MASTER-/DIPLOMARBEIT

Hangar Ticinum

Ein Gemeindezentrum am Fluss Pavia, Italien
A Community hub on the river Pavia, Italy

ausgeführt zum Zwecke der Erlangung
des akademischen Grades eines
Diplom-Ingenieurs / Diplom-Ingenieurin
unter der Leitung von

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ABSTRACT

Lost in the surrounding vegetation, the once extraordinary example of a rising architecture style, got forgotten throughout the years. Decaying, on the banks of Ticino river, is the Idroscalo of Pavia, a base for hydroplanes traveling the route between Turin and Trieste.

Designed in the 1920's by Giuseppe Pagano, the building was born to be a static meeting point for dynamic objects, a point of arrival and of departure. It was this reflection that inspired the concept of this thesis, thinking of the Hangar as a place where thoughts, ideas and cultures meet.

Although in a concerning state, the scenic location on the river, the extraordinary example of synthesis between two different architectural styles and the undeniable historical value for the local community, make this building worth preserving. Furthermore, the panoramic view of Bargo Ticino and the proximity to the historical centre, would suggest one of the liveliest and most popular places for the local community.

In order to highlight the historic relevance of the artefact, the concept focuses mainly on the "interior" while the façades are preserved in their current state. By removing the architectural elements that are in decaying conditions, an opportunity presents itself to allow time to pursue its purpose, and slowly replace the old with the new.

ABSTRAKT

Verloren in der umgebenden Vegetation, geriet das einst außergewöhnliche Beispiel eines aufstrebenden Architekturstils im Laufe der Jahre in Vergessenheit. Der Idroscalo von Pavia am Ufer des Flusses Tessin verfällt. Ein Stützpunkt für Wasserflugzeuge auf der Strecke zwischen Turin und Triest.

Das in den 1920er Jahren von Giuseppe Pagano entworfene Gebäude wurde als statischer Treffpunkt für dynamische Objekte, als Ankunfts- und Ausgangspunkt geboren. Es war diese Reflexion, die das Konzept dieser Diplomarbeit inspirierte, den Hangar als einen Ort zu betrachten, an dem sich Gedanken, Ideen und Kulturen treffen.

Obwohl sich dieses Gebäude in einem besorgniserregenden Zustand befindet, machen die malerische Lage am Fluss, das außergewöhnliche Beispiel der Synthese zwischen zwei verschiedenen Baustilen und der unbestreitbare historische Wert für die lokale Gemeinschaft dieses Gebäude so erhaltenswert. Darüber hinaus würden der Panoramablick auf Bargo Ticino und die Nähe zum historischen Zentrum auf einen der lebendigsten und beliebtesten Orte für die lokale Gemeinschaft hinweisen.

Um die historische Relevanz des Artefakts hervorzuheben, konzentriert sich das Konzept hauptsächlich auf das „Innere", während die Fassaden in ihrem aktuellen Zustand erhalten bleiben. Durch die Entfernung der architektonischen Elemente, die sich in einem verfallenen Zustand befinden, bietet sich die Möglichkeit, Zeit um seinen Zweck nachzugehen zu lassen und das Alte langsam durch das Neue zu ersetzen.

TABLE OF CONTENTS

1. INTRODUCTION

INTRODUCTION

Known throughout the country for its famous university, for the food and wine excellences of the area, for the richness of the cultural offer and the extraordinary artistic heritage, Pavia has undoubtedly one of the most fascinating historical centres in Northern Italy.

The traces of the modern past are in most cases still visible today. The monumental character of these majestic abandoned structures makes them equally unique and intriguing in their own way.

And it is precisely in a scenic and privileged position, perched on the riverside at the gates of the historical centre, that certainly the most fascinating Pavese ruin stands: "The Idroscalo".

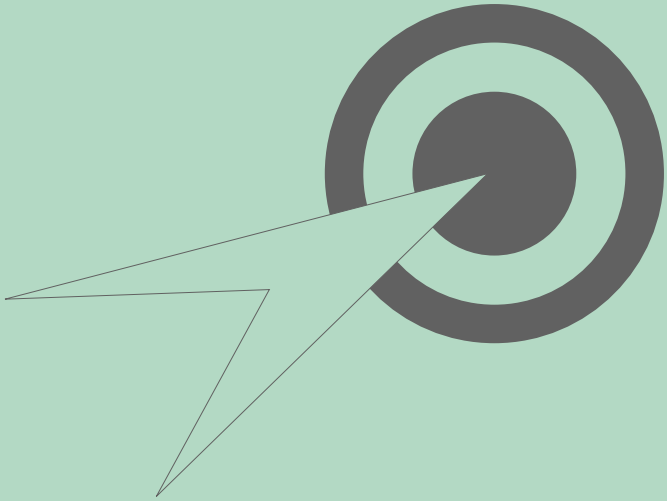
Although the architect, Giuseppe Pagano, is not yet mature enough to definitively abandon that expressive language which can be seen though the elevations, in the geometric engravings on the exterior walls, in the articulated treatment of shelves and cornices and in the stylization of the ornamental elements, his intention to welcome the modern times through a strong and decisive rationalist imprint is clearly evident in his project for the Idroscalo, easily recognizable in the massive use of concrete, in the refined parametrization of the elements and in the modular scanning of the façades.

This project is only one among many that have led me to appreciate Italian architecture and culture. There is something in the minimalist way of Italian design that I hope to influence me in my carrier.

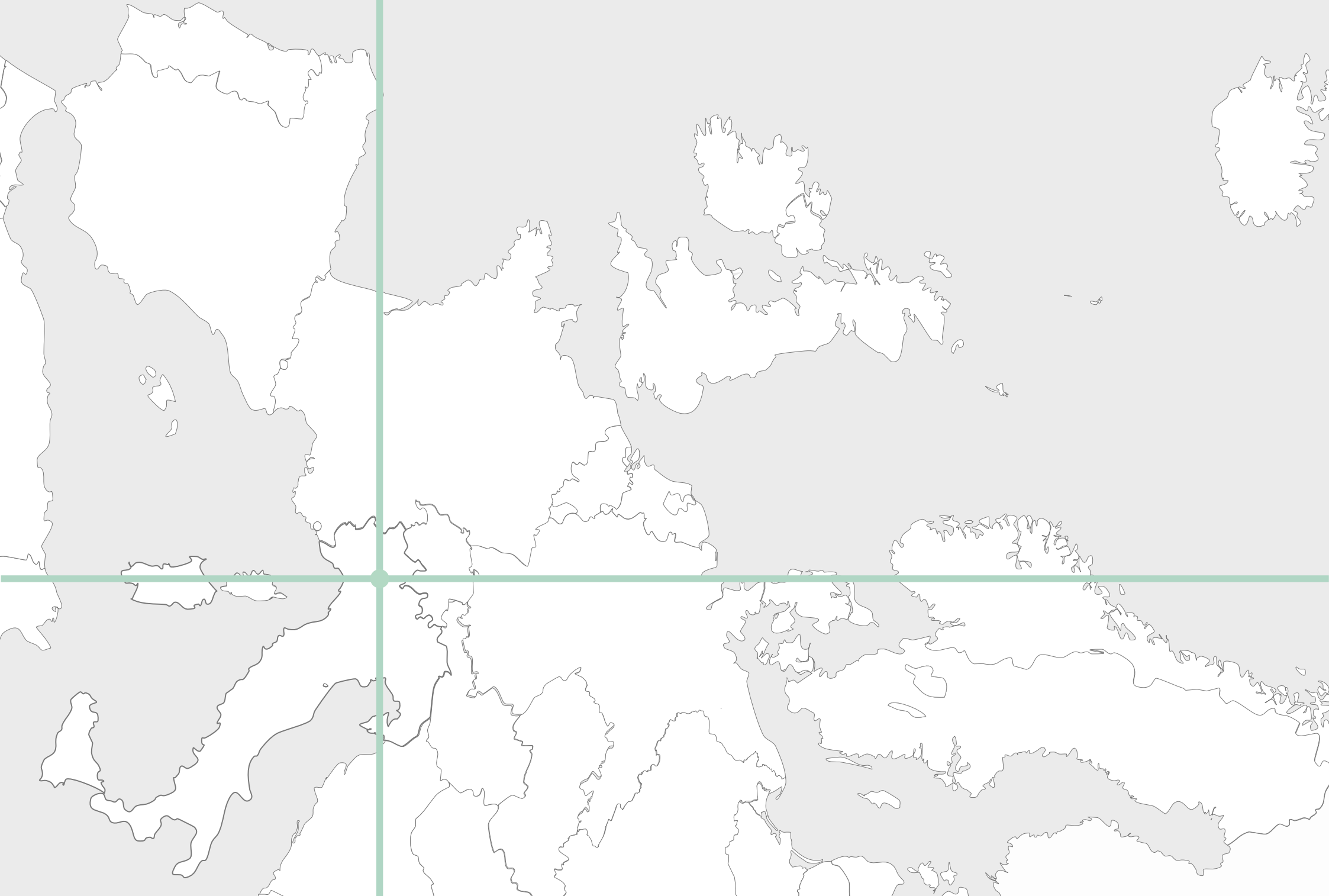
Having visited a couple of Italian cities myself, I never failed to notice the mastery of uniting the "old" with the "new", the simplicity and elegance of connecting two opposites. It was this that inspired me to challenge myself and attempt to bring the "old" back into life and achieve unity.

The Idroscalo presents a perfect opportunity with its already mixed architectural styles and scenic location.

fig.01 - The abandoned Idroscalo



2. SITUATIONAL ANALYSIS



Pavia is a charming Italian city of around 70.000 inhabitants, located along the banks of the Ticino river and just 30 km away from Milan.

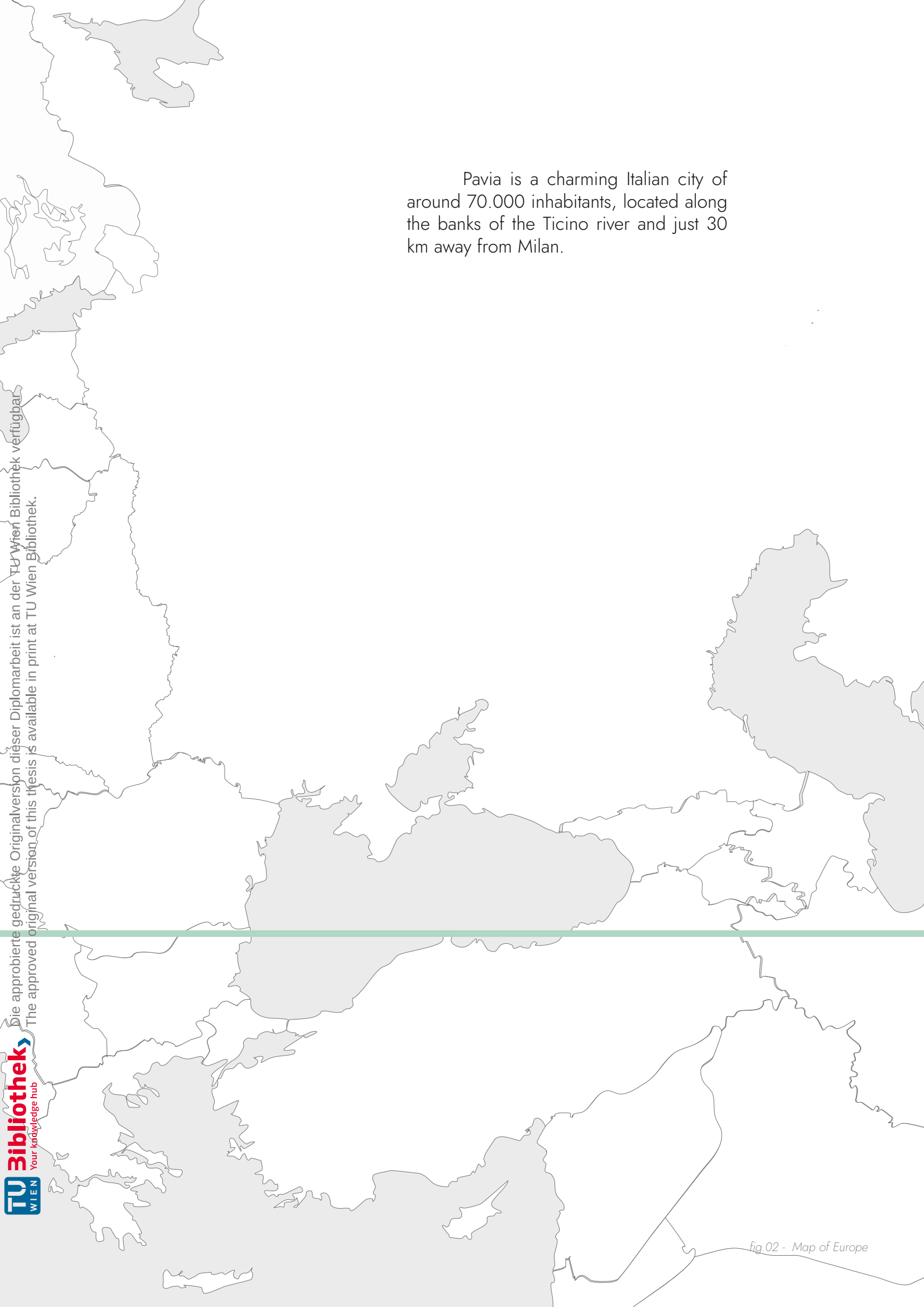


fig.02 - Map of Europe

Contrary to what one might naively think, the city has not always lived exclusively on culture. During the twentieth century, like many other towns in the north of Italy, it experienced various moments of great economic prosperity, enriching its urban fabric with a large number of industrial activities and strategic infrastructural facilities.

fig.03 - Urban Fabric of Pavia

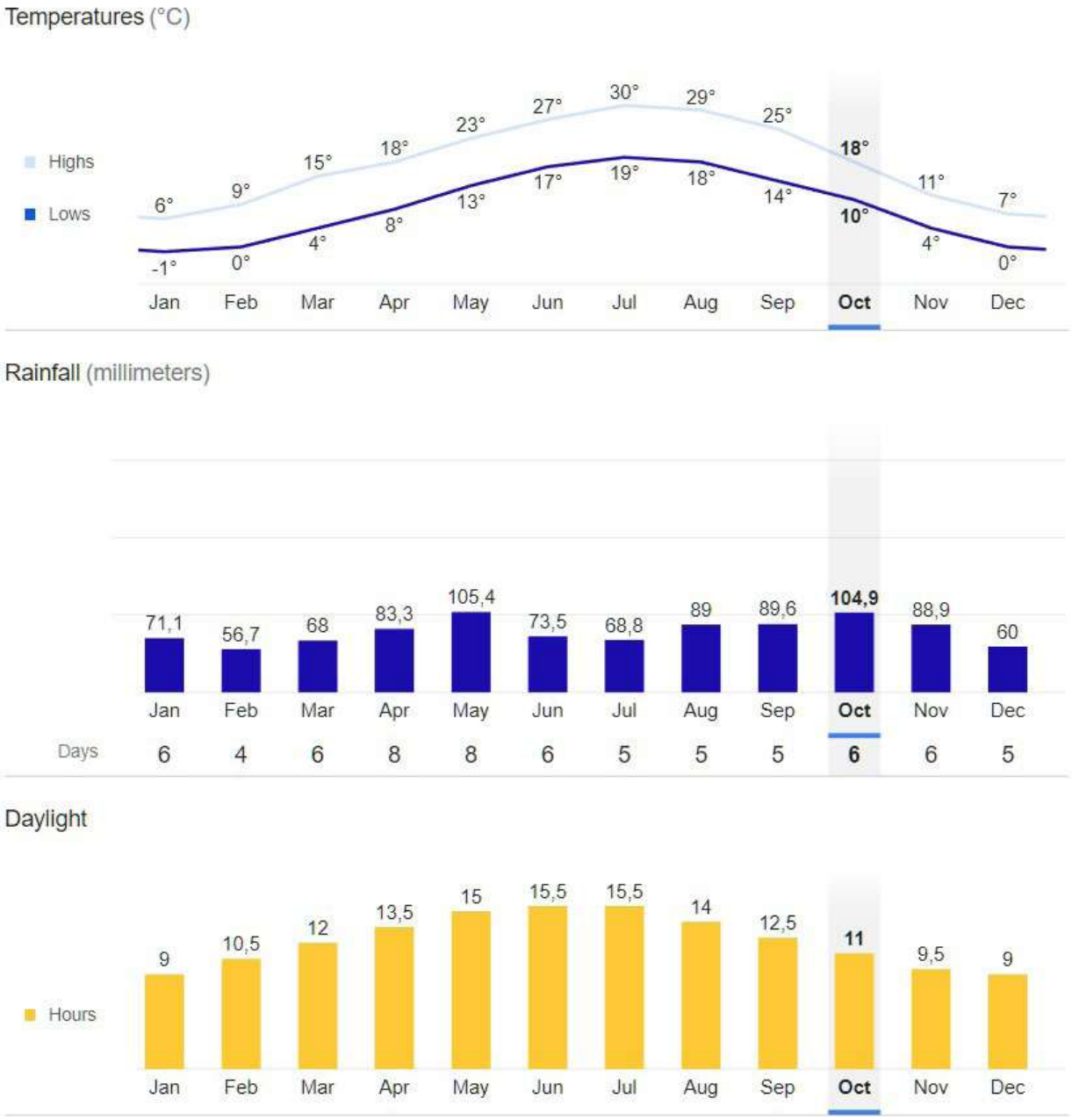


fig.04 - Weather diagram for Pavia

Pavia has a Mediterranean climate. The summers are clear, hot and dry, and the temperature is mild in the winter. Considering humidity, temperatures feel nice most of the year, excluding some cold weeks in the winter.

Pavia has a similar climate to Vienna. The warm temperatures in the summer get slightly hotter and lasts longer in Pavia. Although the rainfall is heavier compared to Vienna, there are less rainy days with average of 6 per month compared to Vienna's 8.

Similarly, the daylight in both cities has long hours, averaging to about 12 hours of daylight per day.

fig.05 - Weather diagram for Vienna

2.2 Historical Centre

Modern Pavia is a small and beautiful river town once known as Ticinum to the Romans who absorbed it into their empire sometime around the 2nd century BCE.

The urban plan of the Roman age is clearly evident in today's urban fabric of the city.

Most of Pavia's historical places are located along a street called Corso Strada Nuova, which spreads across the centre, splitting it into two. Additionally, the historical centre is characterized with a "boxed" building concept that together with the main street shaped the direction this project would take.

At the outskirts of the historical centre, emerged into the lush vegetation, the Idroscalo presents itself as a perfect final destination of a long and eventful day spent in the centre of Pavia. Surrounded by the remains of history and extraordinary surrounding, the Idroscalo is a perfect potential place for meeting, relaxing and enjoying Pavia's atmosphere and excellences.

fig.06 - Pavia in Roman time.

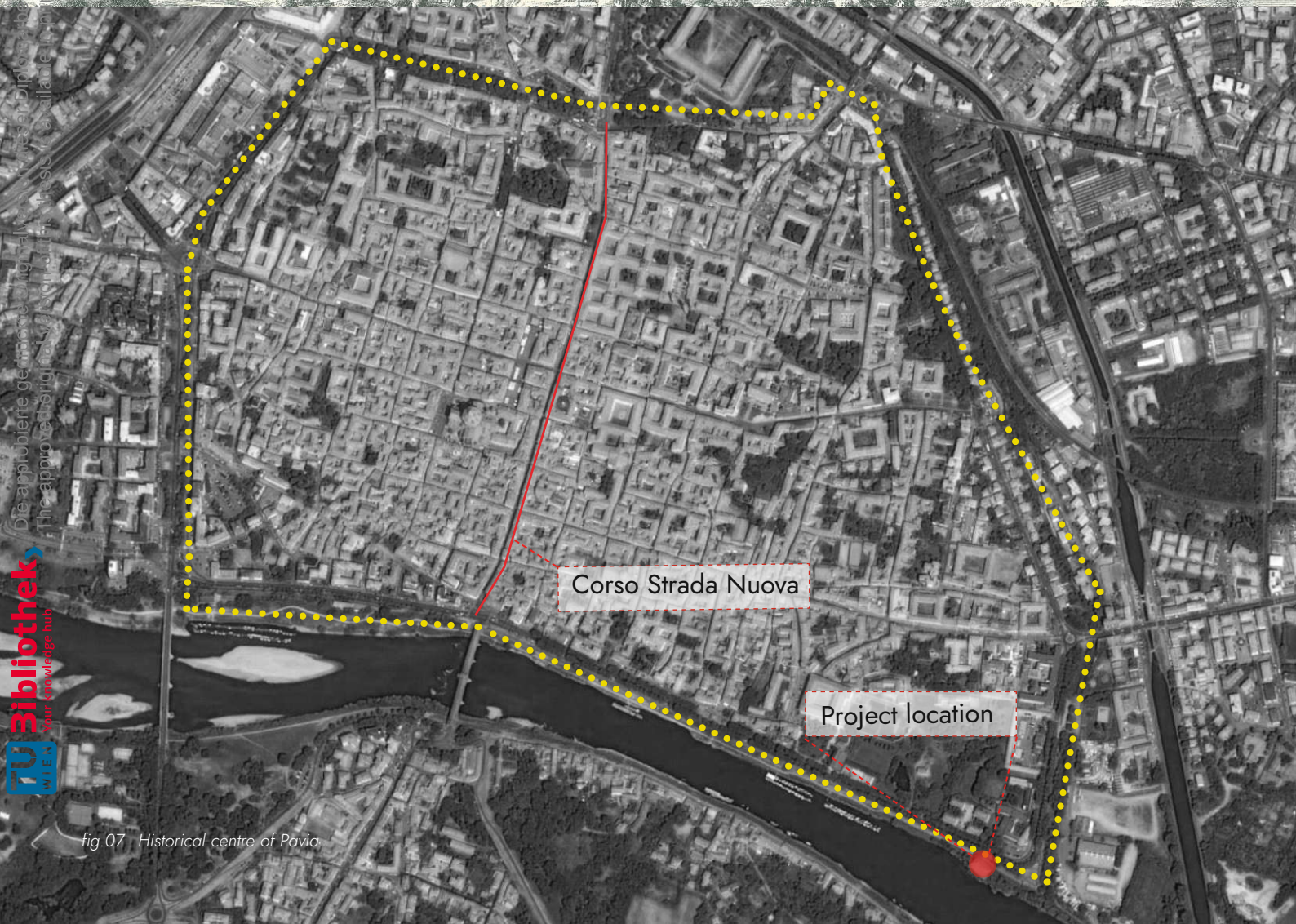


fig.07 - Historical centre of Pavia

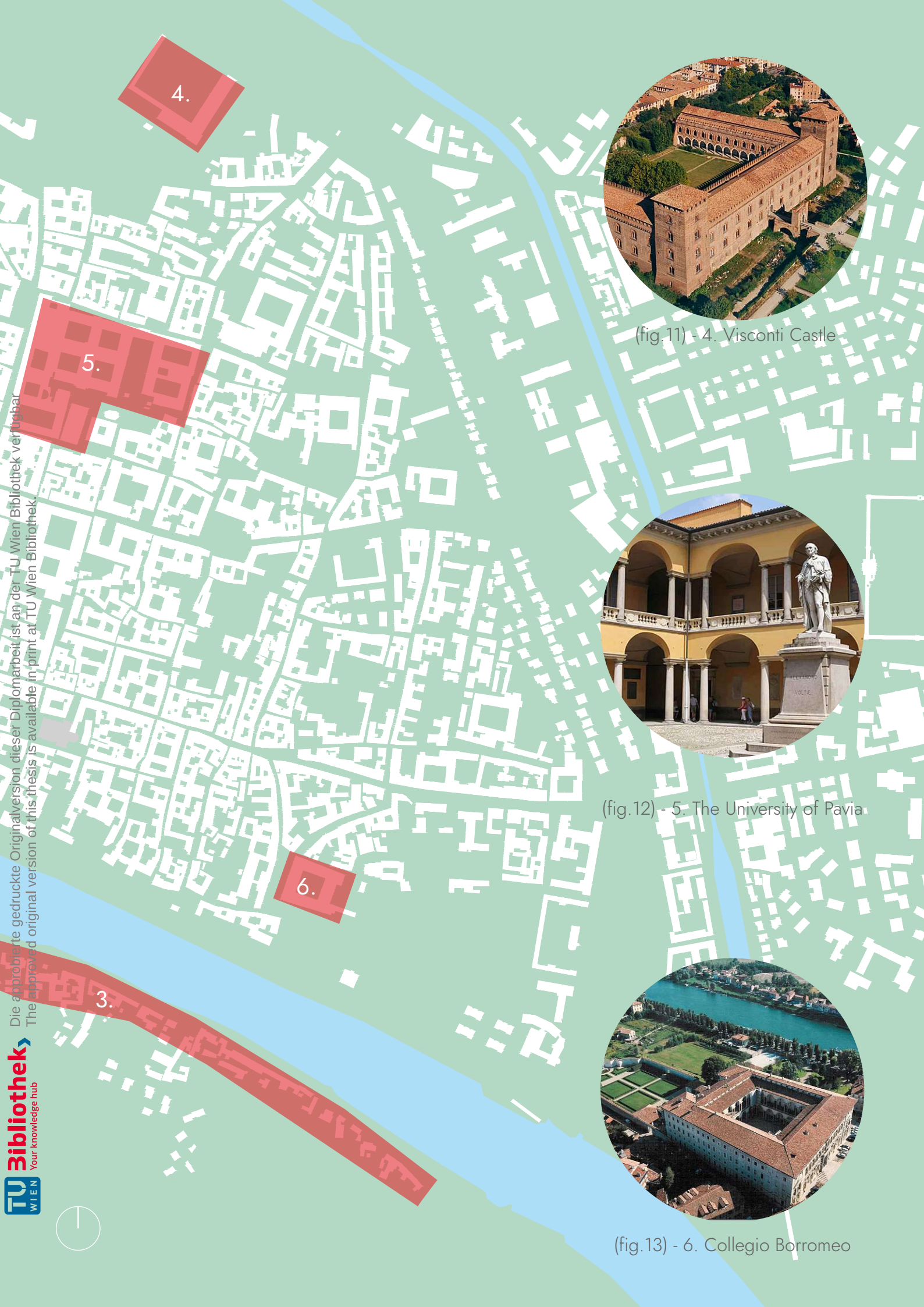
(fig.08) - 1. Cathedral of Pavia

(fig.09) - 2. Ponte Coperto

(fig.10) - 3. Borgo Ticino

1.

