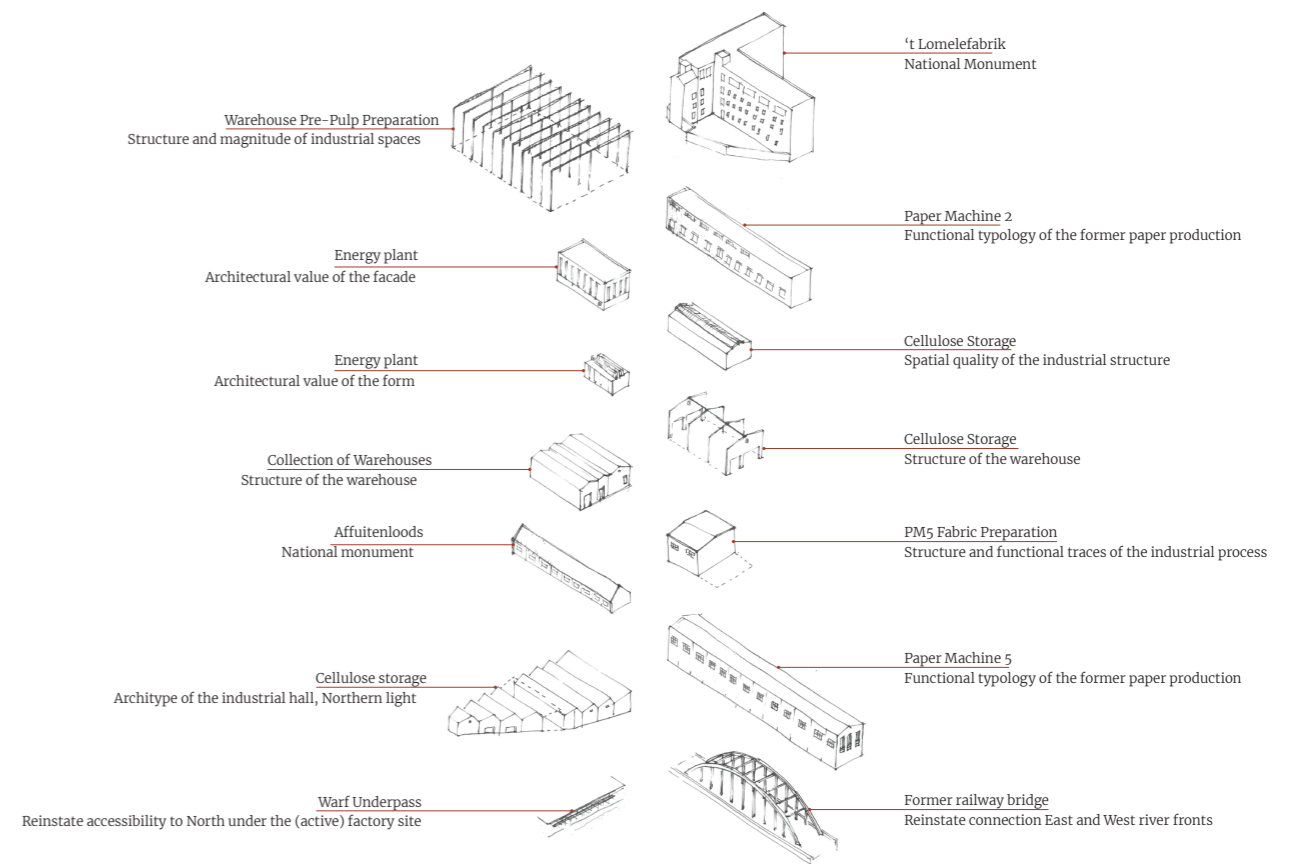
Second phase



First phase

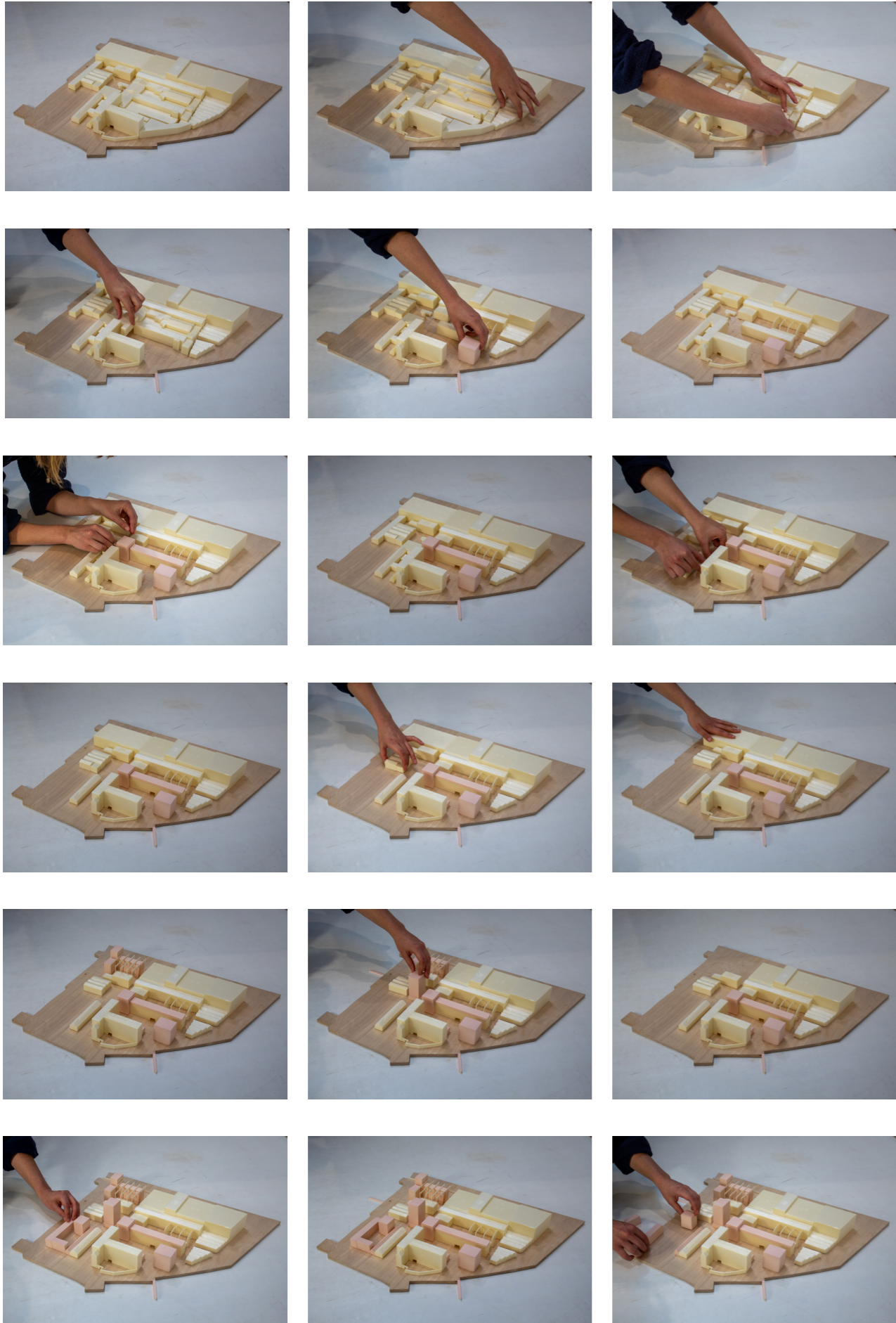


Third phase

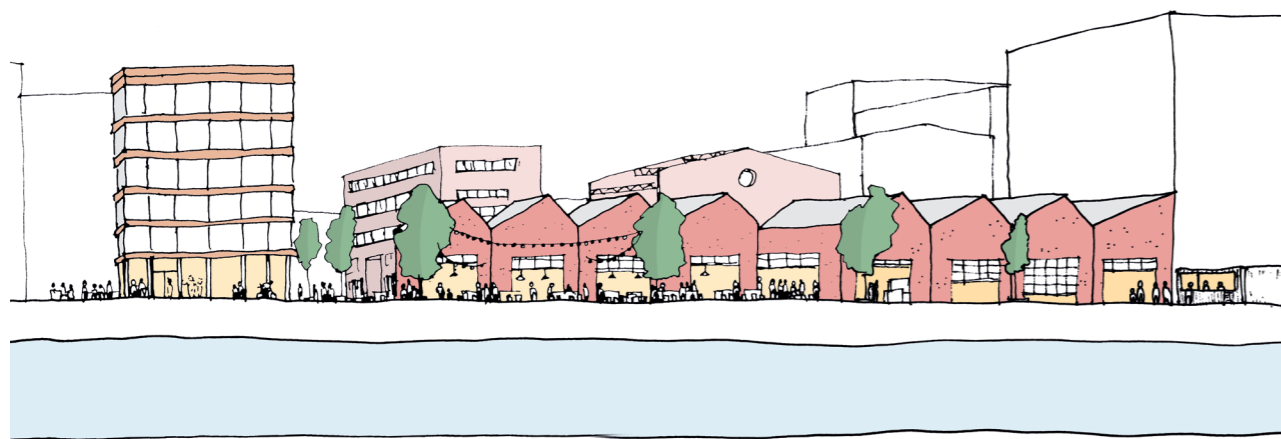
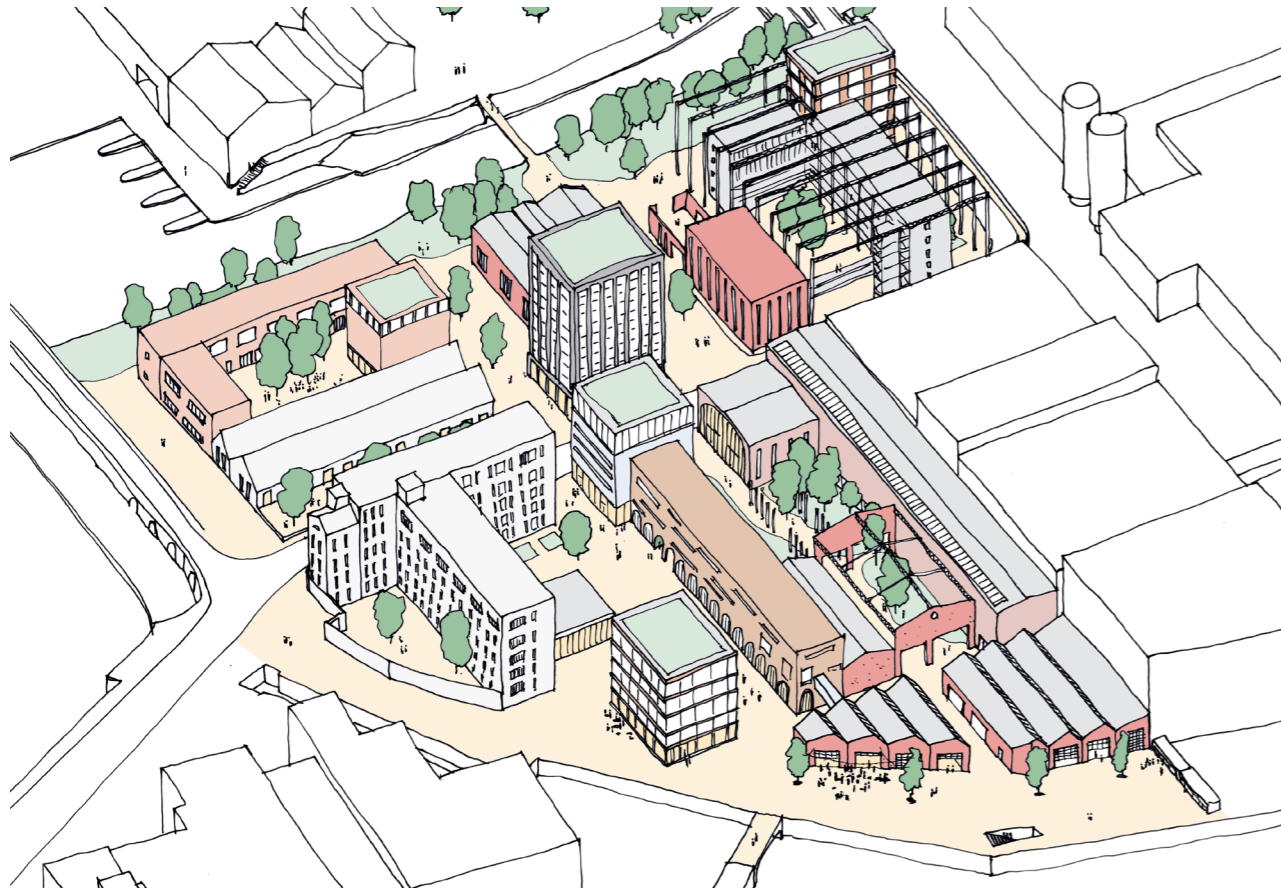


Gleaned architecture, Glaneurs approach to the site







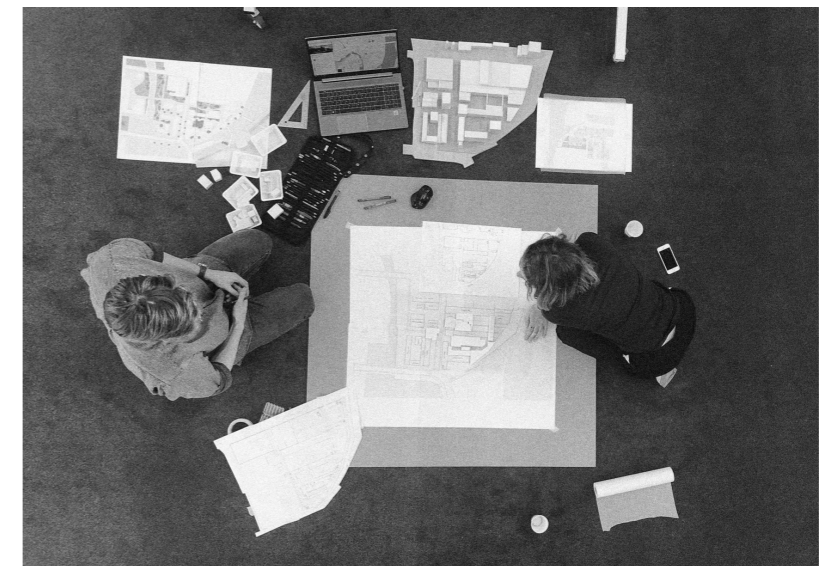
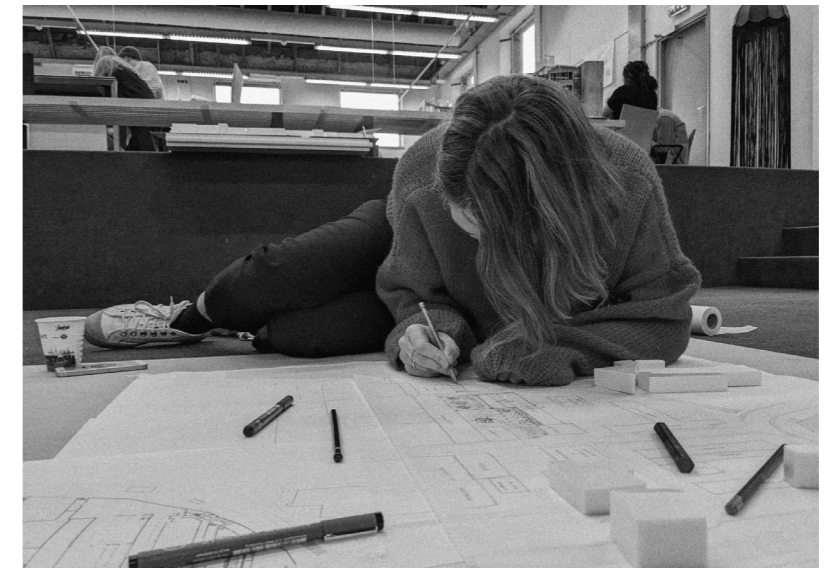
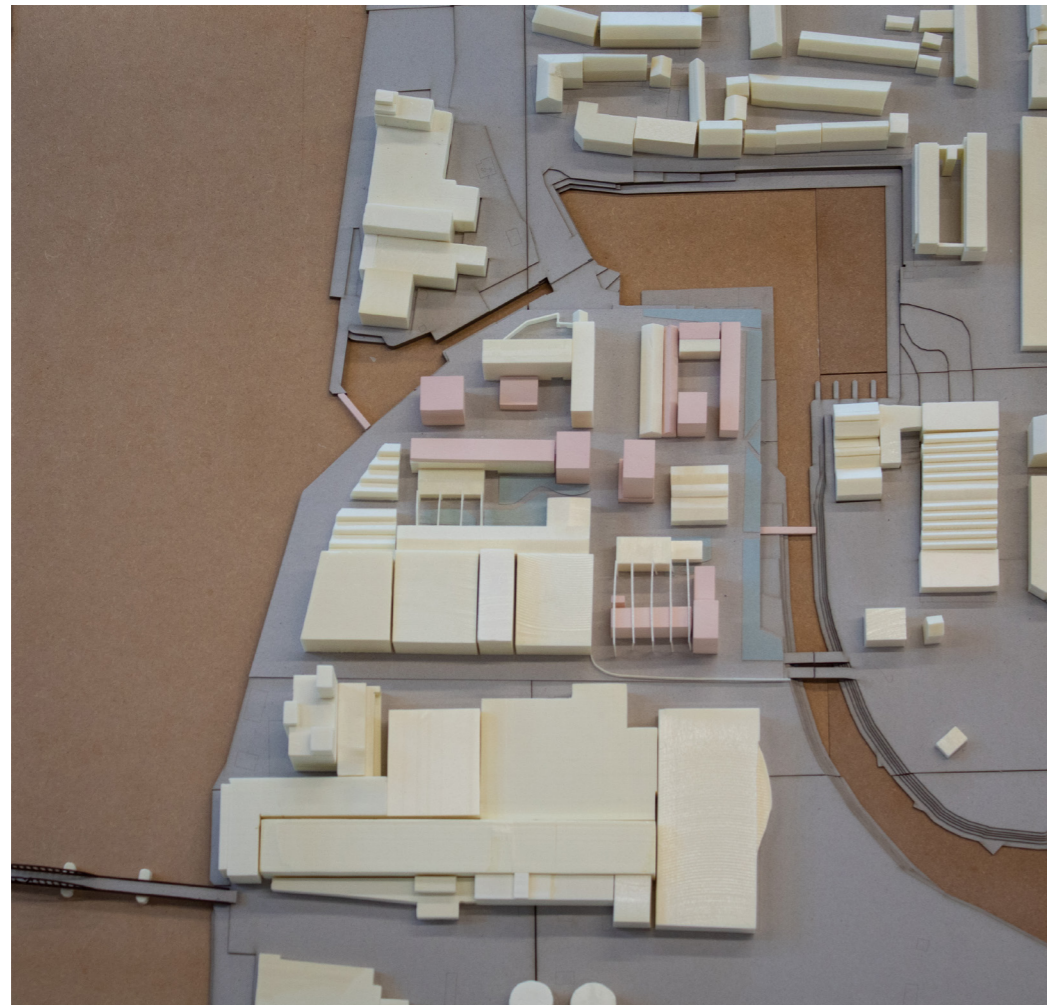




### 03 MAKE BELIEVE URBANITY

“The city of pink and yellow foamblocks isn’t built over night. It flows out of thin lines, drawn on large scale plans. It originates in ideas about city life and its inhabitants. Ideas backed up by municipal visions on greenery, public life, culture and expansion. Ideas backed up by research into cities and factories, things underneath, overhead and in-between and migrant cities. Ideas are put into drawings. Ideas are shaped into blocks of foam. Through careful consideration the blocks are placed, moved, removed. They change in height, width and length. Existing blocks are examined, deemed worthy or unworthy. Taken out or left in place.

Sometimes they get adapted to new realities. And so the former paper factory landscape changes. It opens up towards the city. It finds new connections and streets within whilst bridges reach out to the surroundings. The glue starts to set, the blocks fall into place. Finally they shape a new landscape of make believe urbanity.”







