

Terrain Vague

Prof. Karen Ehlers Supervisors: Prof. Tatjana Vautz

Msc. Advanced Architecture WS 20/21

Transform an urban barrier into an urban connector_

the case of Mainz-Kastel Bahnhof

Nourhan Albakour 1293340

Abstract:

"Terrain vague" has become a popular phenomenon in contemporary urban design practice. It attracts researcher, developer & urban specialist's attention. looking at terrain vague as they are spaces in the urban territory and as 'intervals' of urban transformation, terrain vague spaces can be valued for their indeterminacy and vagueness "that allows co-existence and open interpretation". (Sitong Luo, Saskia de Wit, 2018).

This thesis aims to investigate multiple qualities of "terrain vague" spaces in their interstitials, before the entering of the design process. With this purpose, it is crucial for first comprehend what are "terrain vague" spaces and why they may be significant for the city.

By understanding the missing design qualities of these spaces, the design could engage the continuity of the place, and initiate a transformation that accommodates, orchestrates and encourages what is embedded in the existing. At this point, the design strategy will be based on four lenses: the urban, social and cultural, ecological, and material lens.

By considering the contextual and cultural dimensions of the site, we have defined potential scenarios and urban spatial value within the urban infrastructure. Through theoretical, analytical, and architectural approaches, the thesis proposed a future vision for Mainz-Kastel station, transforming it into an interactive space for a truly public realm.

Mainz-kastel has a lot of potential to be transformed into an art court, and by framing cultural practices and proposing a new art center, a second life would be given to the area which will open up the site for more users. The design of the art center intended to make a circular movement of exhibition spaces to connect the two parts that are divided by the rail tracks running in-between. By following the compositional logic of the surrounding buildings.

The merged landscape tells the story of the site. A link between visitors and the site is enhanced by the new paths and platforms throughout the site, opening the space for wider public, and as a trigger and a frame for unexpected future transformations, meanings and uses. This opens up for interpretations of the site where the individual can formulate their own understanding of the place, which makes it easier to feel connected with it. Terrain Vague | Transform an urban barrier into an urban connector

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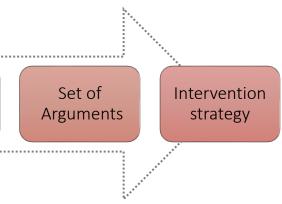
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Introduction: 1- The definition of "Terrain vague"

The term "terrain vague" which was used by the Spanish architect and urban designer Ignasi de Solà-Morales (1995), endeavors to investigate the urban lands that are typically unmaintained, semi-abandoned, obsolete and unproductive spaces and buildings, "in or along the edge of the city", from vacant lots and railroad tracks, to more diverse interstitial spaces. (Manuela Mariani and Patrick Barron, 2014), which lacks well-defined spaces, in terms of their function and collective memory, as terrain vague acts as a sort of ruin.

"Terrain vague" is a French term with multiple layers of meaning: terrain refers to land, while the roots of the word "vague" suggest "empty, unoccupied" yet also "free, available, unengaged (Sola-Morales 119)."

These spaces have a lot of potential to be integrated to the community, they have become "a space of hope and have possibility for new forms of urban living" (Broich & Ritter 2017). While the generalized tendency strives to redefine "terrain vague" spaces as a central concept for urban planning and design, by presenting innovative ways of reincorporating these spaces to the active built environment and concentrating on its positive uses and aspects, Solà-Morales appreciate the value of their state of ruin and lack of productivity as spaces of freedom which represent anonymous alternatives, and a pale fate. The idea, as expressed by Luc Lévesque, that "'terrain vague' offers a counterpoint to the way order and consumption hold sway over the city. Offering room for spontaneous, creative appropriation and informal uses that would otherwise have trouble finding a place in public spaces subjected increasingly to the demands of commerce, the 'terrain vague' is the ideal place for a certain resistance to emerge, a place potentially open to alternative ways of experiencing the city."

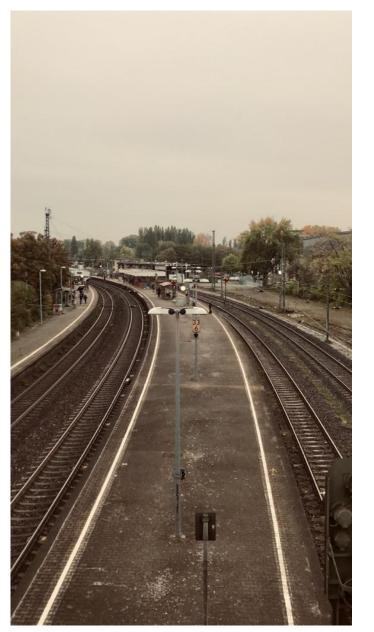
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Introduction: 2- Setting the problem

Leftover or lost spaces along transit routes can be considered geographically and economically marginal, or as Solà-Morales's term «Terrain Vague » : certainly, they are on the edges of something else that has an allocated usage - a highway, a rail line - and again produce no income.

The (S-bahn) train station area of Mainz-Kastel is expressed as terrain vague. it is now an incarnation of Sola-Morales' notion - "the space of the possible". Characteristic are its historical significance and a barren architectural and spatial potential. However, now this area is semi-abandoned, and the lack of urban connection there, creates a void within many population centers.

The Site has two urban barriers, (the train tracks and high-speed main street), which not only cut the continuity of urban network, but also the continuity of social activities.



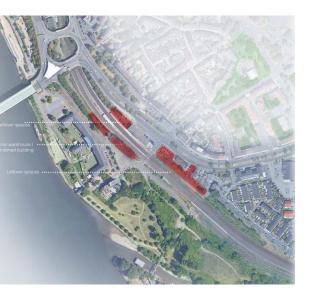
Based on these observations, it is important to transform the derelict site of the old rail yards station which connect Kastel with Wiesbaden, Rüsselsheim and Frankfurt, from a barrier between these important areas into a connective piece of the urban fabric.

The thesis aims to investigate the potential practical use and urban spatial value within the urban infrastructure.

The ambition is to highlight the strengths and the historical significance of the site's former function, while introducing new programs and building volume to get a more social and livable area.

By introducing new development onto the site and establishing enough connections across site to transform the area from an urban barrier into an urban connector. These objectives are to be achieved in a feasible, coherent, and sustainable manner.





Hypothesis: Transform a rail yard from an urban barrier into an urban connector

"Life attracts life" Jane Jacobs

The thesis intends to investigate the theory of terrain vague as a central concept of urban planning and design, architecture and landscape architecture on one hand, and art, cultural and social studies on the other hand. Looking at possible positive intervention to reconcile all these criteria. through theoretical, analytical, and architectural approaches, the thesis will propose a future vision for Mainz-Kastel station, transforming it into a socially interactive spaces for a truly public realm.



By illustrating how the appropriation of terrains vague can encourage temporary, or maybe permeant public spaces and uses to emerge, and by presenting a train station as both a stimulating interstice, an urban connector and as an active participant in the future of Mainz & Wiesbaden

Looking at new ways to design with, and not against, the spontaneous vegetations that emerge in abandoned sites, thereby increasing urban biodiversity.