2.



(fig.11) - 4. Visconti Castle

(fig.12) - 5. The University of Pavia

(fig.13) - 6. Collegio Borromeo

2.3 Airport On The River

The visionary project for the Idroscalo of Pavia was designed by the young Italian architect Giuseppe Pagano, who had just graduated from the Polytechnic of Turin in 1924.

The large hydroplane hangar, strategically overlooking a bend in the Ticino river, was planned for a very specific location, two steps away from the confluence where the Blue River meets the Naviglio (artificial canal built in the Napoleonic period between Pavia and Milan).

The Italian Air Service Society (SISA), promoter responsible for the construction of the work, included it within an ambitious infrastructure plan aimed at consolidating a proper network of "aquatic" airports throughout the country.
Specifically, Pagano's building was designed to complete the connection route between Turin-Pavia-Venice-Trieste.

The project is framed in a period of great development for the aeronautics sector, both in the civil and military spheres. The grand opening of 1926, presided over by Mussolini himself, can be interpreted as proof of the logistical importance attributed at the time to this innovative river airport.

Following a first phase of great prosperity, with the arrival of the mid-thirties the air transport activities of SISA went into crisis, giving rise to a slow and inexorable decline that led to the decommissioning of the building.

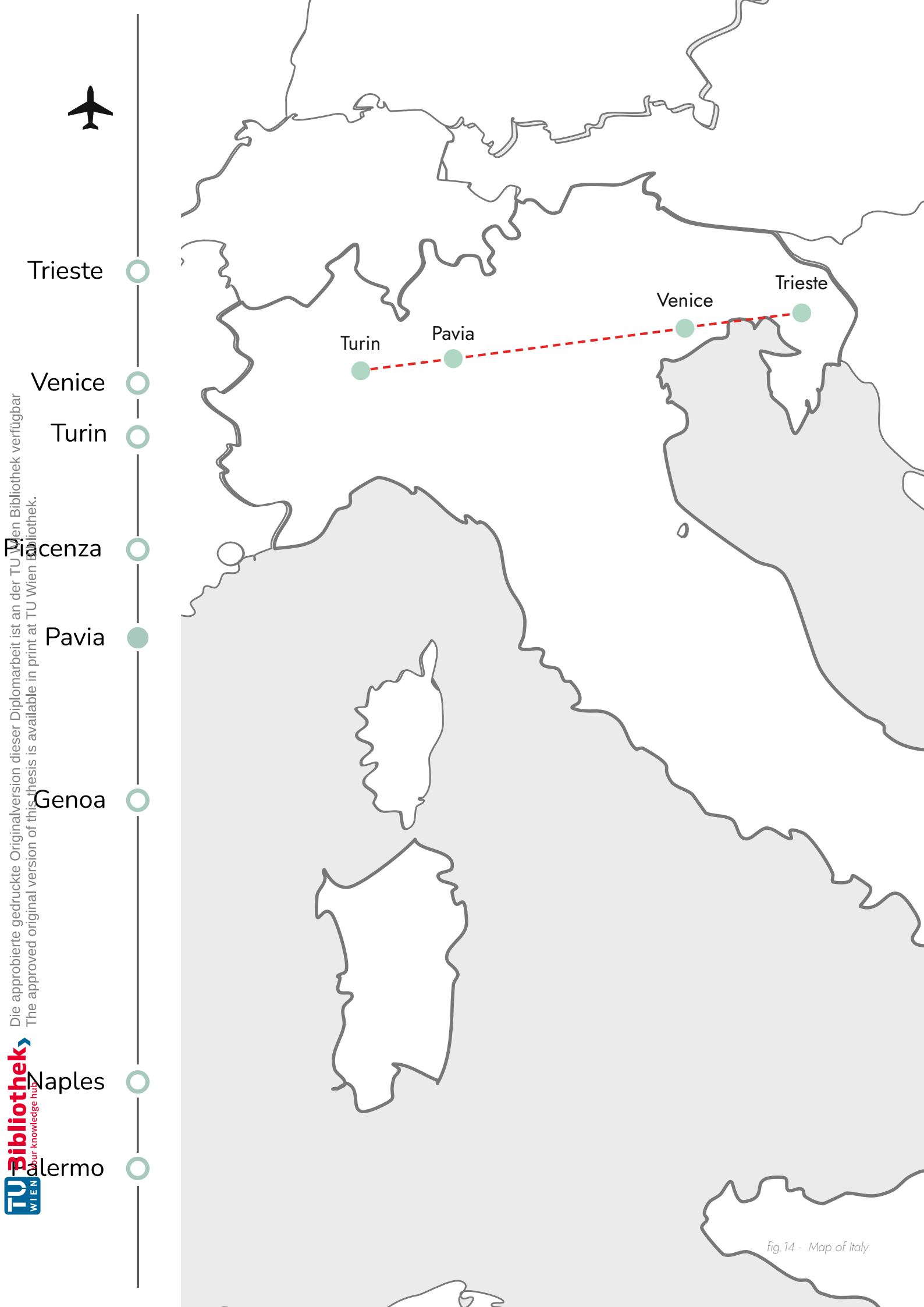


fig.14 - Map of Italy

fig.15 - The Idroscalo 1934

2.4 The Ruin

Besieged on several fronts by dense spontaneous arboreal vegetation, today the Idroscalo presents itself as a sort of enchanted ruin.

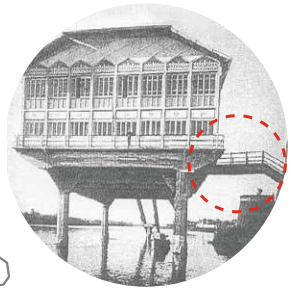
The massive concrete pillars that keep it anchored to the ground disappear devoured by the greenery, giving the clear impression that the building is literally levitating on the water. More than a hydroplanes' station from the early 1900s, there is the perception that the hangar seems like a sort of strange alien spaceship that landed there by mistake, damaged and unable to leave.

However, the scenic location on the river, the panoramic view of Bargo Ticino and the proximity to the historical centre, would suggest one of the liveliest and most popular places for the local community. Curiously this is not the case, and for reasons that are difficult to understand, over time the city has gradually turned its back on it, even forgetting its own existence.

Nevertheless, it is clear to everyone that its survival hangs by a thread. The deterioration of the façades and the roof are becoming more critical every year, and the point of no return seems ever closer.

fig.16 - The Idroscalo surrounded by vegetation

1. The old destroyed walkaway (fig.17)

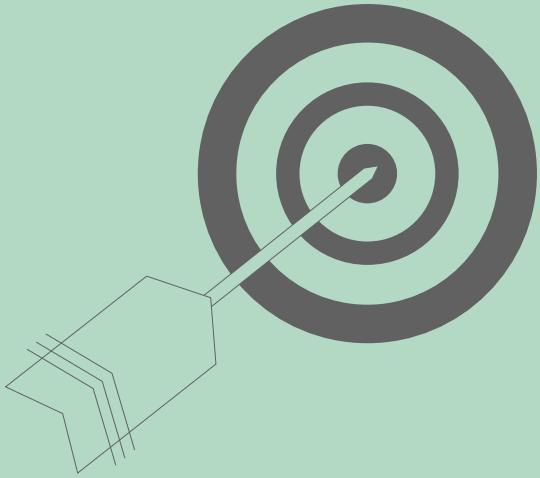


2. Ramp no longer under water (fig.18)

fig.19 - Location graphic

Abandoned to itself, mutilated and orphan of the only walkway that once connected it to the mainland, the Idroscalo still stands firm in all its monumentality as a sort of a guardian of the river.

fig.20 - Walkaway to street destroyed



3. OBJECTIVES

3. OBJECTIVES

The close proximity to the historical and cultural centre and the scenic surrounding along with the Ticino river, make this site location perfect for a cultural and community hub.

Since Pavian people have long forgotten this valuable building and it's memory no longer lives in the minds of the newer generations, bringing it back to it's people with new values is very much in the interest of this project.

The objective is to provide a multicultural place where people could socialize and be exposed to Pavia's traditions, food and wine excellences, a place where ideas would be exchanged, young talents would be discovered...

My idea considers bringing people of Pavia and surroundings together, to be exposed to various cultural happenings, and eventually, turn visiting this place into a habit.

The concept focuses on creating multiple corners with various activities that will appeal to the younger generations premaritally, but also attract people from all ages.

Habitants of Pavia will have their own little spot which will allow them to meet people with similar interests, and the chance to create together, play together, have coffee together, listen to and play music together, visit exhibitions, practice yoga, watch movie/games, or even just enjoy the river that flows through their city, while being surrounded by the lush vegetation embracing the building itself. Further on, this place could have a potential to become the new famous birthday celebration spot in Pavia, living in the memories of Pavia's inhabitants, a place for gatherings and events, both, private

and business.

Lot of artists can be attracted to this centre to present their art achievements. Exhibitions, music events, theatre, outdoor cinema, DJ nights, seminars, presentations, literature readings - all activities can be easily arranged in this multi-purpose designed space.

Special accent is devoted to Pavia's kitchen. People can taste all kinds of food specialties and variety of locally produced wine. This way, the building could potentially become a "must see" tourist attraction.

Simultaneously, this thesis presents an attempt to accomplish a unity between the old and the new, much like the original architect.

On one hand the "old" has a historical value and it lives in the memories of the masses, which are worth preserving. On the other hand, however, I believe that there is also value in letting things go, letting time pursue its purpose rather than fight it, because eventually it will catch up with us regardless.

Torn between the two, I took it as a challenge to see if I could find a way to translate these values into a tangible object, such as a building and create a unity between the "old" and the "new" that will slowly fade in time.

4. METHODOLOGY

4.1 Concept And Form Development

Although the old roof of the Idroscalo protected the hydroplanes from the weather conditions, today, together with the windows, is the most urgently deteriorating element of the building, requiring a total removal and reconstruction. Further on, it being a solid element, it creates a barrier that breaks the connection with the outside, isolating the interior of the building from the scenic surroundings. Although this didn't play a big role at the time of the preliminary design of the building because of its intended purpose, now it becomes one of the main focuses of the new design, since it's new purpose is to invite the people of Pavia in.

To achieve the connection of the surrounding with the building, the form finding process starts by following the rhythm of the existing façades and removing modules of volume in order to let the sunlight in, as well as allow views of the famous Borgo Ticino across the river. In order to maximize the experience and let the entire environment enter the building itself, the concept boldly leaves it exposed, without reconstruction of the roof.

As a community centre, the aspect of being an entertainment spot that would draw those who are walking by inside, welcome them and bring them together to engage in various fun activities is also a very important step that is considered in the form finding process. This, together with the intention of carefully treating and respecting the old, existing façades, which are the only element seen from the street nearby, presents yet another challenge. On one hand, the façades carry historical value, however on the other, they deviate from expressing the young and fun character of the newly intended functionality of the building.

In the beginning of the process of design, a couple of variations were considered as a potential solution. They all share the initial indention of following the rhythm of the existing construction, avoiding the reconstruction of a typical roof element, aiming to welcome the surroundings, as well as the location of the entrances.

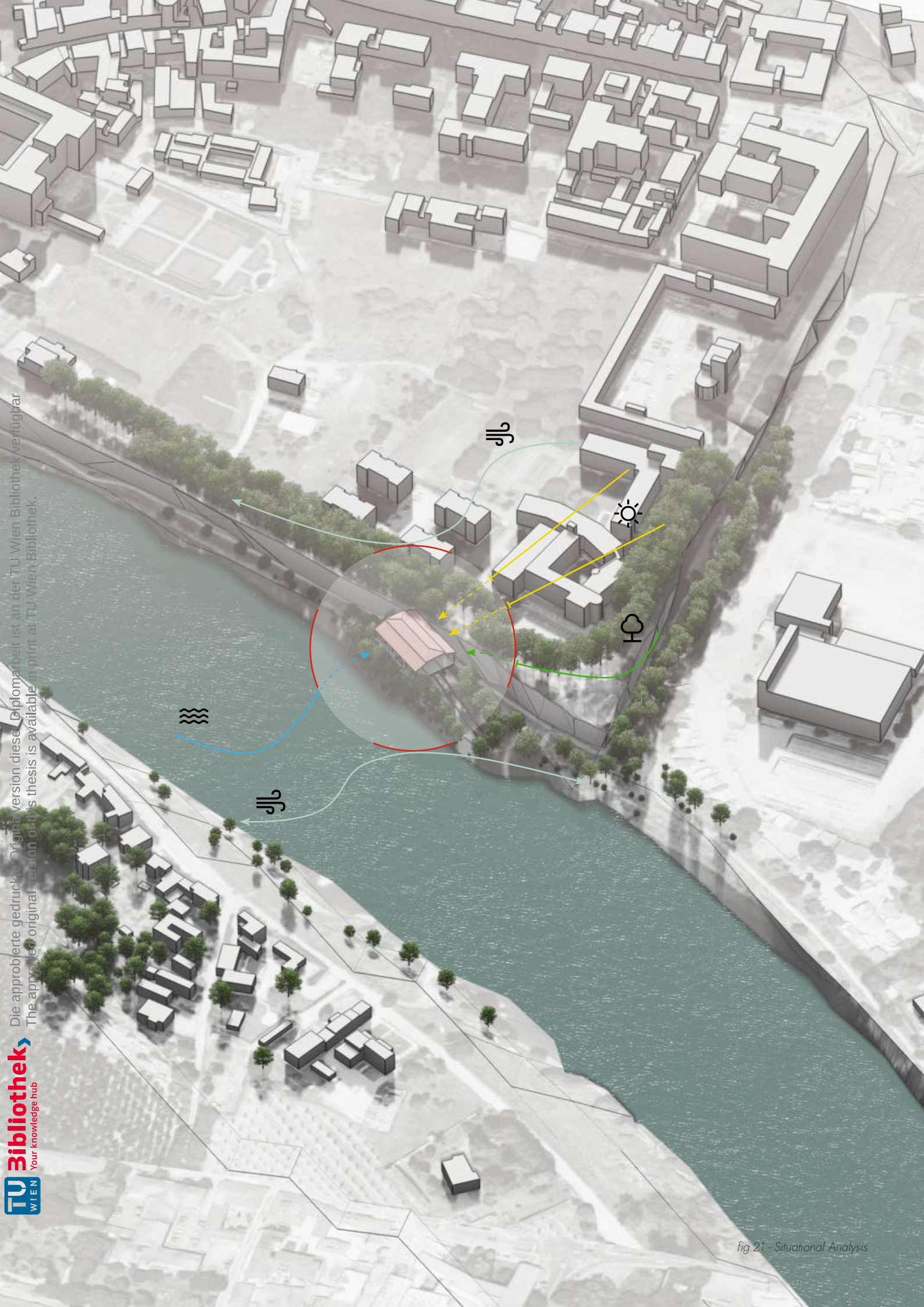


fig.21 - Situational Analysis

OPTION 01

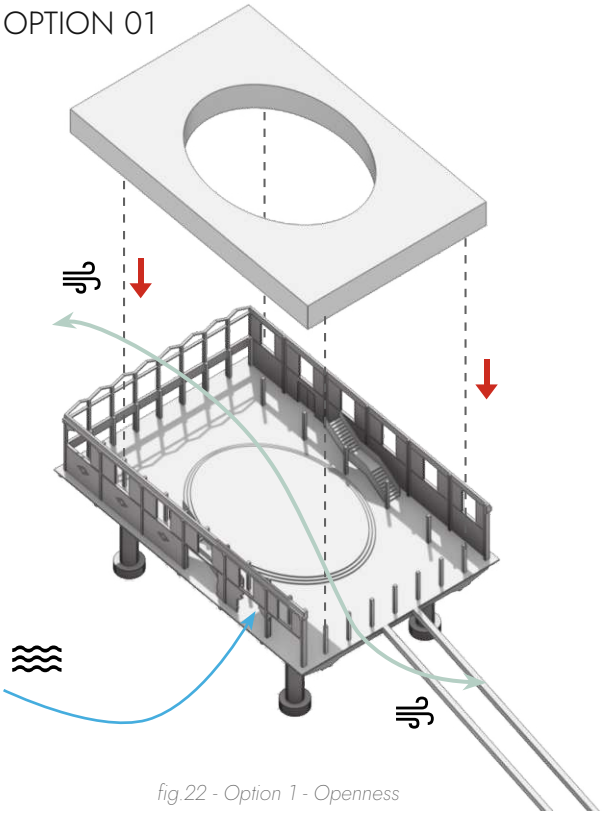


fig.22 - Option 1 - Openness

The process of creating the first variation began by simply leaving the entire ground floor open in order to continue the connection to the surroundings.

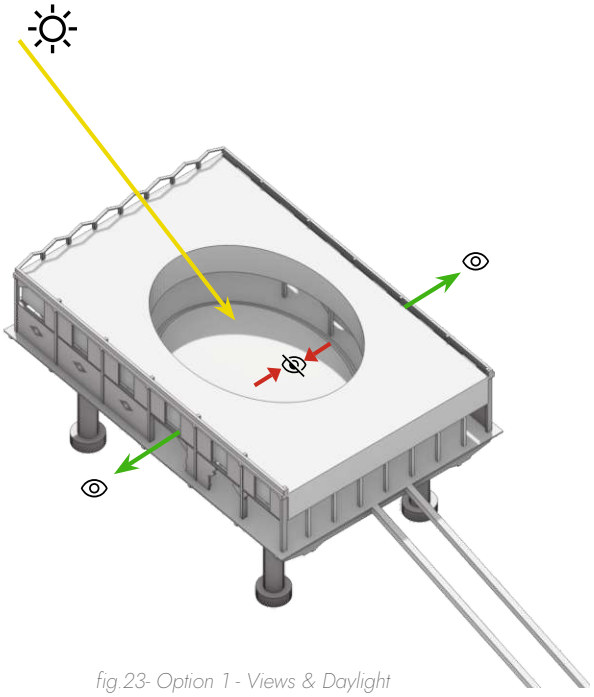


fig.23- Option 1 - Views & Daylight

By removing an elliptically shaped volume in the middle of the first floor, an opportunity for sunlight to enter the building is created, exposing the interior to light.

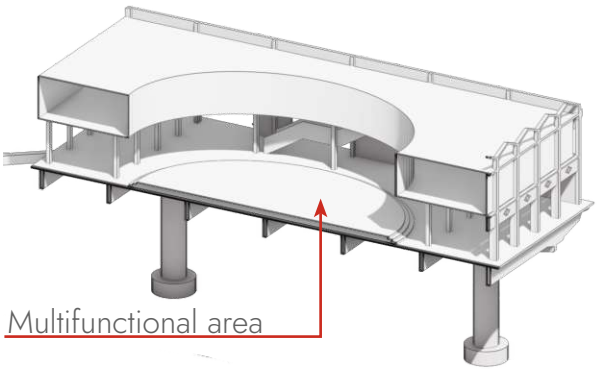


fig.24 - Option 1 - Axo

Compared to the ground floor, the upper floor does not fully achieve the goal of complete connection to the outside but rather focuses inwards. This creates a great opportunity for a multifunctional area in the middle of the building.

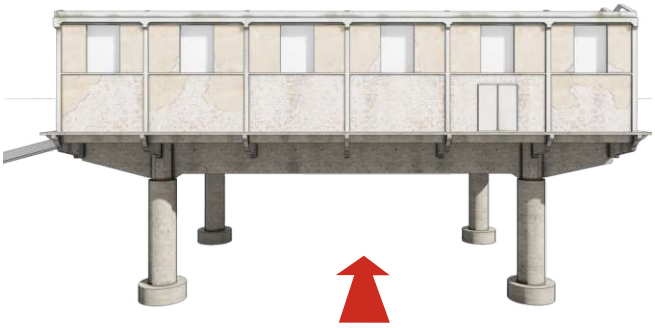


fig.25 - Option 1 - View from street

Although this approach is respectful towards the existing façades and unobtrusive, the "new" character of the building gets swallowed and lost within the "old".

GOALS: Allowing light to enter the building ☺
Following existing construction grid ☺
No complete solid roof enclosure ☺
Extending the connection to outside 😐
Multi-functional area ☺
Indicating "new" while respecting the "old" ☹
Connectivity ☺

OPTION 02

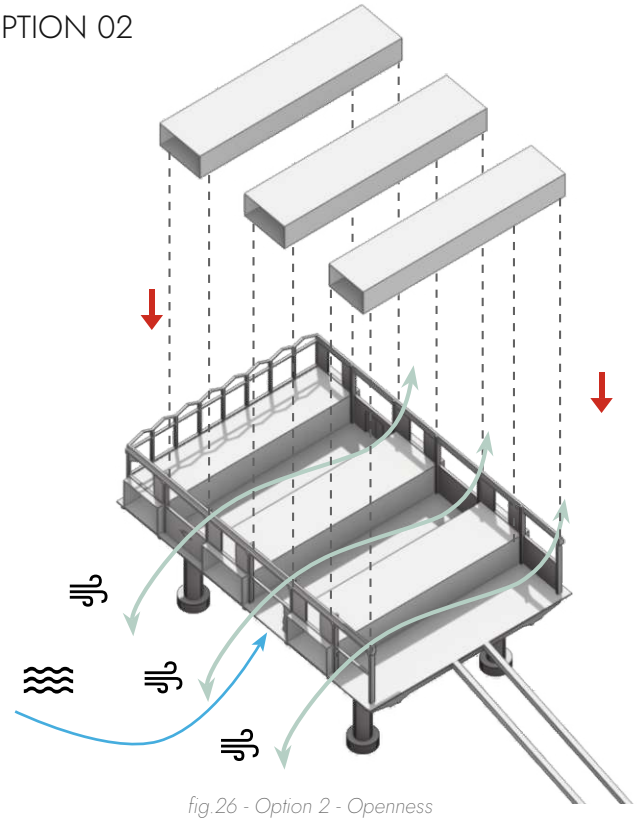


fig.26 - Option 2 - Openness

The process of creating the second variation began by following the existing construction grid, however it removes some of the façades elements in order to create openings.

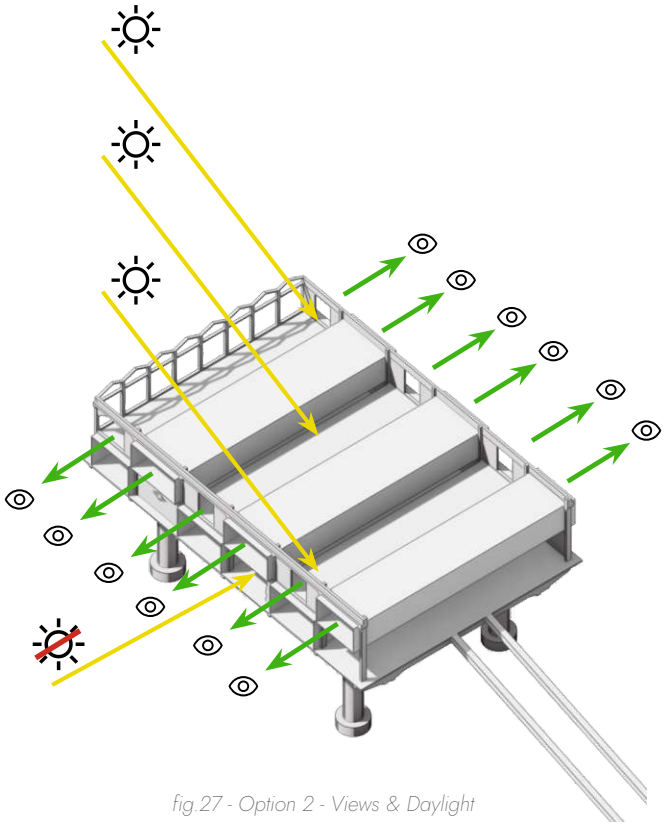


fig.27 - Option 2 - Views & Daylight

By placing a second layer of the rectangular volumes, the building is opened to the surroundings. However light only manages to reach as deep as the roof of the ground floor, leaving the narrow, but deep volumes of the ground floor without sunlight.

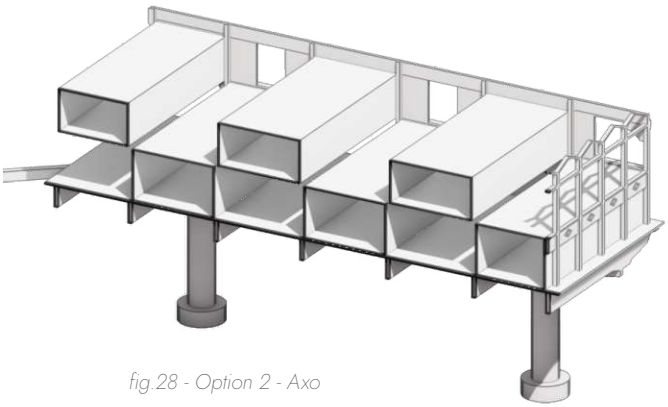


fig.28 - Option 2 - Axo

This option creates volumes of equal floor area, both, opened and closed. However, it does not leave room for a multifunctional area. Additionally, it makes it difficult to create a smooth connection between the areas themselves.