### 03 CULTURAL CENTER FOR A CITY

Maastricht establishes itself as a city of culture, a title they hold dear and which they pride themselves on. Being one of seven cultural focal points within the Netherlands, Maastricht houses a wide array of cultural institutes, associations and culture focused educational institutes. Some of them are comfortably housed, but others only temporarily or not at all.

In its visions on cultural program, makers and designers, the municipality is looking to expand upon its institutes and the role for culture, arts and crafts within the city. The Sphinxquarter is marked as a primary area which could be dedicated to these types of functions and atmospheres. Former industrial area's currently freeing up, amongst them the south side of Sappi are also labelled as having potential. Maastricht values the clustering of these functions to create an atmosphere and environment that encourages cross contamination. They are also meant to be places open to the public. Maastricht wants to offer its inhabitants the opportunity to either experience, or get involved with the cities cultural infrastructure. The following quotes are found in the different municipal vision documents on the role of culture/creative makers within the city:

*“Conducting explorations of buildings in the Sphinxquarter/Sappi-South to be used for the target group (creative makers).”*

*“At an urban level, the Sphinxquarter is the best example in Maastricht of giving and leaving room for the creative manufacturing industry. Both in terms of housing and programming.”*

*“Important presentation places for the creative manufacturing industry find their place there, including: Bureau Europa, Lumière, Muziekgieterij.”*

*“Sphinxquarter is ideal for a concentration of cultural functions. This unique location can contribute to the qualitative and quantitative growth and development of Maastricht as a City of Culture and at the same time be of even greater significance for the city and region for the longer term.”*

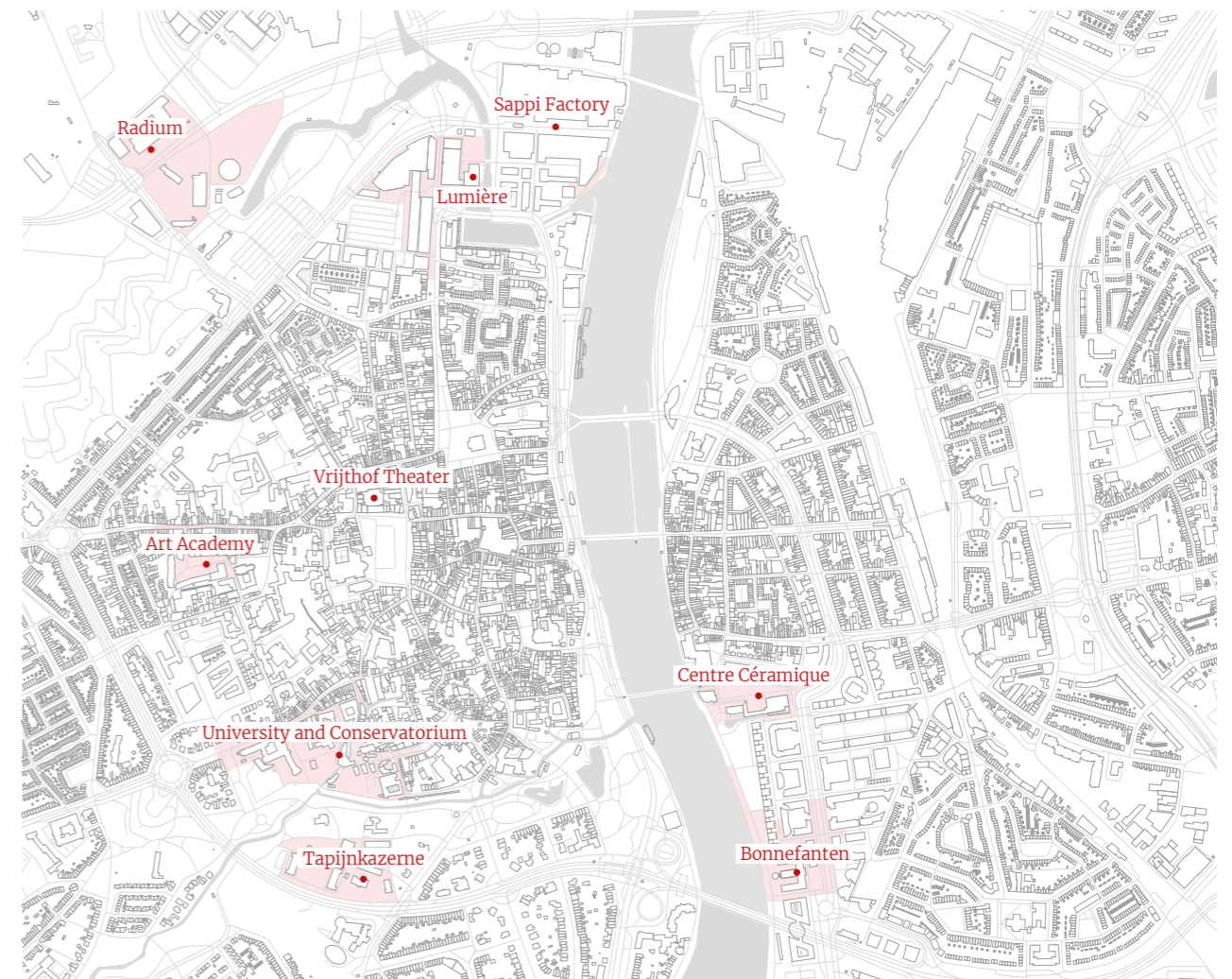
*“Where opportunities arise in urban development, we carefully look at options for strategically deploying municipal real estate to facilitate starting artists, art initiatives and art training courses.”*

*“Former industrial areas and vacant industrial buildings as opportunities/examples.”*

*“Visible and accessible to everyone, high-quality facilities. Culture in the public realm.”*

With Lumière, Bureau Europa and de Muziekgieterij as neighbours, Additional cultural program on the site could add to, and build upon the cultural hotspot that is forming within the area.

Therefore we arrive at the proposed program of a cultural center within the urban plan. It takes residence within several existing structures with the potential of additional new structures to be added. The envisioned cultural center becomes a place for recreation, social gathering and cultural practice/education. It is meant as a meeting ground for those who have an affinity with culture and those who do not have it yet. It offers spaces to create, teach and learn. It becomes a public venue to experience art/performance art, to study, to work and go out. Towards the cultural institutions within the city it is offered as a place to reside, practice or exhibit their work. To the people of Maastricht it is offered as an accessible new public interior.



#### PODIUMKUNSTEN:

groot symfonisch orkest  
muziektheatergezelschap  
professioneel projectkoor klassieke en moderne muziek  
stedelijk toneelgezelschap  
stedelijk dansgezelschap  
kleinere theatergroepen (cofinanciering FPK)  
talentontwikkelingsorganisatie  
stadtheater  
stedelijk poppodium  
festival popmuziek  
festival jazzmuziek  
festival sacrale muziek  
concours opkomend jong muzikaal talent  
festival dans  
breed palet aan amateurverenigingen

#### EDUCATIE EN PARTICIPATIE:

instelling voor erfgoed, kunsteducatie en participatie  
organisatie voor cultuur in de wijken

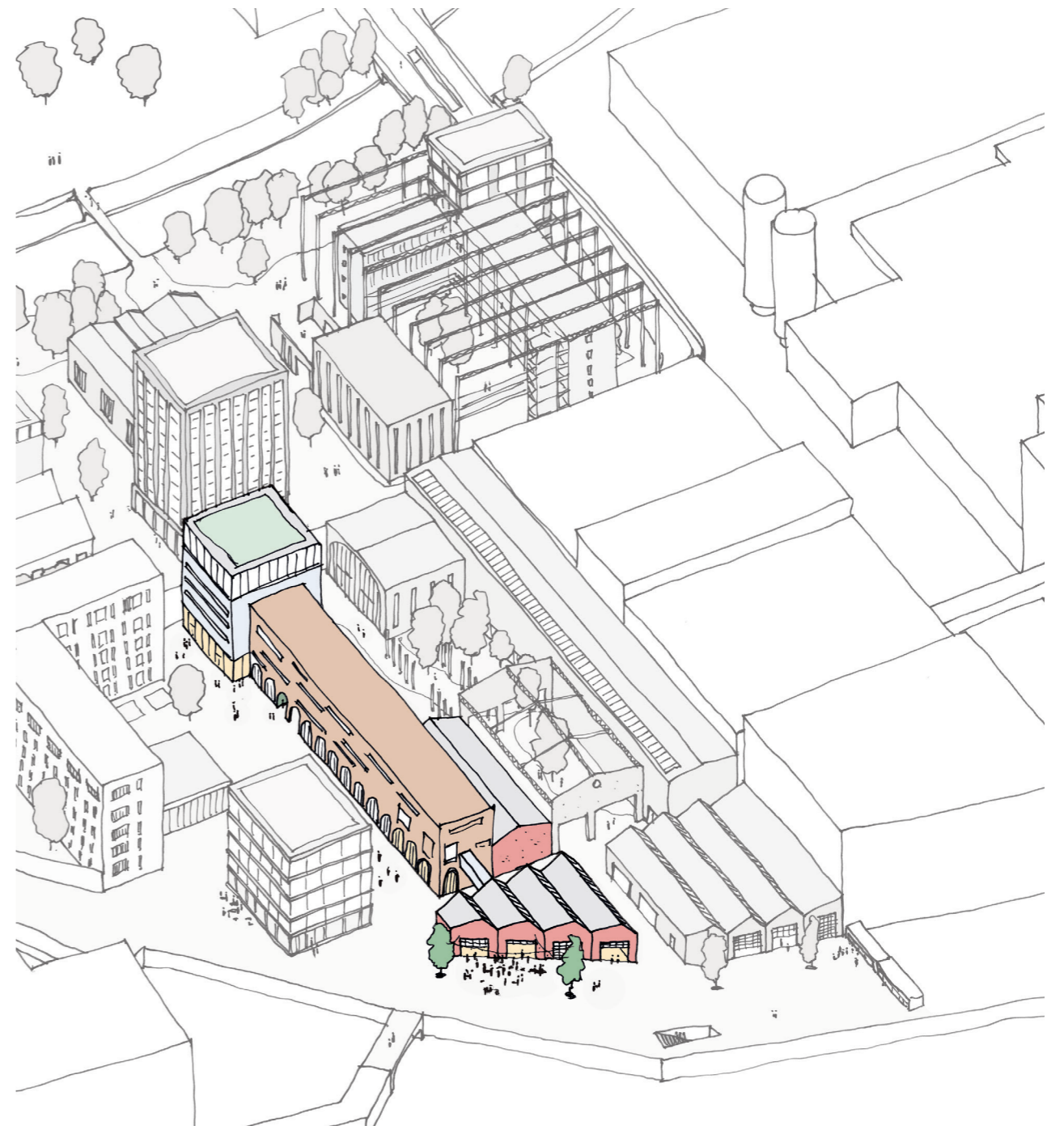
#### BEELDENDE KUNSTEN, FILM EN MEDIA:

presentatie-instelling beeldende kunst  
instelling voor betaalbare huisvesting van ateliers  
meerdaags evenement beeldende kunst en vormgeving  
filmtheater  
euregionaal platform voor film en media  
meerdaags evenement mode  
postacademische instelling voor beeldende kunst en vormgeving  
lokale omroep voor radio en tv

#### MULTIDISCIPLINAIR:

meerdaags stadsfestival voor amateurs en professionals  
opening cultureel seizoen voor amateurs en professionals







## 04 ASSEMBLAGE AS A DESIGN TOOL

The previous chapters have shortly mentioned the topics of collage and assemblage. The term assemblage describes the gathering or bringing together of things. It is used as a method amongst artists, originating in the first assemblage art piece by Pablo Picasso in 1921 (Seitz, 1961) who fixed several objects onto one of his paintings. Where collage remains in the two dimensional plane, assemblage moves out of it and becomes construction. Assemblage is built form. The act of assembling and disassembling is an act of building.

Besides the physical act of construction, Deleuze and Guattari (1988) rephrased it into a method of reflection on society. Assemblage theory proposes a philosophy on society that attempts to figure out the relations between objects. It offers a method of understanding “complex wholes” by dividing them up into their smaller working components. Through the writing of DeLanda (2019) it becomes a more practical theory that can potentially become a tool applicable to the organization of our cities and the architecture and social processes within it.

The act of taking things apart and/or putting them together is a simple method of finding the inner relations of objects and systems. It works as a reflective tool on exploring the existing but holds potential as a projective tool on working towards a new non-existing situation. The built context of the paper mill possesses qualities both inherent to the artform and practical/social theory. The cultural center houses a complex program. As a typology it is meant to be an overarching function that clusters a variety of smaller functions. It should operate as a backdrop to an abundance of social flows and structures happening within. It touches upon many topics potentially related to Assemblage theory. Therefore, I'd like to explore it as a tool in the process of designing/researching the site and project, resulting in the following research question: How can a cultural center be designed, maintaining a strong connection to its site and past whilst using assemblage as an operative tool?

### ASSEMBLAGE THEORY

Assemblage theory looks at our surroundings through a lens focused on relationships of entities. Our environment is made out of assemblages through various scales, smaller

(rooms, families, events) and larger (cities, societies, countries) where's the larger scale is not of more importance than the smaller one (Dovey, 2013). Assemblages possess individual identities, properties and behave according to a purpose. The subparts possess their own properties. Through the connection between different parts, different identities take shape. Reconfiguration of subparts shapes new or different identities. (DeLanda, 2019) Elements out of one assemblage can be taken out and repurposed in different assemblages. The functionality of subparts is therefore not bound to a single assemblage or purpose.

Assemblages find their identity through the specific way in which they are organized. (DeLanda, 2019) As example: A particular street becomes such a recognizable thing by combining pavement, tiles, trees, parking spots and specific processes and social interactions that happen on it. A pile of tiles does not make the pavement, nor does a collection of pavement necessarily make a street. They become the street after being assembled in a certain fashion. Whereas in this case the stones might form a part of a street, elsewhere they shape a house. The term “street” doesn't fit a singular assemblage either. There's a multitude of combinations which we might recognize as a certain type.

Once established, the street becomes a backdrop for, or part of, new assemblages. One assembly can offer an environment for different kinds of relationships, social and spatial, to occur. They are assemblies themselves. Or as per introduction by Keller Easterling (2021, p:vii) into the book medium design:

*“The objects in a simple room – table, chair, lamp, pen, teapot, teacup, apple, and window – are performing. Although static, they are projecting latent potentials, activities, and relationships.”*

The room offers a playground to the potential actor entering it, the amount of potential activities are countless. They range from the more logical side of the spectrum to more illogical; sit on the chair or throw the chair out through the window. Combining actor, item and action: chemistry happens in between. This in between or medium as described by Easterling (2021) is the space, middle or milieu in which the action takes

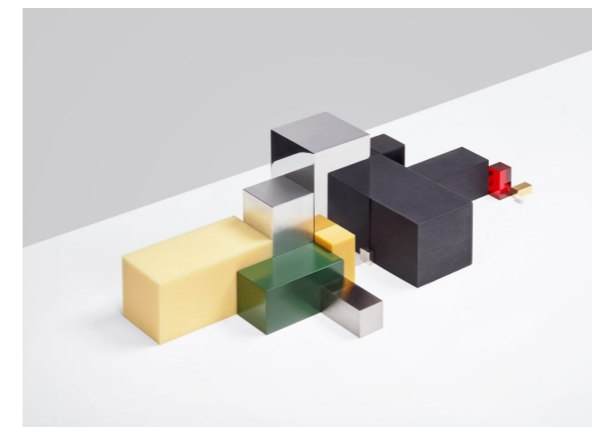
place. This action can be influenced, directed or sometimes restricted, by things such as time, actors, actions, items and medium.

### OPERATIVE RESEARCH TOOL

The paper mill can be understood as an assemblage. The production line and its serving buildings become a complex process or “complex whole” with smaller functioning parts. Through many layers or topics it can be filtered or explored using assemblage as a theme or theory to take things apart or put them together. Previous research for and through the factory site model, as well as explorations for the urban plan have done so. Assemblage theory provides an approach to carefully deconstruct the found pieces of a complex whole. Architecture and architectural design research can be used as an experiment to find existing value and retrofit it into something new using assemblage as an operative tool. Starting with the re-usable architecture involved within the design project Assemblage theory can provide a means to disassemble the non-relevant layers of use that have appeared within these spaces. Providing a starting point for future design work.

### ADHOCIST ASSEMBLAGE

Jencks' and Silvers take on adhocism within design (2013) provides an additional angle on the use of assemblage. Adhocism describes an action of putting together existing things and systems in order to efficiently solve a problem in a fast manner (Jencks & Silver, 2013). The ad-hoc designer takes existing elements and applies them into their design, resulting in new possibilities.



Studio Drift: gazelle bike (fig. 7)

Jencks and Silver use the example of the bicycle seat. Through its shape it lends itself as a component of Picasso's Bull's head, through functional qualities (leg movement whilst giving support) it's implemented in a surgeon's operating chair and a machine-gun seat. The responsible designers applied qualities found in an existing object into other products. Like the designer, the ad-hoc architect therefore is skilled in shopping for existing parts. The combination of parts then becomes the act of design, which is assemblage.

Adhocism results in taking clues from the existing. It also argues for a legibility of different parts and components. The recognition of assembled elements in our surroundings prevents a visual homogeneity (Jencks & silver, 2013). Within the built environment adhocism argues for visual difference and recognizability within our structures. The ad-hoc design provides a clarity of its used components. Whilst making the design process legible, adhocism could also provide a means of “shopping” within ones process. Allowing for room to analyse it and to combine occurring thoughts, ideas and references into design solutions. Assembling the designers mind into a designed product.

### ARCHITECTURAL THEME

The assembled cultural center consist of three assembled buildings, holding their own functions, combined into a singular public interior complex. It takes a fourth volume: the foyer, to connect the individual part and complete the assemblage. Assemblage fits the goal the cultural center is meant to reach. Bringing functions, elements and



Studio Drift: I-phone 4 (fig. 8)



## 04 ASSEMBLAGE AS A DESIGN TOOL

people together, beyond research and design tool, the terms of collage and assemblage fall within an architectural theme used throughout the project.

### DESIGN RESEARCH

The Glaneur/Assembleur places a high importance on the current situation as well as its materiality. Initial design research into the paper mill and the urban proposal has resulted in an abundance of information on the existing structures, assemblages and relations within the paper factory.

From there on assemblage through the perspective of the glaneur becomes an operative tool for architectural design in answering the question: How can a cultural center be designed, maintaining a strong connection to its site and past whilst using assemblage as an operative tool?

Firstly, it is useful as a tool for deconstructing the buildings that will be re-used. This will give a clear view on the components that can be used. It is likely this will lead to the finding of motifs and or elements that can further influence the design.

Secondly, assemblage is a way of bringing elements together. From ad-hoc composition of existing design solutions and ideas to a design approach that allows for association and “shopping” within ones own process, solutions can occur.

Thirdly, assemblage is thematically connected to the function of a cultural center, which combines a cluster of functions, uses and users. It runs as a thematic component through the design process.