Thesis Questions:

How to transform a railyard from an urban barrier into an urban connector?

In order to intervene in an existing context, by carefully analyzing the site, we can raise up the sub-questions:

Why should we deal with such abandoned urban spaces?

What are the missing qualities of terrain vague? Is vagueness a weakness?

How to make design on a terrain without overriding the poetic of its vague?

How to revive abandoned sites and marginal landscapes, thereby increasing urban interaction? What make the site livable and more attractive?

situation?



How can visual relationships be established with the site's landmarks?. How can they be experienced across the tracks?

What kind of building functions and geometries could be infilled in current urban

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Part 1: Literature review

Values of abandoned urban space:

Architecture is not a complete static work. Inner or even outer spaces, historical or even modern buildings are keeping evolving and changing as the time pass, they will lose the original purpose of their use and will need further modification to serve new purposes according to the future demands. "Abandoned areas will always exist as a city is ever evolving and never ceases to develop. " (Anja Graner, 2017).

For the purpose of exploring and understanding the missing design qualities of these abandoned spaces, it is essential to first understand what are lost spaces and why they might be valuable for the city. (Sitong Luo, Saskia de Wit, 2018)

Ignasi de Solà-Morales' conception of 'terrain vague' serves as a portal that guides us to the particular conditions of leftover spaces and shows his concern in the form of absence in the contemporary metropolis. Solà-Morales sees "terrain vague" as a challenging architectural opportunity, rather than a problematic issue. He defines terrain vague as land in a "potentially exploitable state but already possessing some definition to which outside the urban functional system," or "strange places" that "exist outside the city's effective circuits and productive structures" (119, 120).

However, abandoned urban space remains a neglected wasteland or a gap between built environment. By integrating them into the society, these spaces have a high potential for restoration and repurposing and for creating beautiful spaces by distinguishing their unique character. " what is perceived as a wasteland for ones, can be seen as a valuable or active land for others" (Bogna Anna, 2020), based on one's vision and imagination of spaces. Abandoned areas may be turned into various facilities, depending on their location. There are such empty spaces in every city that wait to be adapted to the existing urban fabric and the existing community, so that they can be part of the overall cityscape.

Most of unused urban spaces creates a barrier in the built environment fabric. They cut the continuity of the public spaces network and the greenery, in which people can perceive obviously and lose their confident. However, these areas have the potentiality to be converted not only to host a specific function as a space, but also to act as an urban connection rather than being an urban cut.

Part 1: Literature review

The qualities of public space _ Is vagueness a weakness?

Since The main characteristic, which mostly all traditional public spaces share, is the possibility of hosting different activities, in different times, in which their main functions are vague, Karen A. Franck raised up her question, "Isn't All Public Space Terrain Vague?" (2011).

Franck, argue that "Once a public space is appropriated for a single, ongoing, all encompassing use that affords no room or time for additional activities, the space in question is really no longer abandoned and, hence, no longer a terrain vague."

This assessment of the public spaces, according to Franck, depends on four aspects:

- (1) Qualities of the space: according to Sola- Morales's theory, the qualities of public space are (abandoned, empty, marginal, unproductive, fluctuating, and indeterminate).
- (2) Types of activity: according to Frank, activities in public spaces could be categorized as: recreation/exercise, commerce, production, expression, commemoration, education, and dwelling (2011).
- (3) Time and duration of activities
- (4) Originator of the activity.

Even by adopting the space with new productive uses, it may retain some qualities of vagueness. For instance, if a variety of changing and coinciding uses still occur, if the space is still "open," and host different activities in different times, one could say that it remains a terrain vague.

The space could be valued for this quality, since the openness and accessibility of public spaces invite an incredible diversity of activities: from rituals of gathering and creating informal memorials (Franck & Paxson, 2007).

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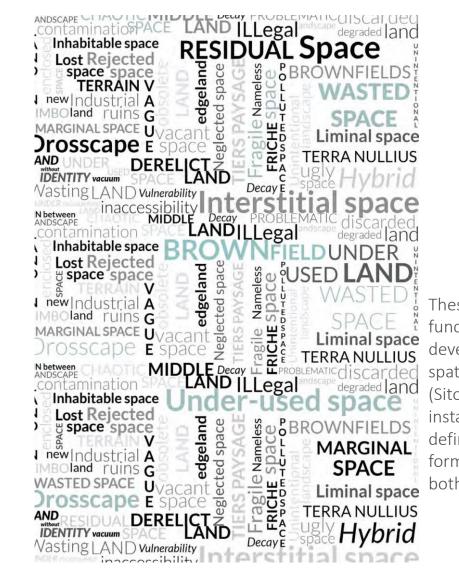
Part 1: Literature review

Different Terminologies For "abandoned" urban spaces

Investigating the matter of emptiness or void in the planning perspective, we can see different types of it. We can define an empty space as an opposite to filled space. It can be for example what remains cut by the infrastructure, design leftovers, the unmanaged void, the in-between spaces, untouched or wild surfaces, in general what remains.

"Terrain vague, Drosscape, Vacant, Void, Gap, Marginal, Abandoned, Blurry edges, Residual and ambiguous, memento mori, Paradoxical, empty, Unproductive, fluctuating, indeterminate, Unowned ..". Various vocabularies and terms have been used by researchers recently as referring to lost urban spaces, on the one hand, to address their statue as "lost" areas. On the other hand, to conduct a framework for investigating, redesigning, and adaptively reusing the lost spaces within urbanized regions.

Patrick Barron stated: "they allow us to examine ourselves and our everyday surroundings from outside the frenetic circuits of work, commerce, and transit. As counter-spaces, terrains vague are also containers of a fragmented shared history, illuminating the imperfect process of memory that constantly attempts to recall and reconstruct the past" (2014)



These spaces emerge as their original function is lost or when different urban developments leave them in-between, as spatial and temporal interstices of the city. (Sitong Luo, Saskia de Wit, 2018). For instance, leftover public spaces never had a defined use, while abandoned spaces formerly had a clearly defined use. However, both are undefined margins or empty plots. Terrain Vague | Transform an urban barrier into an urban connector

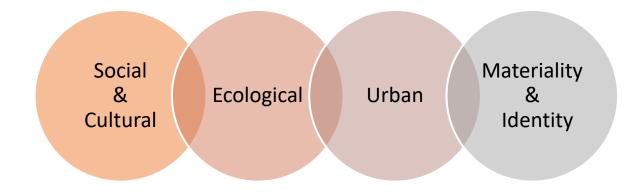
Part 1: Literature review Terrain vague qualities:

"DESIGN FROM MULTIPLE LENSES" by multiple reading of terrain vague qualities

terrain vague spaces can be valued for their indeterminacy and vagueness "that allows coexistence and open interpretation" From this approach we might raise up the question if a design that simply transforms a leftover space according to a single social perspective, is truly responding to the space's potential. (Sitong Luo, Saskia de Wit, 2018).

As Barron & Mariani stated, terrain vague is not a blank canvas for design, and the design processes in these dynamic and multi-layered urban spaces are not linear or confined, but rather circular and multi-dimensional, "often associated with a resistance to more conventional planning methods and landscape aesthetics."