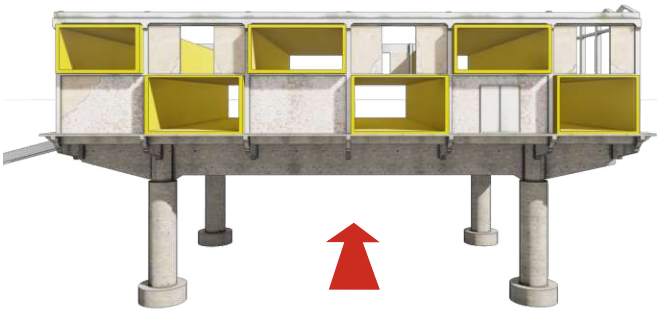


fig.29 - Option 2 - View from street

By removing some of the existing elements of the façades, the new structure dives into the old and it is clearly evident from the street, achieving to indicate that something "new" is happening within, however it is more obtrusive than intended.

GOALS: Allowing light to enter the building
Following existing construction grid
No complete solid roof enclosure
Extending the connection to outside
Multi-functional area
Indicating "new" while respecting the "old"
Connectivity

OPTION 03

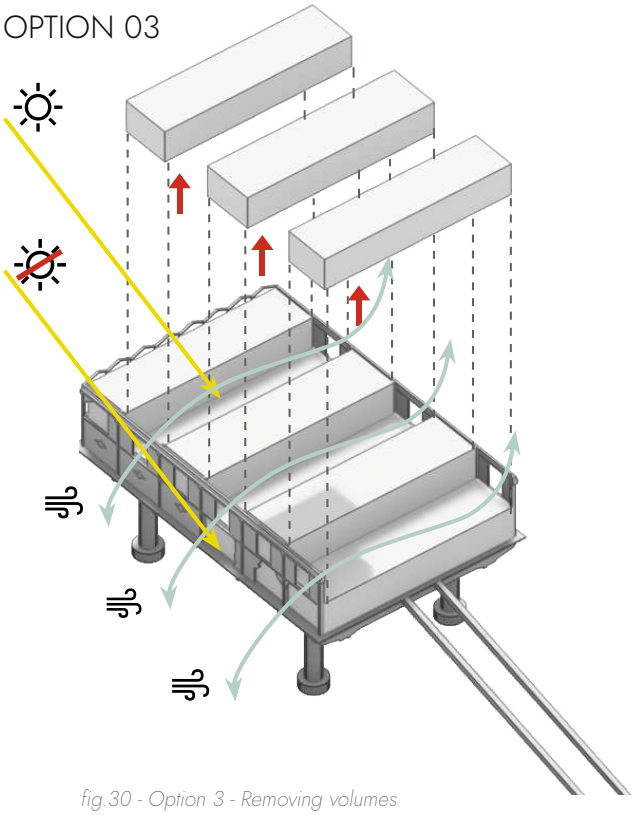


fig.30 - Option 3 - Removing volumes

The third option starts as an extension of the second option. By rhythmic removal of three cubes that spread along the shorter side of the existing ground plane, sunlight can now enter the building, however not to the ground floor.

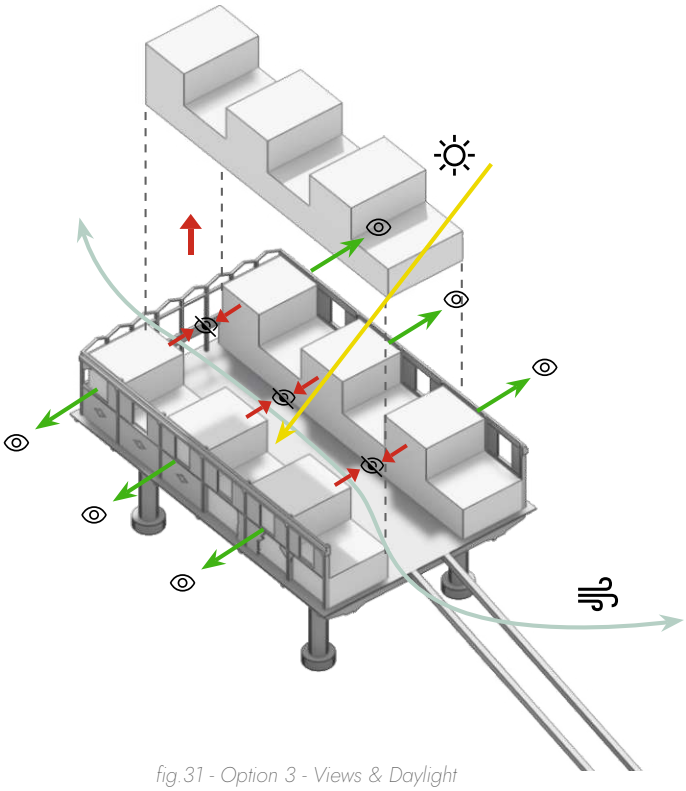


fig.31 - Option 3 - Views & Daylight

By removing the middle part, airflow can now pass through the entire building. Simultaneously this opening represents a perfect opportunity for a multifunctional space, where sunlight can easily reach.

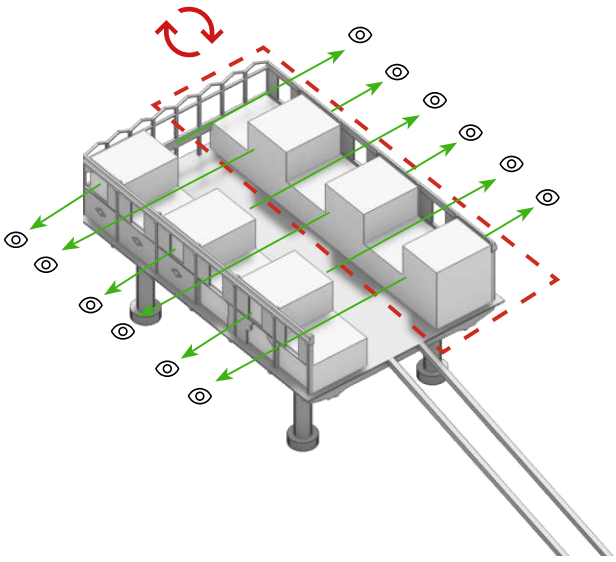


fig.32 - Option 3 - Rotation of the second row of units

By mirroring one row of units, the concept gains a "full-empty" rhythm that allows for each upper unit to be opened to the scenic surrounding allowing visitors to experience the beauty of Pavia.

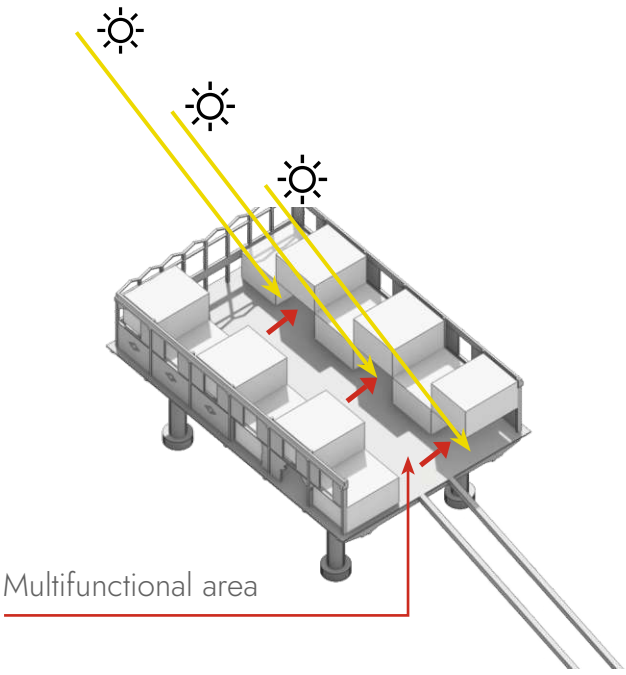


fig.33 - Option 3 - Openness

Finally, by extending the rhythm and removing cubes from the ground floor, the open concept fully envelops the entire building.

OPTION 03

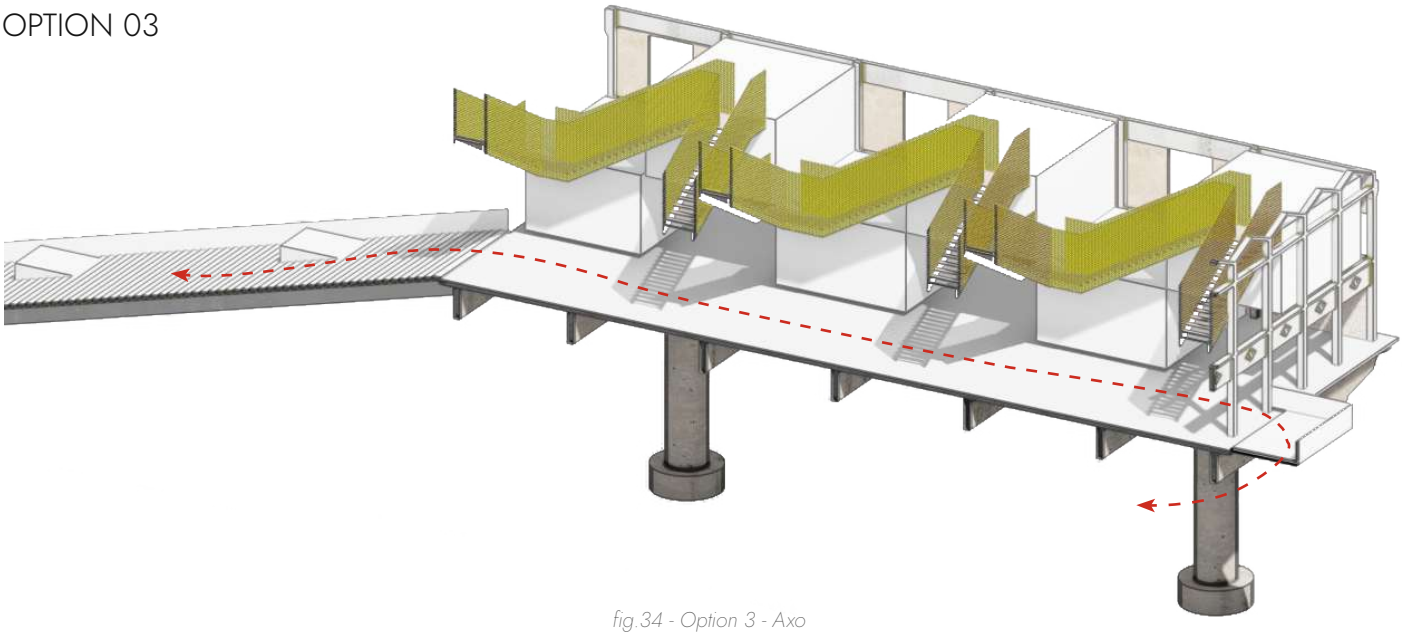


fig.34 - Option 3 - Axo

The multifunctional area is located underneath the stairs. It is directly connected to the main and secondary entrance of the building, creating a continuous movement through the building, creating a feeling as if one is simultaneously inside but also outside, just passing through, much like the hydroplanes once did.

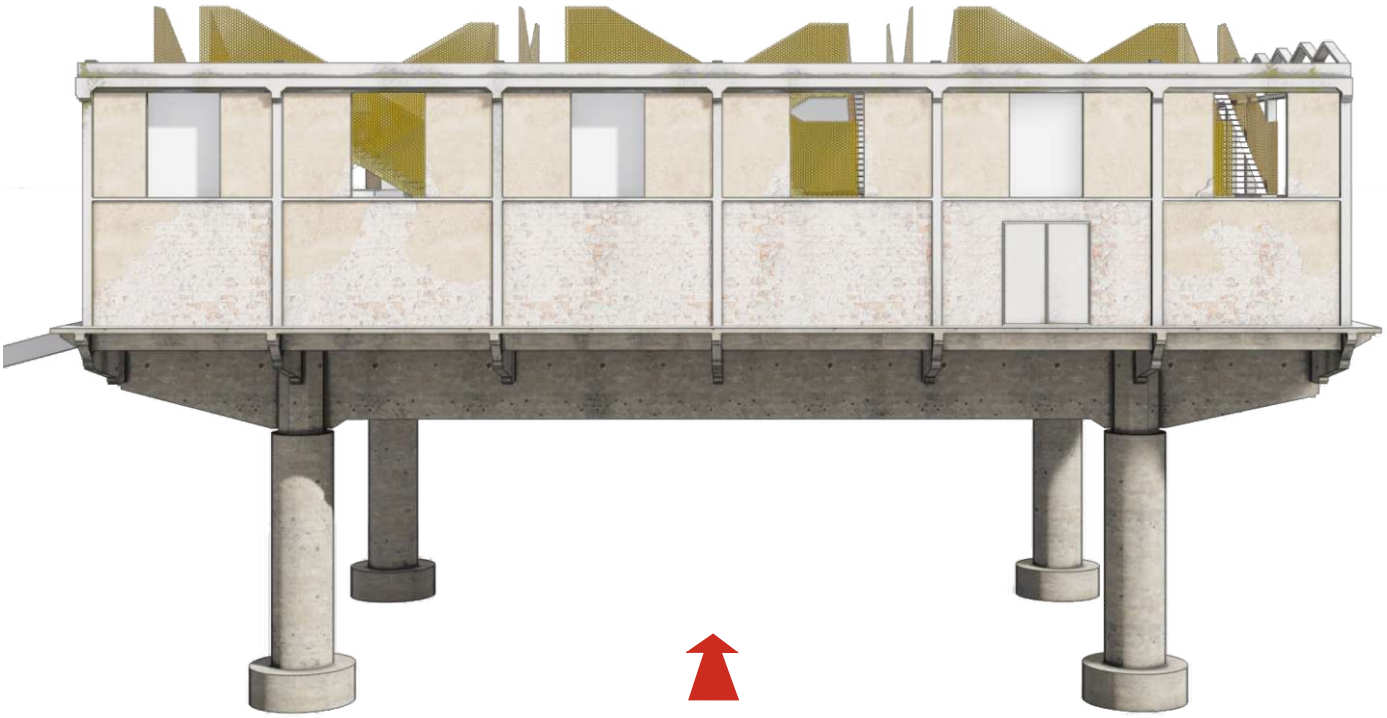


fig.35 - Option 3 - View from street

By adding the staircases in the middle, this option not only answers the connectivity issue of option 2, but also responds better in regard to indicating that something new is happening inside, by ensuring that the fence subtly peeks out of the old façades without making obtrusive modifications.

GOALS: Allowing light to enter the building ☺
Following existing construction grid ☺
No complete solid roof enclosure ☺
Extending the connection to outside ☺
Multi-functional area ☺
Indicating "new" while respecting the "old" ☺
Connectivity ☺

4.2 Inspiration

The inspiration for the boxed units came from Pavia's "boxed" layout that remained since Roman time, the concept treats the free existing plane of the Idroscalo itself as a stage where this concept is implanted. The main focus falls on Corso Strada Nouva street, which splits the historical centre into two.

The units are pushed to the existing façades to create room for a multifunctional area. Additionally, following the rationalist style of the original architect Pagano, the existing grid of the old façades is creating the rhythm for the new units. A second mirrored layer of the units is laid on top to complete the sense of emptiness versus fullness.

fig.36 - Roman's Pavia urban fabric

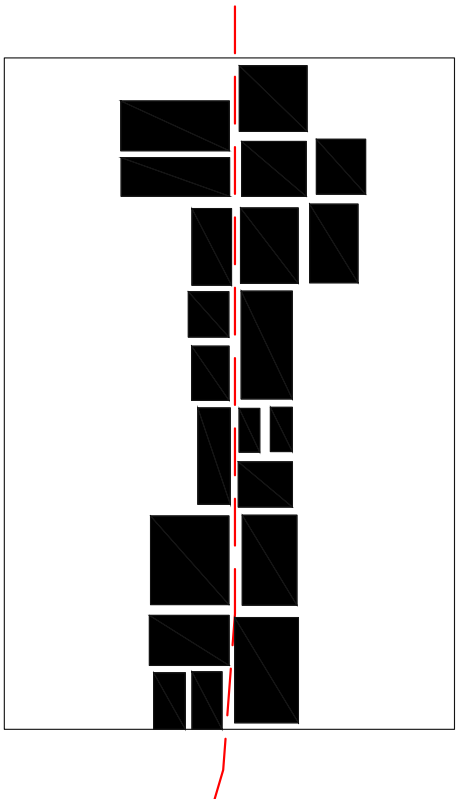


fig.36 - Laying Pavia's urban fabric over the plane of the Idroscalo

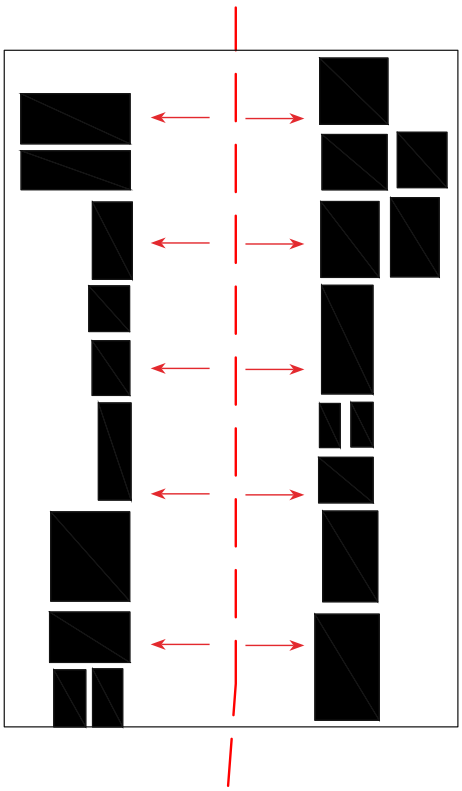


fig.37 - Pushing the boxes to the sides of the plane

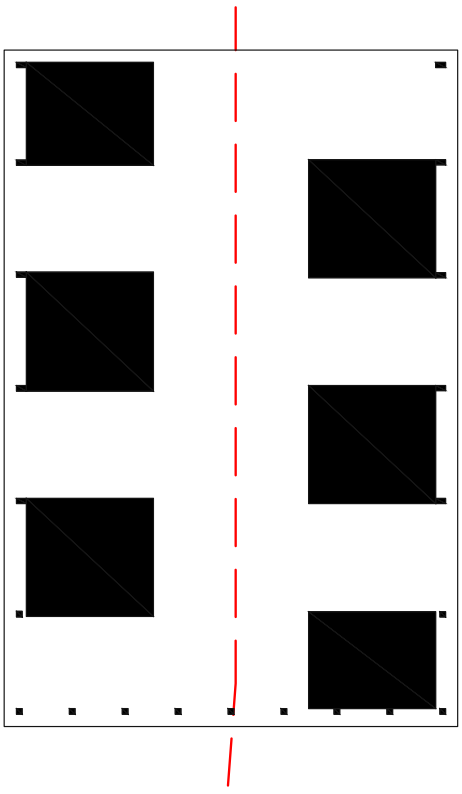


fig.38 - Deployment of the units over the existing grid

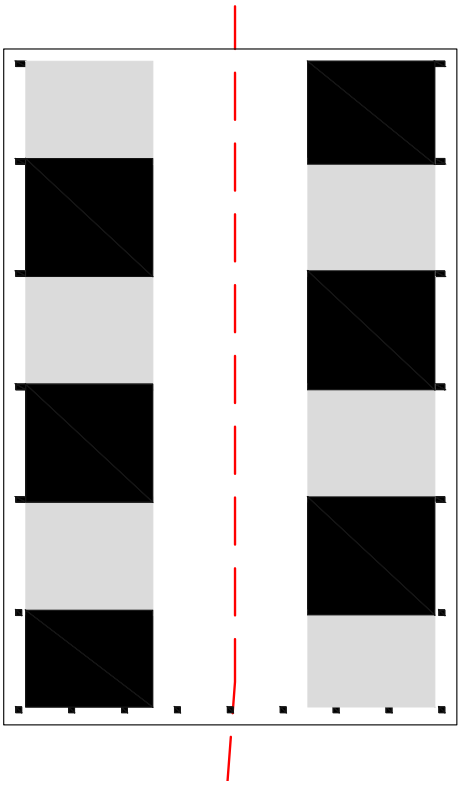


fig.39 - Adding second layer of units on top

4.3 Intervention

The intervention of the concept begins by removal of the architectural elements that are in a worst decaying condition: the roof and the windows. The façades are preserved in their existing condition, left to it's own decaying, allowing time to simultaneously claim it's victim and reveal the "new" from the remains.

The old hydroplane ramp is used as a secondary entrance and serves as a connection between the Idroscalo and Ticino River and it's surroundings.

The units are then placed along the facade lines, making room for a multifunctional area in between.

Four-directional staircases complete the design by allowing interconnectivity between the units.

Finally, a walkway is added to bring the Idroscalo back into life by connecting it with the rest of Pavia.

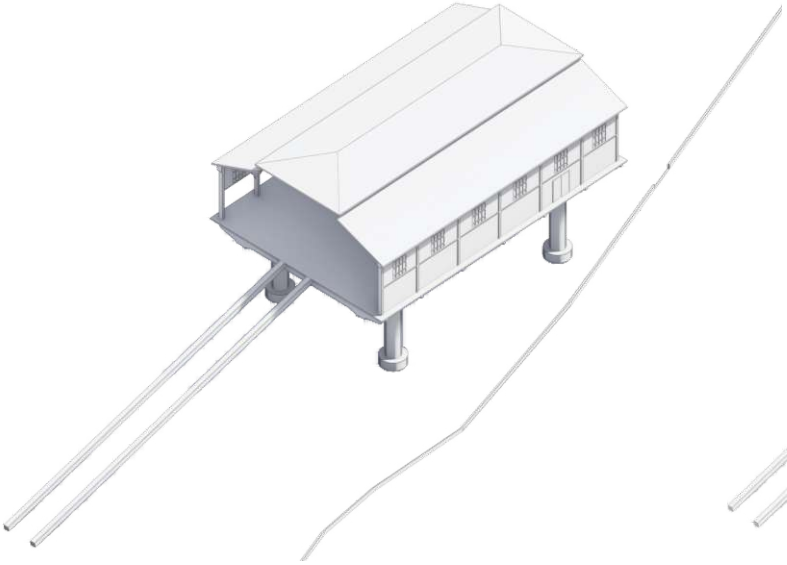


fig.40 - Existing condition

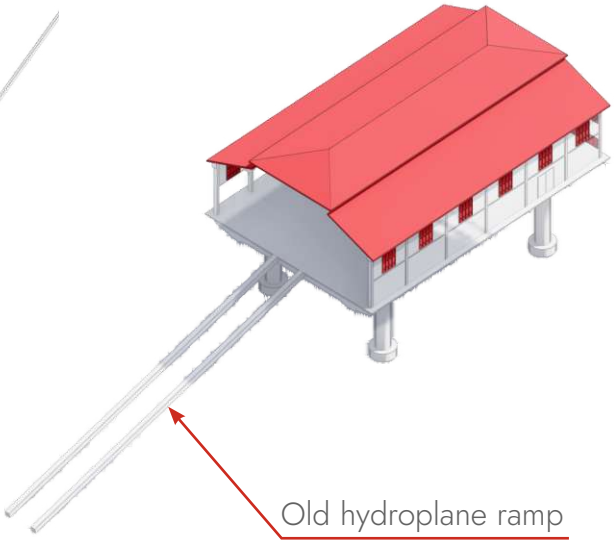


fig.41 - Removing the roof & windows

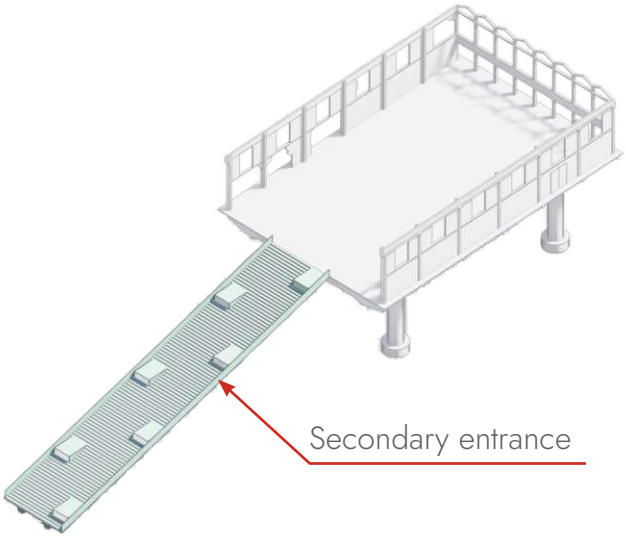


fig.42 - Adding the secondary entrance over the old ramp

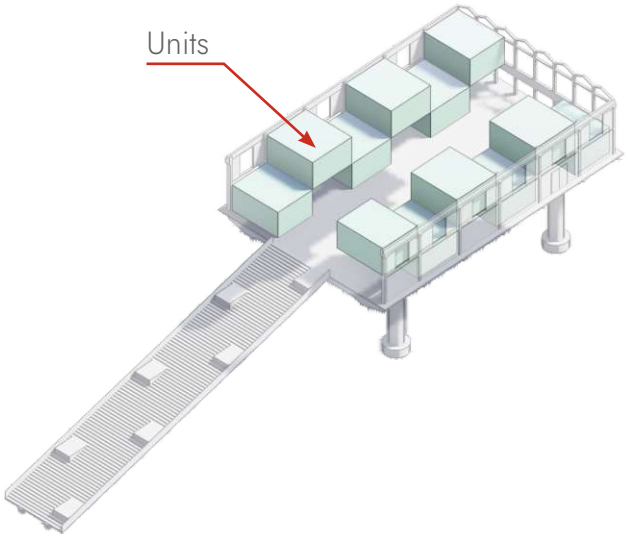


fig.43 - Adding the units

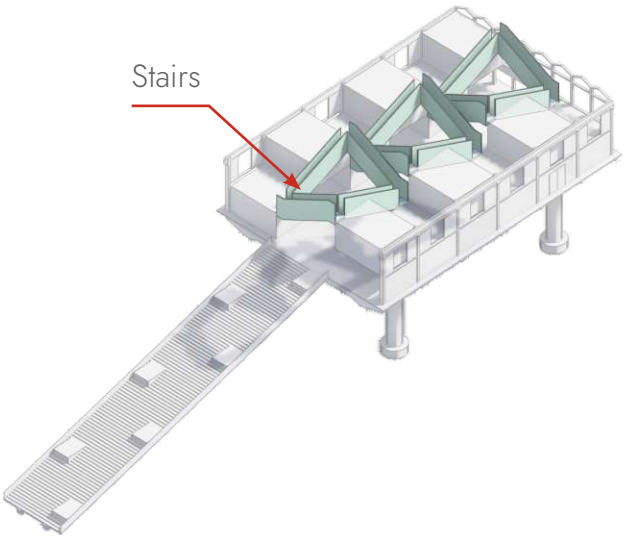


fig.44 - Adding the stairs

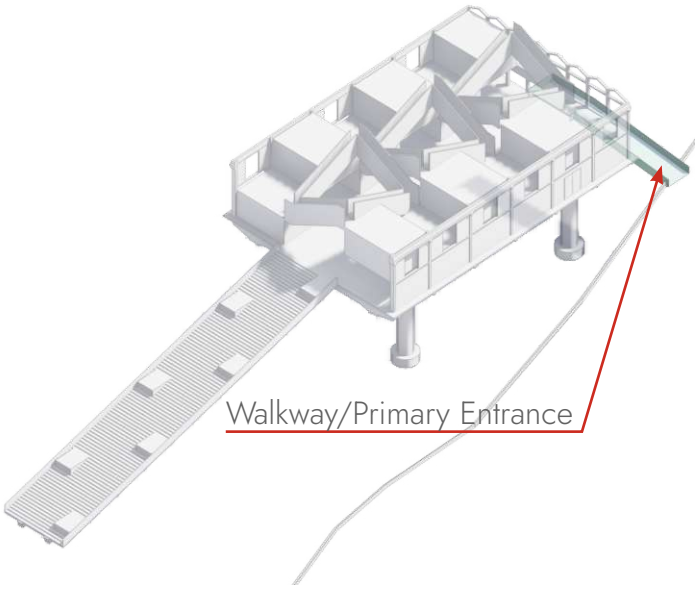


fig.45 - Connecting the Idroscalo to the street

4.4 Time

Because of their historical value, tearing down old and decaying buildings is always a delicate matter. Many of these buildings live in the memories of countless people, and the Idroscalo is no different.