## 05 TAKING APART - PUTTING TOGETHER

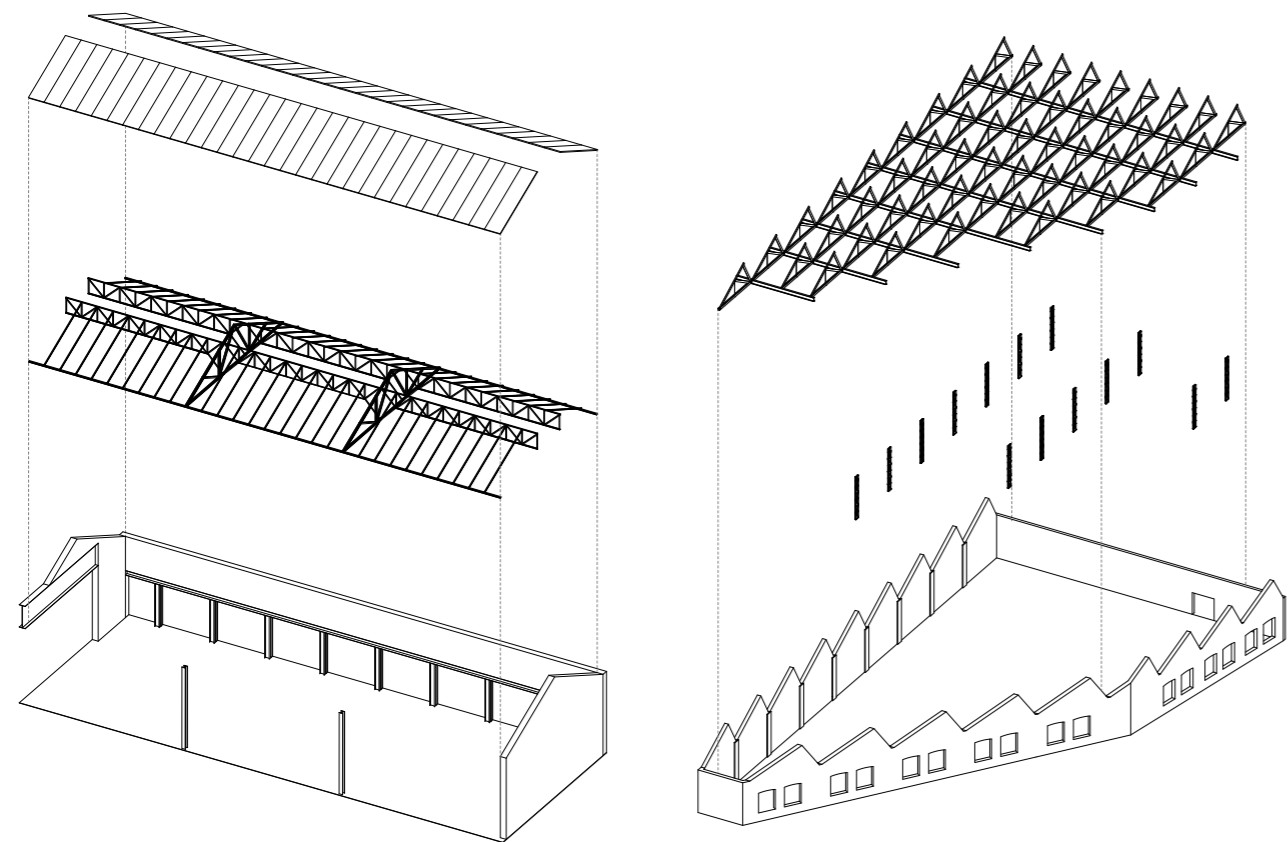
A large part of the defined program and project is housed within existing structures that belong to the paper mill. As it is the case with the exteriors, the interiors of the paper mill are characterized by years of use and alterations.

*“The warehouse on the waterfront is defined by its glazed roof, providing the space with a surprising lighting condition. The northern light is filtered through the wooden trusses. Below the roof structure it becomes messy. Here the space is overtaken by the operational factory. The stacks of paper pulp might only be temporary, other elements have become fixed to the brick, steel and wooden structural elements. Harsh industrial lights, sprinkler systems, additional beams, wires and tubes compose a cluttered image. The room is equipped and redesigned for forklift traffic. Columns protected with yellow bars of steel. A same style of “re-decoration” can be found in the neighbouring shed.*

The shed is based on the same structural principal which is used throughout a large part of the structures on the south side of the paper mill.

It has brick, load bearing walls. The roof is made of thin vaulted concrete slabs and its supported by a steel framework. Flooring is mostly concrete. The interesting exceptions found in the warehouse are the wooden trusses supporting the roof. They are carried by steel columns of which some are filled with a brick reinforcement.

In a small exercise of de-assembly/re-assembly I took the layers within the spaces apart, separating the structural elements from the “Sappi additions.” It results in a polished images showing the baseline which can be worked with in further design. It gives clarity on materials, composition and existing spatial quality.



Structural diagram of the shed and warehouse









## 05 THE PROPOSAL

The first concept for a cultural center on the site of the sappi paper mill envisions the use of two existing structures and two new built volumes. It replaces the former pm2 building and reuses half of the sawtooth roofed warehouse on the waterfront and a shed in between. The other new addition is a tower volume on the west side of the former pm2 building.

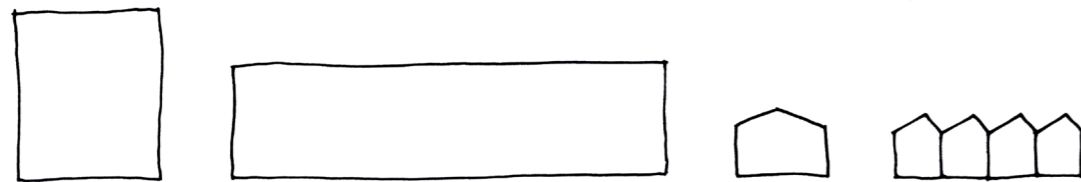
It is shaped mainly in sketch and stays close to the formal studies developed in the urban plan. The first steps are defining and organising program. Within this phase the function of a cultural center is still being developed. Different functional assemblies including daycares, high schools and housing are still being considered. Assemblage has been used to strip and assess the existing structures. New infill tries to

adhere to the existing qualities within these buildings. The ensemble is valued on its combination of large industrial volumes. The clarity in shapes is respected by avoiding breaking them up. The first plays on themes of verticality and space for circulation appear in the diagrams and drawings.

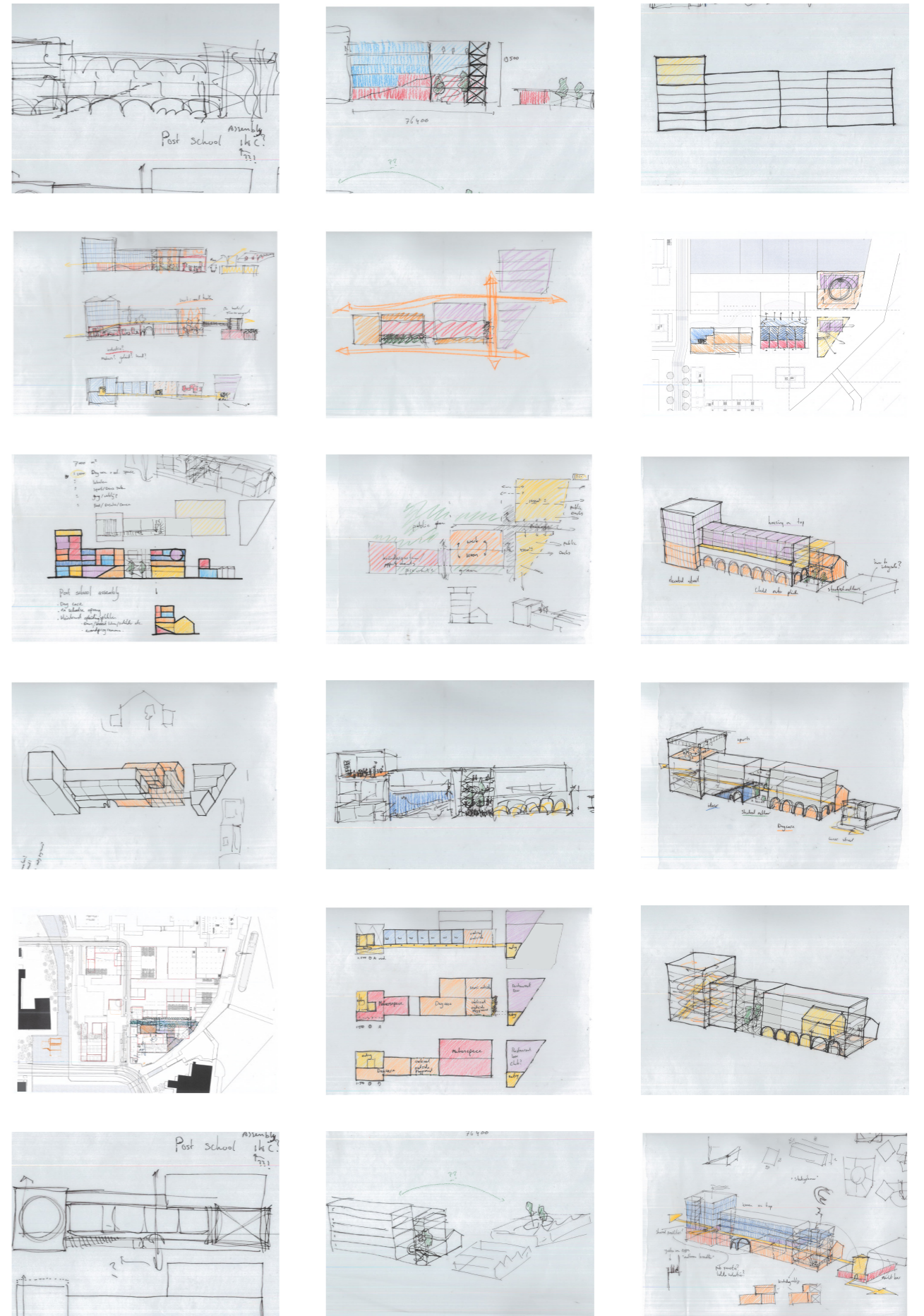
Several design principals are developed, the cultural center aims to become a connected whole, respecting the heterogeneous identities of the different volumes whilst allowing for an atmosphere of cross contamination between the different functions and users.



Connected Whole

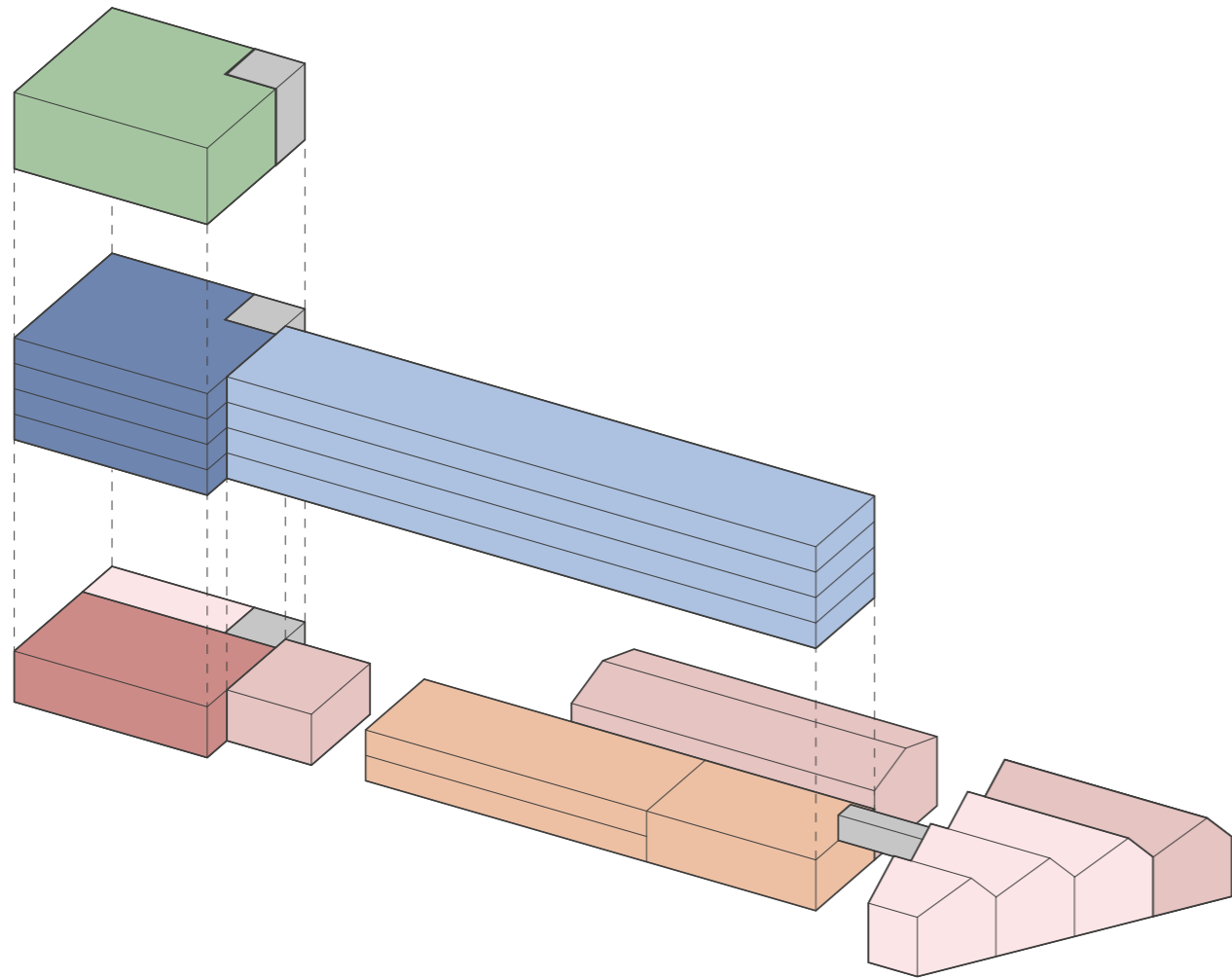


Heterogeneous identities

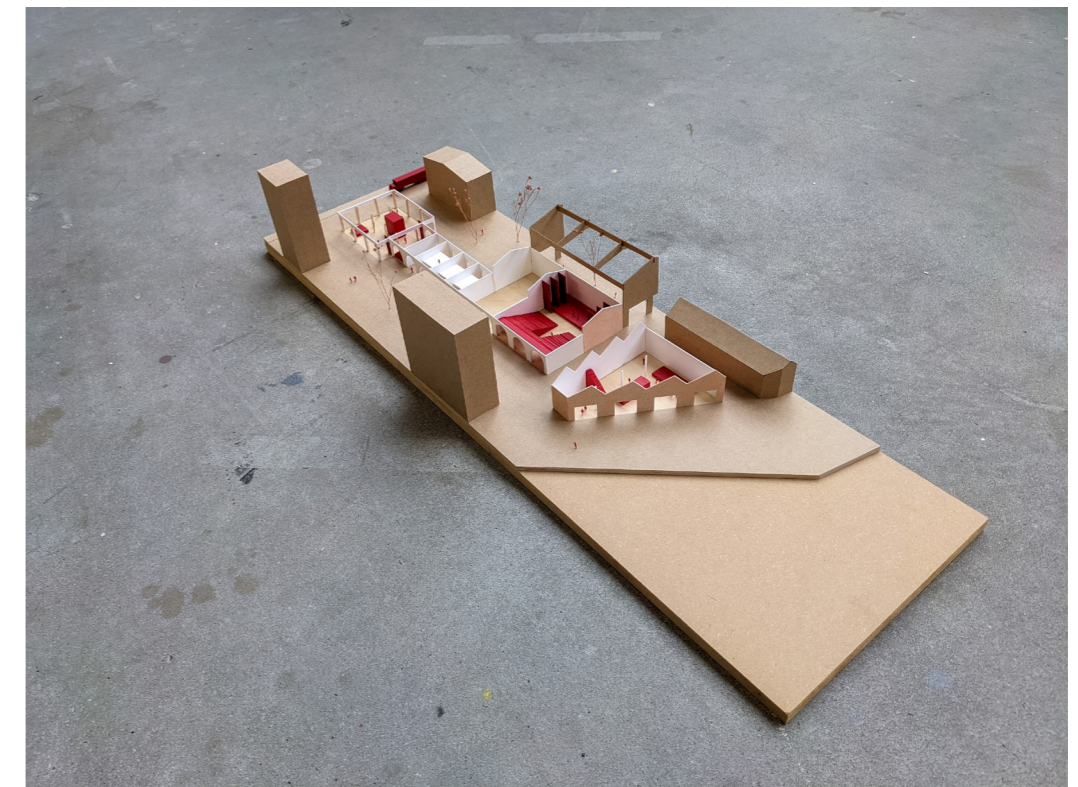
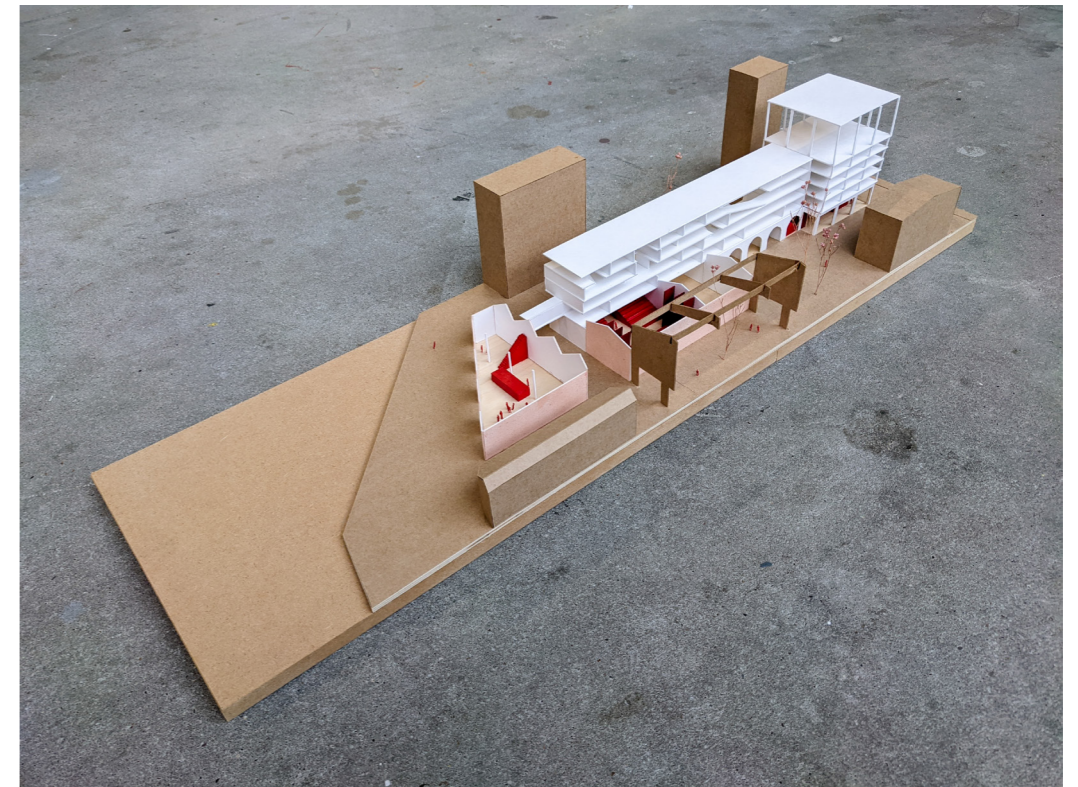




05 THE PROPOSAL



<span style="color: #8B4513;">●</span> Foyer:	300 m <sup>2</sup>	<span style="color: #4682B4;">●</span> 3rd space:	3300 m <sup>2</sup>
<span style="color: #FFA07A;">●</span> Food/Drinks:	400 m <sup>2</sup>	<span style="color: #3CB371;">●</span> Sport hall:	400 m <sup>2</sup>
<span style="color: #D2691E;">●</span> Performance/Lecture:	700 m <sup>2</sup>	<span style="color: #A9A9A9;">●</span> Traffic:	200 m <sup>2</sup>
<span style="color: #FF8C00;">●</span> Artists in Residence:	1000 m <sup>2</sup>	<b>Total:</b>	<b>8000 m<sup>2</sup></b>
<span style="color: #4169E1;">●</span> (Class)rooms:	1700 m <sup>2</sup>		





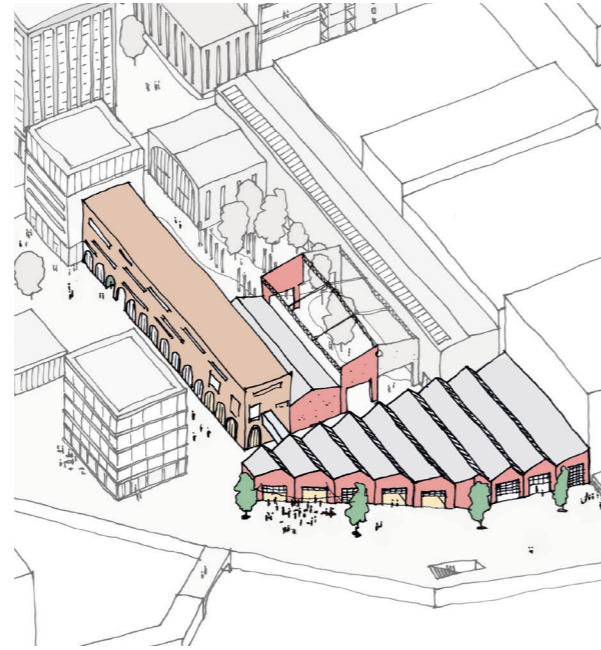
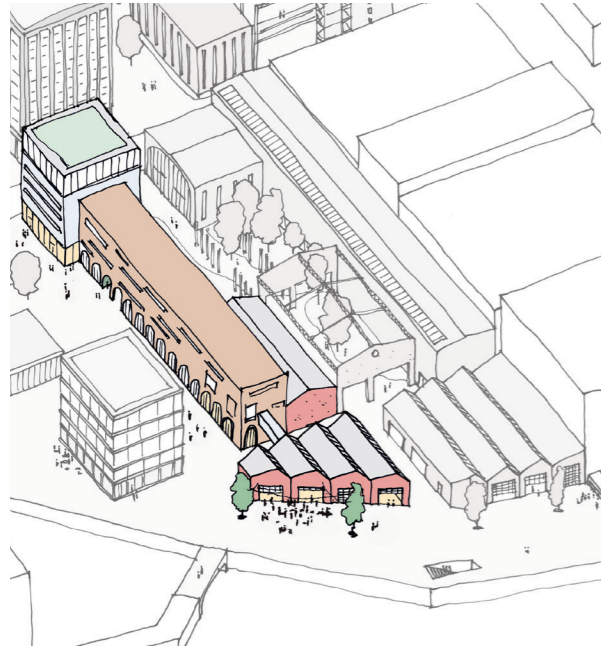




## 06 CULTURAL CENTER IN A PAPER MILL

Conclusions from the first proposal and a second visit to the interiors of the factory lead to new insights regarding the project of the cultural center. The interior of the pm2 turns out to be more interesting than expected. It has a surprising feature in the form of a vaulted ceiling. The curves bring a playful element into an otherwise simple building. Regarding the proposed program it seems wasteful to just demolish the building.