In order to allow design to engage with the indeterminacy of leftover spaces, Sitong Luo & Saskia de Wit propose that we should understand multiple qualities of "terrain vague" spaces in their interstitials, before the entering of the design process. It is from such a mindset that the design could engage the continuity of the place, and initiate a transformation that accommodates, orchestrates and encourages what is embedded in the existing.



To further outline the conception of different perusing, this project will rethink the Mainzkastel area through four main lenses, (urban density and mobility, social and cultural, ecological, and materiality and identity). consequently, uncovering possibilities and design prospects of these abandoned spaces, the analytical discussion aims to mark missing points and qualities in its design and adopt a conceptual framework for design intervention through various perspectives.

From this approach, The design decision to transforms the chosen site was based on rereading the site from various lens:

1 Reading the social & cultural aspects:

The social study focuses on how individuals communicate with a space, the way they occupy and use the space, as well as their respond to the space and the changes they might offer in the site (Riesto, Braae and Avermaete, 2018).

M. Thrasher sees that interstitial areas are open for different uses and informal behaviors geographically and socially. They offer a sense of hiddenness and independence that every person can use freely in his everyday practice. (1927). As previously explained, this is also true for every open public space in which it is not defined by a specific function. Mainz-kastel act as a cultural court. It has an important Location, surrounded by cultural landmarks, such as the Historic Reduit on the river bank, and Castellum Museum in the right wing of the Reduit. In June 12th-16th. The 2019 "meeting of styles" graffiti art festival took place at the Mainz-Kastel Bridgehead in Wiesbaden. Where over100 artists came to the site and expressed themselves with graffiti art works on more than 3,000 square meters. This is proving that the site has a lot of potential to be transformed into an art court, and by framing cultural practices and proposing a new art center, a second life would be given to the area which will open up the site for more users.

What makes a city a great place to live or visit are the shared spaces in between, the sidewalks, the plazas, the parks, the waterfront, says landscape architect James Corner. From this approach, the design intervention will provide multiple platforms and plazas where users can meet, interact, or simply pass-through enjoyable atmosphere with panoramic views.



URBAN ART

The site act as a cultural court. It has an important Location, surrounded by cultural landmarks, such as the Historic Reduit on the river bank, and Castellum Museum in the right wing of the Reduit In June 12th-16th. The 2019 "meeting of styles" graffiti art festival took place at

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diagram shows social aspects & current activities taking place inside Mainz-kastel

Festival within Reduit the courtvard used to host many carnivals and festivals for different occasions

Other social activities walking, meeting, interacting, riding bikes, gathering and celebrating in the park on the river bank

2 Reading the ecological aspects:

Ecology refers to the relation and interaction of organisms with their environment, the conditions that bring them to the site, and the way they communicate with all other creature. (Riesto, Braae and Avermaete, 2018).

Analyzing the site from ecological levels aims, on the one hand, to define the greenery sides which evolved with intentional human interference. On the other hand, to discover spontaneous vegetations that evolved without intentional human interference. Spontaneous Vegetation growing is a well-known phenomenon on the rail track sides, since they are left unplanned. However, these vegetation can act as an acoustic barrier absorbing the noise coming from the train's movement, and by the time, It is drawing a special characteristic of the site perception, as an element of its image.

In the design intervention of Mainz-Kastel, the strategy will not only preserve the greenery sides, but also enhance their quality by integrating them into the site network, in order to be a connector rather than a second barrier, beside the railyards, and key factors for attracting users. This will breathe new life into the urban spaces that create memory and meaning, and give outdoor spaces the same value, or maybe more, as buildings and interiors.



Vegetation

Spontaneous Vegetation areas are quite spread into the site. The parts with high quality are appreciated and wil be preserved. (1) The parts with low quality will be enhanced as tracks barriers, being integrated to the park. (2) The parts with No quality will be removed. (3)

diagram shows ecological quality inside Mainz-kastel

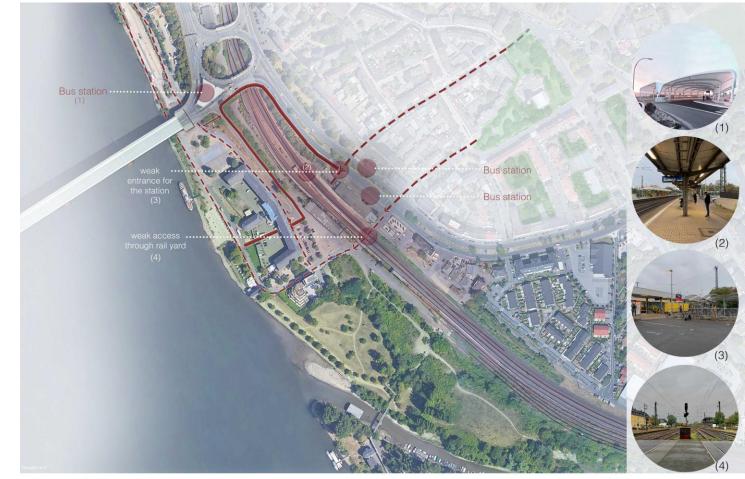
3 Reading the urban aspects (connections, density and vacancy):

In his book "The Image of the City", Kevin Lynch said the way to analyze the city image in the circumstance introducing five visual composition factors in terms of node, landmark, path, edge, and district. From his statement, it can be inferred that the urban connections and views are essential to demonstrate the identity of the built environment.

Reading terrain vague spaces from this lens is to identify the form and urban edges, density and vacancy of the site, the connections for both pedestrians and transport facilities, focal points, and greenery network

Regarding the urban connections, the site has two urban barriers, (the train tracks and highspeed main street), which cut not only the continuity of urban network, but also the continuity of social activities. While the site lacks direct and safe connections for pedestrians, it is well-connected with public transport.

Regarding the context, specifically to the north-east toward the city, In terms of mass formation, the buildings are divided into groups linked by street paths. They appear as small closed islands, in which the residential blocks form courtyards or central open spaces surrounded by building blocks. The same formative style applies to the Reduit, where the U shape consists a spacious interior courtyard.



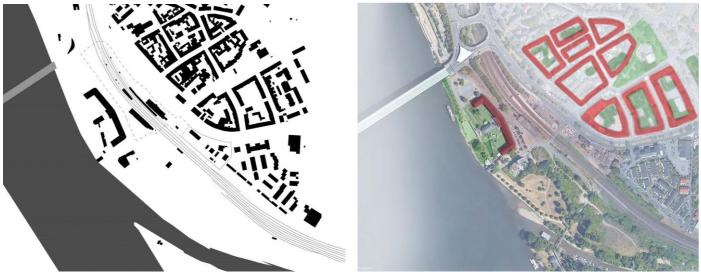
CURRENT URBAN CONNECTIONS PEDESTRIANS PATHS The site lacks direct connections for pedestrians with the surrounding

PUBLIC TRANSPORT

diagram shows urban connections inside Mainz-kastel

The site is well-connected with public transport. (S-bahn train station & multiple bus stops)

3 Reading the urban aspects (connections, density and vacancy):



diagrams show urban forms, edges and density-vacancy in Mainz-kastel



diagrams show the site connection and streets networks



4 Reading the materiality and identity:

Materiality world addresses the characters and identity of the area and how people perceive its image.