From one side, one could argue that these emotional attachments to memories and the past hold priceless worth today. Because of this, a symbiosis between the old and the new is a common practice in today's architecture.

However, time is the only constant that will not stop pursuing its singular goal: to replace the old with the new. Therefore, rather than fight it, I believe there is worth in accepting it.

This conflict led me to look for an alternative approach that respects the meaning of the old, but also lets time do what is meant to do without interruption.

0 Today

fig.46 - Idroscalo today

5 years

fig.47 - Idroscalo in 5 years

10 years

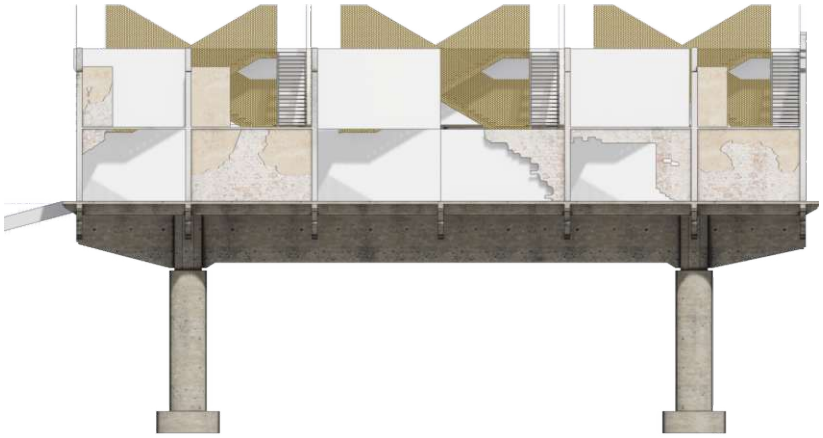


fig.48 - Idroscalo in 10 years

15 years

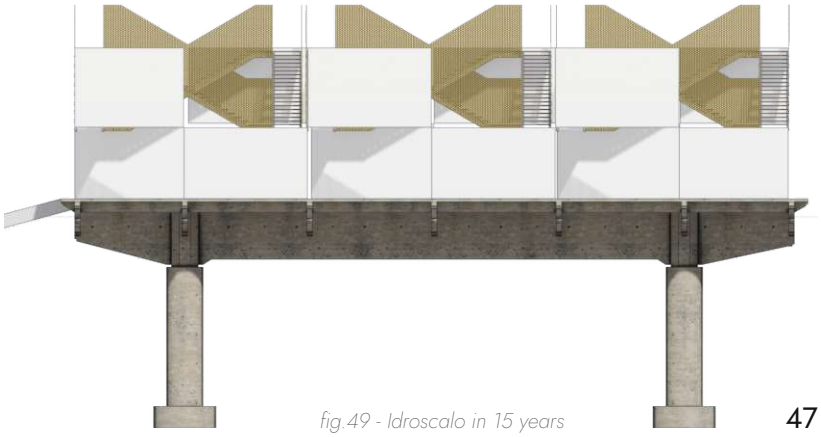


fig.49 - Idroscalo in 15 years

4.5 Connectivity

Considering the limited size of the existing floor plane, and the resulting shape from the form-finding process, a new challenge presented itself: how to connect all these units in a way that it would not disturb the "openness" and flow, and at the same time, avoid taking any additional space from the multifunctional area, in other words, to achieve connectivity without taking the space required for the linking elements.

Of course, the simplest way to bridge over from one row of units to the other, it is with a bridge. However, the form also changes elevations by adding the upper floor, creating additional disadvantages to this solution. Therefore, this approach was rejected.

Instead of bridges, the final solution uses vertical communications as a linking element. This way, we are taking advantage of the mirrored second row and using it as the elevation change tool.

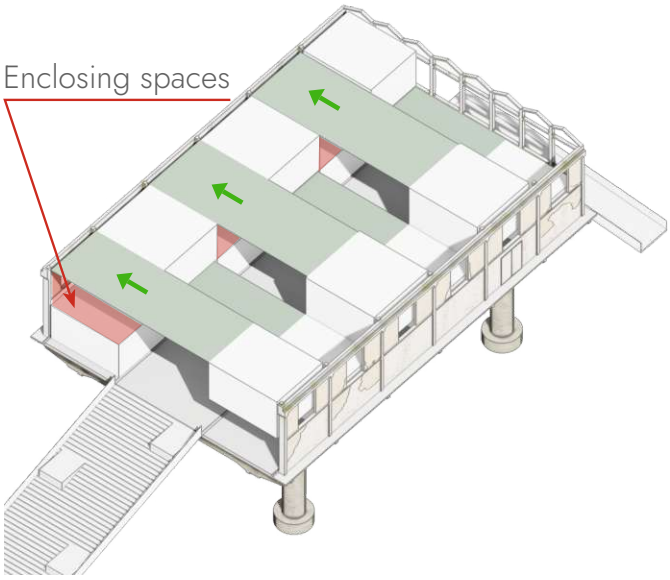


fig.50 - Analysis of bridge use 01

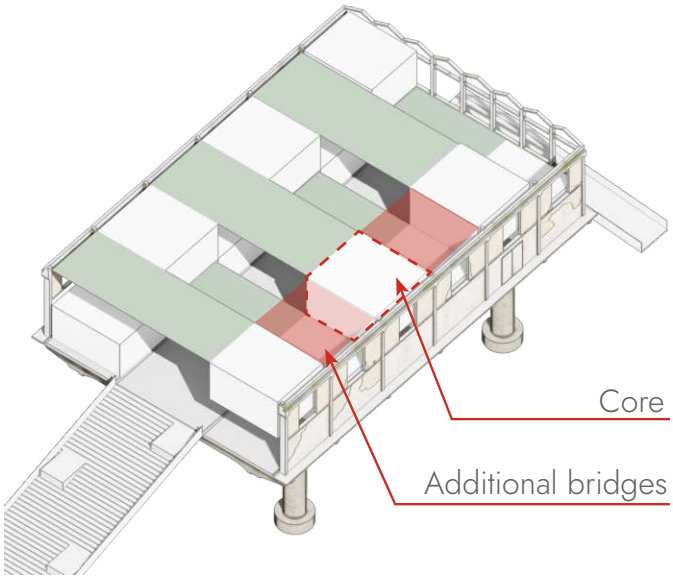


fig.51 - Analysis of bridge use 02

To connect the two rows of units, a bridge that spreads from one side to the other, seems like the simplest solution. However, since the rows are mirrored, the bridges on the upper floors would have to extend over the ground floor of the opposite sides, covering the spaces and breaking the initial intend of "openness".

Another problem with this solution would be the level change. Since we are using the middle space only to bridge over, at least two units need to be sacrificed in order to be used as cores, one on each floor. Now, one row is well connected, but the one with the core would still need two additional bridges in order to complete the connectivity.

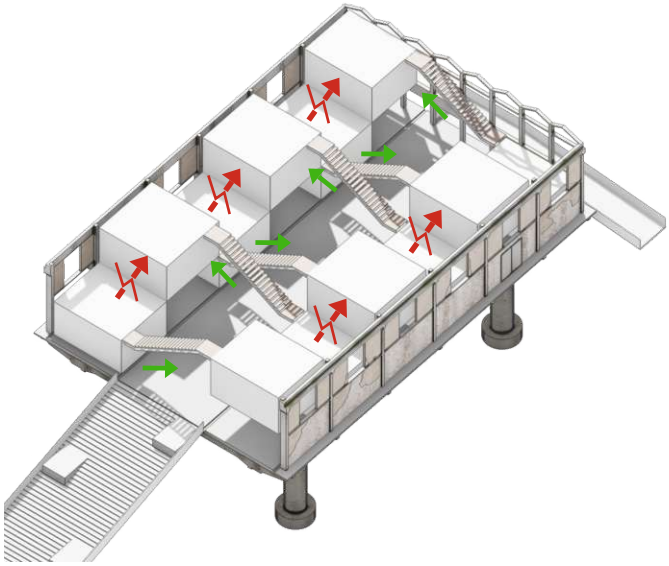


fig.52 - Analysis of stair use 01

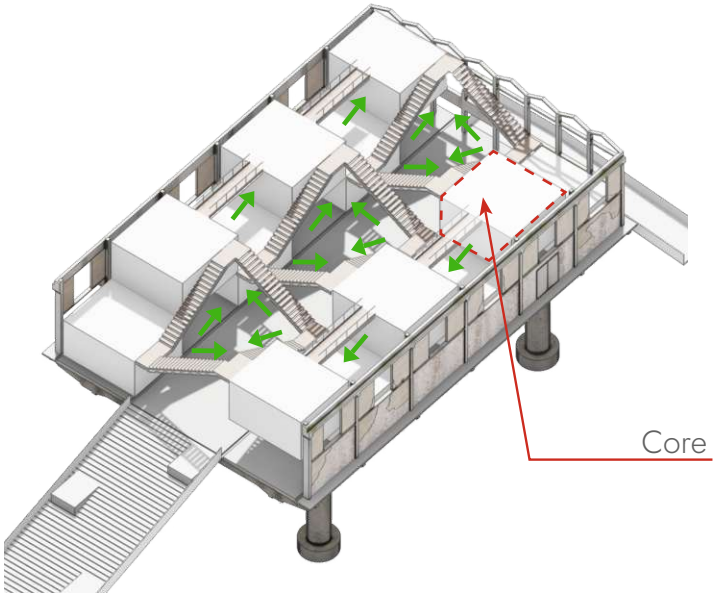


fig.53 - Analysis of stair use 02

The other approach of creating a smooth transition, is by using vertical communications. Staircases are placed between the two rows of units, above the multifunctional area. This way the level change problem between the rows is solved, however, the connection gets disrupted within the rows themselves.

By adding another set of stairs glued to the units themselves, we create a complete connectivity between the ground floor, upper floor and all the units. Near the main entrance, a core is placed that takes us up, where the entire building now functions as one. To connect the open spaces of the upper floors, narrow bridges are laid in between so that they are not too obtrusive.

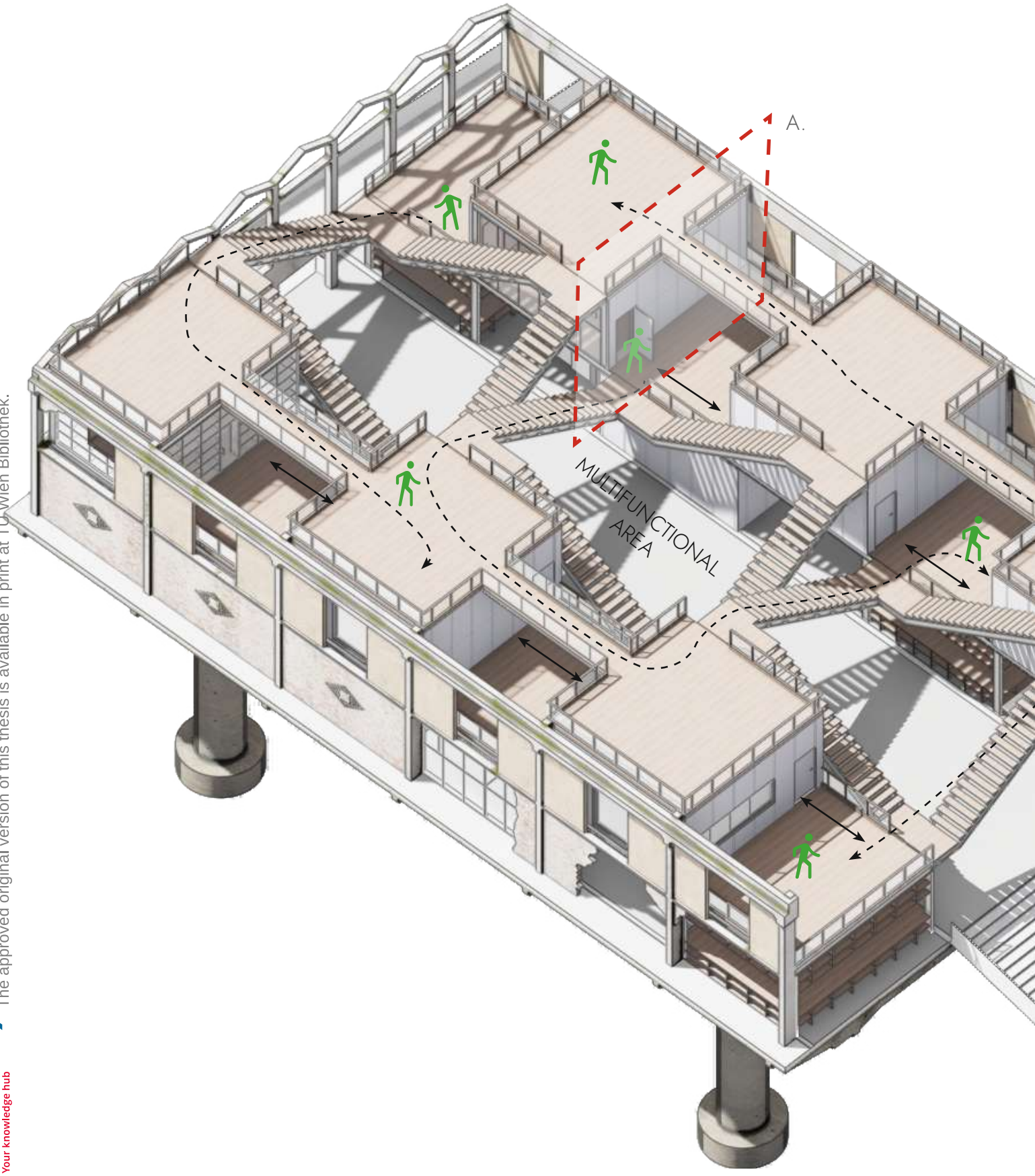


fig.54 - Analysis of movement

A.

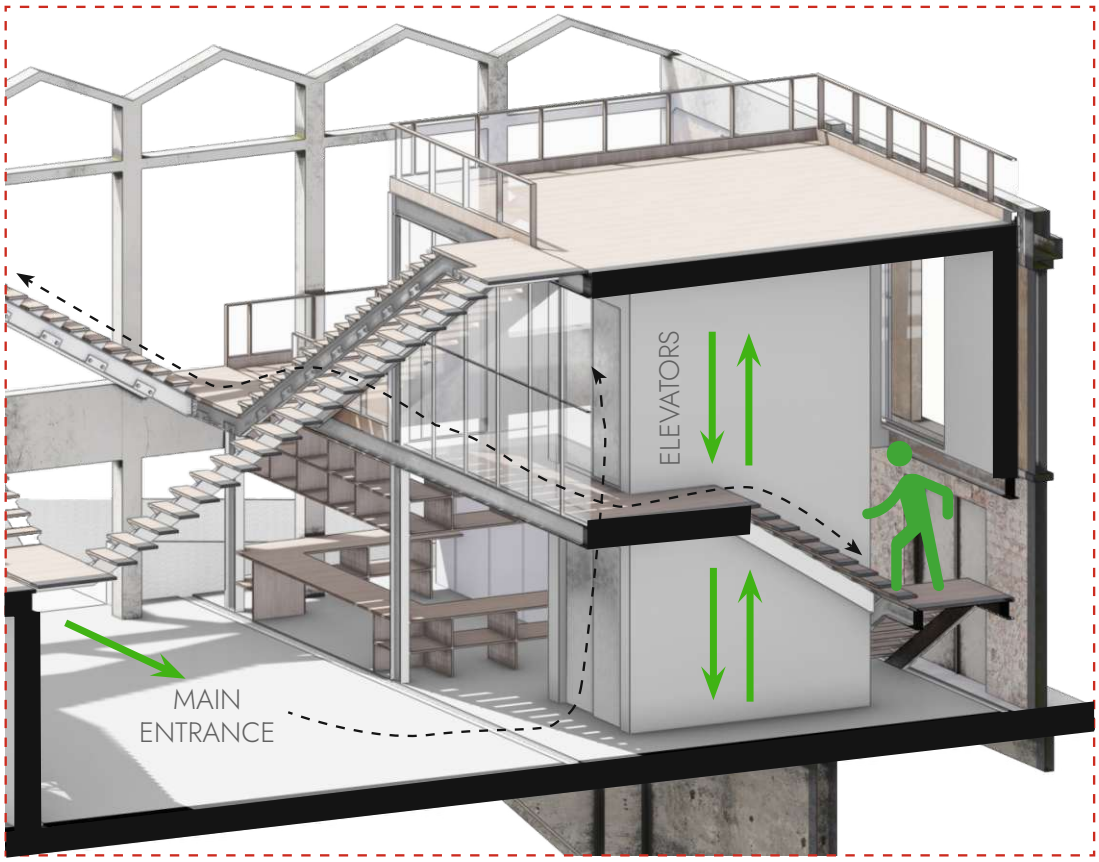
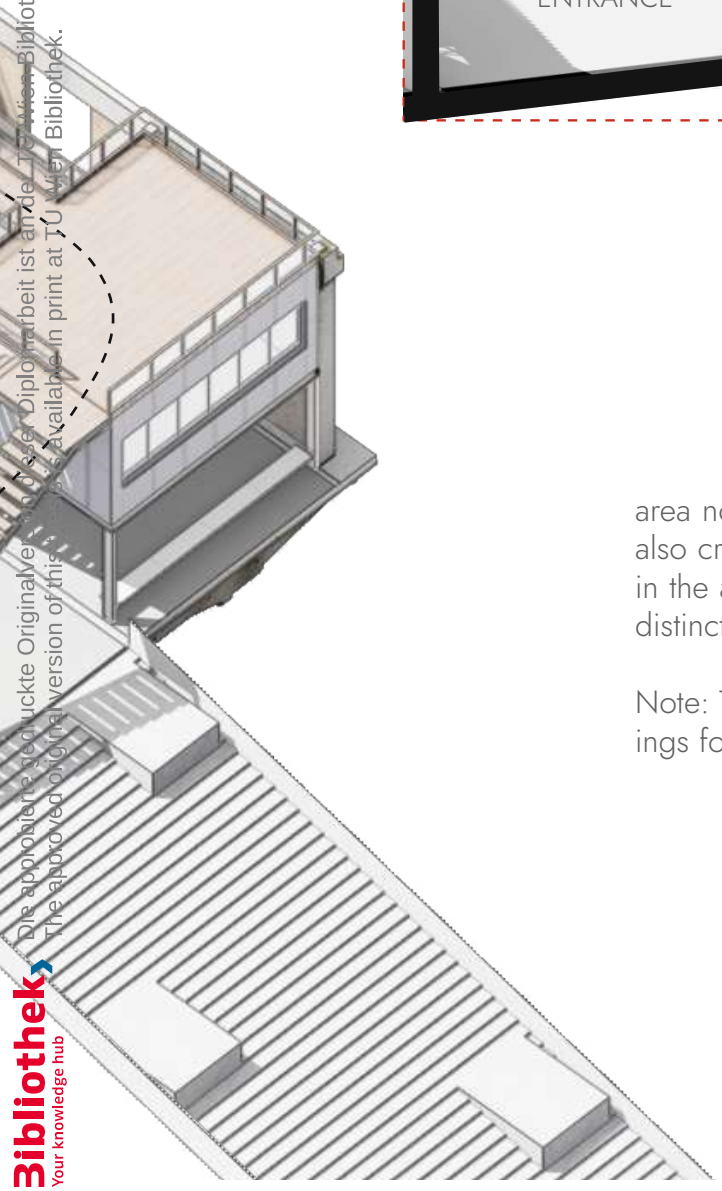


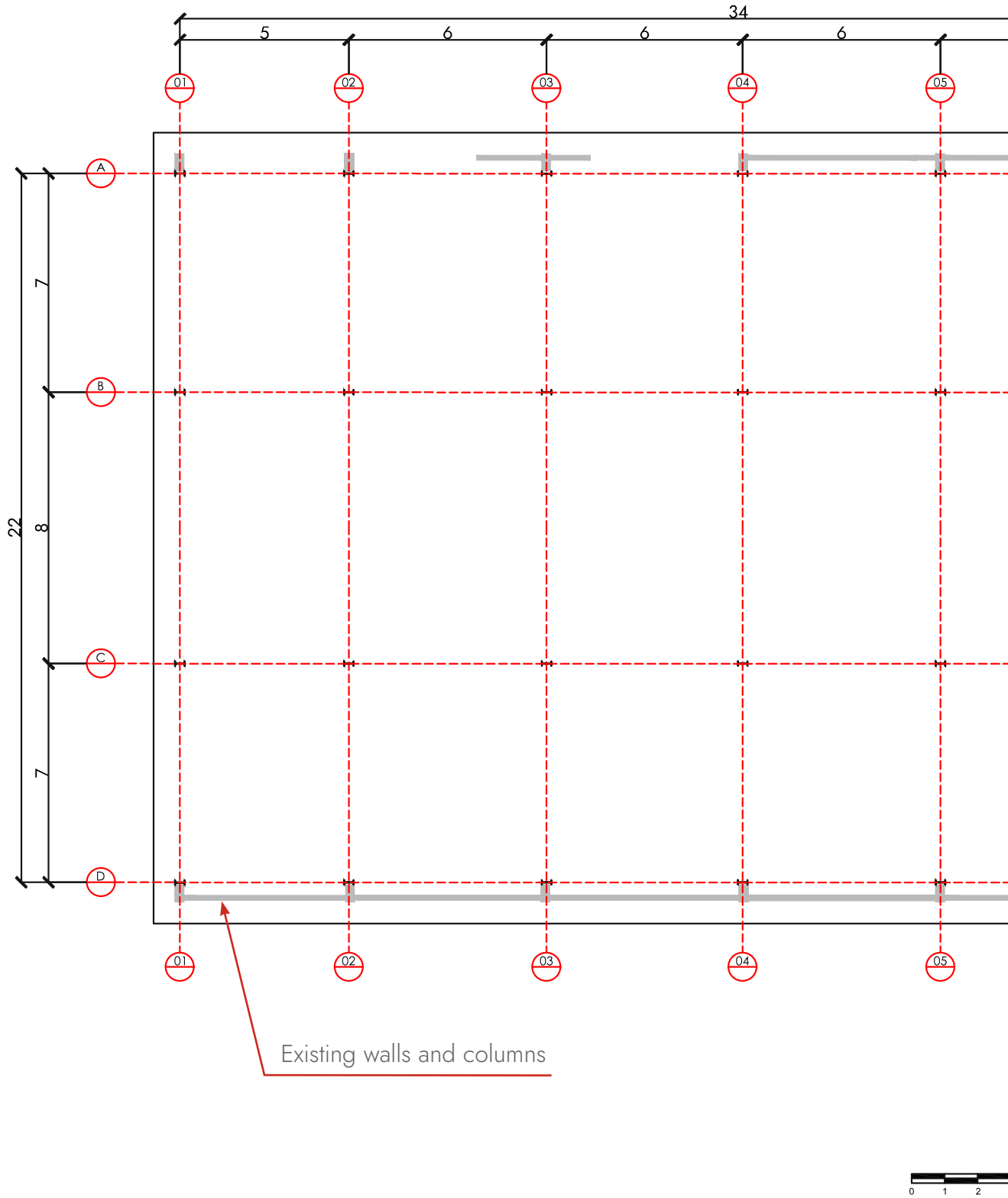
fig.55 - Vertical communications analysis



Placing the stairs above the multifunctional area not only is economical in regards to space, but also creates a great opportunity for floating the stairs in the air like a sculpture and have them become the distinctive feature of the new Idroscalo.