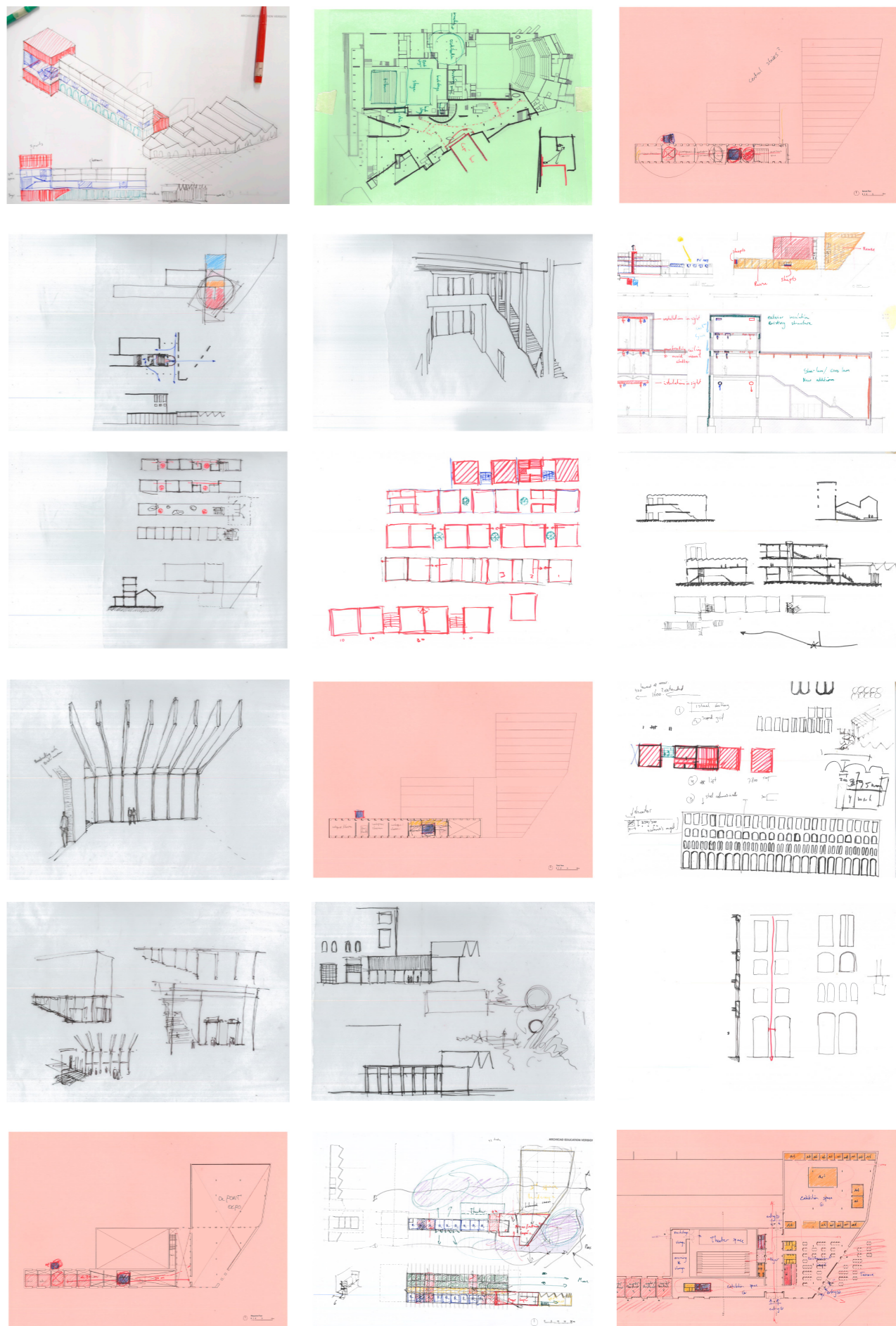
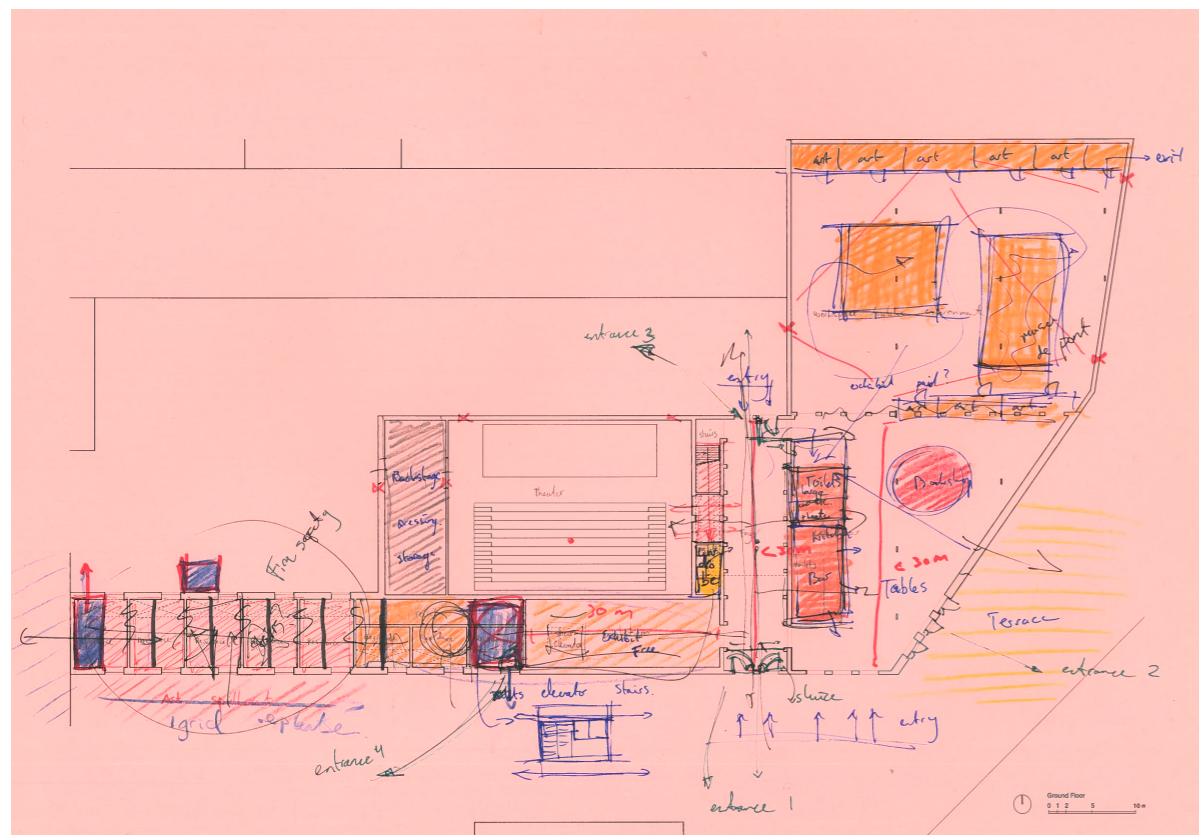
Consequently it becomes a reuse project and focal point of the design. In taking only a small section of the sawtooth roofed warehouse on the waterfront, the qualities of the repeating structural elements and its vastness are lost. After reconsideration the structure as a whole becomes part of the project. The adjacent shed next to the pm5 is brought into the project also to accommodate a small theatre venue.













## 06 FACADES ACT I

From an initial need to further understand the structure of the pm2 building it became an interesting starting point for an architectural redevelopment exercise of the exterior.

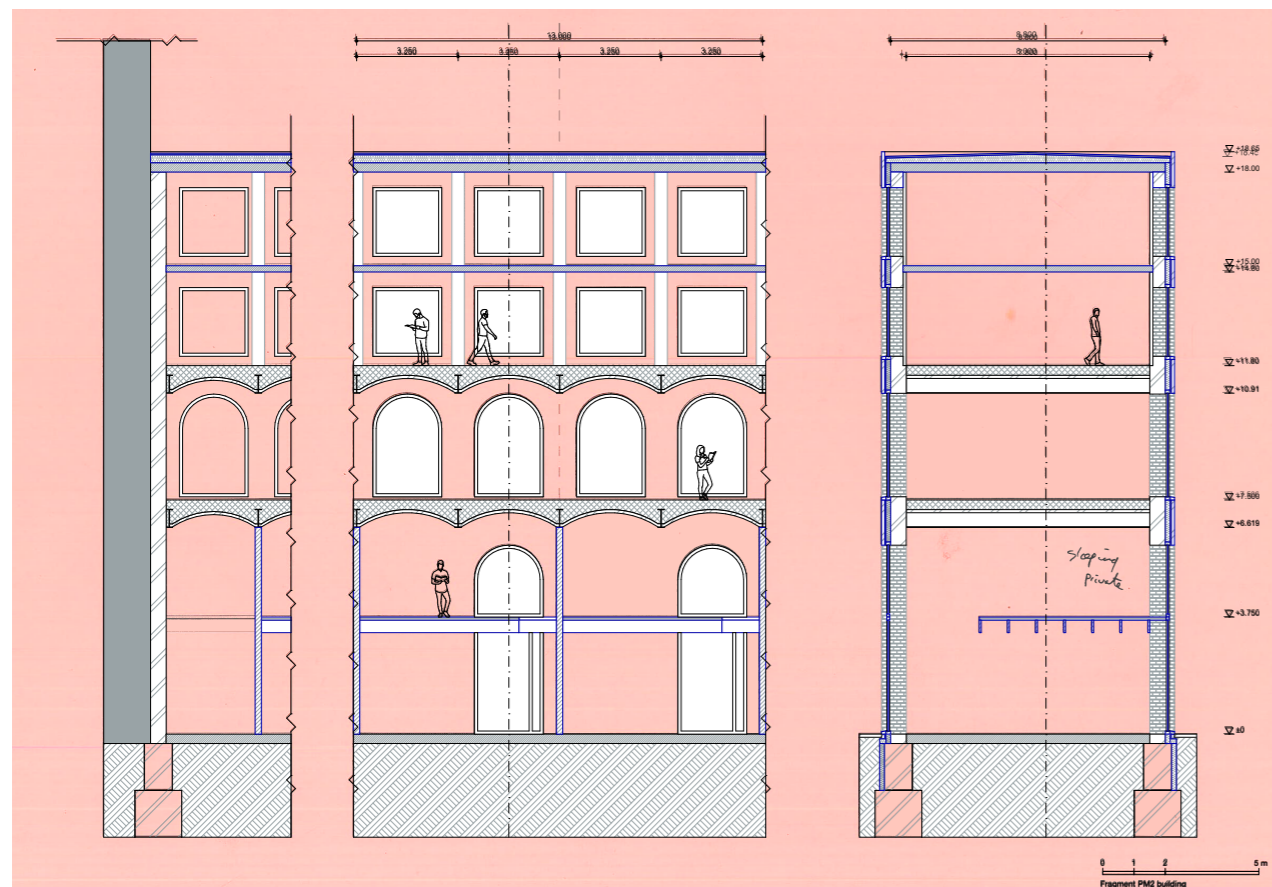
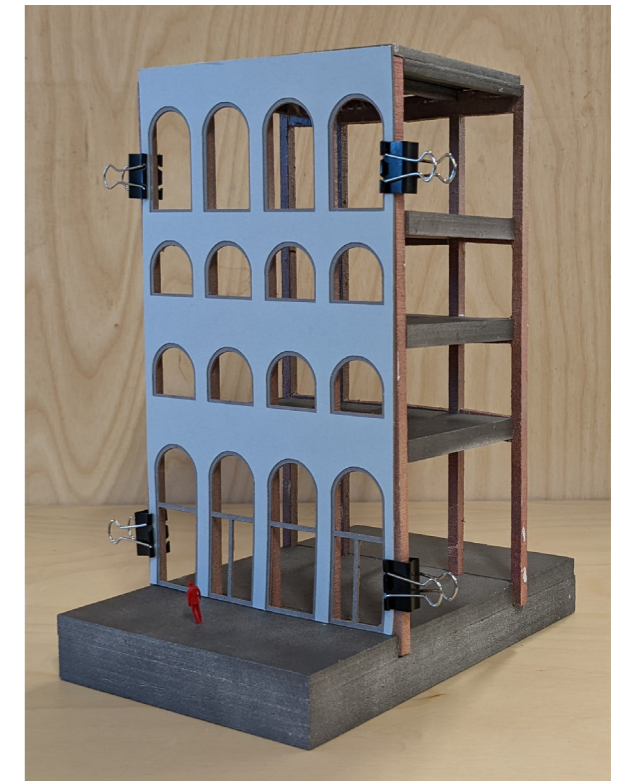
The pm2 building has a relatively simple setup. It has heavy, half a meter thick, load bearing, brick walls. The floors are carried using a vaulted brick and concrete structure. Alterations have been made to the upper floor, resulting in a different structure for the roof.

Due to the need for additional square meters, the addition is altered again to accommodate an extra floor. The brick vaulted ceiling is valued for the interesting arches and spatial quality they bring. New openings within the facade are necessary. The facade will be recladded, to leave the vaults and interior intact, the decision is made to insulate the building on the exterior side. From here on it becomes a study to the methods of making

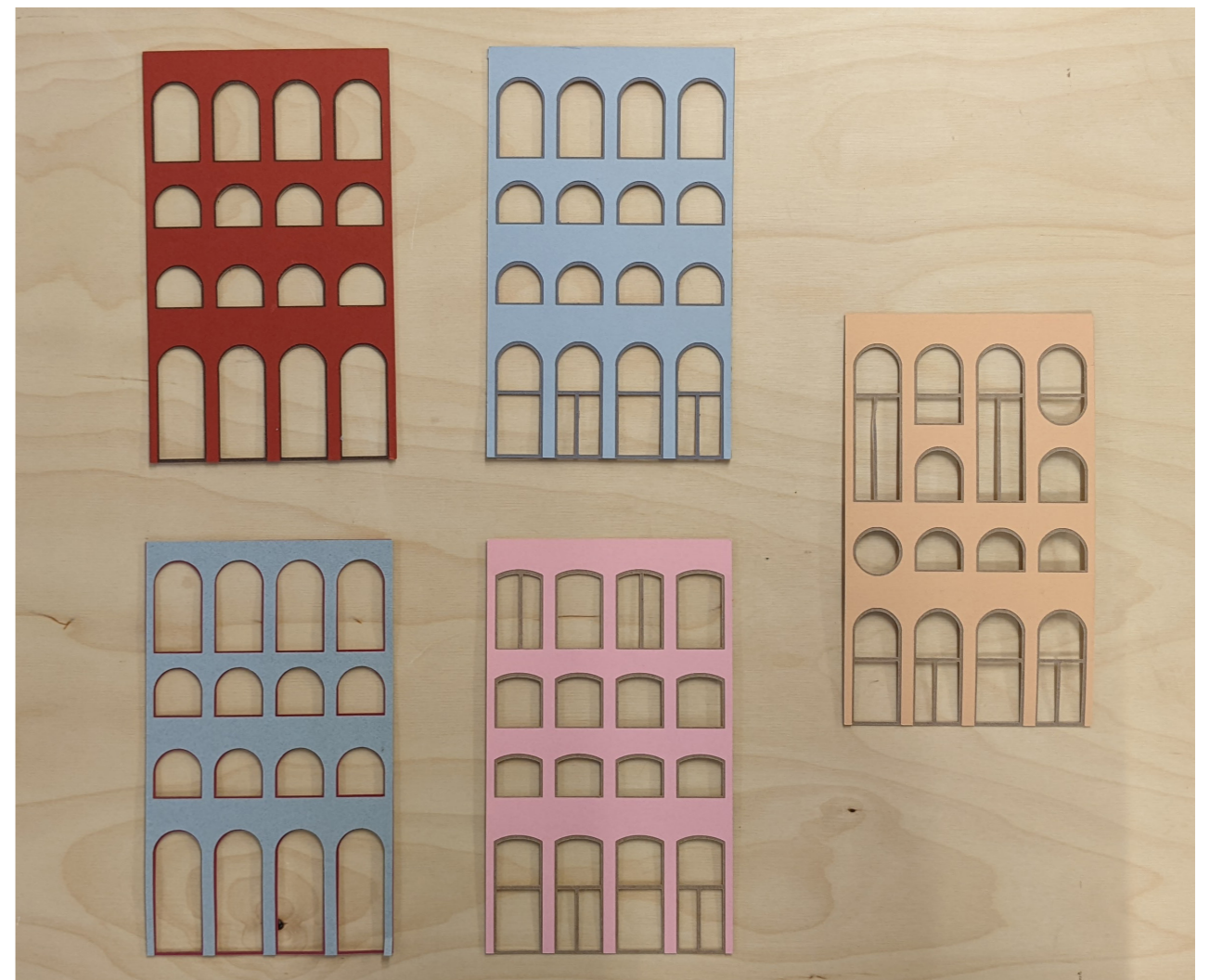
openings within the facade and finding suitable cladding and organisation of the openings.

The pm2 structure was explored through drawing and modelling. A detailed section of the vaults in combination with a physical model gave insight into the structure and gave room to speculation on its redevelopment potential.

The model became a tool to test options for the facade. In layered paper cuttings, different options were tested. They led to discussions regarding the building construction and load bearing qualities of the facade. Combining or collaging two and three dimensional tools of portraying the combined structure, adaptations and facade expressions proved to be a useful laboratory setup. The fragments were taken to the scale of the entire building, resulting in a clearer view on the rhythm of the entire facade.