Terrain vague spaces presents an unkempt and ruined image. They seem detached from their familiar context, creating disruption in the visitor's perceptions, in which they perceive according to their own interpretations.

As Edensor stated: "the things are always enmeshed within specific cultural contexts and embody particular histories". Leftover spaces are where people can unlearn the conventional meanings of things, releasing new interpretations beyond their assigned cultural and historical background (2005: 99).

The materiality in Mainz-Kastel is dominated by the rail tracks, since it is a train (S-bahn) station, which triggers the industrial perception along with the train noise. Historic sense is also triggered by the Reduit along the site. Spontaneous Vegetation give the sense of wildness in the site. While the current station building has no clear identity and quality, the former warehouse is appreciated with its brick facades and arches windows.



Landmarks

diagram shows landmarks dominated in Mainz-kastel characteristic

4 Reading the materiality and identity:

In terms of materials and colors tone prominent in the site, The reddish bricks and stones are quite visible in various sides, in particular the landmarks.



Fresh Green

diagram shows materials and colors dominated Mainz-kastel



Conclusion and Final Considerations:

The locality and contextual circumstances are defining what is needed for reworking on an existing site. As analyzing the site aims to understand the missing qualities and perspectives of terrain vague spaces, one can conclude that the spatial and value characteristics of terrain vague spaces differ from one site to another, and therefore we cannot always deal with these spaces in a single perspective and vision, since that will erase other traits that may be inherent in the place. For example, taking certain single requirements into account and presenting them as a priority in a design decision, while ignoring other spatial and physical characteristics, does not mean that the design has truly responded to the space's potential. It is therefore important to read the design of the terrain vague from multiple perspectives in the purpose of emphasizing its special qualities. To sum up, Whatever intervention strategies is applied, it should not reduce the quality of what is already exists, but rather add to it.

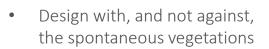
Considering the contextual and cultural dimensions of Mainz-kastel, we can define potential alternative scenarios of spatial practice on the urban scale. By transforming the site into a culture court, a second life would be given to the area and will further attracte more local people to visit the site

Terrain Vague | Mainz-Kastel

Conclusion and Final Considerations:



- Frame cultural practices and propose a new art center
- Socially interactive spaces for a truly public realm.
- Create multiple urban spaces, platforms and plazas where users can meet, freely interact, or simply passthrough enjoyable atmosphere with panoramic views.



Ecological

 Not only preserve the greenery sides, but also enhance their quality by integrating them into the site network



- Transform a railyard from an urban barrier into an urban connector
- increase urban interaction
- Building forms follow the context typology
- Car-free site, & provide parking on the street side

Materiality & Identity

• Historical significance

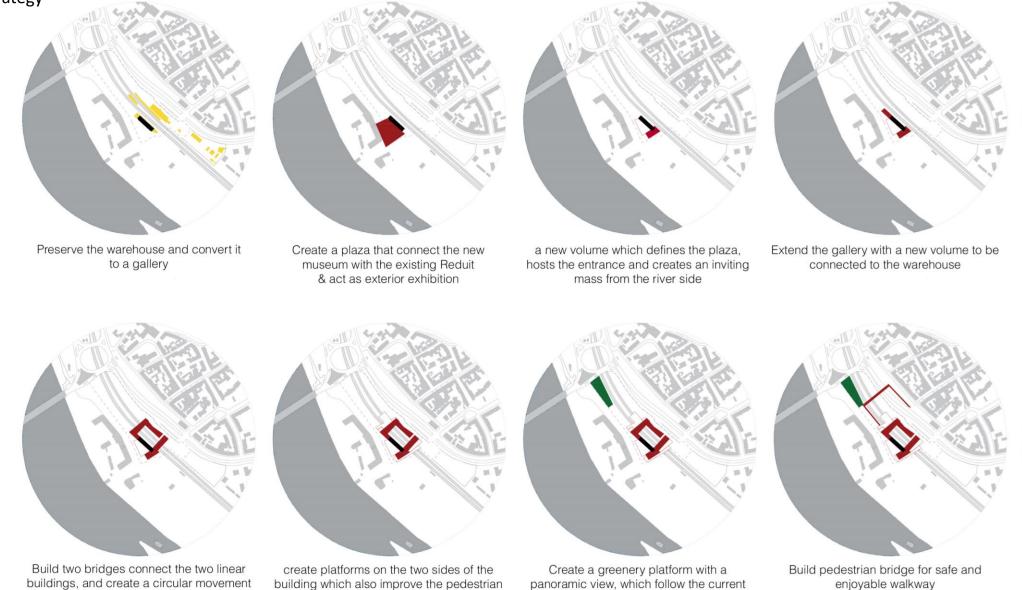
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• Create visual relationships with the site's landmarks to be experienced across the tracks

Consider materials that simulate the site atmosphere

within the gallery

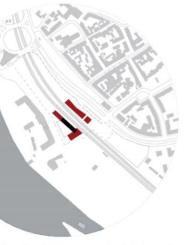
Concept strategy



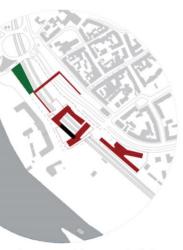
topography, from the bridge level to the

Reduit and new museum

continuity within the current urban network

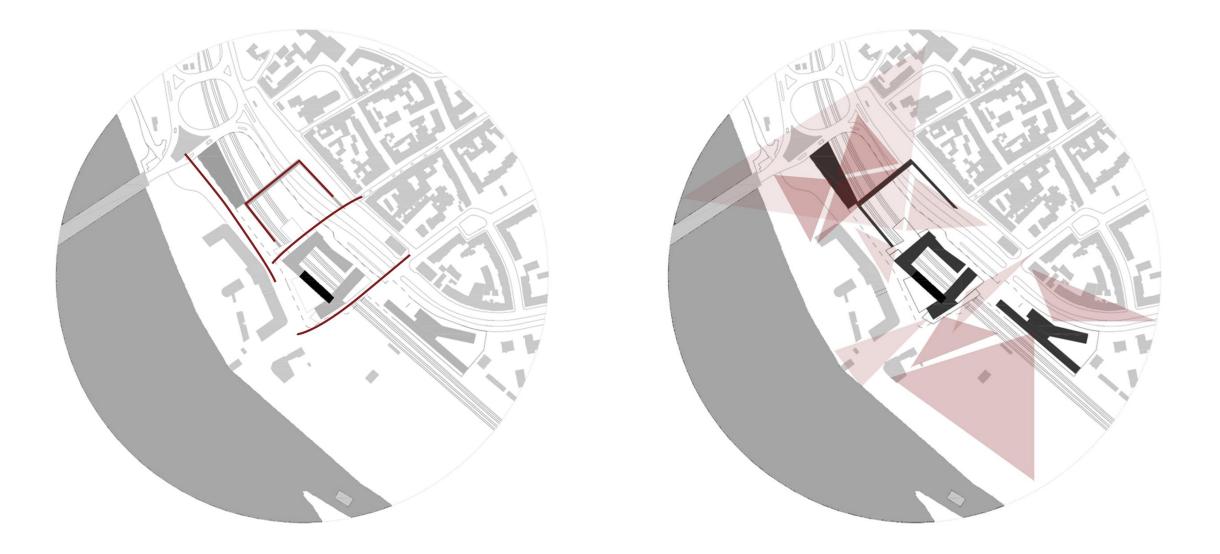


New building for the train station/ tickets & catering

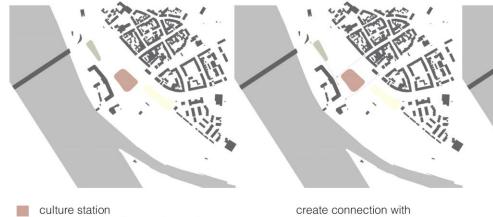


Urban development with a new building hosting living / working / commercial facilities, with a view to the river and park