Note: The fence of the stairs is removed on the drawings for the purpose of clarity.

4.6.1 Construction Grid



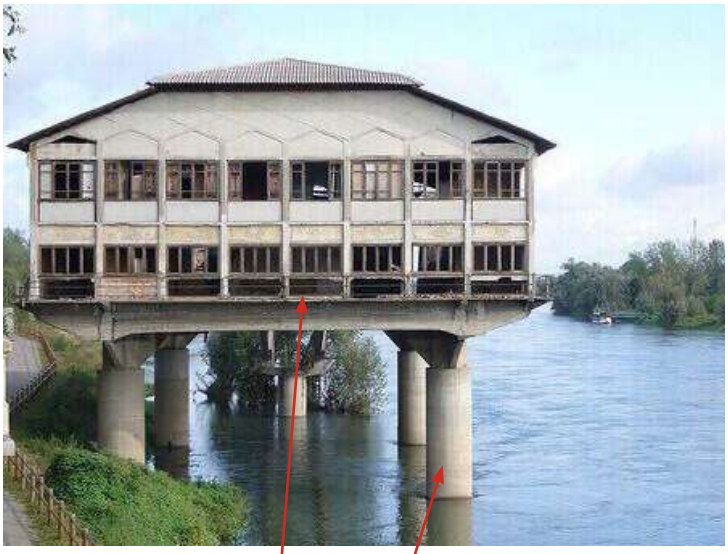


fig.57 - Existing construction elements

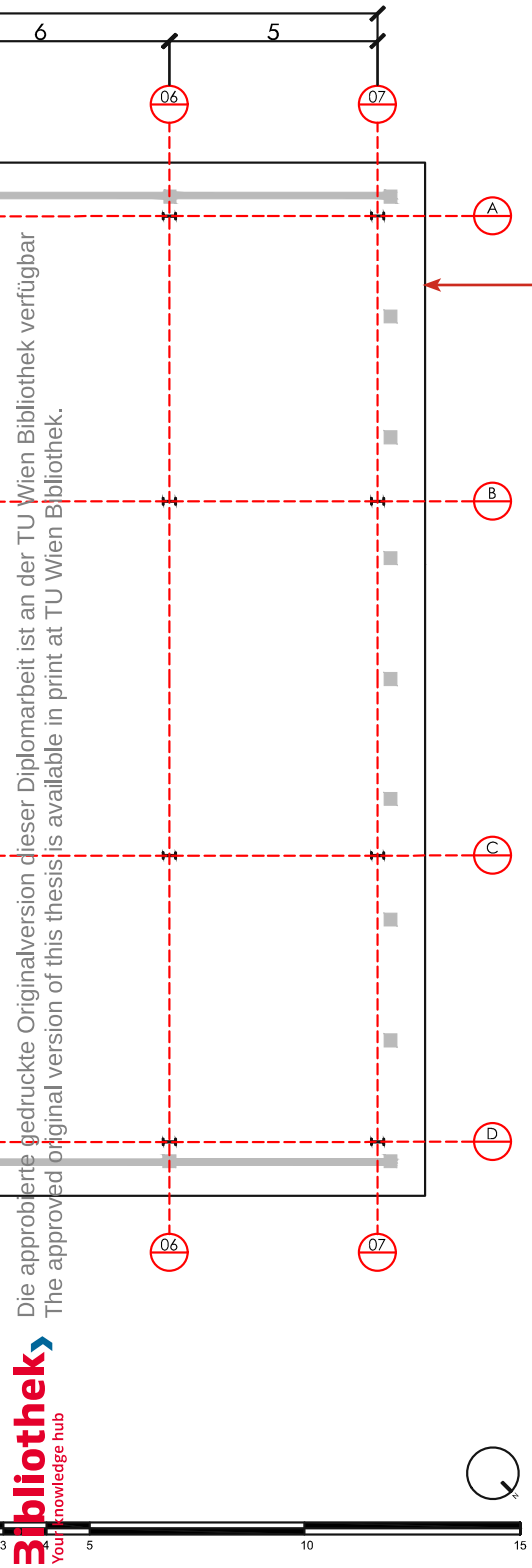
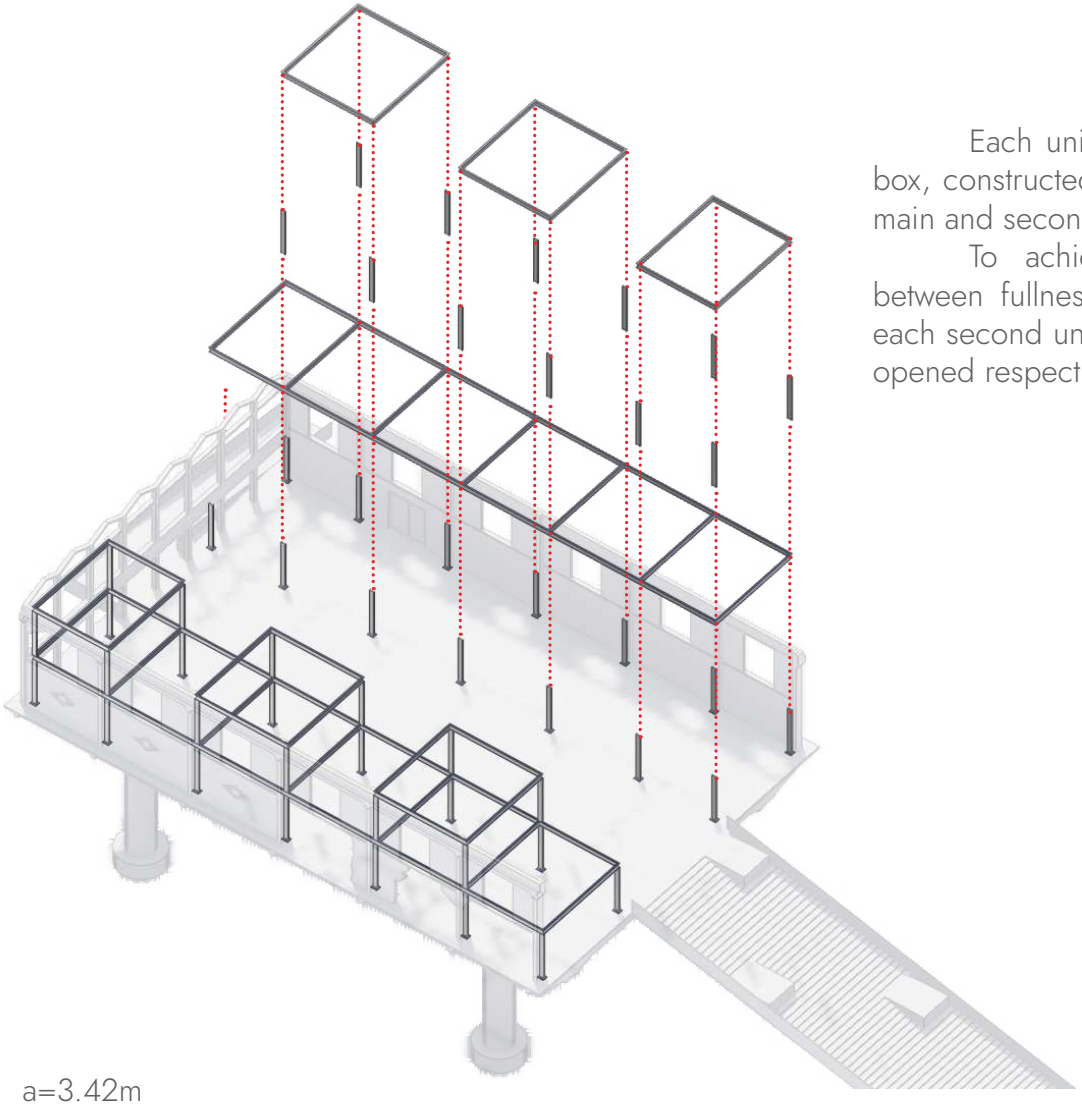


fig.56 - Construction grid

Along with the existing foundation elements, the massive main support concrete columns that elevate the entire building from the river level are preserved. Additionally, the existing floor slab is used as a base onto which the new construction is erected.

The existing construction grid of the location guides the layout of the new one. The new construction consists of stainless steel columns with a "IPE300" profile, positioned on 5m and 6m longitudinally , and on 7m and 8m perpendicularly. The hight of these columns is 3.42m on each level.

The horizontal construction elements consist of four main supportive stainless steel beams with a profile of "IPE300" which expand along the full length of the building (34m), and secondary beams made of the same profile, laid perpendicularly between the main supportive beams.



Each unit has a form of a box, constructed by the columns, main and secondary beams.

To achieve the contrast between fullness and emptiness, each second unit is closed versus opened respectively.

fig.58 - Main structure elements

a=3.42m
b=3.4m
c=6.82

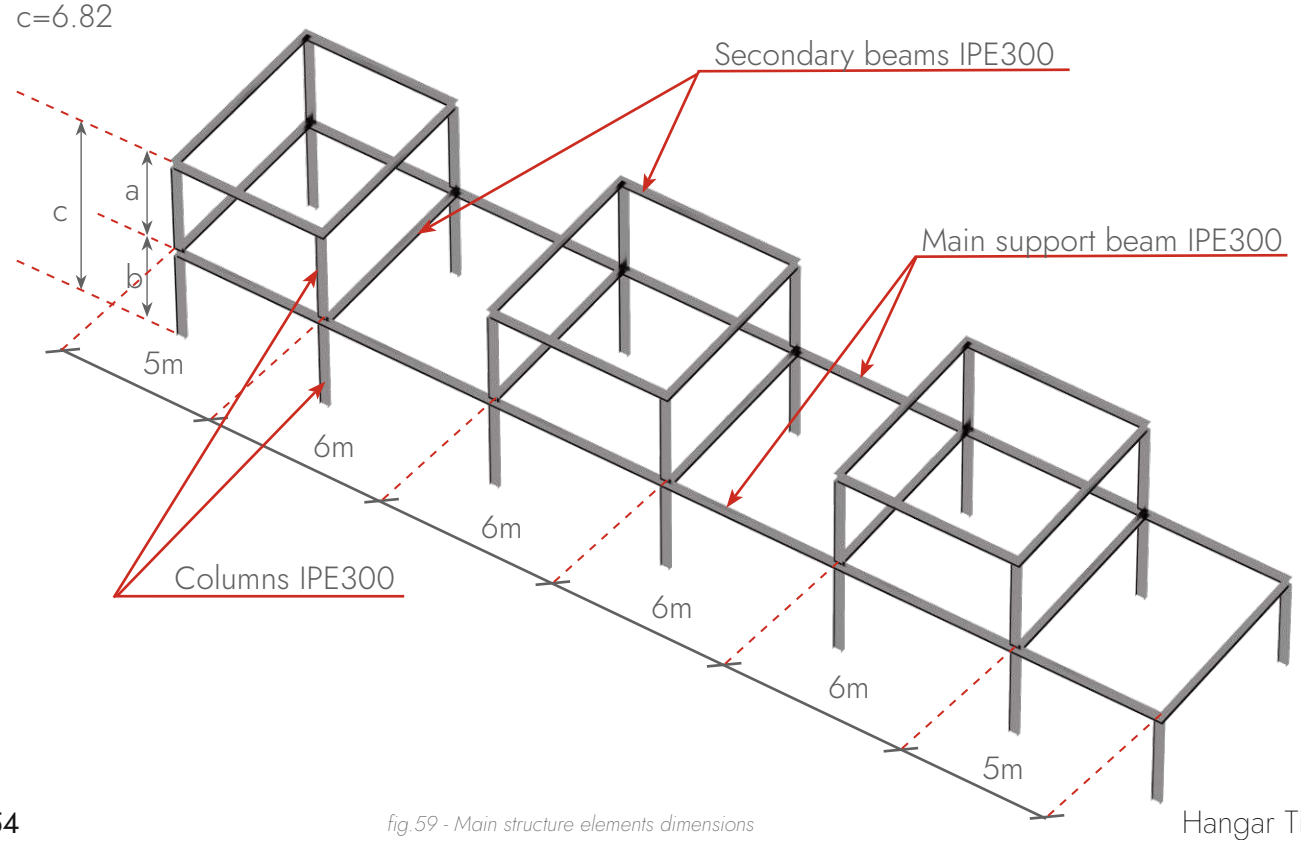


fig.59 - Main structure elements dimensions

4.6.3 Staircase Structure

The main construction leaves an open corridor space in the middle and creates an opportunity for sculptural staircases that would become the most recognisable detail of the Idroscalo.
Each staircase is constructed of two stainless steel beams with a "UPN260" profile.

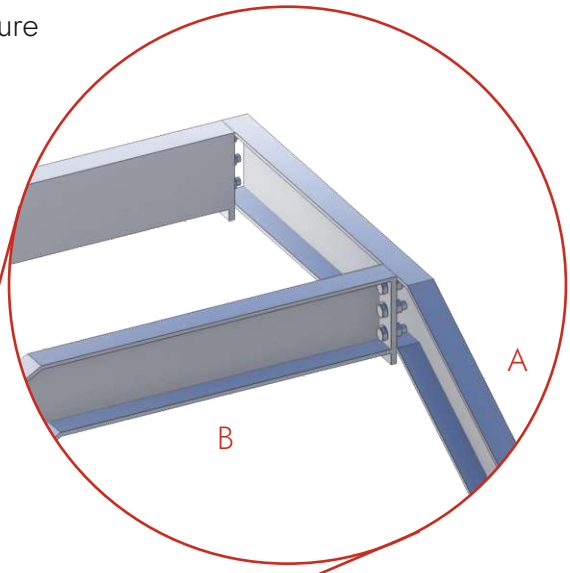


fig.61 - Stair assembly

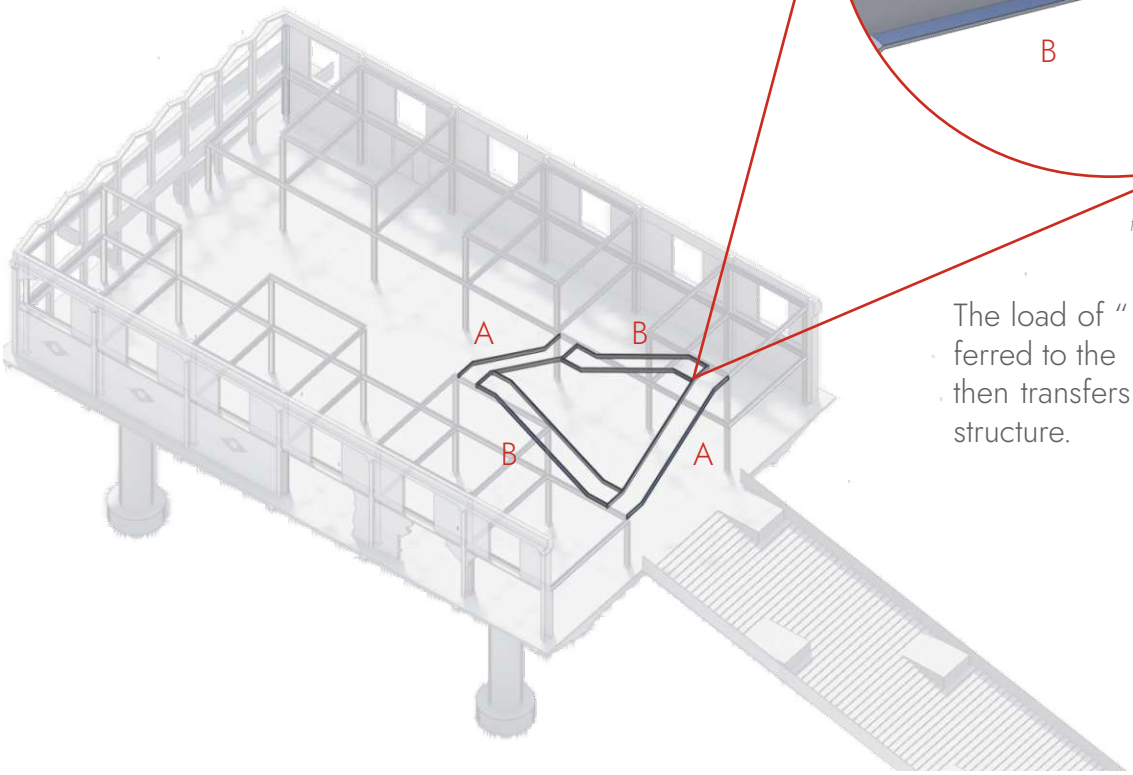


fig.60 - Stair construction

The load of " B" staircase is transferred to the "A" staircase, which then transfers back onto the main structure.