Pm2 section



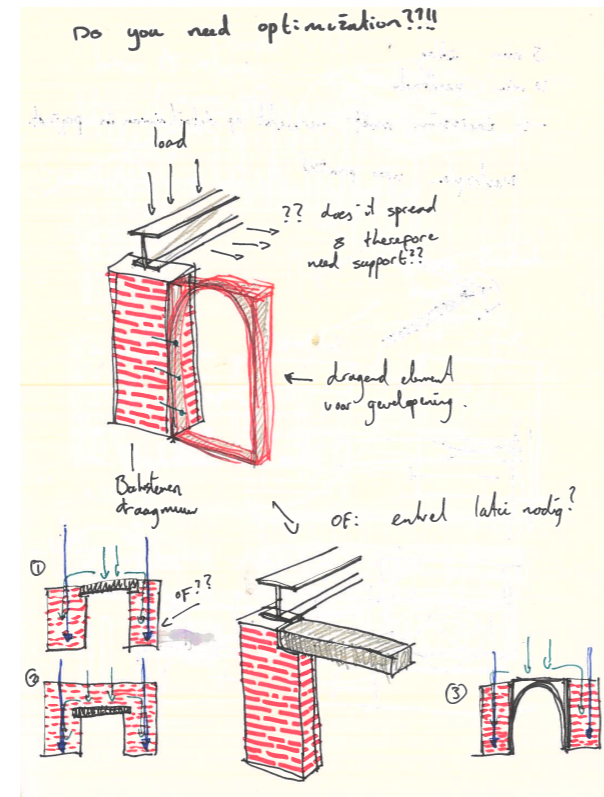
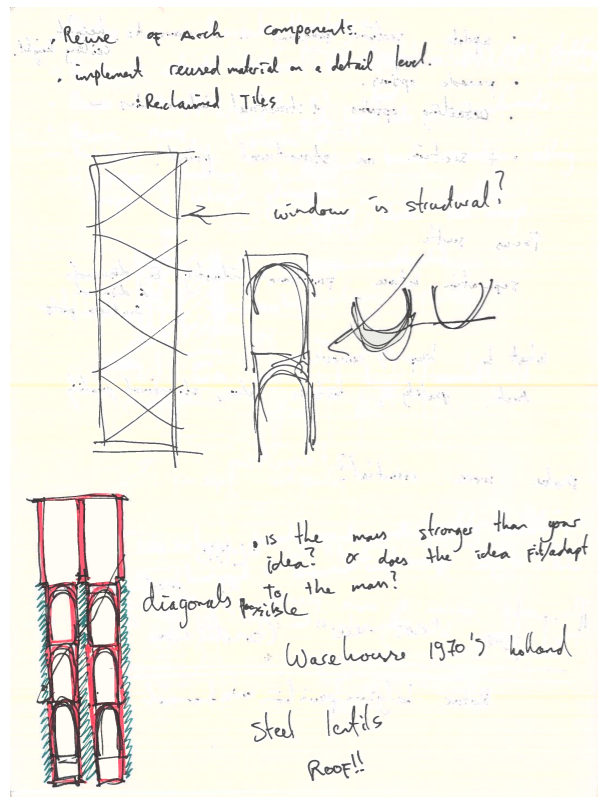
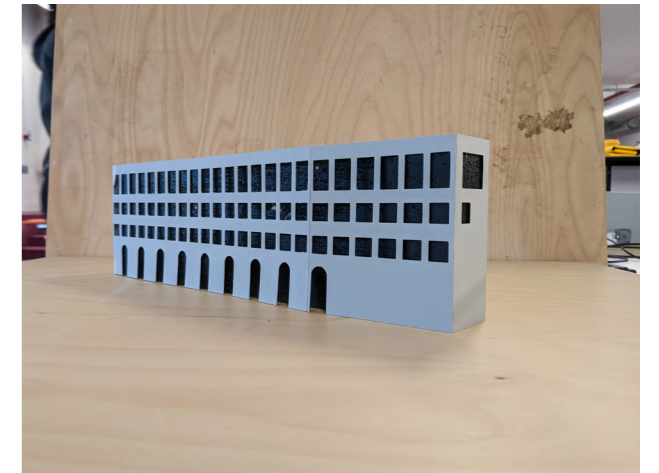
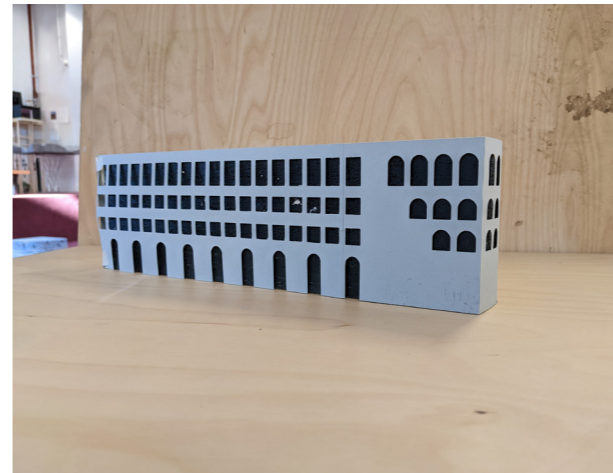
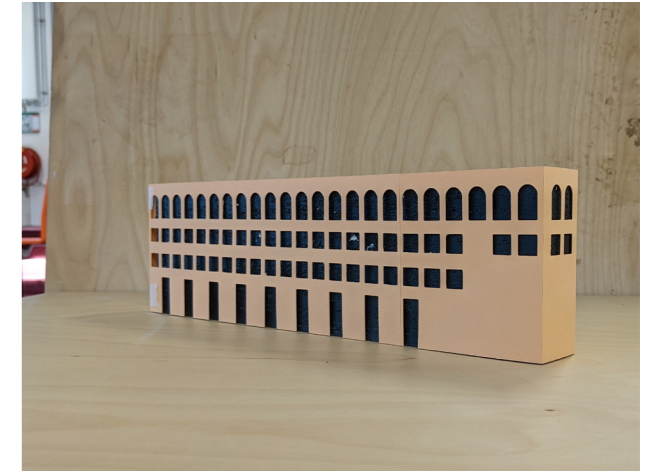
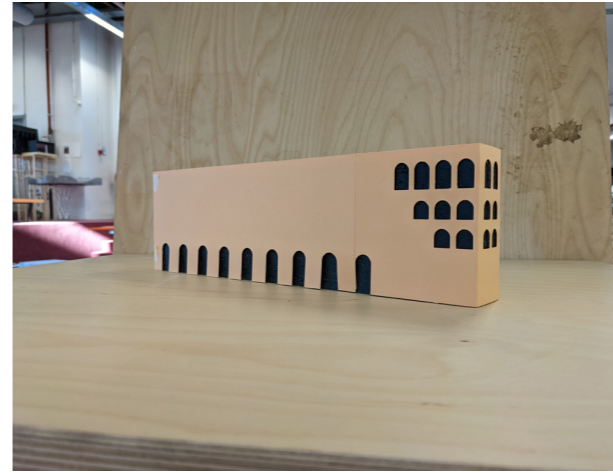
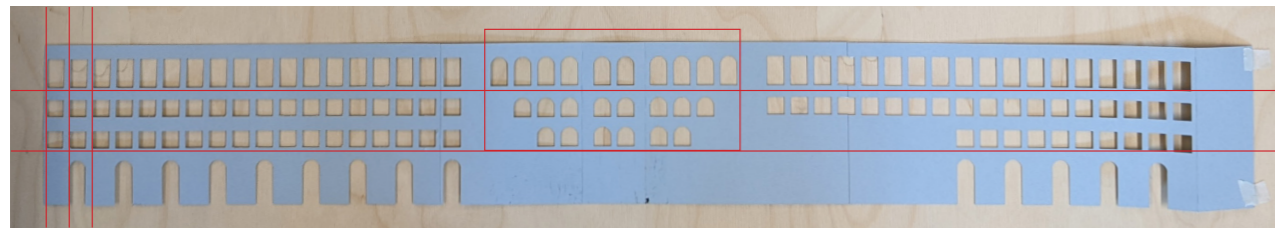
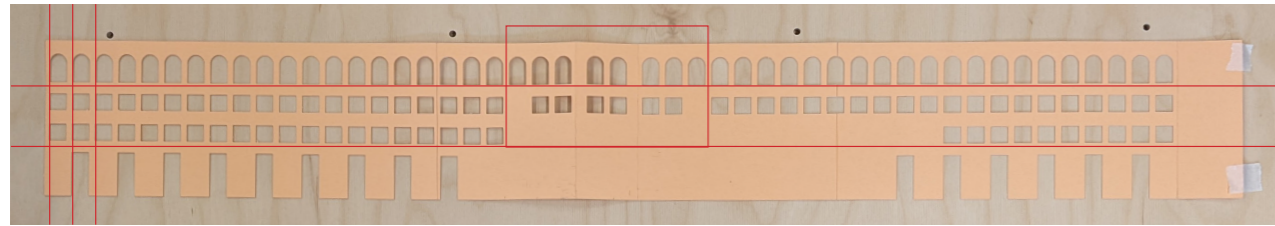
Facade model



## 06 FACADES ACT I

The simple paper models on a black backdrop result in a clear expression of the pattern language of different options. The resulting facade follows the logic of the underlying pm2 structure. The 3.25m grid defines the vertical lines which set up a grid. Horizontally the facade is divided by its four floors and corresponding facade openings. There's differentiation on the various layers.

The east end of the building faces the Maas and has no surrounding structure on the higher levels. The interior space is double high and differs from the other rooms. It allows for a potential differentiation in the style of the openings. The sketches underneath explore the potential for making the openings, using various lintel systems.





## 06 IMAGE ESTABLISHED

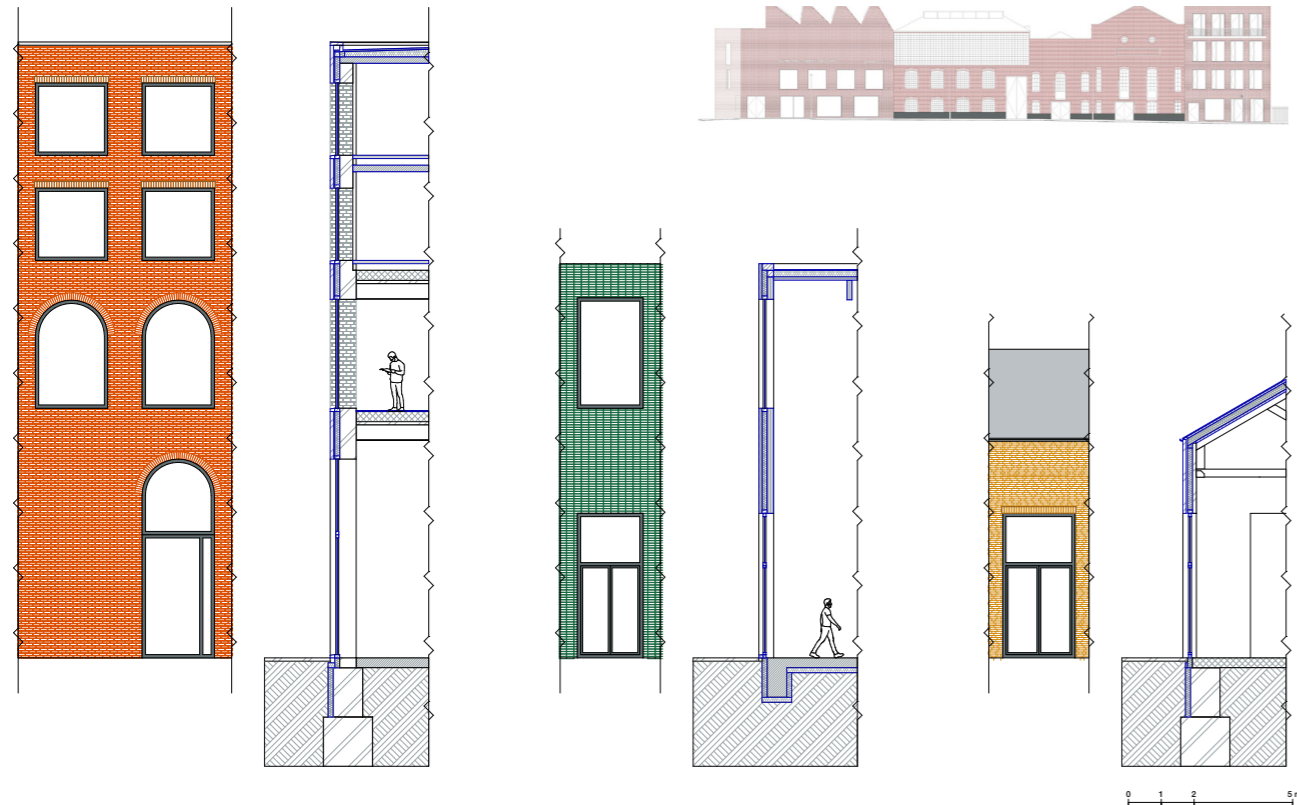
The sketches and facade studies slowly establish a coherent image for a cultural center. Thus far a connecting volume has been lacking. A final study using models proposes the shape for the foyer. This foyer will be situated in between the other buildings and serve as an entrance point and connecting element.

The south facade is the most prominent elevation within the design. It holds the entrance and is the most important point of approach when accessing the area. It has a presence on the waterfront. Thus it becomes a most significant part of the design. Up till now the facade of the pm2 building has been researched extensively, but the entire south facade is threefold. The largest surface belongs to the pm2. The warehouse extends around the corner on the waterfront and in between the foyer connects both volumes into a three part face.

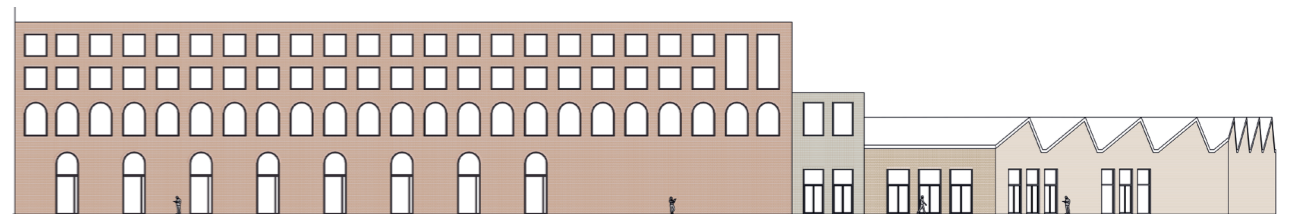
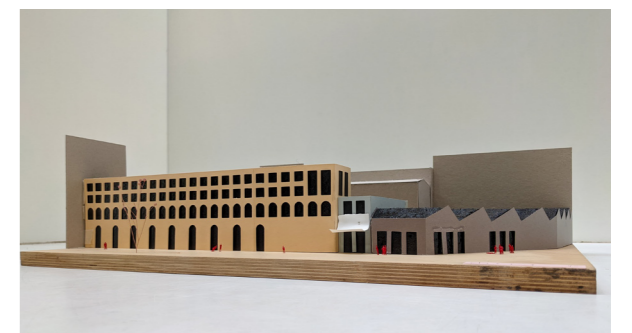
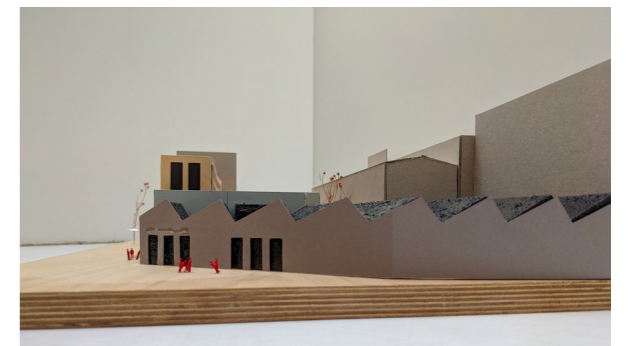
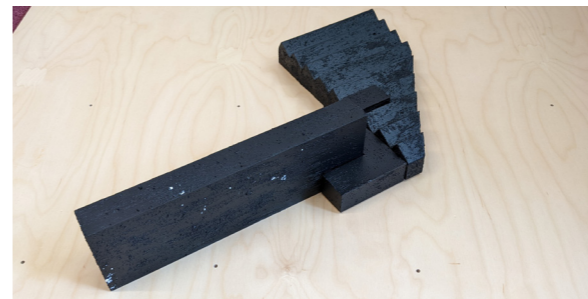
Grounded within a brick based industrial area that falls within a city made of ceramics, the ceramic cladding feels like a logical choice. Brick is sturdy, robust and allows for fine detailing in pattern, colour and depth.

The design references the “Newport street gallery” design (fig. 10) by Caruso St. John. It is an ensemble of several buildings, varying in shape, but all clad in brick. The facade is flat, but does not fall flat. Through varied window depth, differentiating in openings and built shapes it becomes lively. The buildings are unmistakably part of a same whole, yet each hold their own characteristics.

A first attempt at exploring the interior (p. 75), shows the potential and example of a clash or meeting of the different volumes materials and time periods. Something that will occur at multiple occasions within the project. Pushing through the different scales and exploring beyond the knowledge and ideas that currently exist about the building open up new questions.

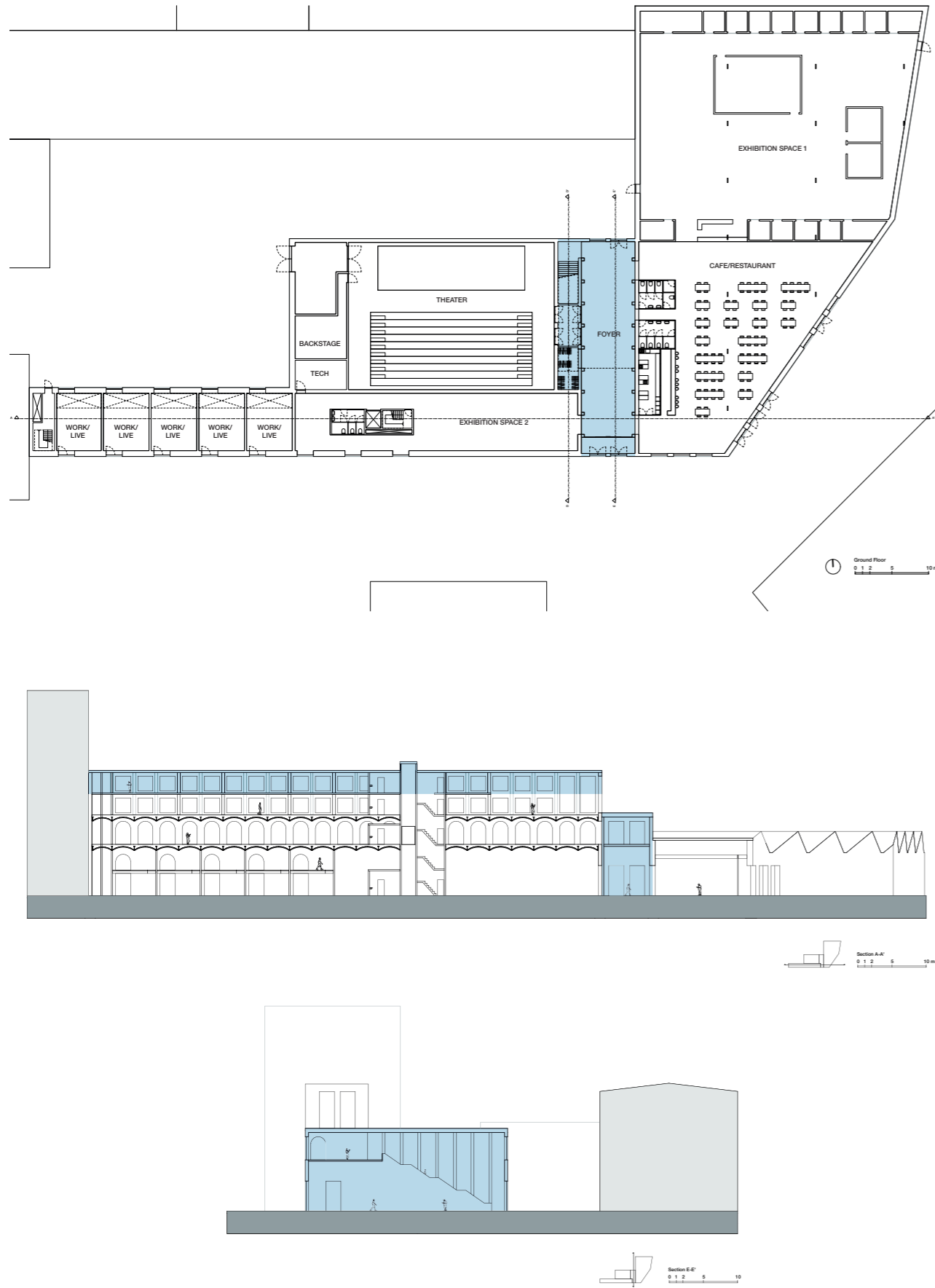


Facade fragments, newport street gallery by Caruso st. John (fig. 10)



Foyer massing studies, facades and model











## 07 GHENT & ANTWERP

The visit to Ghent and Antwerp comes at a point in the design process where it connects mostly on the themes of façade, composition and materiality. In images, and drawings I'm searching for borders, edges, clashes and ensembles of bricks, buildings, window frames and drainage pipes. The Cadix housing blocks (shown on the right) are most striking to me. The ensembles of varying materials, facade layouts and shapes finds resonance within the direction the facades for the cultural center are taking.