culture station
event space and comunity garden
co-working and living

create connection with the urban context



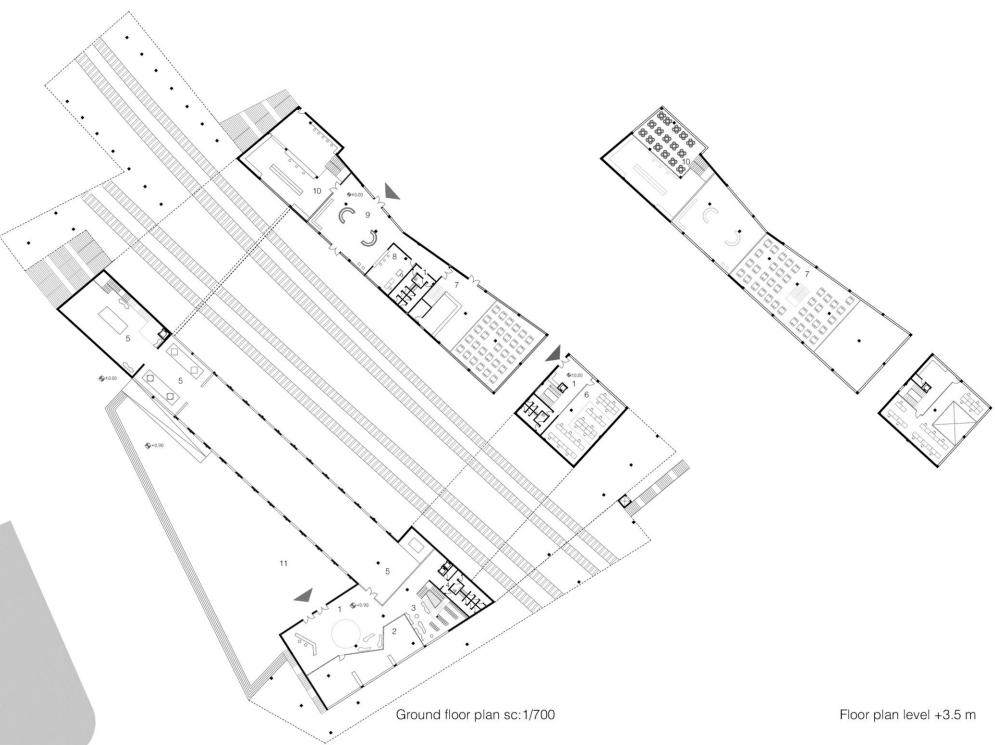
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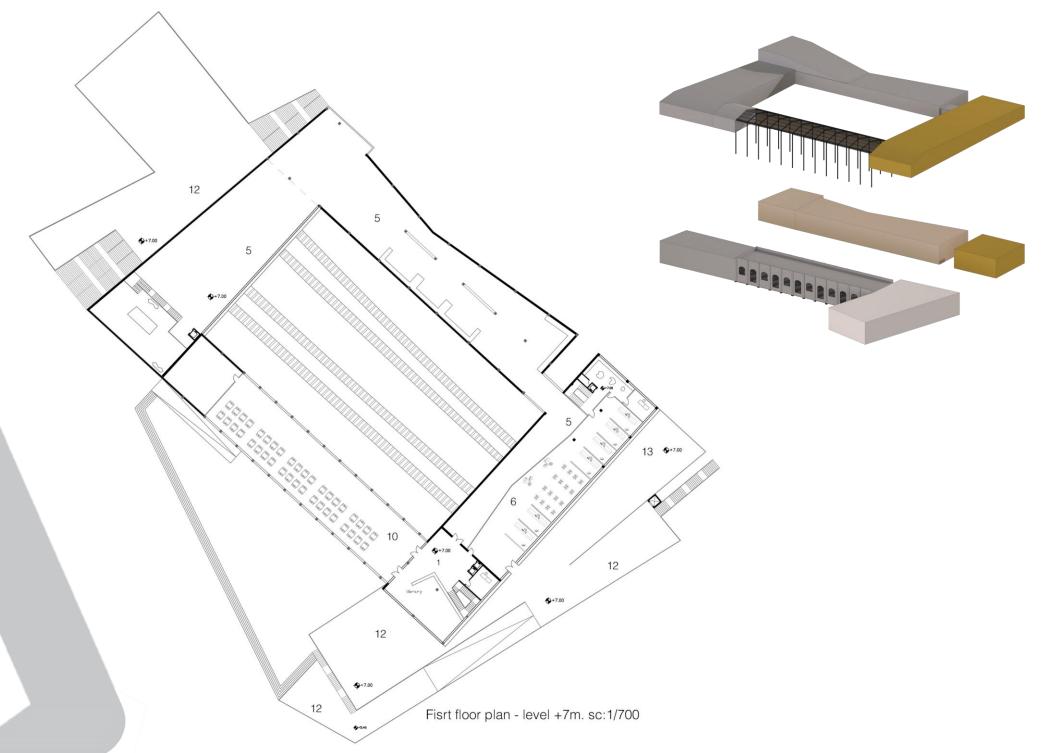




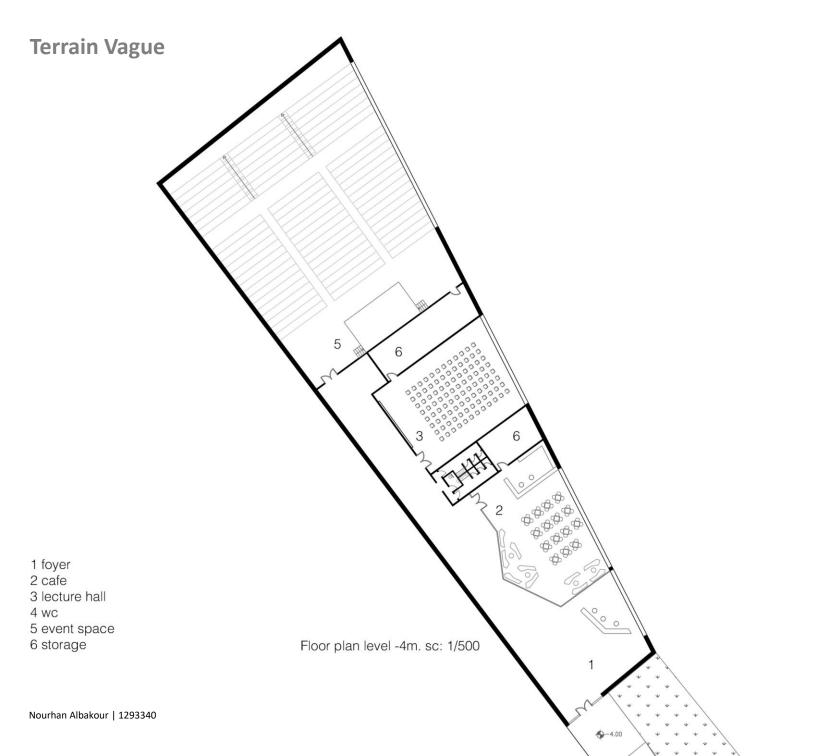
1 foyer 2 museum shop 3 clock room 4 wc 5 exhibition space 6 atelier & art studios 7 catering 8 DB info office 9 tickets & waiting area 10 backery & cafe 11 plaza 12 platform 13 exterior workshops