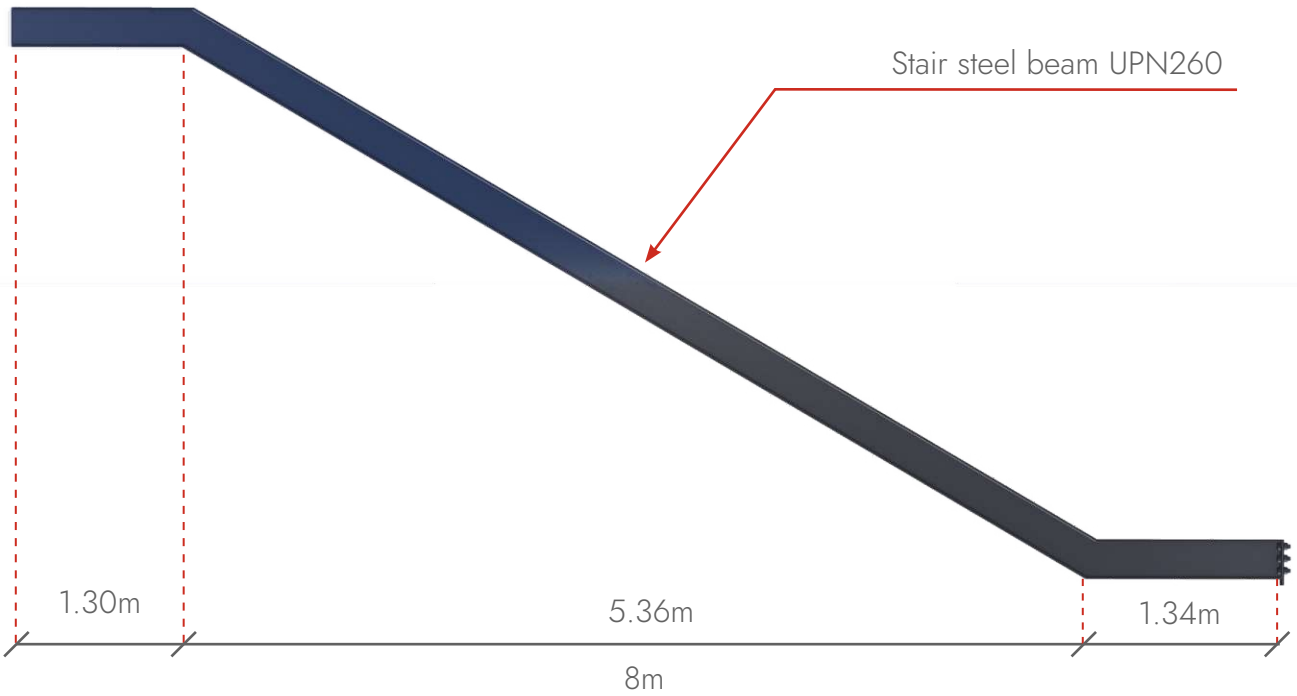


fig.61 - Stair beam dimensions

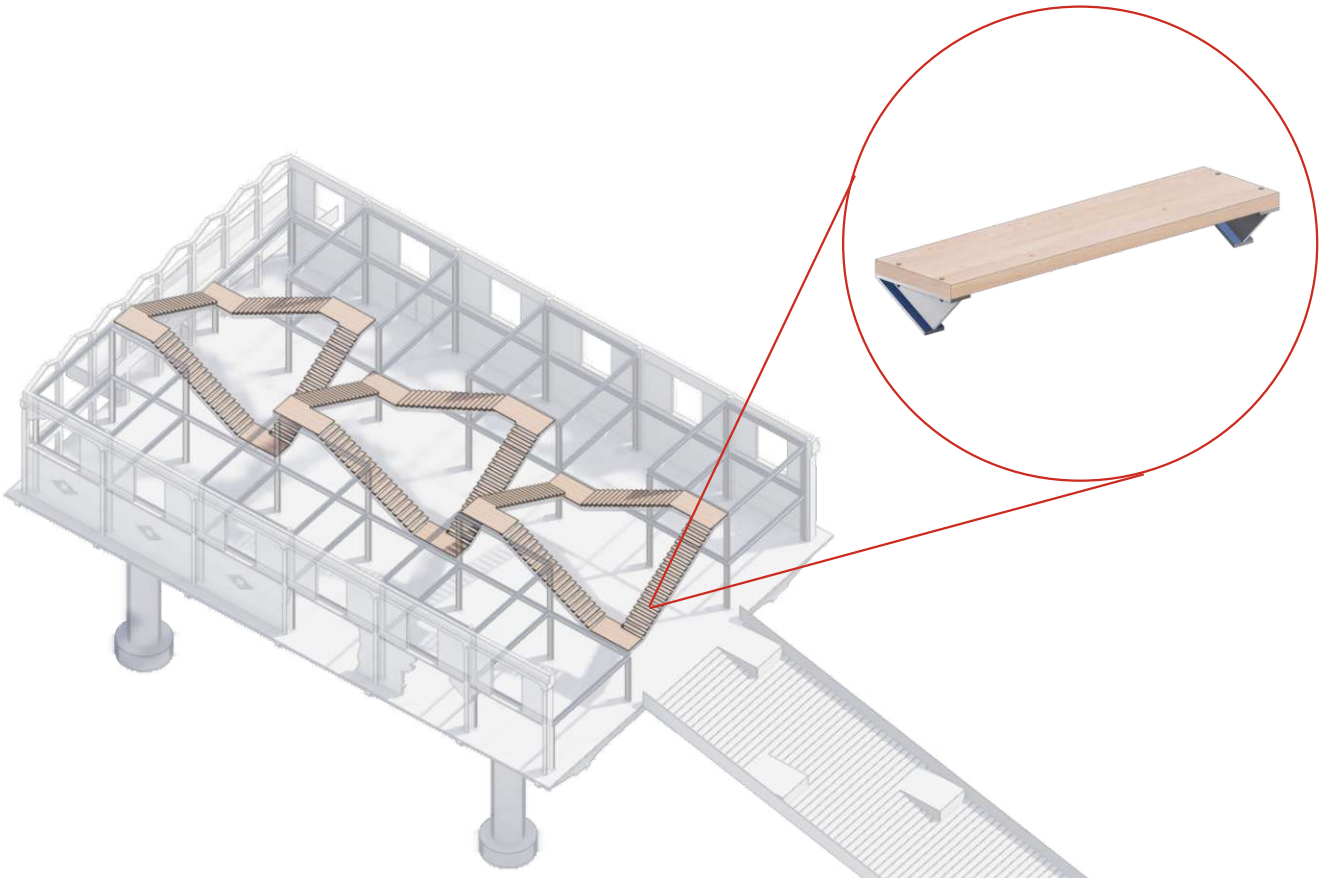


fig.62 - Stair finish

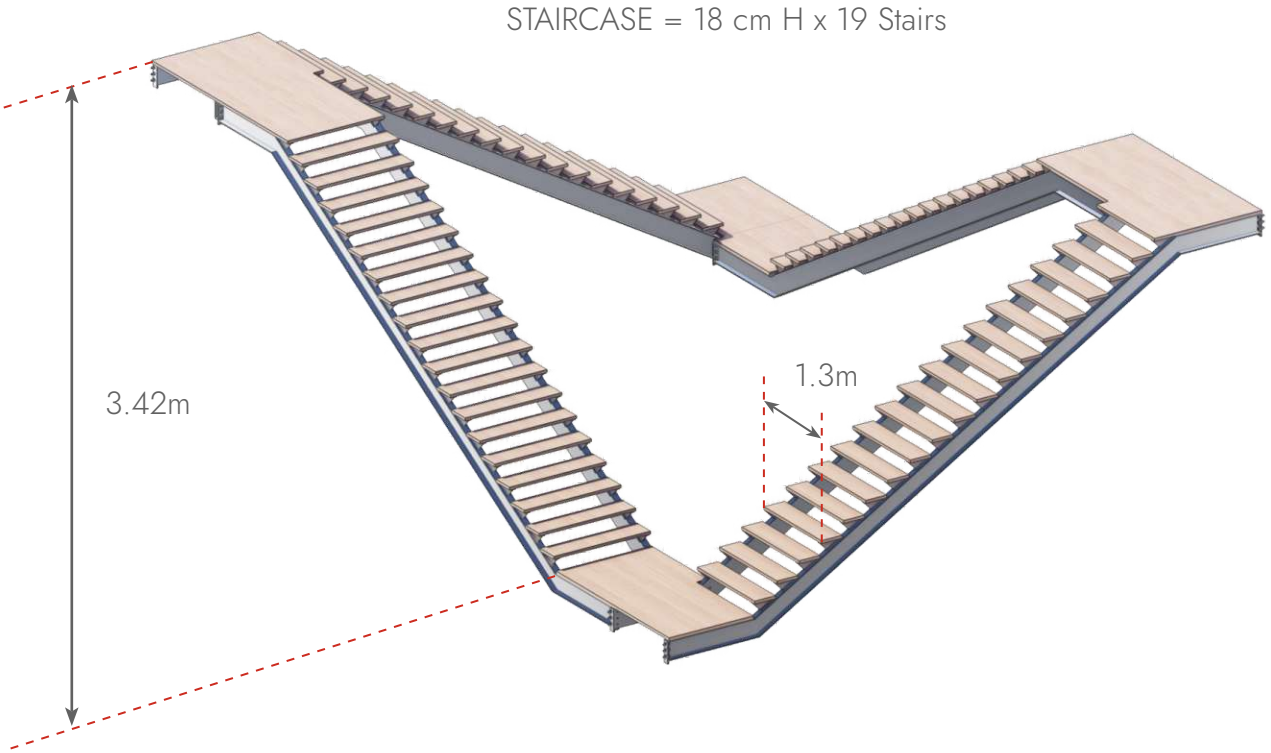


fig.63 - Stair hight

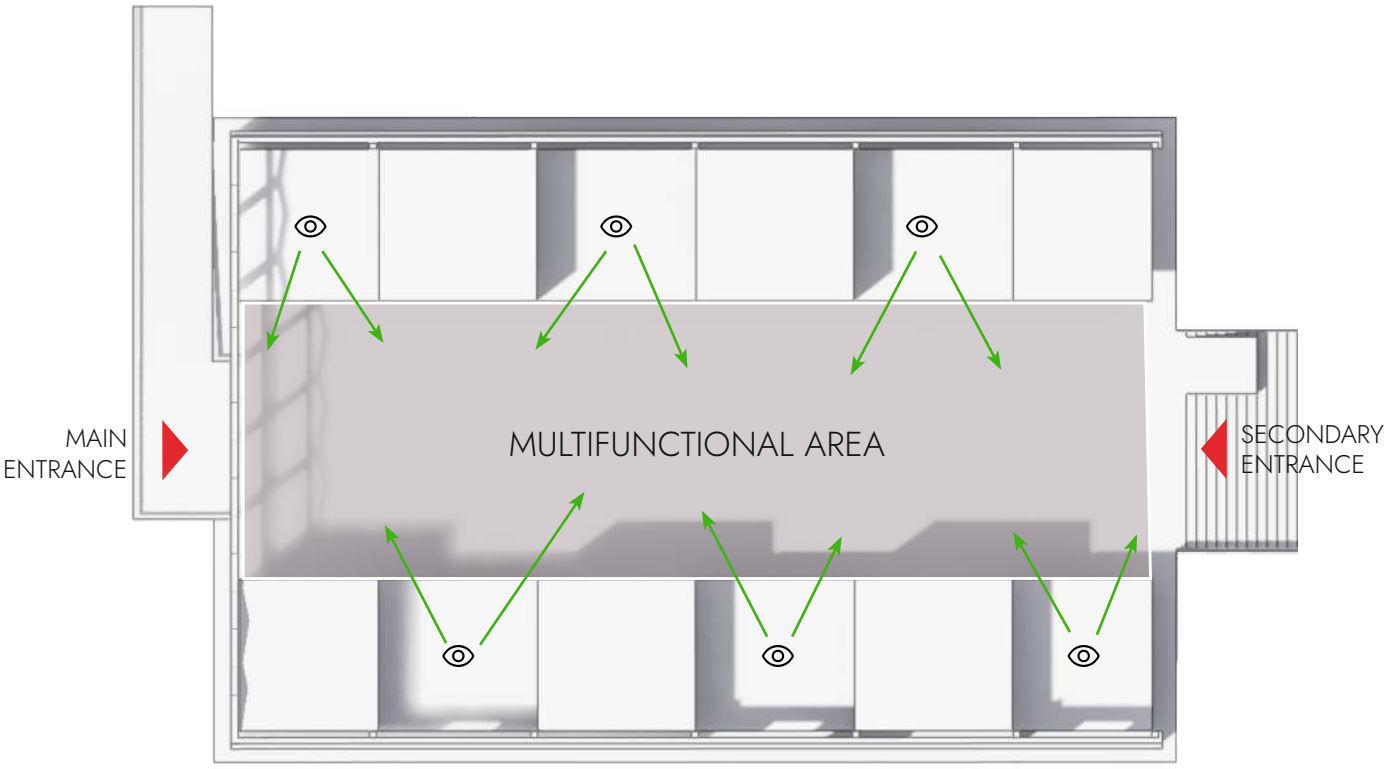


fig.64 - Multifunctional area

AM

PM

WEEKENDS

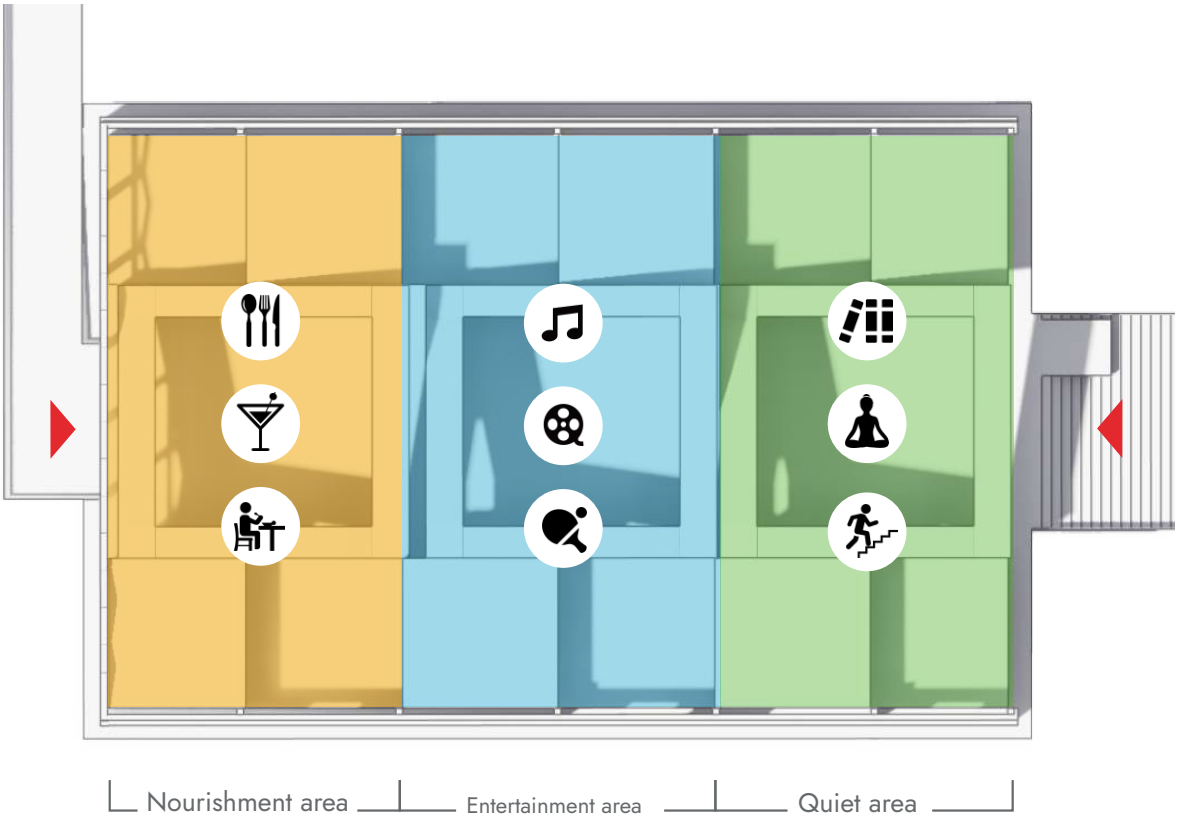


fig.65 - Layout development

GROUND FLOOR

1. Coffee bar
2. Coffee Bar - Seating Area
3. Kitchen + Serving Area
4. Dining Area

1. Meeting room
2. Billiard Area
3. Cinema
4. Lounge Area

1. Bathrooms
2. Study Area
3. Info Point + Archive
4. Core

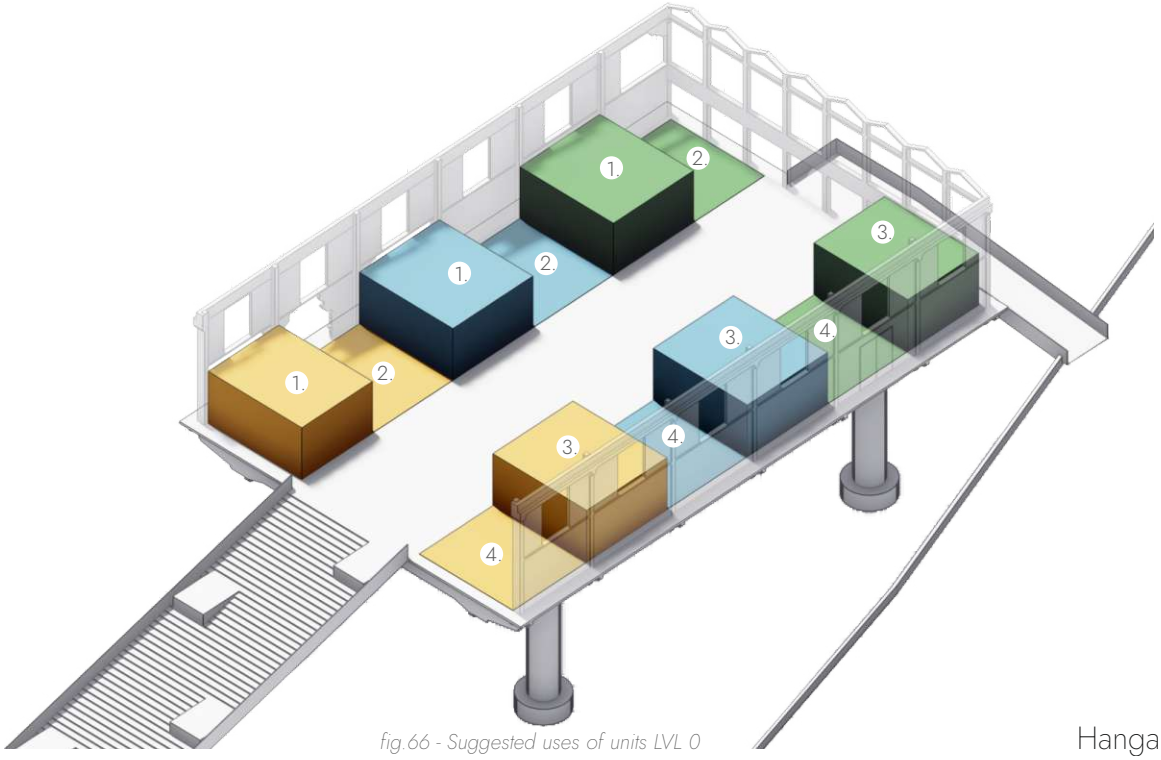


fig.66 - Suggested uses of units LVL 0

1st FLOOR

1. Eating area
2. Self-serve "Pavia's Kitchen"
3. Self-serve "Pavia's winery"
4. Seating Area

1. Ping Pong Area
2. Music Room
3. TV Area
4. Bathrooms

1. Reading Area
2. Library
3. Study Area
4. Core

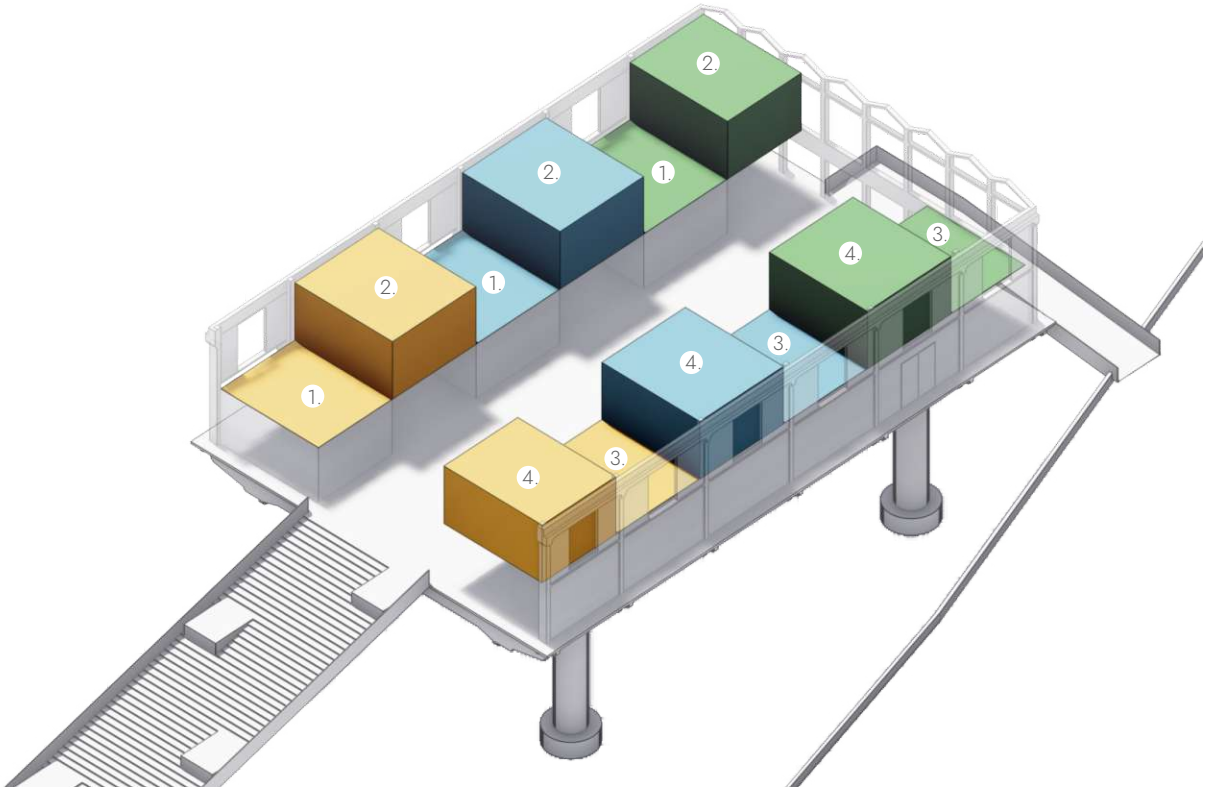


fig.67 - Suggested uses of units LVL1

2nd FLOOR

1. Coffee bar
2. Seating Area

1. Seating Area
2. Coffee Bar

1. Yoga Area
2. Art Ateliers

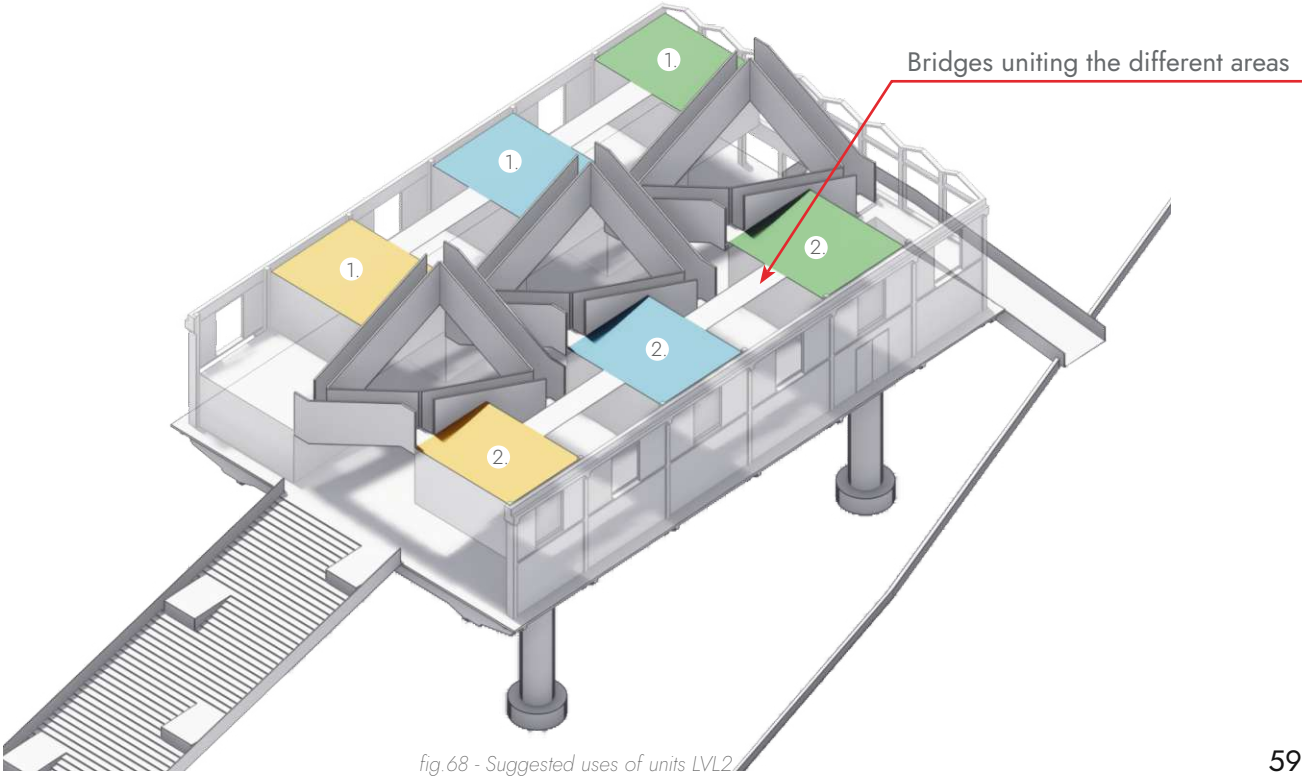
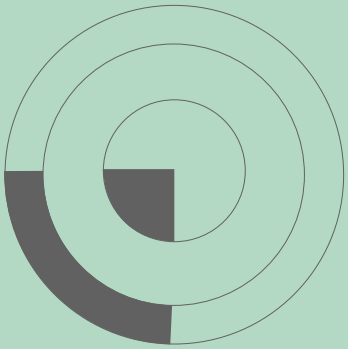