Melopee, the school building by Xavier de Geyter, is a re-encounter with "an old friend." After previously visiting it and referring to the building in the early stages of the project, it had forgotten about it for a while. Now standing within the floating outdoor spaces it suddenly becomes relevant again. The layered public environment that is presented here in a pure and rather extreme form still somehow influences the way I organize my public interior.

The following pages show a collection of material samples and fragments. Encounters between exteriors, thresholds and borders. All of them possessing qualities with relevance to the detailing and materialization phase my project is turning towards.





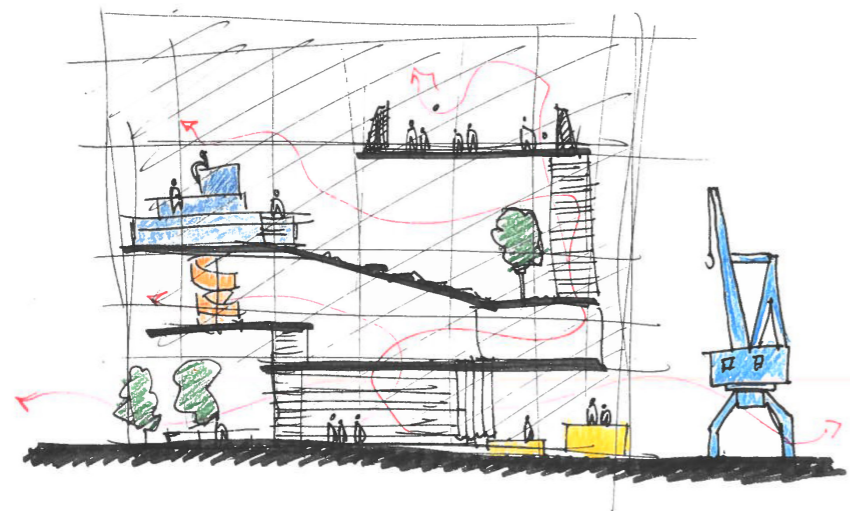
MELOPEE

Onder de maan schuift de lange rivier  
Over de lange rivier schuift moede de maan  
Onder de maan op de lange rivier schuift de kano naar zee

Langs het hoogriet  
langs de laagwei  
schuift de kano naar zee  
schuift met de schuivende maan de kano naar zee  
Zo zijn ze gezellen naar zee de kano de maan en de man  
Waarom schuiven de maan en de man getweën gedwee naar de zee

*Melopee, 1926  
Paul van Ostaijen*

MELOPEE



*The layered public environment  
Hand sketch at site*

MELOPEE



*Melopee, 2020  
Xavier de Geyter*



07 GHENT & ANTWERP - FRAGMENTS

Worn wooden door  
Worn steel handle  
Worn brick, red/brown tones, light grey seam  
Concrete lintel  
House number, black on white paint  
Threshold - unknown



Brick, Beige/Yellow, grey seam  
Steel sill  
Window sill, brown/olive  
Ceramic glazed tiles, yellow, grey seam  
Drainage pipe, steel, partially painted black  
Facade - Bulk



Wooden door, warm grey  
Wooden sill  
Glazed tiles, white and beige/brown, grey seams  
Connection - Korteknie Stuhlmacher



Glazed brick, dark red, grey seam  
Brick, light brown/red, grey seam  
Borders - Sergison Bates/Bulk



Worn brick, red/brown tones, light grey seam  
Wooden window sill oiled  
Connection - unknown



Brick, blue/grey engobe, grey seam  
Wooden window sill  
Connection - Bovenbouw





07 GHENT & ANTWERP - FRAGMENTS

Brick, light brown/red, grey seam  
 Brick, blue/grey engobe, grey seam  
 Borders - Bovenbouw/Sergison Bates



Brick, painted, sea green  
 Stairs, concrete, green  
 Handrail, steel, white  
 Staircase - 51N4E



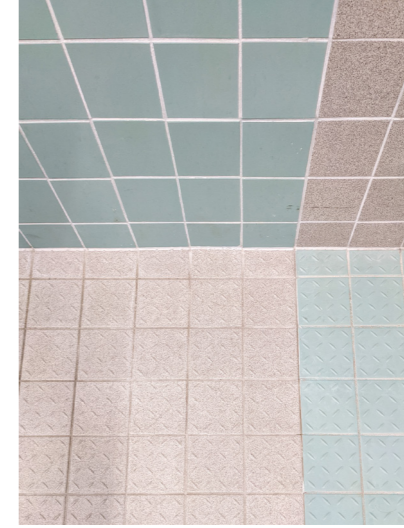
Glazed tile, sea blue, white seam  
 Headrest, wood  
 Concrete brick, light grey seam  
 Dressing room - De Smet Vermeulen



Door sill, aluminium, olive/brown  
 Tile, blue/grey  
 Tile, grey (1)  
 Cobble stone, grey (1)  
 Threshold - Bovenbouw



Glazed tile, sea blue, white seam  
 Glazed tile, grey speckle, white seam  
 Dressing room - De Smet Vermeulen



Handrail, steel raster  
 Steps, concrete  
 Facade panels, poly carbonate  
 Staircase - Xavier de Geyter





07 GHENT & ANTWERP - FRAGMENTS

Glazed brick, white, green seam  
Aluminium window frame, white  
Housing - de VylderVinck-Taillieu



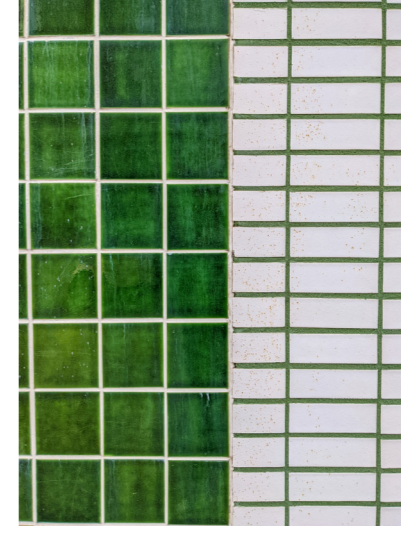
Handrail, steel raster  
Steps, concrete  
Facade panels, poly carbonate  
Concrete column  
Staircase - Xavier de Geyter



Steel beam, green  
Stucco, white  
Steel fence, white  
Balcony - ae, murmuur, Carton123



Glazed tile, green, white seam  
Glazed brick, white, green seam  
Borders - noA/de Vylder Vinck Taillieu



Glazed brick, white, green seam  
Glazed panels, sea green, grey seam  
Borders - de Vylder Vinck Taillieu/Office KGDVS



Steel door frame, green  
Rusty metal box  
White wall  
White text on black paper  
Leftovers - 019





## 07 DIGGING IN

Three large pin-up boards decorate a corner in the studio which is by now overcrowding with models, paper scraps, prints and drawings. They carve out a space to externalise the design process that has been running internally for the past weeks.

The boards provide a practical medium for communicating. They can be walked around, talked about and somehow they seem to invite people over for discussion and remarks. It allows for an easy source of design input.

Putting all the information together in close vicinity of one-another allows for cross contamination and quick shifting between the different topics and domains. Different drawings find new relevance in relation to each other. A reference image for the lay out of an interior suddenly influences the design of a facade and so on.

Pinning drawings and sketches to the boards gives them some emphasis, it forces me to put down benchmarks. Having the drawings on display allows for reflection. On the days where no new things are put on the boards, one can still walk past them, notice new things, make a small sketch or a slight alteration. They allow for a dynamic process that unlike the computer modelling doesn't immediately replace or erase the past. Things can be tested in direct relation to their previous design steps and ideas.

On the boards the design gets assembled further, it is a play of slowly connecting dots. Layers are stacked on top of each other, these juxtapositions shape new insights.







Pin-up board



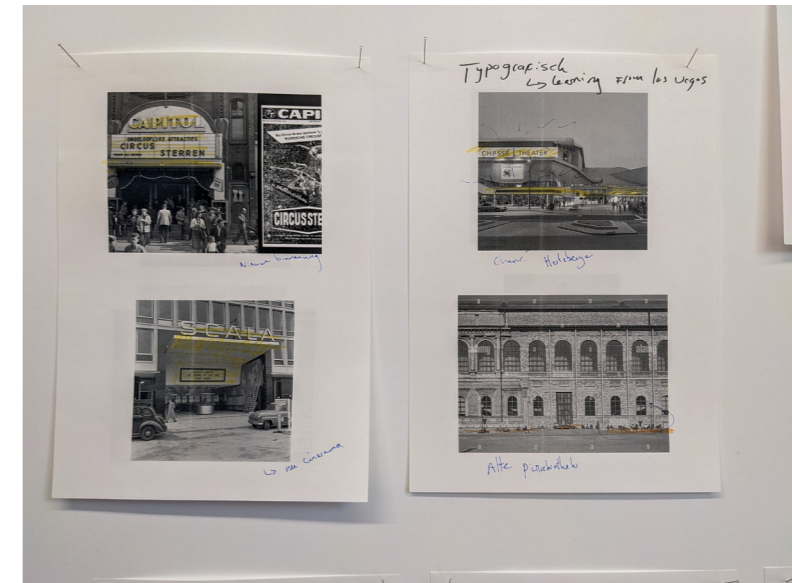
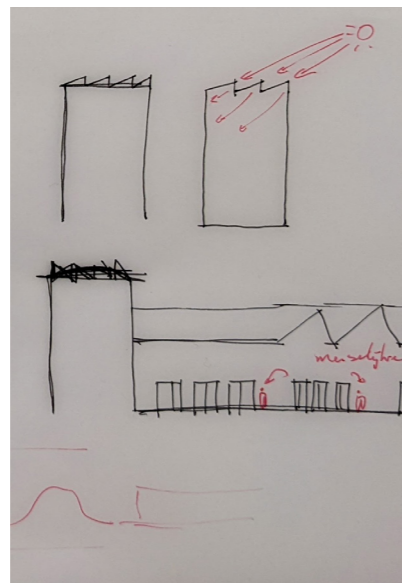
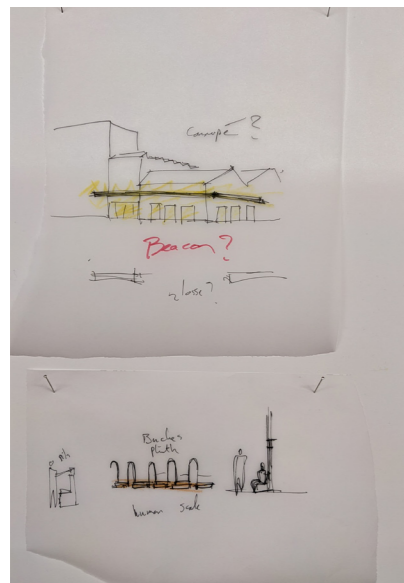
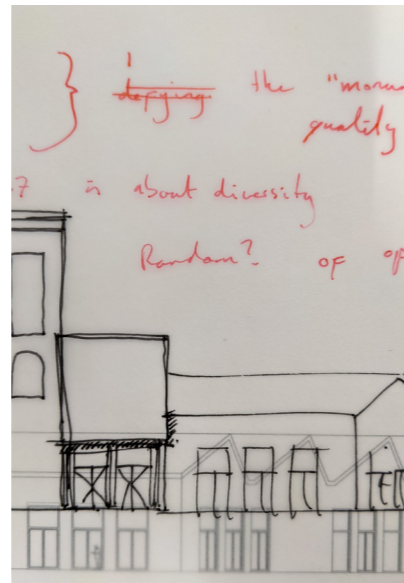
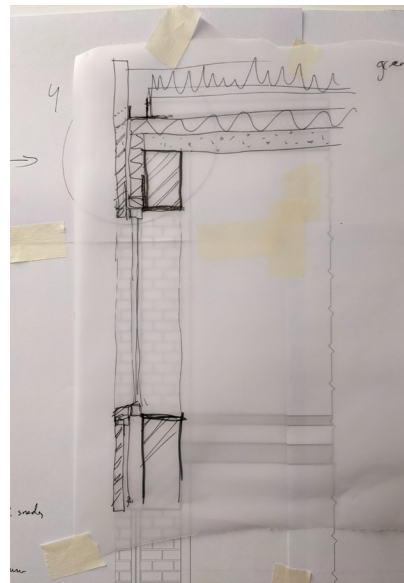
Pin-up boards



## 07 DIGGING IN

Fragments of the pin-up boards show different thoughts, explorations and design steps. Below: a roof detail, the interior experience of the vaults and openings, the waterfront corner, small facade alterations and thoughts, ideas concerning a canopy around the southeast corner, benches in the facade, skylights, foyer staircase and backside of the building. On the right: references and studies concerning the entrance and potential canopy, reference and studies concerning the plinth and potential

seating within it, rhythmic façades and ways of breaking a stern rhythm.





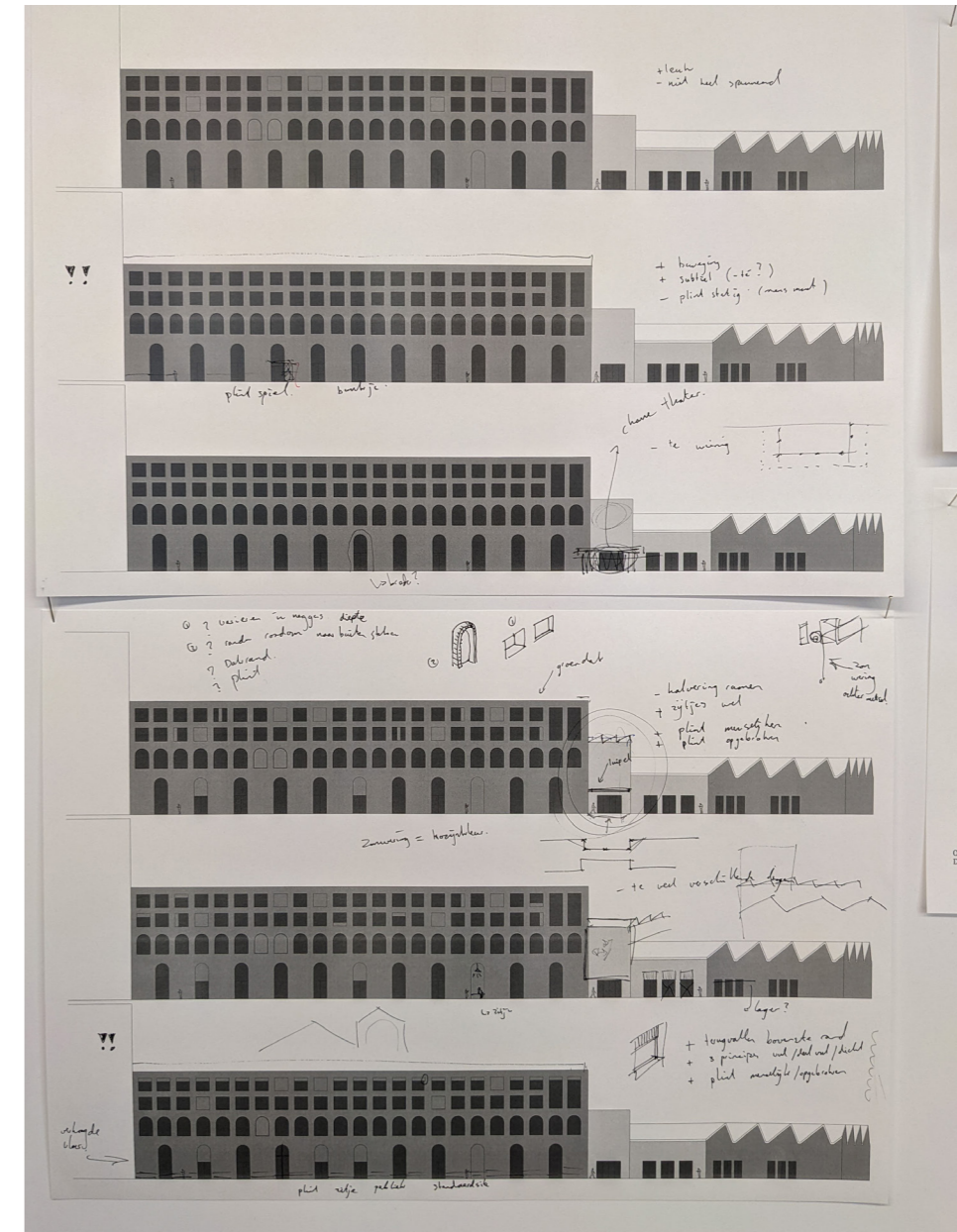
## 07 FACADES ACT II

Picking up from previous research and design several principles regarding the façades have been established at this point. The south side of the cultural center contains three different buildings, each with their own façades. They are meant to form a cohesive whole, yet consisting of three separate identities. They will be clad in brick.

The pm2 facade is the dominant character within the image. It is characterized by a strong rhythm which it derives from the structural logic and grid underneath. It holds both vertical and horizontal lines. The vertical lines are placed according to the structural grid. The horizontal lines originate from the varying window types belonging to each floor. Each floor holds a different type of program, in a sense, the openings in the facade mean to externalize the differences in programming. The lower two floors make use of a vaulted brick construction for the floor/ceiling, the arched openings relate to the curves in the vaults and simultaneously mark the older part of the structure. The rectangular openings on the upper floor belong to the part that houses offices and workspaces. This part contains more alterations and modifications, thus the window type also differs.

The rhythm has been a personal point of discussion, worries that it might be to stern or formal lead to design explorations and exercises in finding ways to break the grid. Reference projects by Bovenbouw, Max Dudler and East architecture (p. 93) find different ways of bringing dynamics and or playfulness into the facade. During a lecture for the Urban Architecture studio, Julian Lewis (East architecture) describes slightly off-setting his window openings from one another to give the sense of a building "relaxing its shoulders." Dirk Somers (Bovenbouw) talks similarly about his cadix housing complex in Antwerp during our site visit and uses terms like "filing its lungs/breathing" when mentioning the facade that slowly opens up every next floor level.