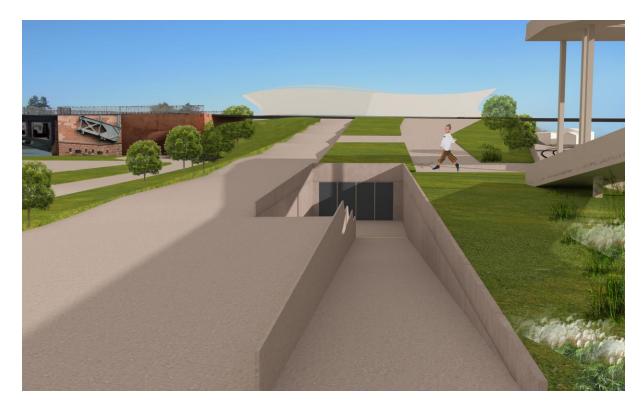


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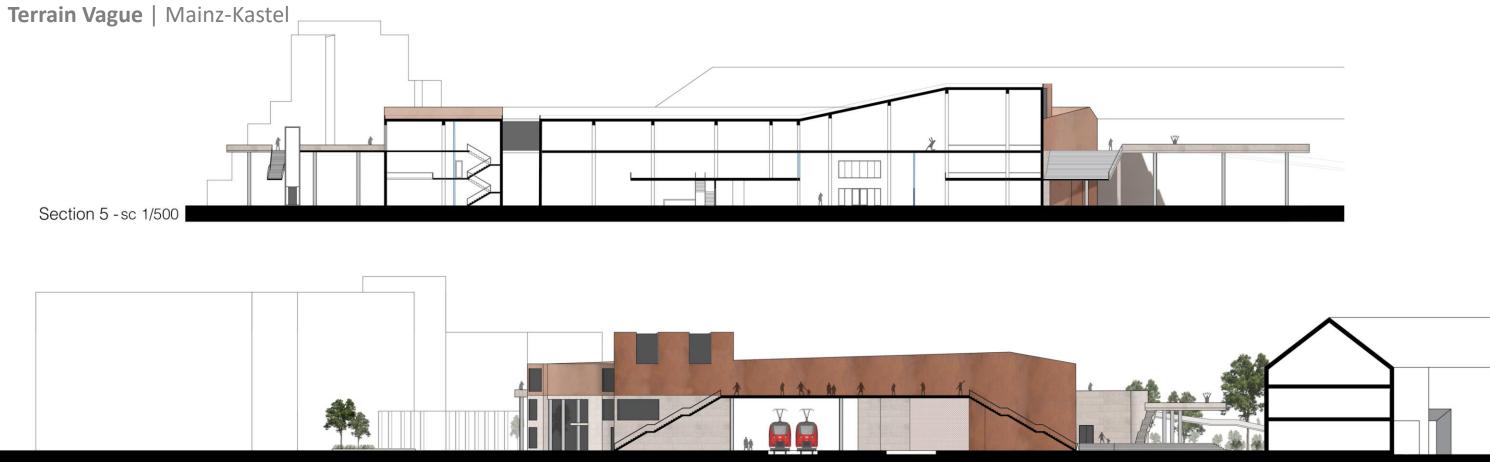


Nourhan Albakour | 1293340



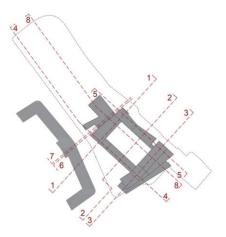




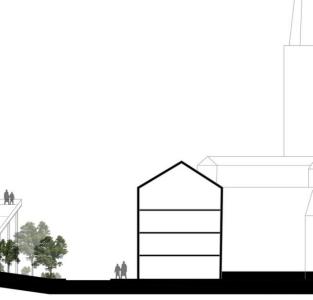


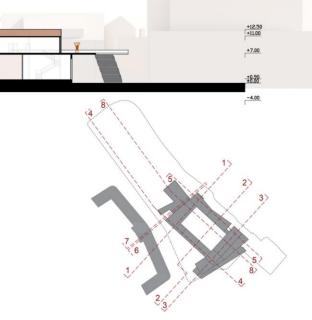
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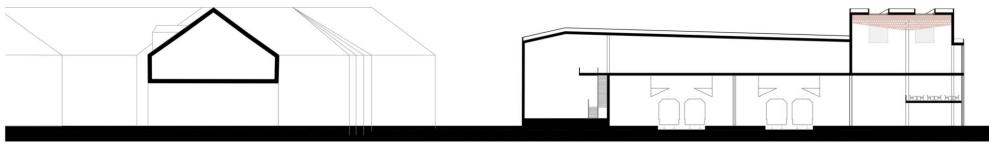
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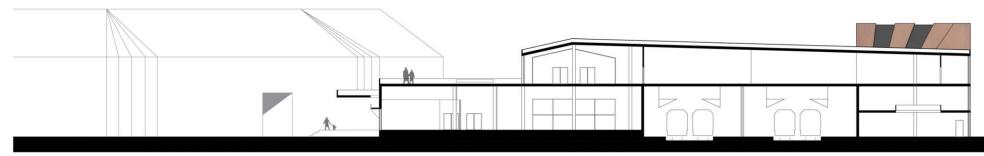