fig.68 - Suggested uses of units LVL2

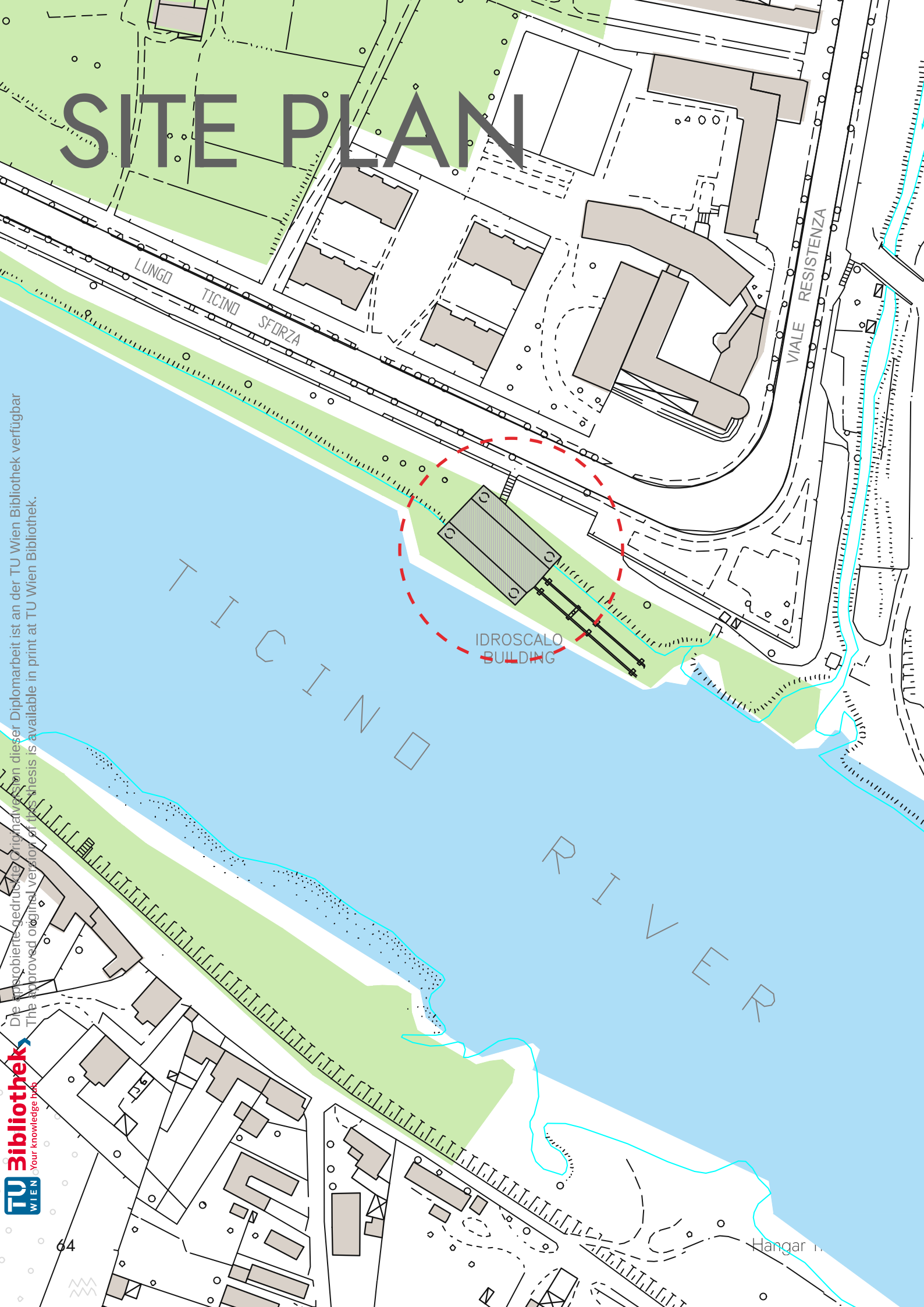


5. RESULT

LOCATION

fig.68 - Location 63

SITE PLAN



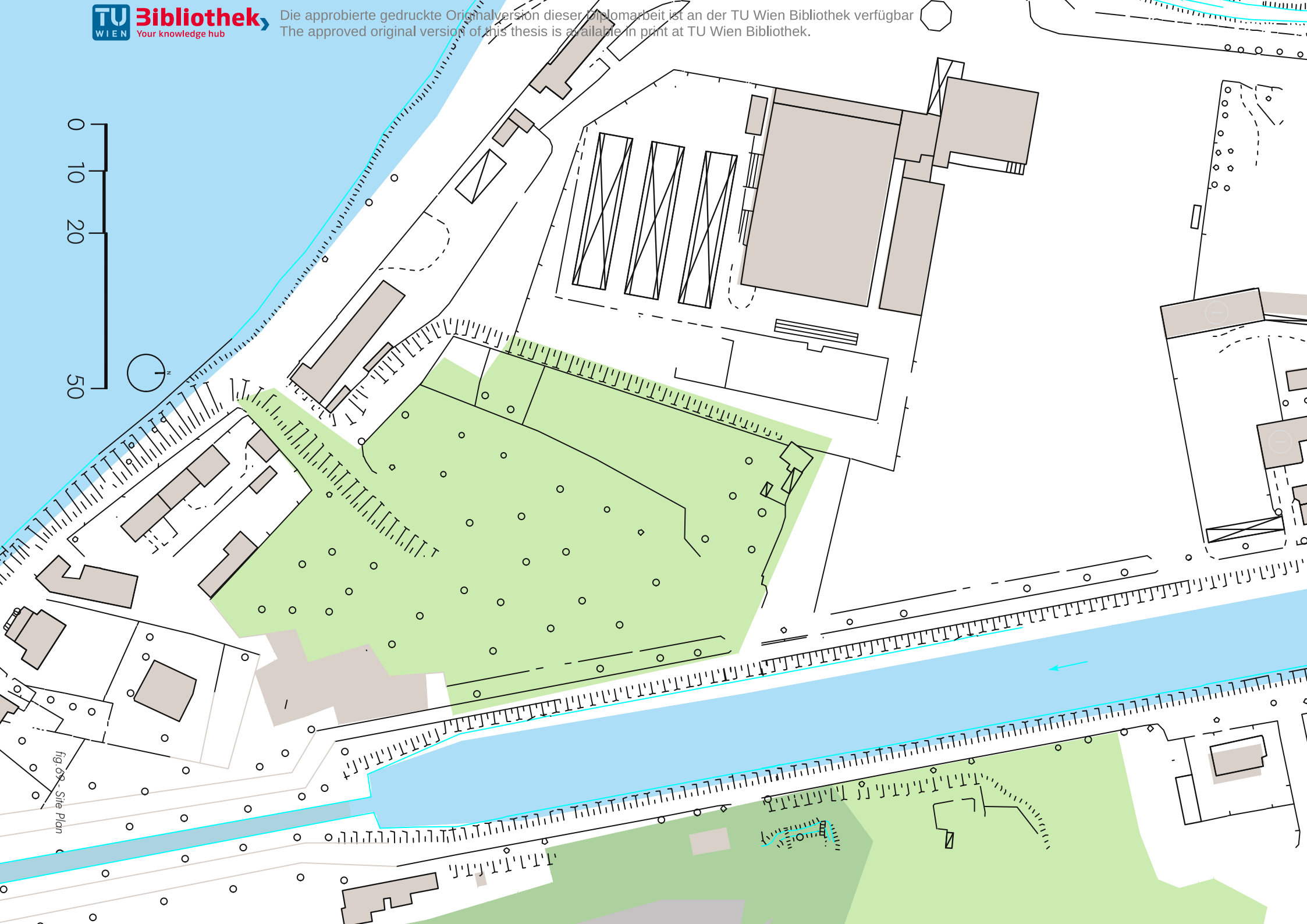
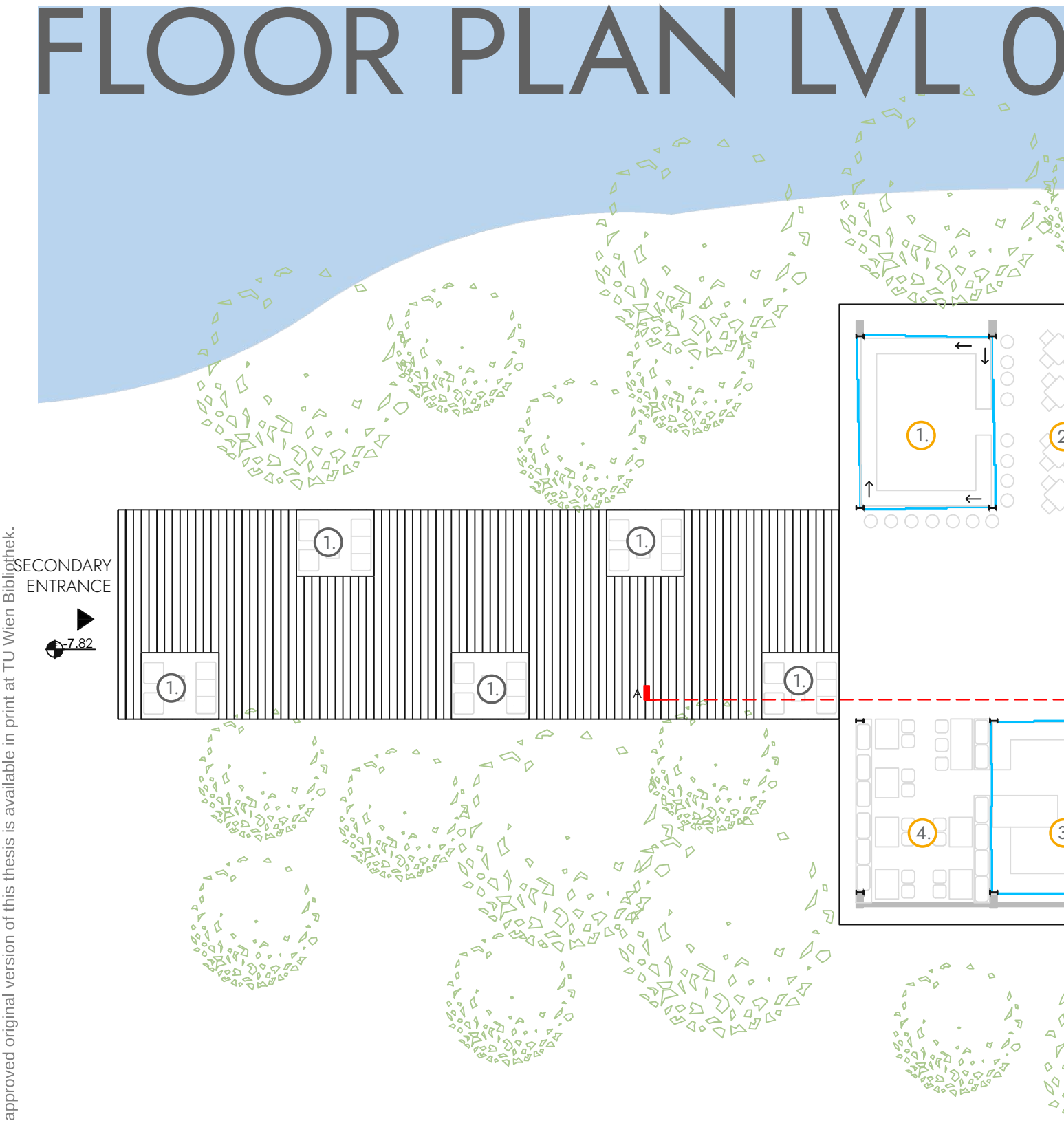


fig 69- Site Plan

FLOOR PLAN LVL 0

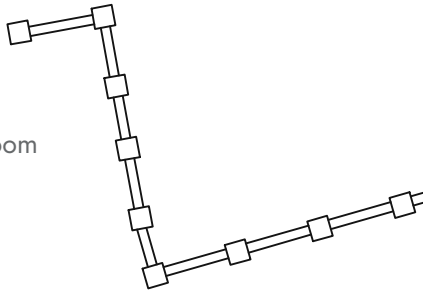


1. Seating platforms
2. Multifunctional area

1. Coffee bar
2. Coffee Bar - Seating Area
3. Kitchen + Serving Area
4. Dining Area

1. Meeting room
2. Billiard Area
3. Cinema
4. Lounge Area

1. Bathrooms + Changing room
2. Study Area
3. Info Point + Archive
4. Core + Storage room



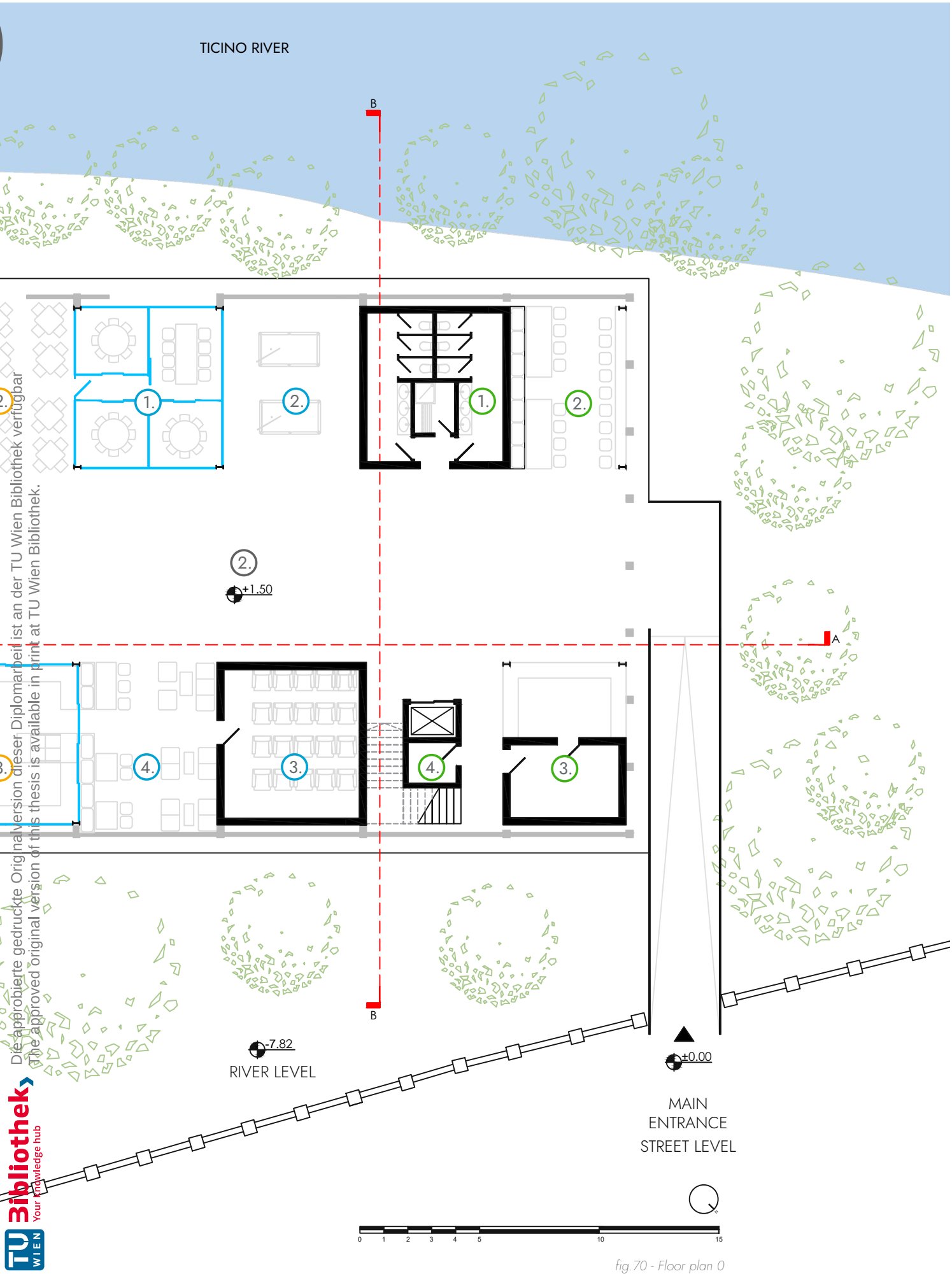
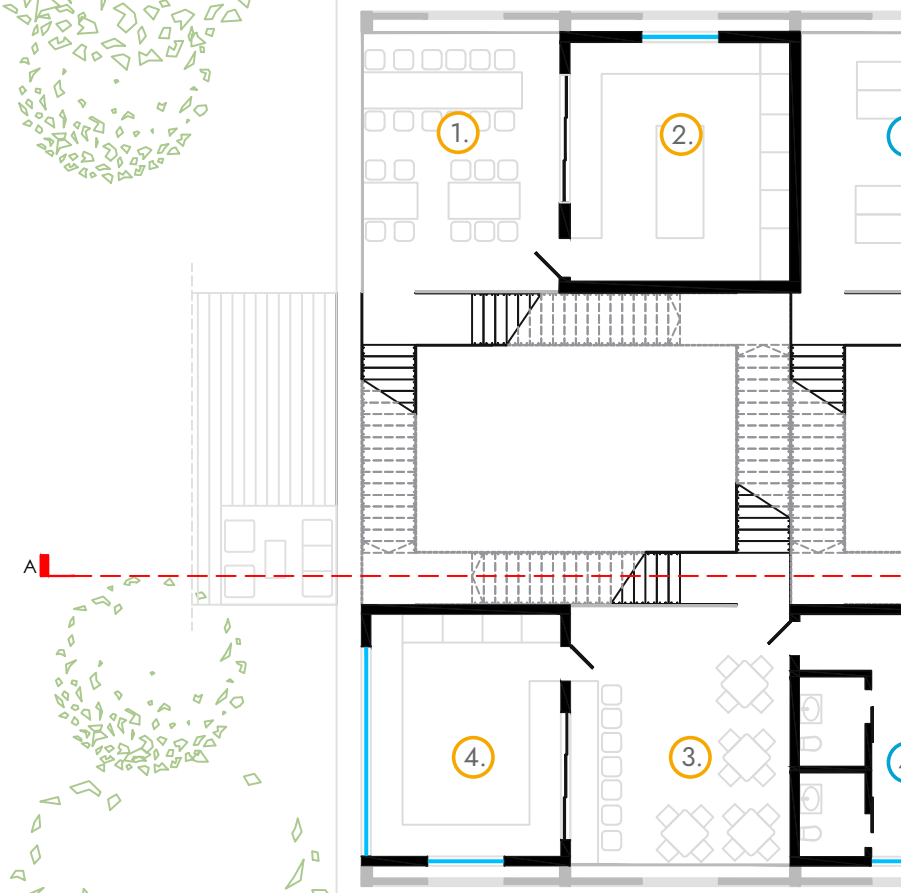


fig.70 - Floor plan 0

FLOOR PLAN LVL 1



1. Eating area
2. Self-serve "Pavia's Kitchen"
3. Seating Area
4. Self-serve "Pavia's winery"

1. Ping Pong Area
2. Music Room
3. TV Area
4. Bathrooms

1. Reading Area
2. Library
3. Study Area
4. Core + 2x Storage room

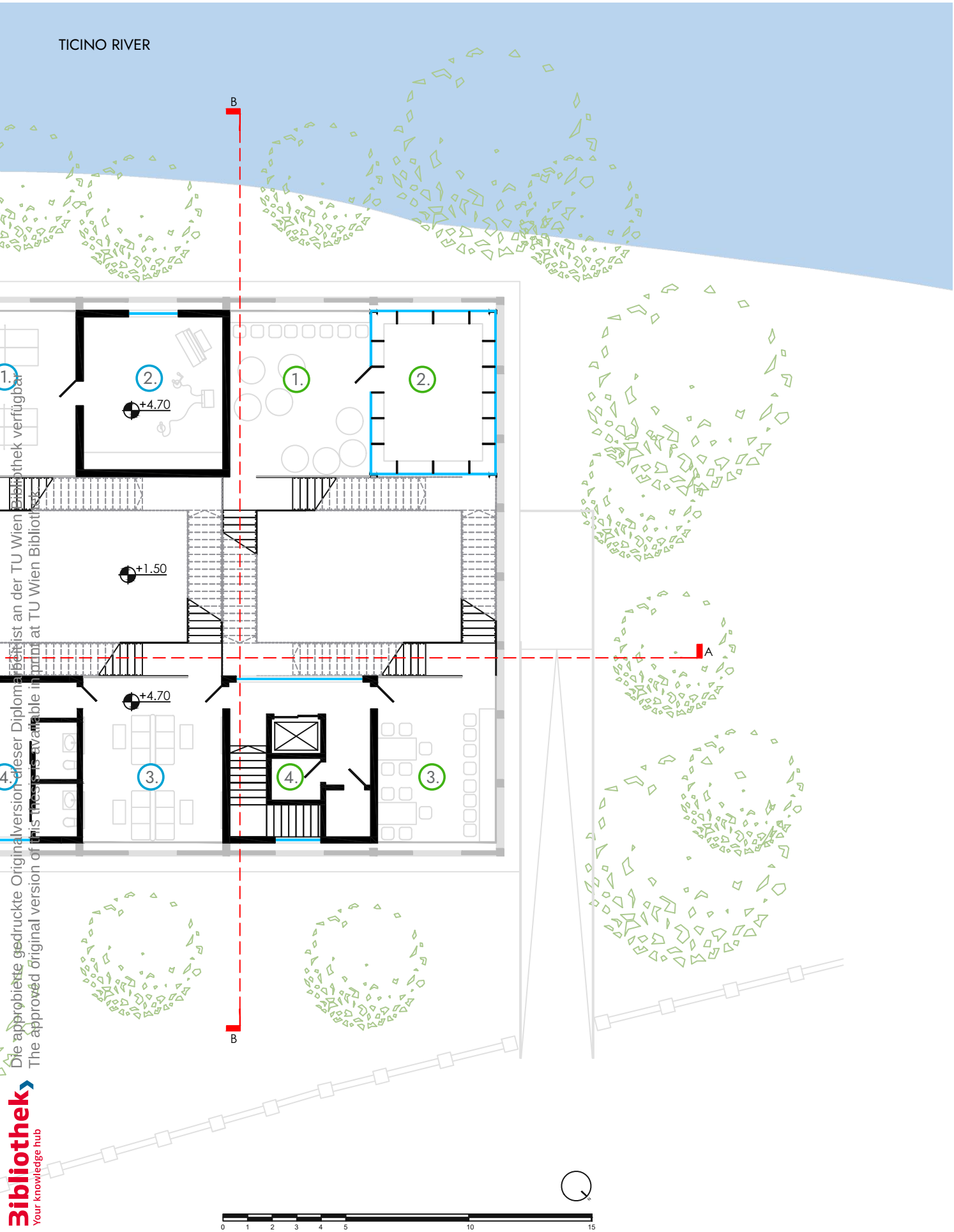


fig.71 - Floor plan 1

FLOOR PLAN LVL 2

1. Coffee bar
2. Seating Area

1. Seating Area
2. Coffee Bar

1. Yoga Area
2. Art Ateliers

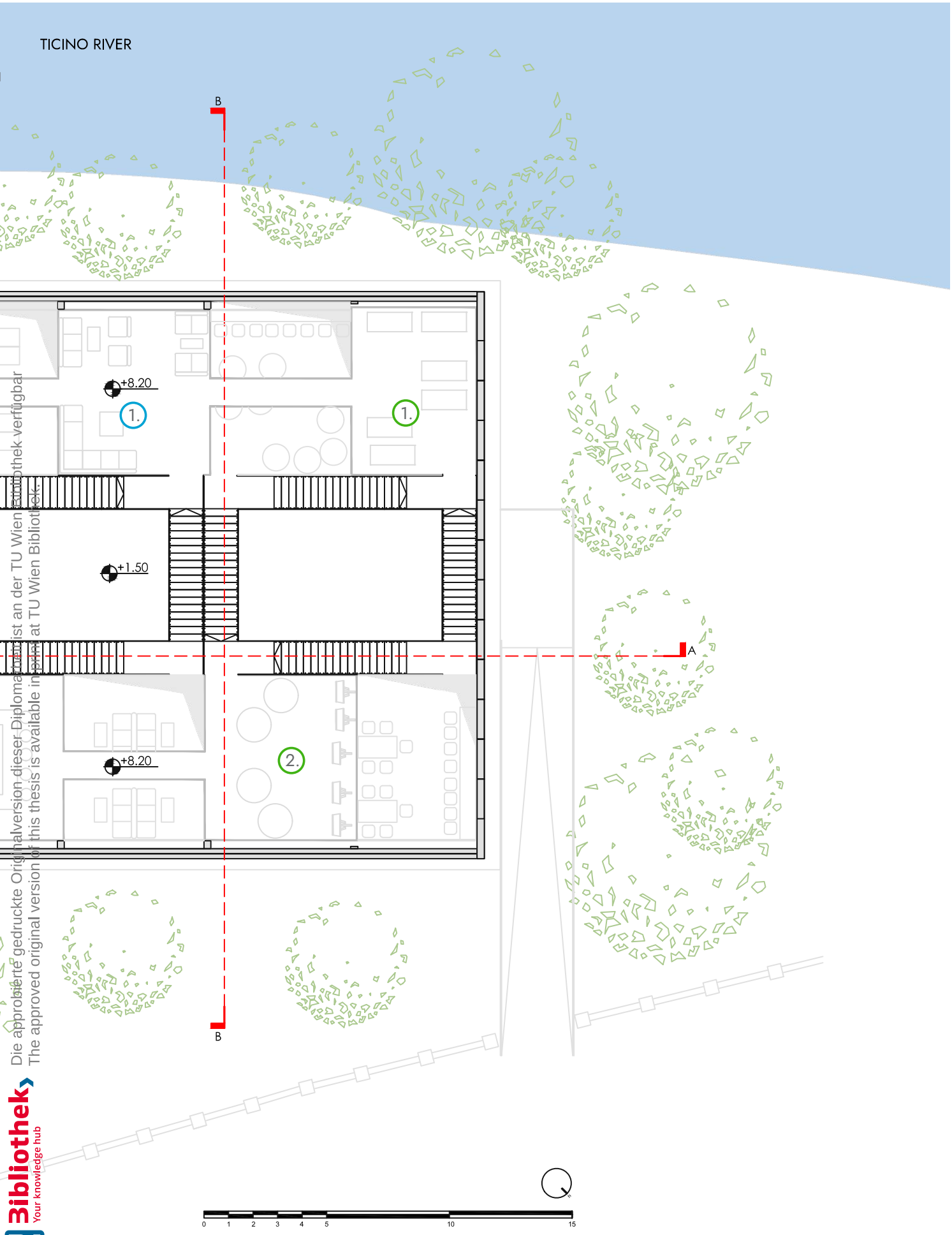
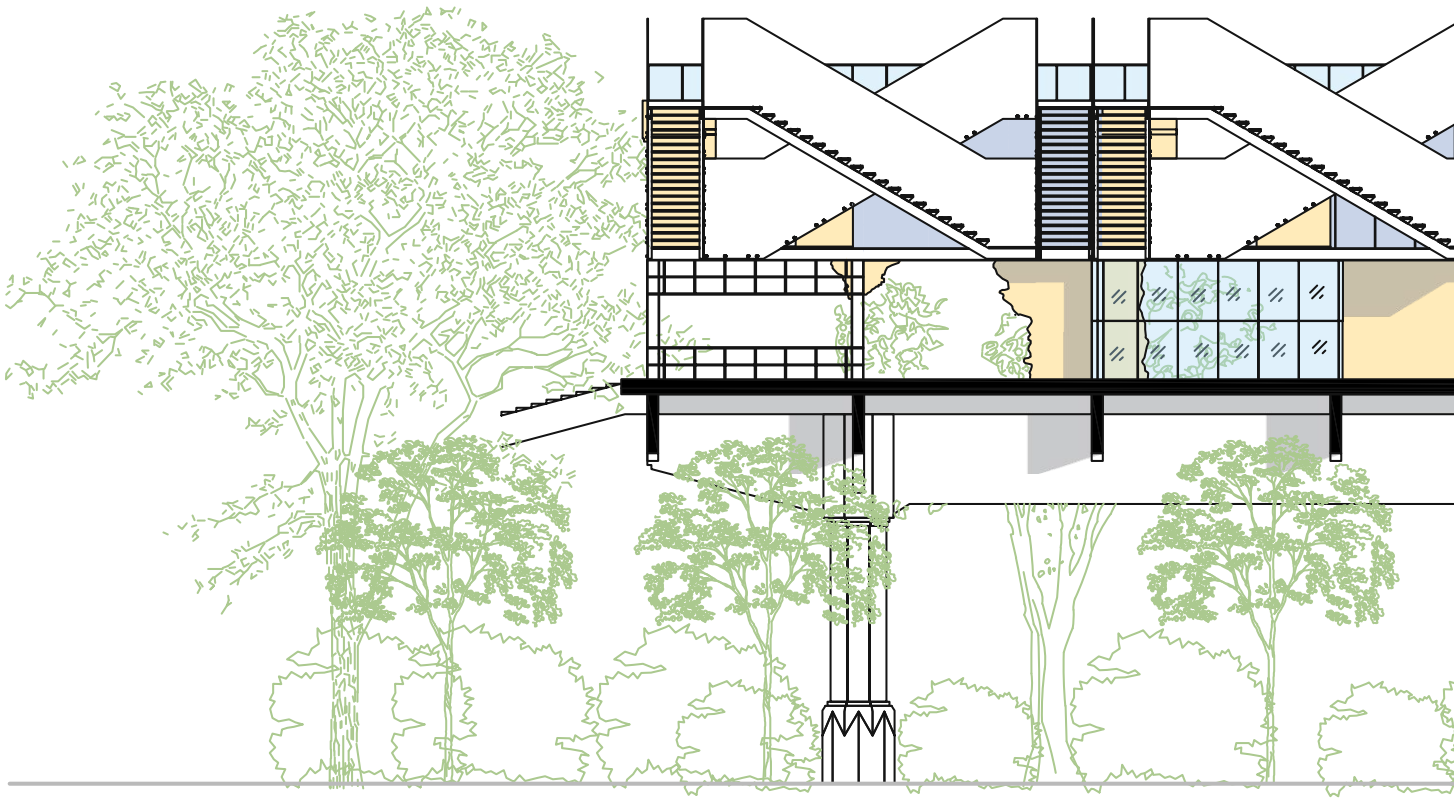