The image on the right page shows attempts to apply some of their design principles to my facade in an attempt to create similar effects. Assembling different principles and ideas together to lose some of its static impression. Most options push to far and convolute a facade that is already quite busy. On second thought quite some of the desired outcome can already be found within the

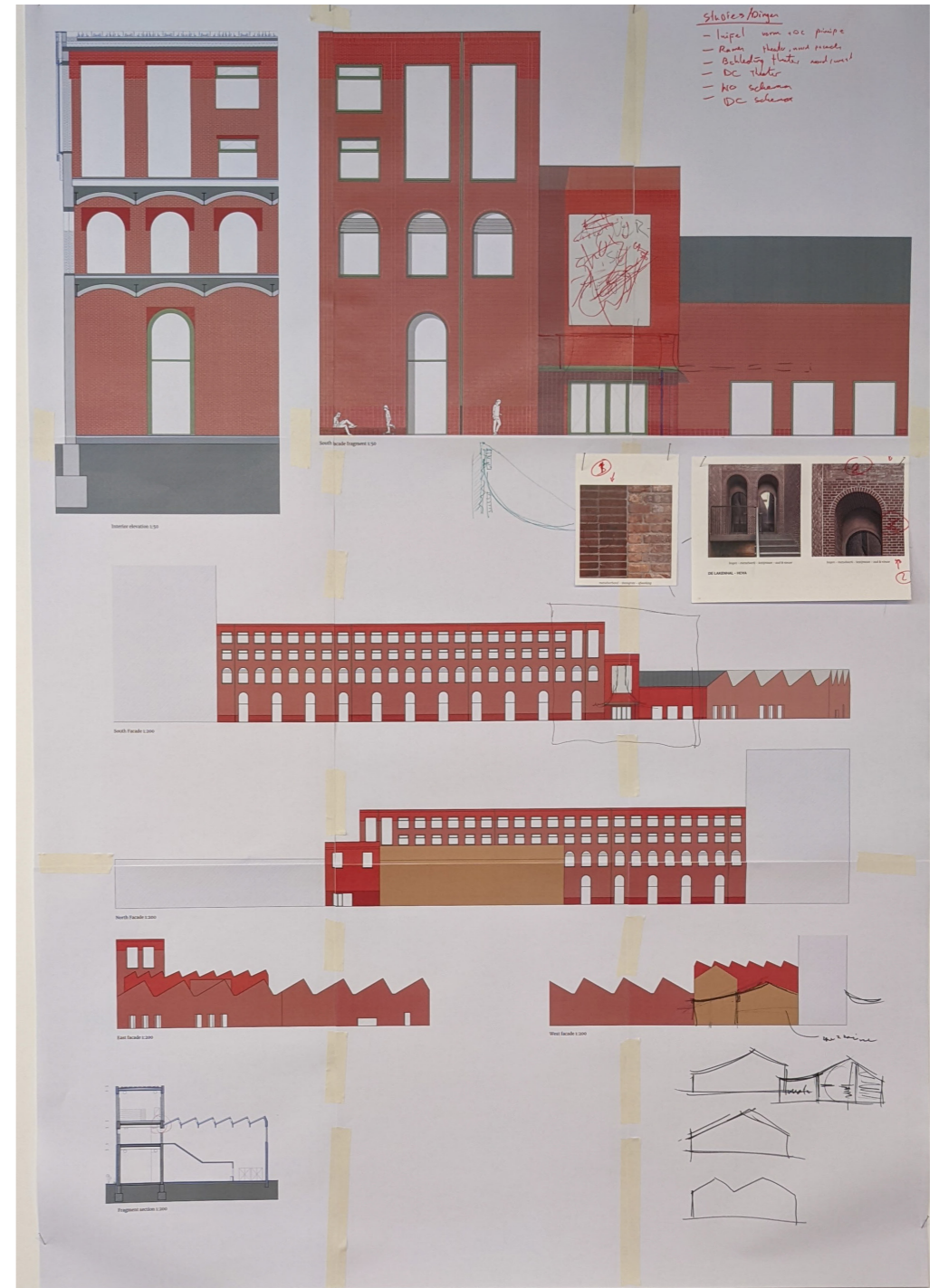




## 07 FACADES ACT II

current facade. The upper floors contrast the smaller amount of openings on the ground floor. They seem to widen due to the fact that the ground floor keeps the wall near its edges close. Varying in shape and size already brings a lot of dynamics into the facade. A division within the window frames, necessary for opening parts of the facade, will bring a new layer of depth and play to the composition.

This diagrammatic principle of rhythm and openings provides a basis for further research on a more detailed level. Brick patterns divide a plinth, middle section and crown. The plinth including seating into the project. The plinth gets a glazed stacked brick bond. The middle section gets a stretcher bond and is clad in re-used bricks coming from a brick salvage shop located in the nearby Margraten. A new brick is used starting at the line where additional height is added to the building to allow space for the third floor. The bond changes into a stacked bond again for the crown. Similar solutions are applied to the adjacent foyer and warehouse building, marking plinth, existing structure and new additions using various bonds and brick types.





## 07 AN AD-HOC CASE FOR CURVES

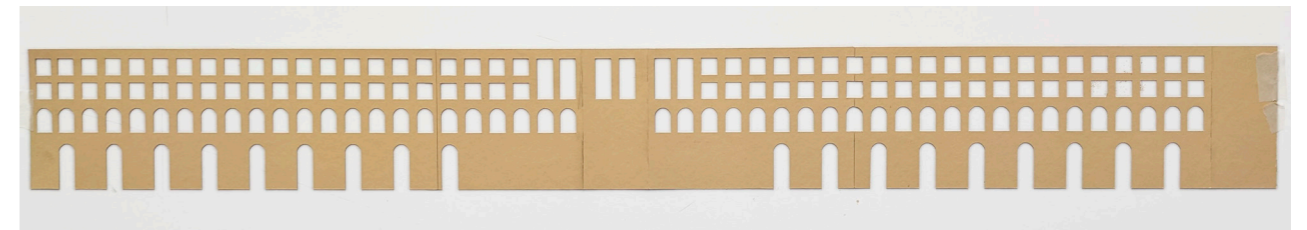
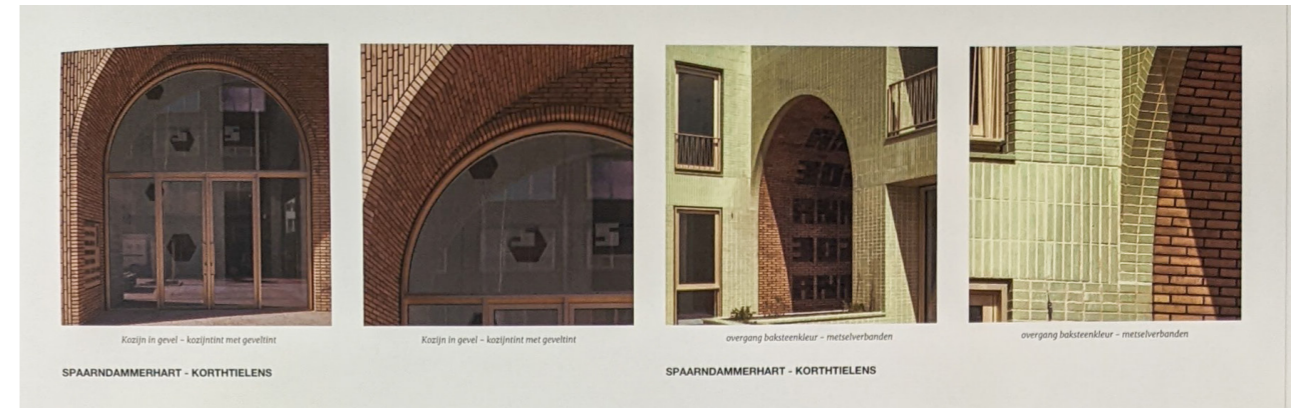
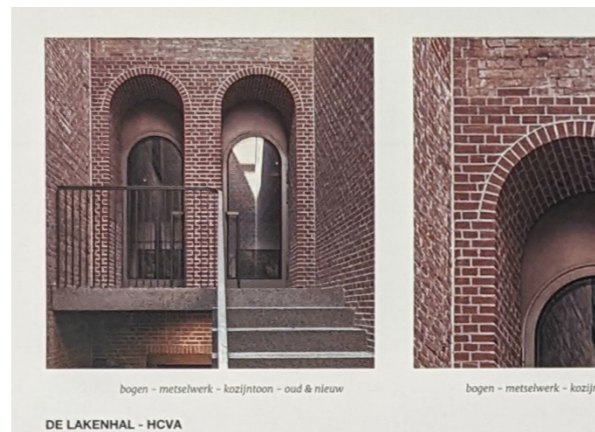
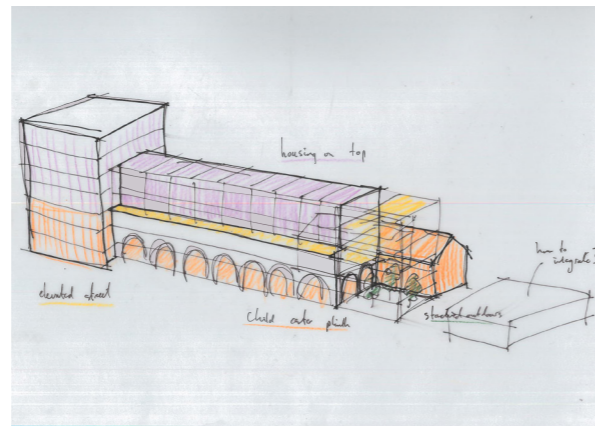
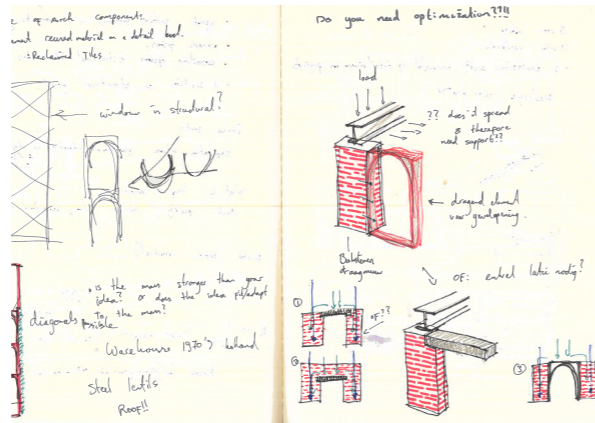
Why the arches? Work with rectangular facade openings and perhaps nobody bats an eye. But they're not. The openings are curved. Perhaps the question is unavoidable, and consequently, then so is answering it. I'm not sure if there's a satisfactory answer though. To me the shapes are satisfactory, the image is striking. In my, still, unprofessional opinion the arches seem to work.

There's different ways of reasoning how the arches firstly appeared within the project. Designing is working from a personal frame of reference. An ad-hoc approach implies adopting references into new design. The personal frame of reference is a simple place to pull information from. It can happen subconsciously, the arches probably appeared before a critical assessment or focussed research took place.

There were two buildings which were visited the year before my graduation, both made an impression, both had arches. The Spaarndammerhart housing project in Amsterdam by KorthTielens (p. 99) places brick-cladded curved openings at its entrances. They are imposing in size, yet inviting. They play along with a motif of an outwards curving facade. The arched brickwork in the interior of the Lakenhal by Happel Cornelisse Verhoeven (bottom right image) is subtle. It seems to fit into its surroundings without question. Both of them I perceived as being rather beautiful and elegant, yet with a playful quality to them also.

The first design proposal for the cultural center envisions a public plinth with an infill of artist studio's and workspaces. The Hofbogen in Rotterdam (top right image) comes in play as a more directed reference. The first proposal is loose and quick. Rather than a convinced decision, the arches start appearing in the sketches to mark a differentiated part of the facade. At a first presentation moment they consequently appear in a conceptual model and sketch. Suddenly they become part of the design.

They are critiqued, "why the curves?" Is it a choice of fashion, or can it be grounded in some way or form. After a secondary visit to the factory site the pm2 building turns out to posses more quality than originally thought. Thus the proposed new building on location of the pm2 volume (location of the



arches) becomes a reuse project. Secondly the interior of the pm2 building reveals an interesting ceiling structure in the shape of vaulted bricks and concrete. Apparently there are already curves within the building. The brick vaults become a departure point for the arched openings. The switch from a redesign to a reuse project has consequences for the structural integrity of the facade. It compromises the idea of the large arched openings. The arches become significantly smaller.

Through a further design process they get logically linked to the floors which make use of the vaulted brick ceiling. In a facade design which strives for horizontal lines and externalising the differences in interior program, openings become an expressive design tool. The curved openings belong to the more public interior parts, marking an exceptional program.

Within the interior the facade openings and

vaulted ceiling are visible. Experiments on the exterior side result in a curve, stronger than the one used for the brick vaults. This results in a rather interesting visual relationship from an interior perspective. The sharper and flatter curves leave an in-between space that slowly grows wider and presents an interesting image.

Brick comes as a logical material choice within this industrial brick environment. The curved openings make sense with the new brick cladding. They have a structural logic. Both the choice for arches and the choice for bricks influence each other. Together they make sense.

### APPROACH

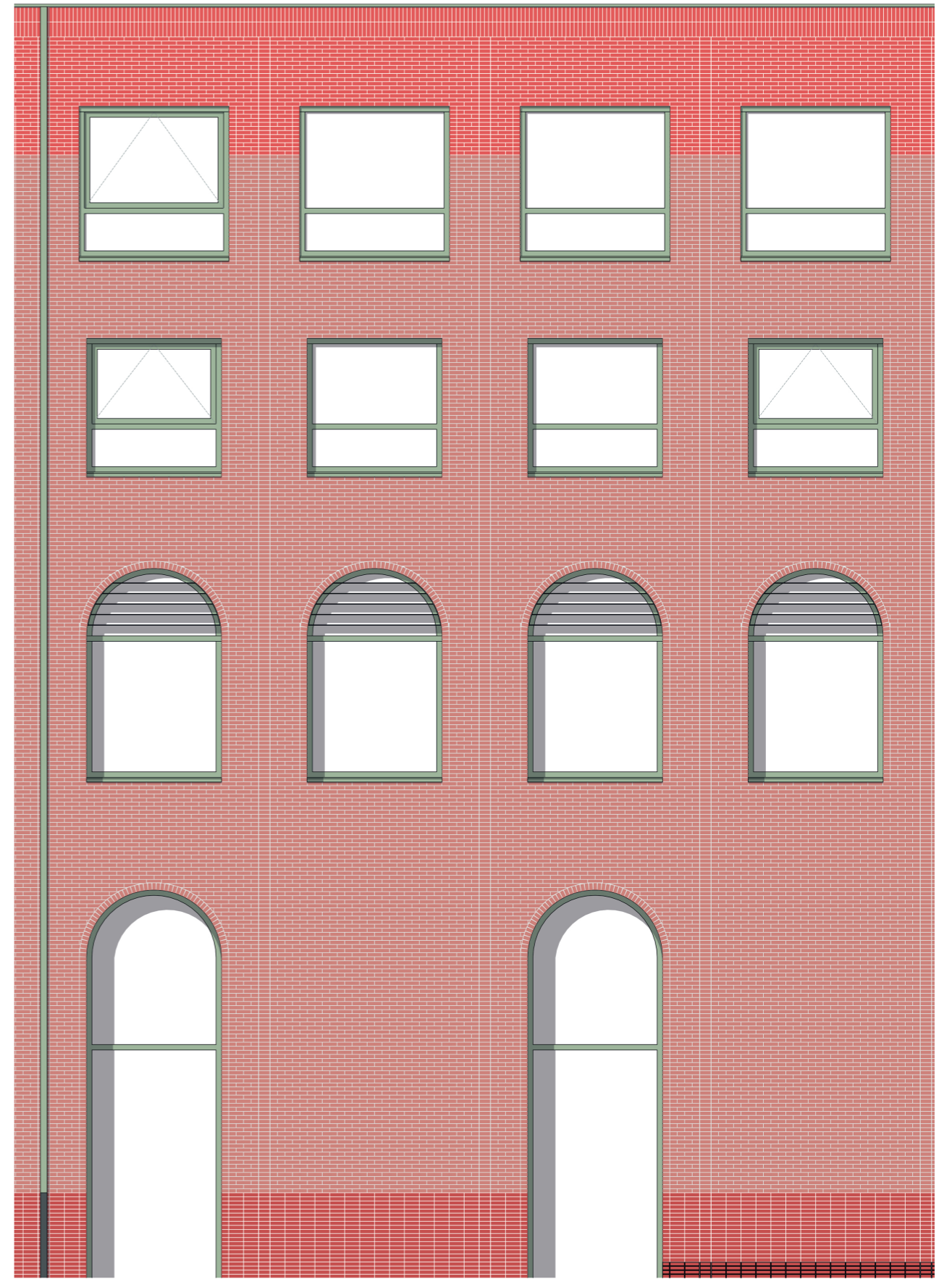
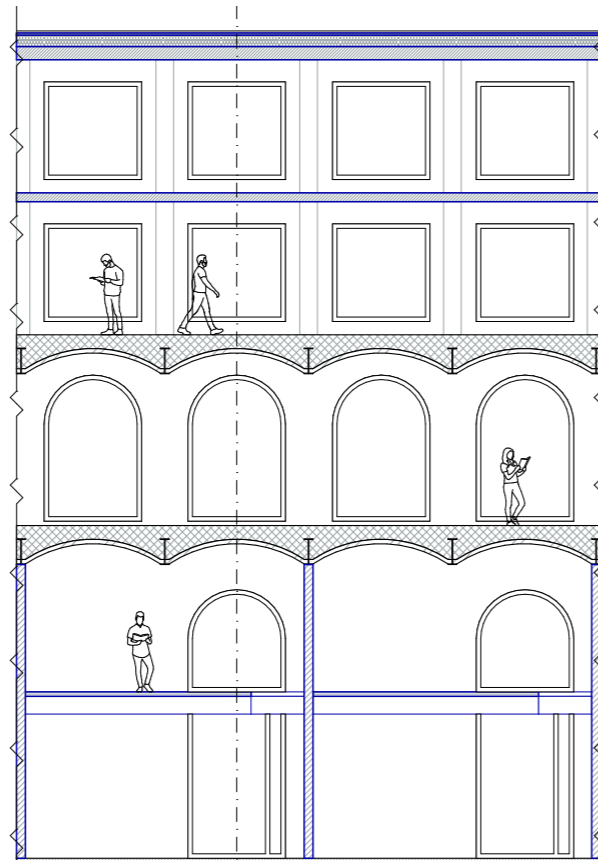
The choice for arches within the design follows from working with a personal frame of reference. As an ad-hoc solution it is carried over from several reference projects into the design. This happens partially on a



## 07 AN AD-HOC CASE FOR CURVES

subconscious level. They introduce an historically and contextually existing element into a new setting, collaging a familiar type into a modern adaptation. It results in a diversification of the architectural expression. After appearing within the design, other contextual arguments are brought in to solidify the position of the arches. Whilst firstly being an accidental element, on second thought they provide argument to critically re-asses the existing architecture.

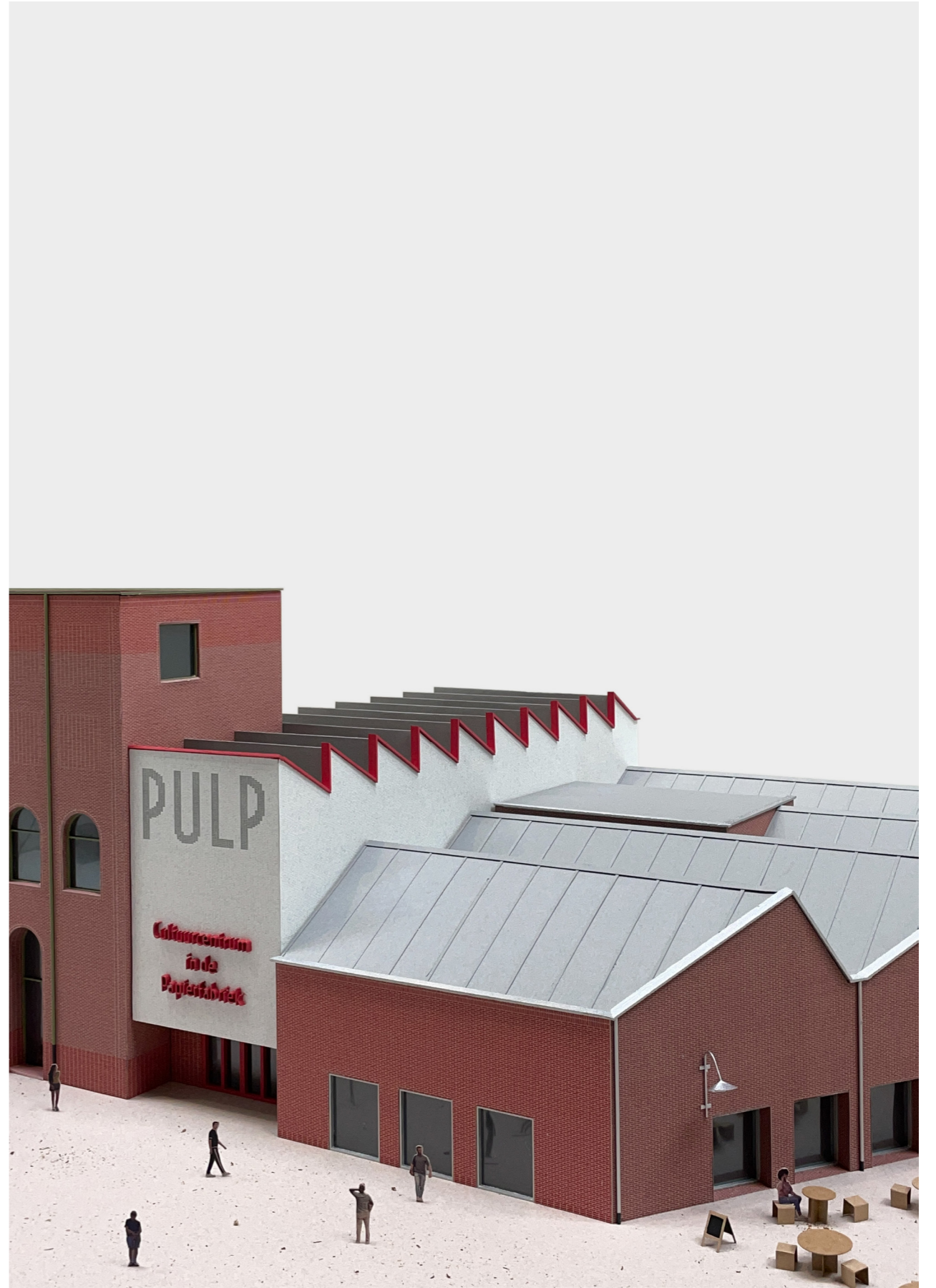
I don't believe my design process to be following an entirely rational and conscious method. Accidents and coincidence lead to new findings. In processing them, these accidental acts are appropriated. The subconscious design becomes conscious. Rational decisions can be made. The curved openings find argument in their logical structural qualities for a brick cladding, within the layout of the facade they emphasize a specific interior section, they reference the original structure of a vaulted brick ceiling and visually relate to them in an interesting way. It remains a chicken-egg dilemma though because before these arguments took shape, partially the curved openings were already here.