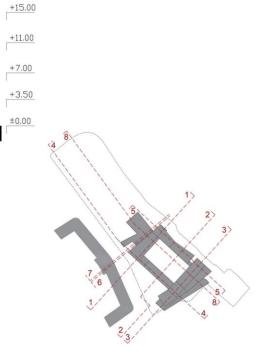




Section 1 - sc 1/500



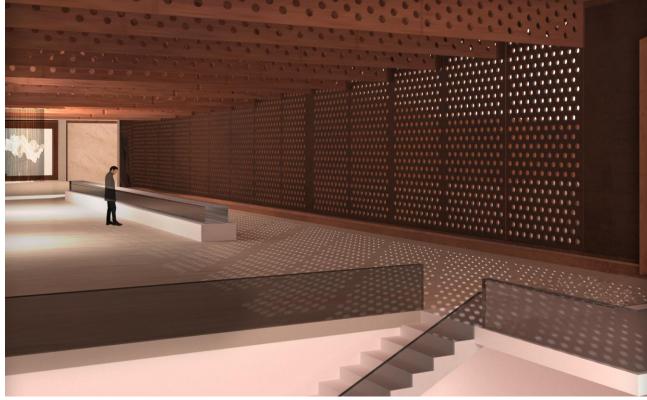
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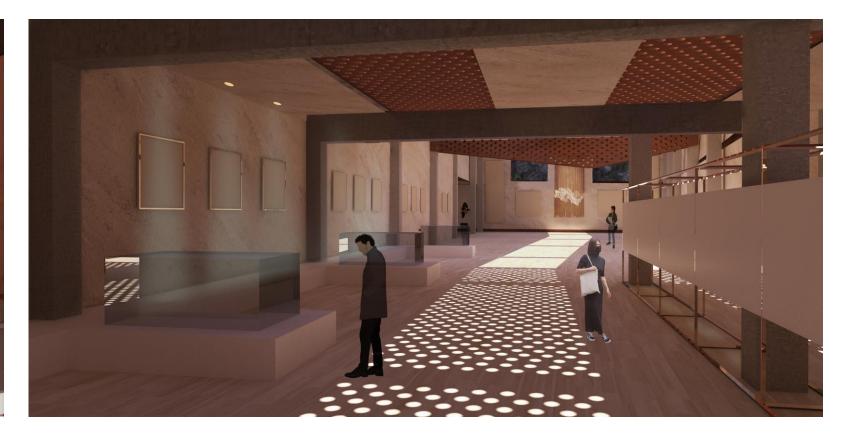


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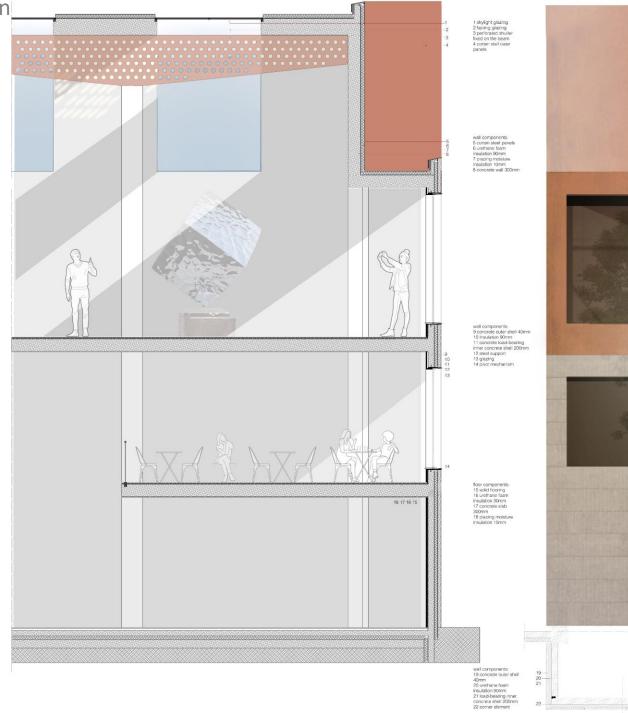






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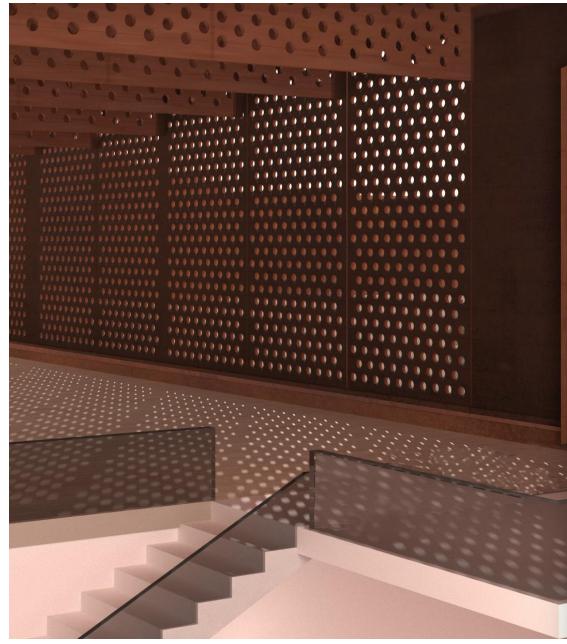
views of exhibition spaces



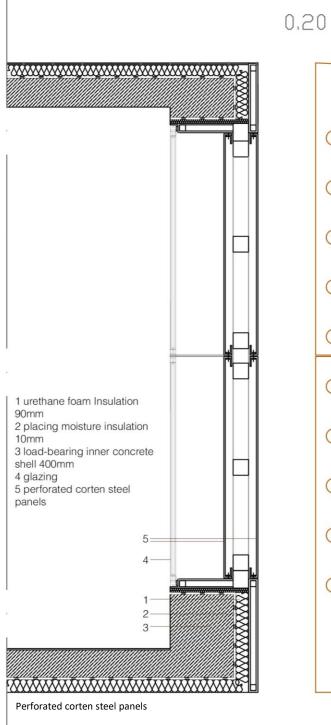
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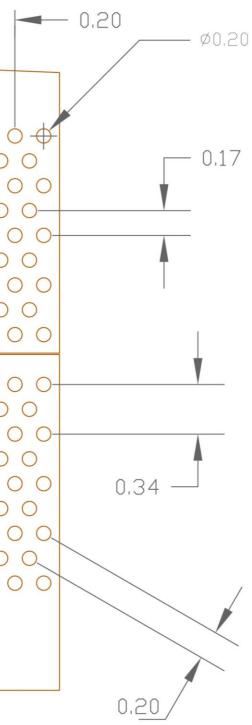
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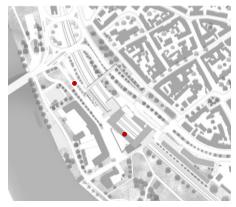




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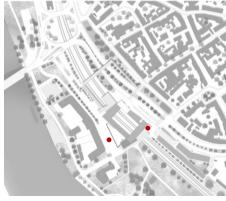
view of the open café – first floor