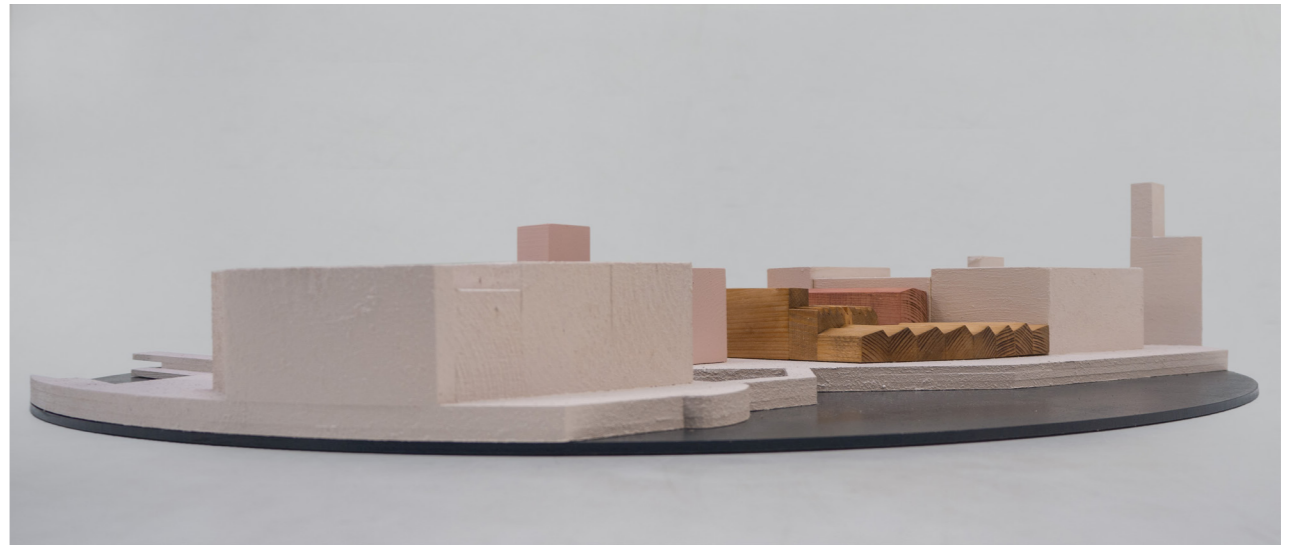






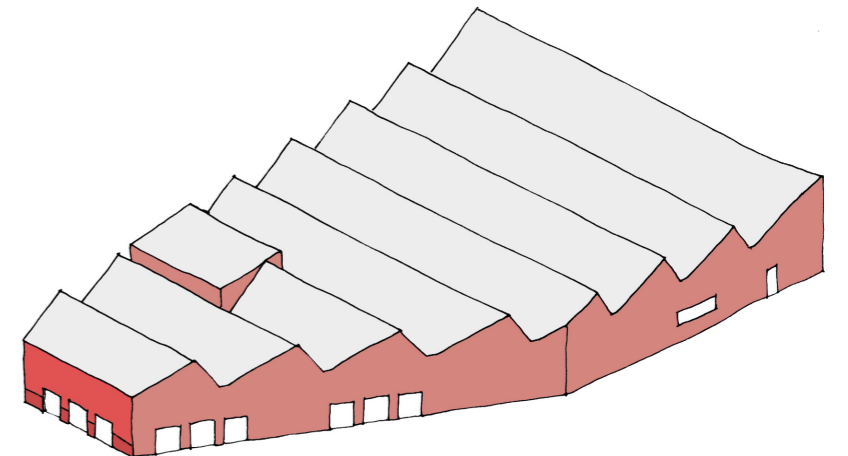
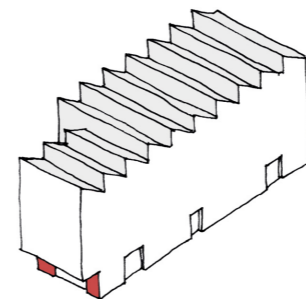
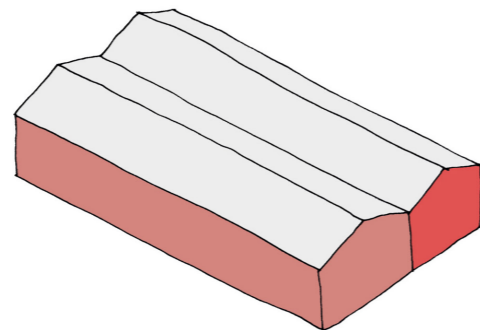
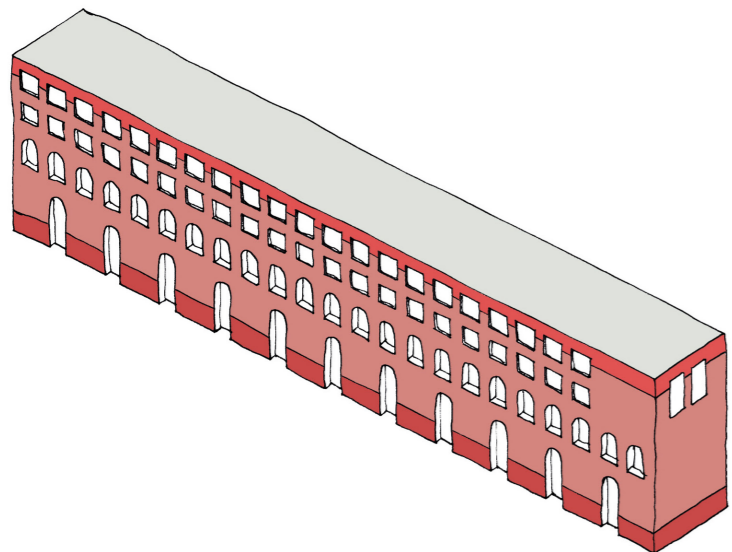
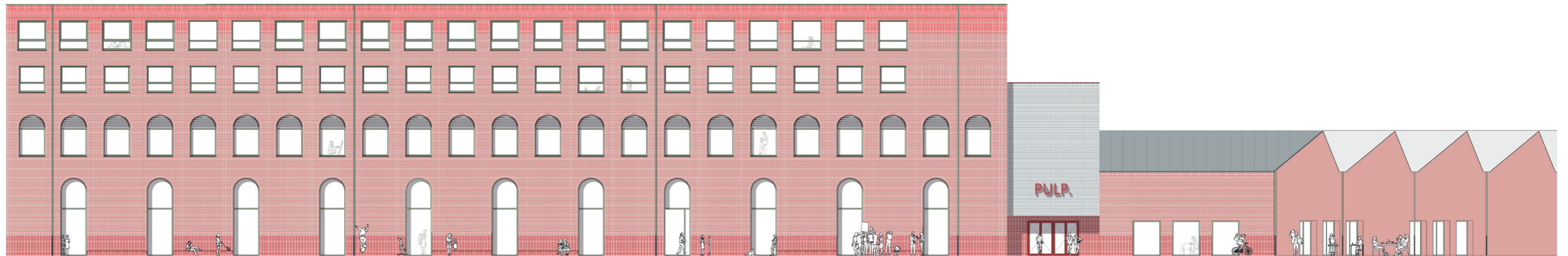
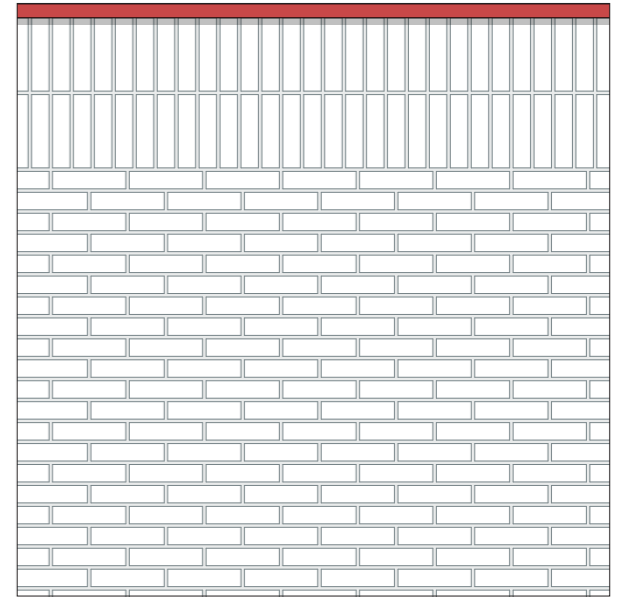
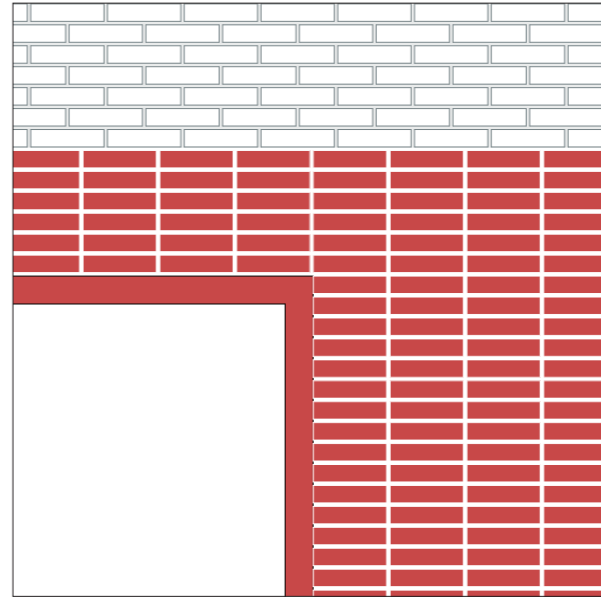
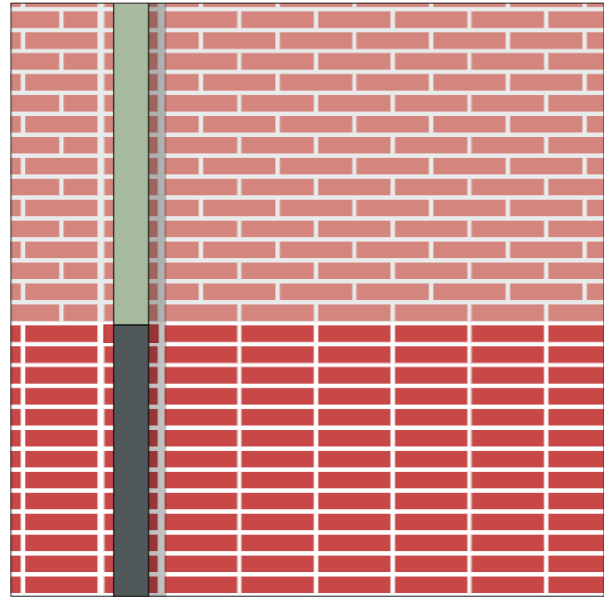
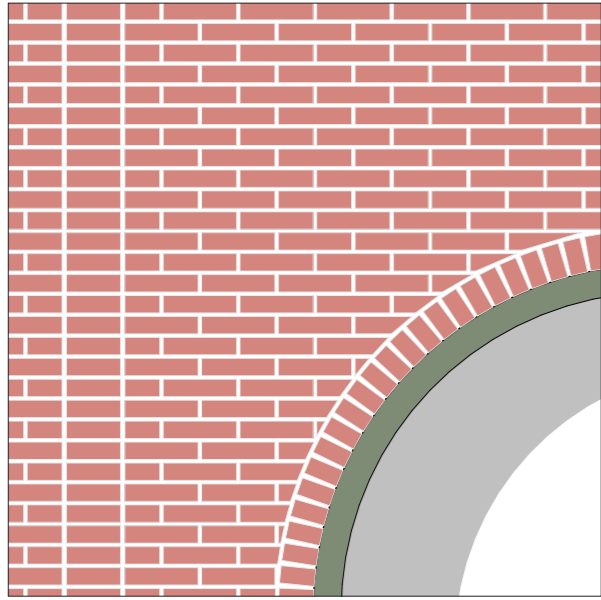








08 PROJECT IMAGES





## 08 REFLECTION

The Urban Architecture graduation studio works within medium sized urban environments that offer challenges and opportunities for development. This year's project is focused on the site and surrounding urban fabric of the Royal Dutch paper mill on the borders of Maastricht's city center. The studio works with a high awareness of context and intervenes, if necessary, with architecture that values the existing fabric and carefully looks at what can be kept. Fittingly the theme of "Glaneur/Glâneuse" comes in as a different perspective on- and attitude towards value. The Gleaner is the one who "reaps the fields after the harvest" they find value in more unlikely places, taking objects, clues and things there were society has deemed them obsolete.

We took upon us the role of the Glaneur/Glâneuse to uncover the site and place of the paper mill within the city. As a first step we explored different topics connected to the site within small groups. Within our team we focused on an analysis of the factory itself and its inner relations. Working within a small research group on this specific topic allowed us to access the location early on in the project. This proved to be both an inspiration and an advantage, getting a direct grasp of scale, materiality and the layers at work within this complex site. We used drawing as a method of deduction: combining our information from archival drawings, safety plans and our site visit, resulting in a detailed plan and understanding of the factory. Then we took modelmaking as a tool to translate our finds to inform the other participants of the graduation studio. A large scale model of the factory showed an evolution through time, density, building size, function an orientation. The model remained an effective and used tool within the graduation studio to explain the factory in the stages moving towards urban planning. The encounter with the factory architecture resulted in the personal topics and interest of collage and assemblage as additional themes and research subjects.

The urban planning part of the project combined the different themes and research interests of three people regarding collage/assemblage, nature and literary space. Through discussion, drawing, modelling and design experiments we realized an urban proposal for the southside of the factory.

The proposal tries to relate itself to problems and opportunities found on the city scale. It attempts to provide additional space for housing and culture, reconnects industry and city and connects a green route (Frontenpark) and blue route (Maas) that tie Maastricht and the paper mill together. From the perspective of the Glaneur/Glâneuse we assessed the value of the existing factory structures, looking at architectural quality, structural quality, importance of function and other features to see what could be kept. Here we followed our thematic approach of the apple tree (a visual interpretation of the role of the Glaneur/Glâneuse), picking the fallen fruit, before moving up towards the low hanging apples and so on. It resulted in several reuse projects, reuse of industrial elements and buildings that could immediately be implemented into the urban design.

During this phase the architectural project within the urban plan slowly began taking shape. I opted for the use of two existing structures, the replacement of one building and the addition of an entirely new structure. This was reassessed after a second visit to the factory where unexpected architectural and structural value was found in the PM2 building. Instead of replacing it, it became the main focus of the reuse part of the architectural project.

Diving further into the architectural design project posed challenges for keeping up with the original aspirations regarding research. Architecture is a broad subject, the role of the architect is diverse and demanding. Working individually on a large scale project that ranges from urban design to the detailing of a building envelope is an enjoyable challenge but also a balancing act of a multitude of topics. Approaching the P3 presentation and onwards this required a practical approach. Floorplans needed to be solved, elevations to be tested. Structure, climate, detailing, materialization, atmosphere, circulation and other topics come into play. It is difficult to take a step back, assess, and find the time to analyze or explore on a level that finds slightly more disconnection than direct research through design. The complexity and factor of time urged me to "keep moving."

I dare stand for my design process and "research through design" methods as being educative, diverse and meaningful. They have led me to a project that I can value as a successful learning experience for my personal development within the field of architecture. Though I feel the initial ideas behind the influence of research on the design and design process as well as setting up a theoretical framework was either not strongly developed enough in the beginning or remained difficult to relate to the practicalities of design.

Research through design is valuable but within the case of a specific complex typology its most applicable to that specific design. If to be studied, most value and information can consequently be found in the methods, rather than in the results. In looking back on my personal design process, it seems to thrive on a certain focused disorder. It tackles topics methodically but moves in between topics, scales and methods of design research at random. One question or problem might lead to the discovery of several other (non)related problems/opportunities/questions. By switching focus, solutions are sometimes found directly, but mostly developed by taking a step back and not focusing on the specific problem. Externalizing this process has been greatly helpful in communicating it to tutors and students and tracking it myself. By continuously putting the design process on pinup boards I was able to get an overview of the entirety of the developing project. This allowed me to find clues, connections and solutions in between the different design tasks and topics. Providing me with a way of "connecting the dots" so to speak. In communication with tutors it allowed for a dialogue that could partially happen on the boards and drawings, using annotations and sketches. This allowed for implementation of suggestions or investigation of questions, adding new puzzle pieces to the boards. The visual process allowed other students to comment or respond on drawings and ideas, resulting in additional input and discussion regarding methods and design choices. The boards were a useful method of doing the research by design.

With regards to the research project, I question if it was helpful to me to try and add additional topics to an already rich studio theme, site and design challenge. Rather than trying to set them up in the beginning.

Questions and interests seemed to appear throughout the process. For example: for several weeks I've worked on the study of a specific façade within the building. Certainly focused research here could have given argument or backbone to choices made based on experiments whilst working from a personal frame of reference. Here deepening the research part could have broadened the frame of reference and perhaps shortened the experiments by guiding them and providing focus through additional knowledge of how facades work. It is through, and within, the design process that interesting topics reveal themselves. Certainly for an inexperienced designer many topics can occur and most deserve or demand exploration. The uniqueness or particularity of the architectural project means not all questions are on the table from the start.

Looking back at the design however I'm convinced that earlier explored research topics of collage and assemblage have influenced my thinking on a thematic level and therefore they can still be retraced in the design and design process. Collage and assemblage as design themes and means to fit into a context bearing similar qualities can be found within the architectural design. It is a combination of layers, materials, form and functions. Yet to me it seems to have happened coincidentally rather than through a structured process.

The resulting design is context aware, it fits itself within the surrounding industrial fabric whilst also looking ahead towards a new era for this revitalized industrial location. In combination with the urban proposal it forms a response to the wider challenges of reinterpreting and redeveloping the obsolete, yet valuable, parts of our urban landscapes. Through the lens of the Glaneur/Glâneuse it works with qualities, both material and non-material that were found on the site. It provides a way of actively looking for opportunity within reuse as a different take on sustainability.



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## FIGURES

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