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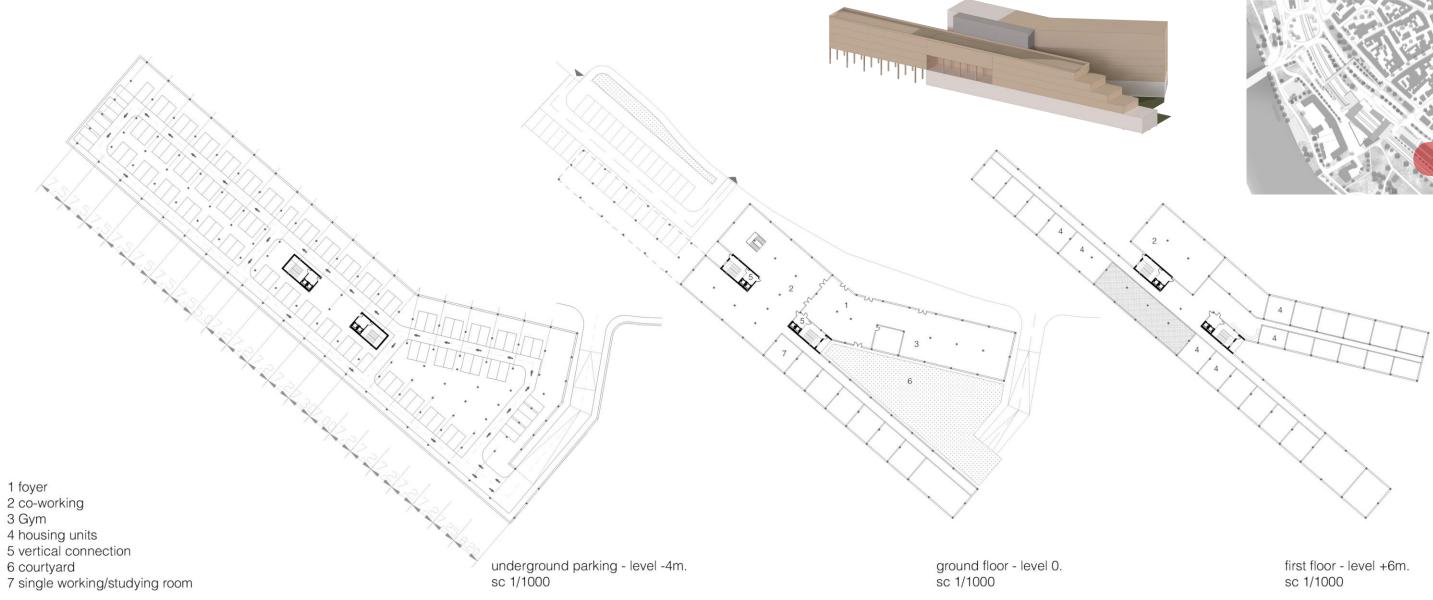






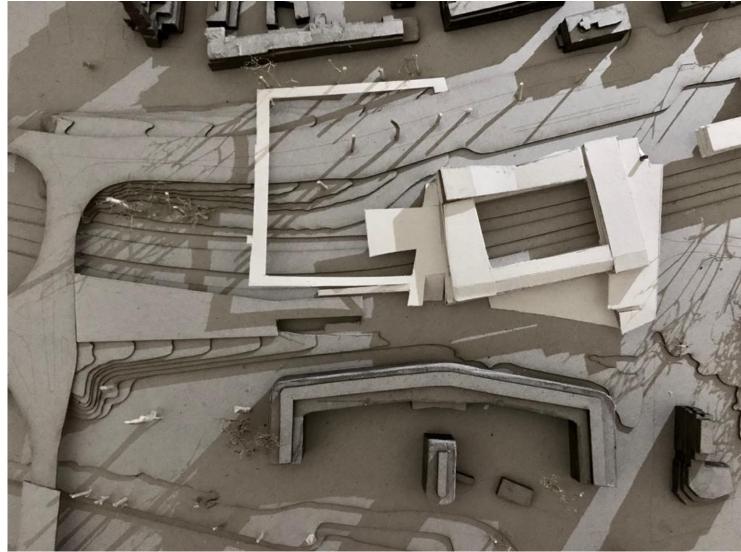
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view of entrances plaza

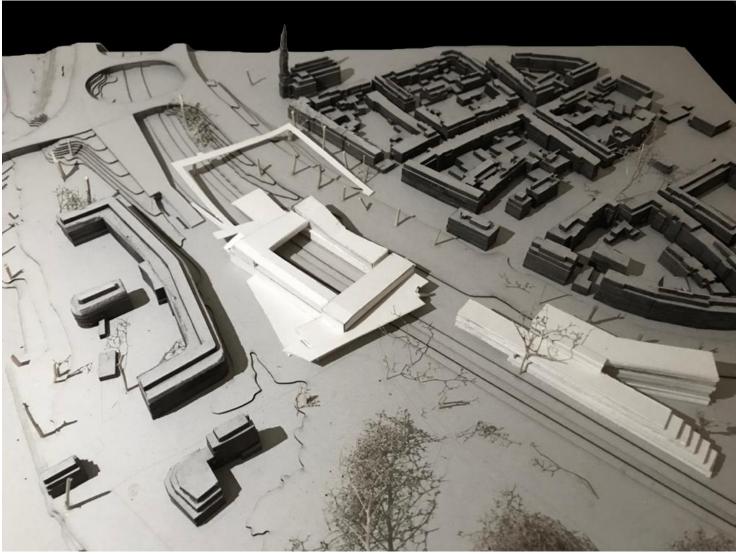












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REFERENCES

Sola-Morales, Ignasi de. (1995). Terrain vague. In Cynthia Davidson (Ed.). Anyplace (pp. 118-123). Cambridge, MA: MIT Press.

BARRON, P. (Ed.), Mariani, M. (Ed.). (2014). Terrain vague: interstices at the edge of the pale.

Luo, S., & de Wit, S. (2018). Unlocking Interstices: Multiple lenses enriching the participatory design of urban leftover spaces. In S. Delarue, & R. Dufour (Eds.), Proceedings of the ECLAS Conference Ghent 2018: Landscapes of Conflict (pp. 527-536). Ghent, Belgium: University College Ghent.

J. M. Broich, D. Ritter. (2017). Die Stadtbrache als »terrain vague«, Geschichte und Theorie eines unbestimmten Zwischenraums in Literatur, Kino und Architektur. <u>https://www.transcript-verlag.de/978-3-8376-4095-3/die-stadtbrache-als-terrain-vague/?number=978-3-8394-4095-7</u>

A. Graner. (2017). Why should we deal with abandoned urban spaces?. <u>https://www.atributosurbanos.es/en/terms/terrain-vague/</u> Accessed Nov. 2020.

The 'terrain vague' as material – some observations* Luc Lévesque, 2002 http://www.amarrages.com/textes_terrain.html

Berger, A. (2006). Drosscape: wasting land in urban America. Princeton Architectural Press.

K.A. Franck and L. Paxson. Transforming public space into sites of mourning and free expression. In K. A. Franck and Q. Stevens (Eds) Loose Space: Possibility and Diversity in Public Life. London: Routledge, 2007.

Graner, A. (2020, April 08). Integrating abandoned spaces in urban planning: <u>https://www.urbanet.info/abandoned-urban-spaces/</u>

A. Bogna. (2020). Rethinking terrain vague, Changing perspectives on urban density. <u>https://bognaanna.medium.com/rethinking-terrain-vague-c4f2c6ed0ddc . Accessed Nov. 2020</u>.

Riesto, S., Braae, E. and Avermaete, T. (2018) 'Seeing, thinking, designing urban landscapes with epistemes'. M. Thrasher, F. (1927) The Gang: a study of 1,1313 gangs in Chicago. Chicago, USA: The university of Chicago press.

L. Amenta. (2019). Beyond wastescapes, Opportunities for sustainable urban and territorial regenerations. Delft University of Technology (TUD).

Urban art, "Castellum" – Graffiti in der unterführung am BHF Mainze-Kastel. <u>https://www.stadtkindfrankfurt.de/mos-2019-castellum-graffiti-in-der-unterfuehrung-am-bhf-mainz-kastel/</u>