fig.72 - Floor plan 2

SECTION A-A



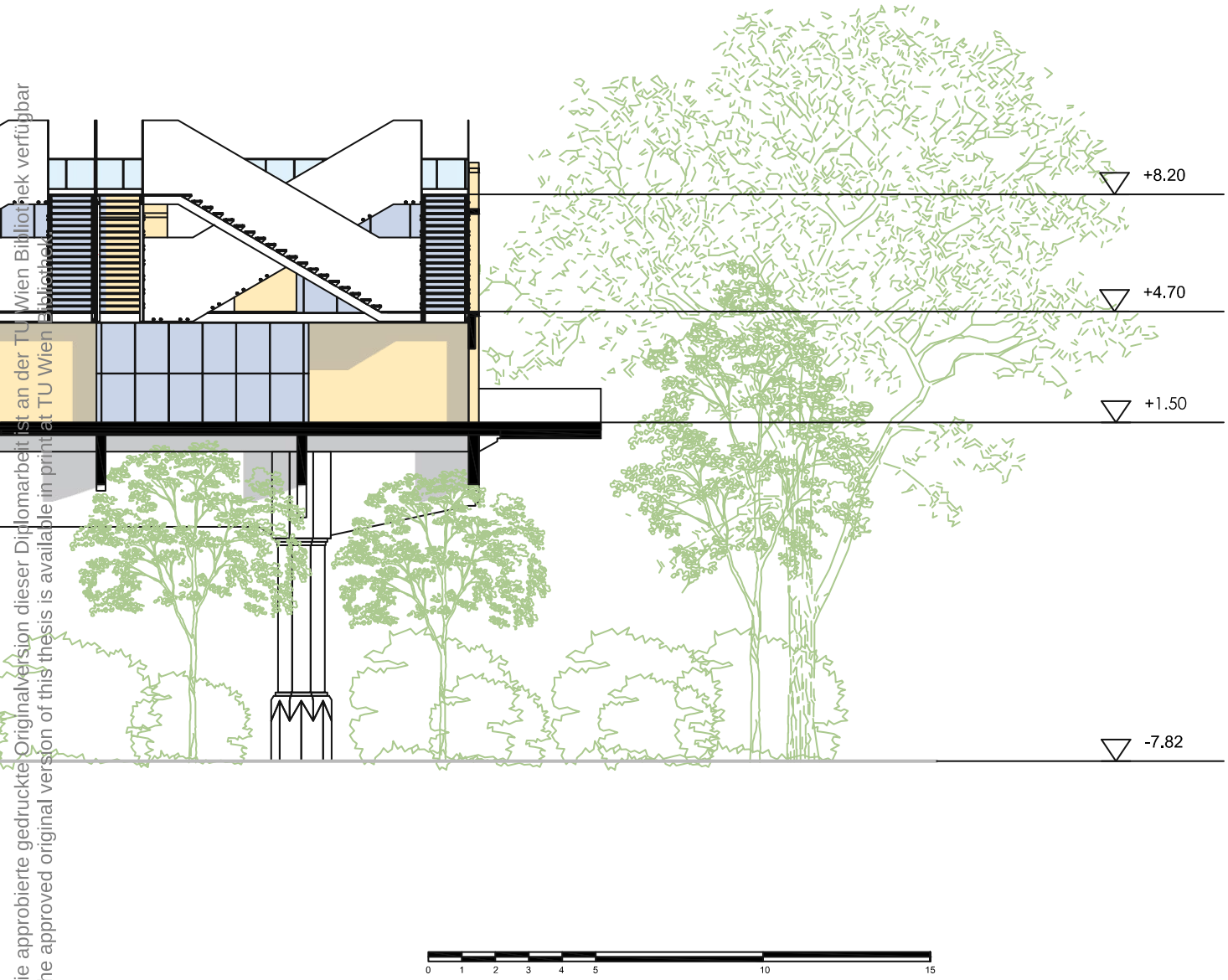
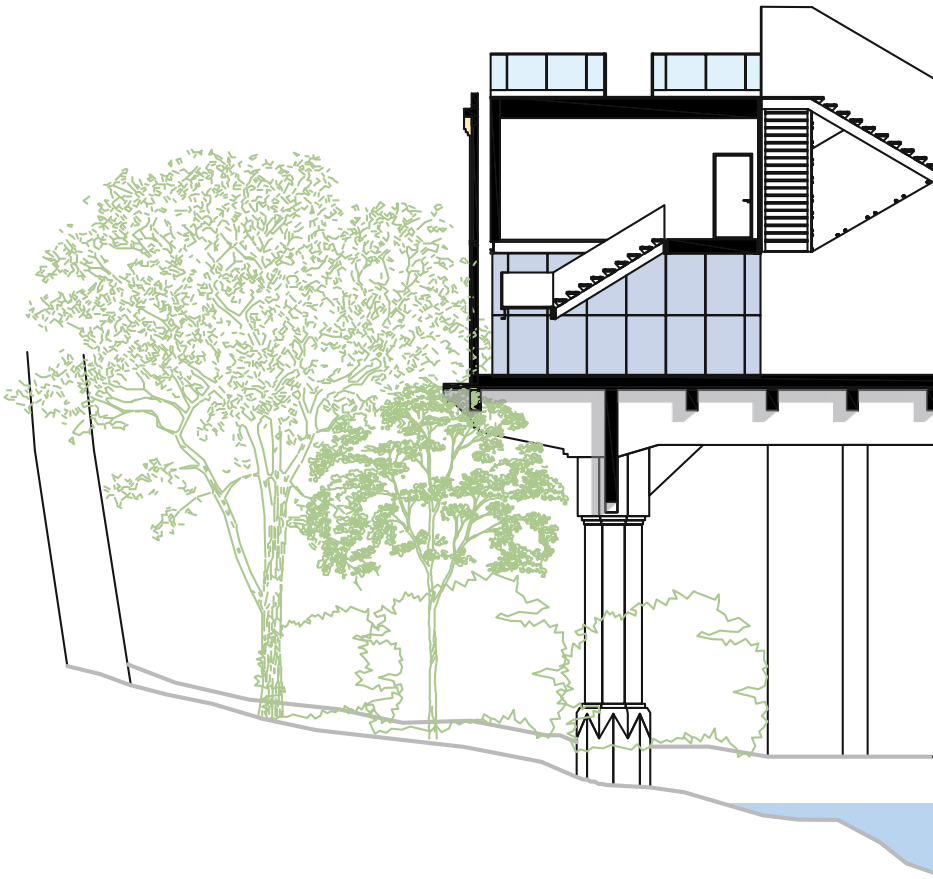


fig.73 - Section A-A

SECTION B-B



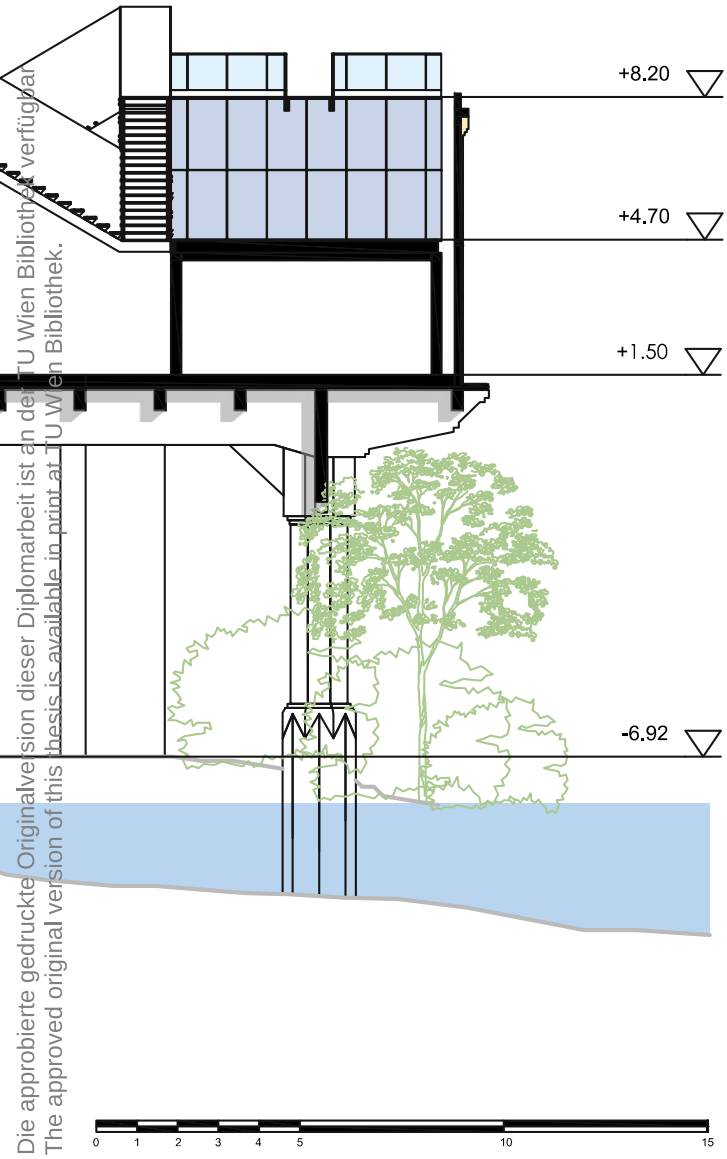


fig.74 - Section B-B

3D SECTION A-A

fig.74 - 3D Section A-A

3D SECTION B-B

fig.75 - 3D Section B-B

NORTH VIEW

fig.76 - North view

SOUTH VIEW

fig.77 - South view

EAST VIEW

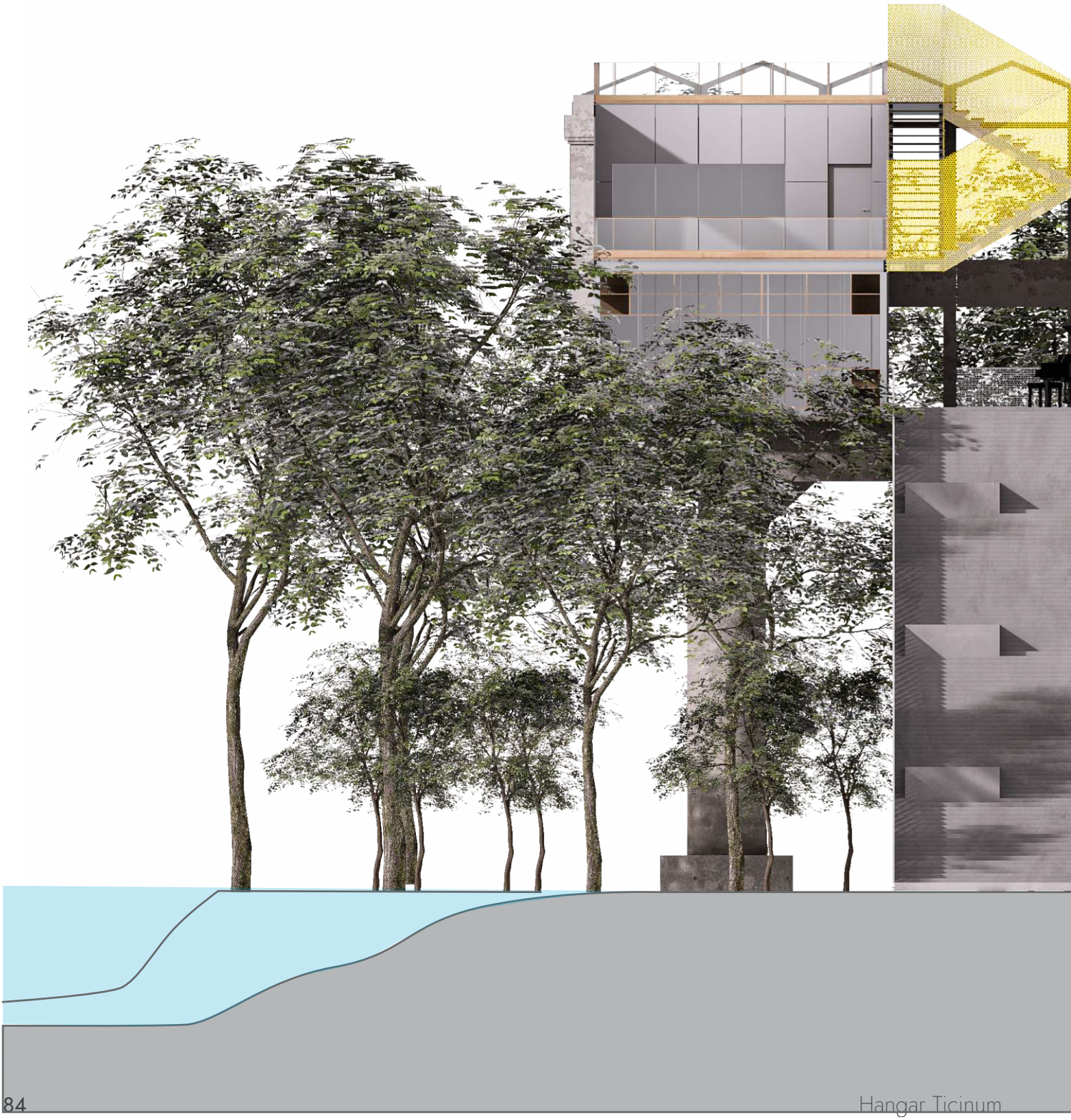


fig.78 - East view

WEST VIEW

fig.79 - West view

DETAILS

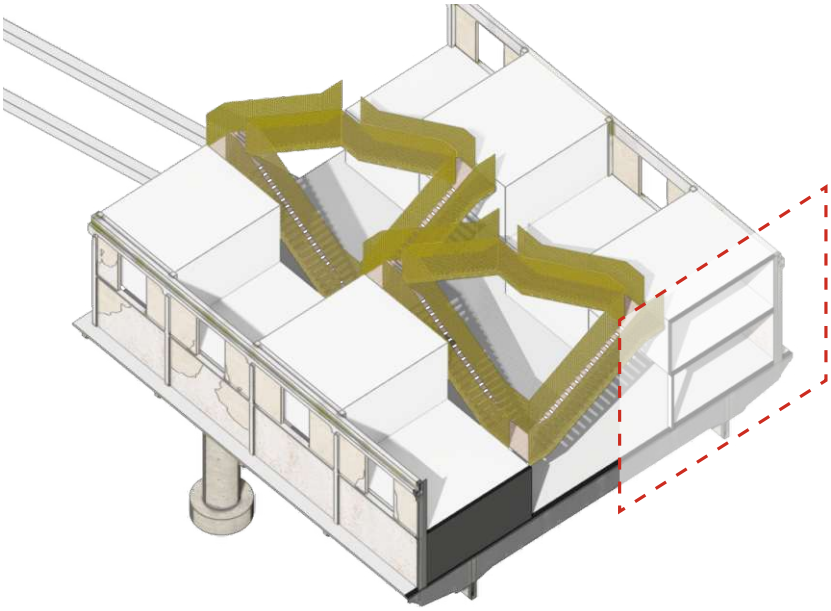
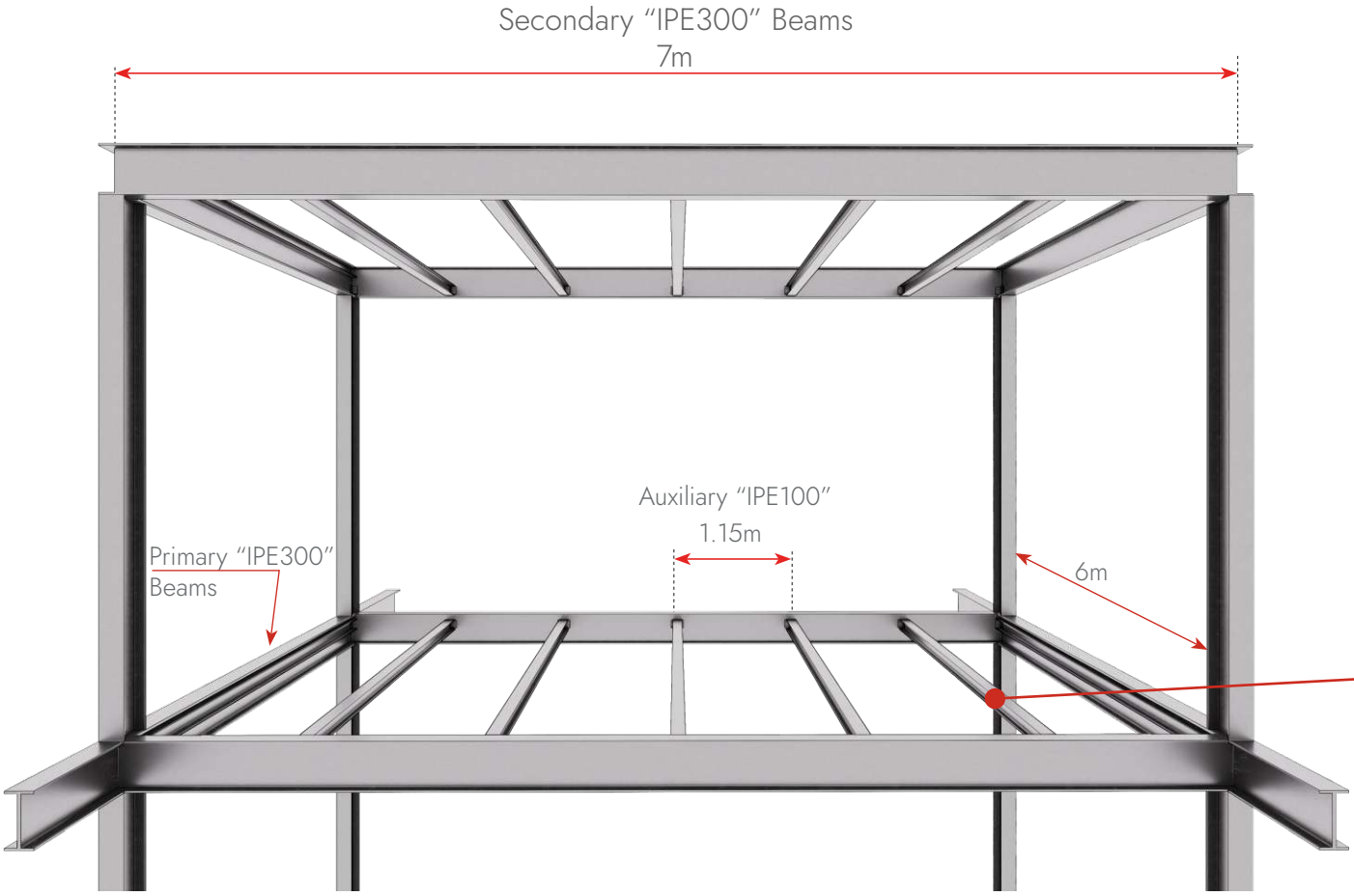


fig.80 - Detail section location



ONE UNITS SLAB SUB-CONSTRUCTION

Made of 7 Auxiliary beams: 5 "IPE100" profile beams and 2 corner "UPN100" beams laid along the shorter side (6m) of the main construction.

fig.81 - Unit sub - construction

A. TYPICAL UNIT LAYERING SECTION

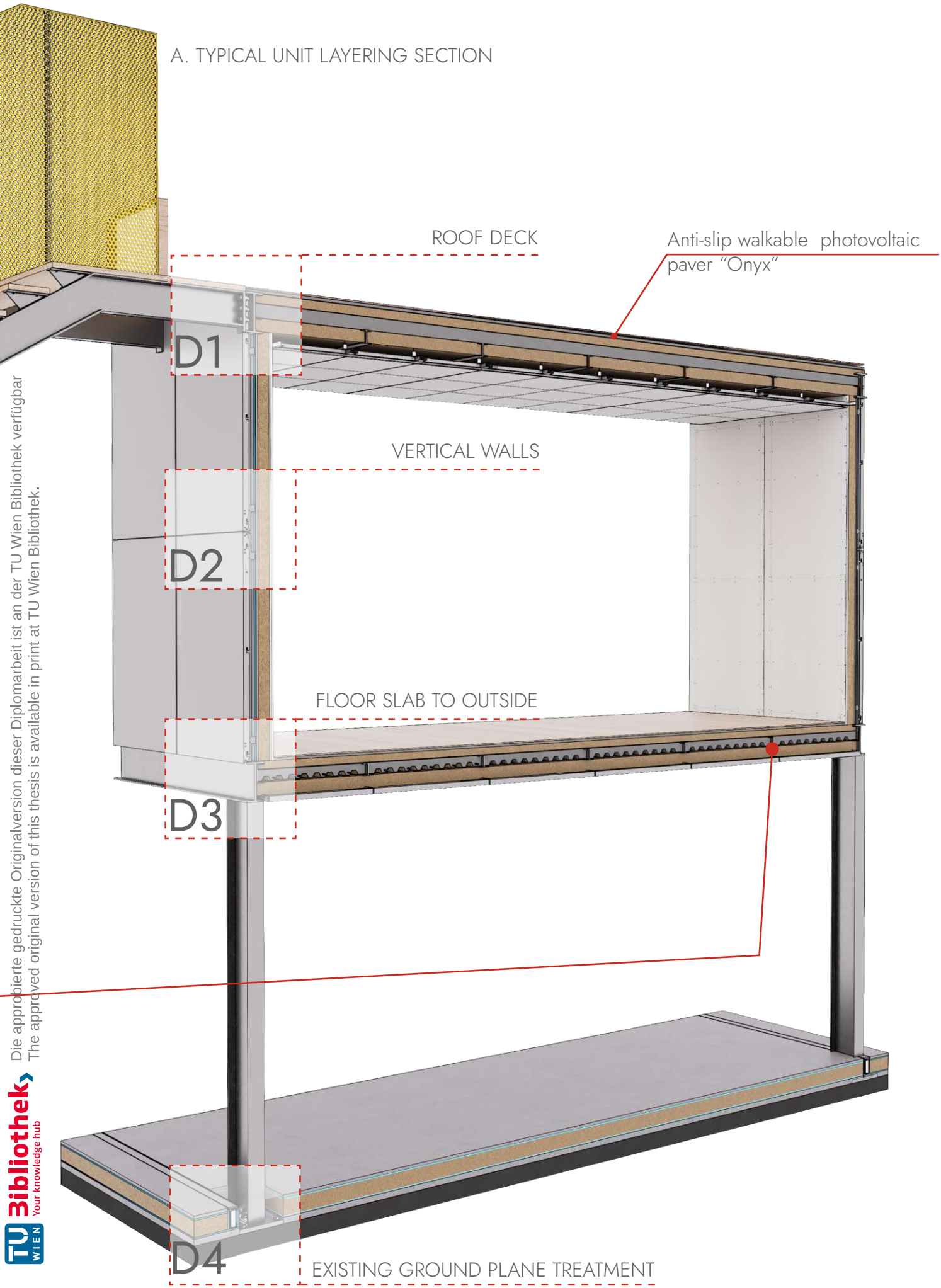


fig.82 - Detailed unit section

D1 ROOF DECK

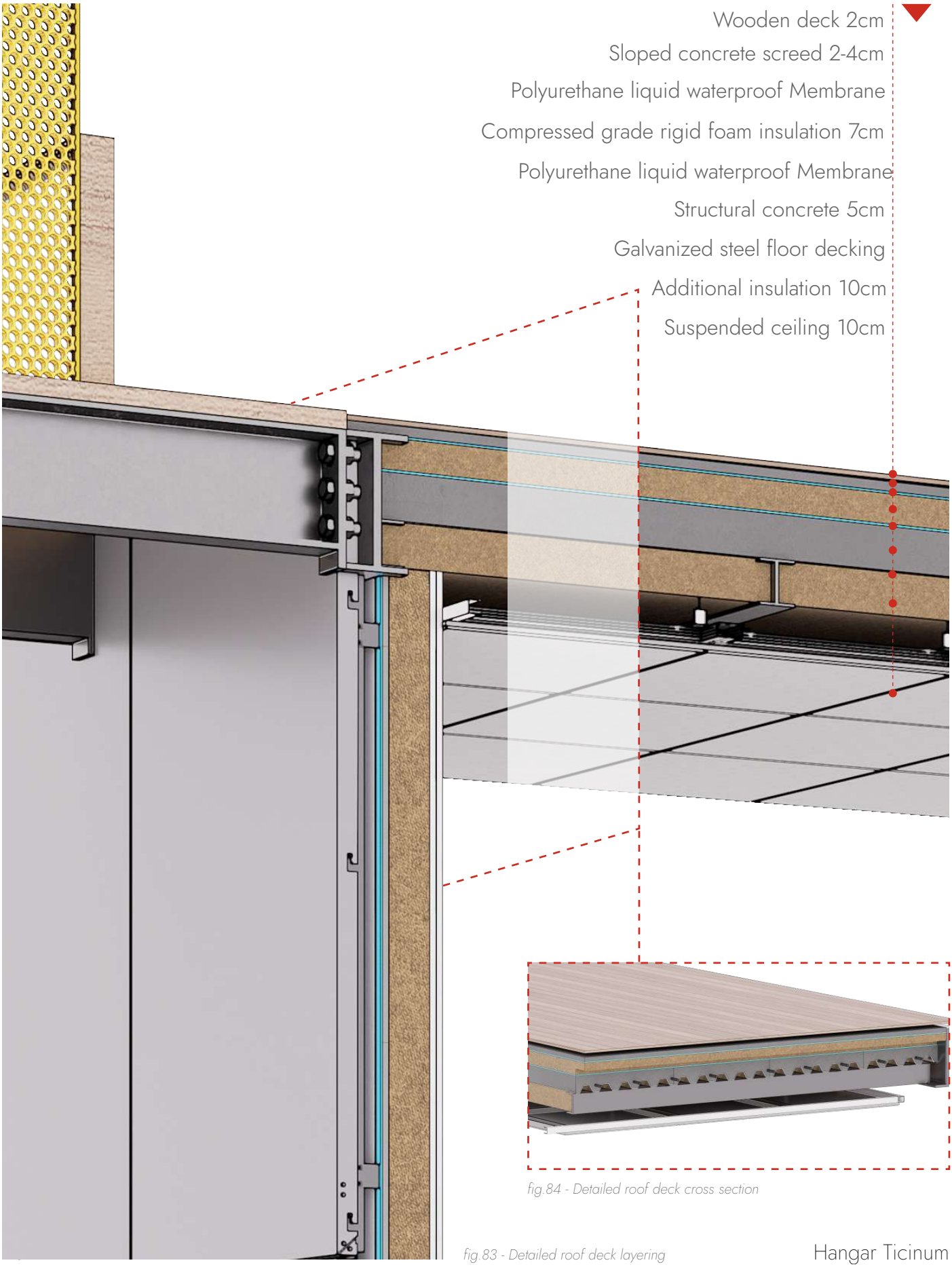


fig.84 - Detailed roof deck cross section

fig.83 - Detailed roof deck layering

D2 - WALLS

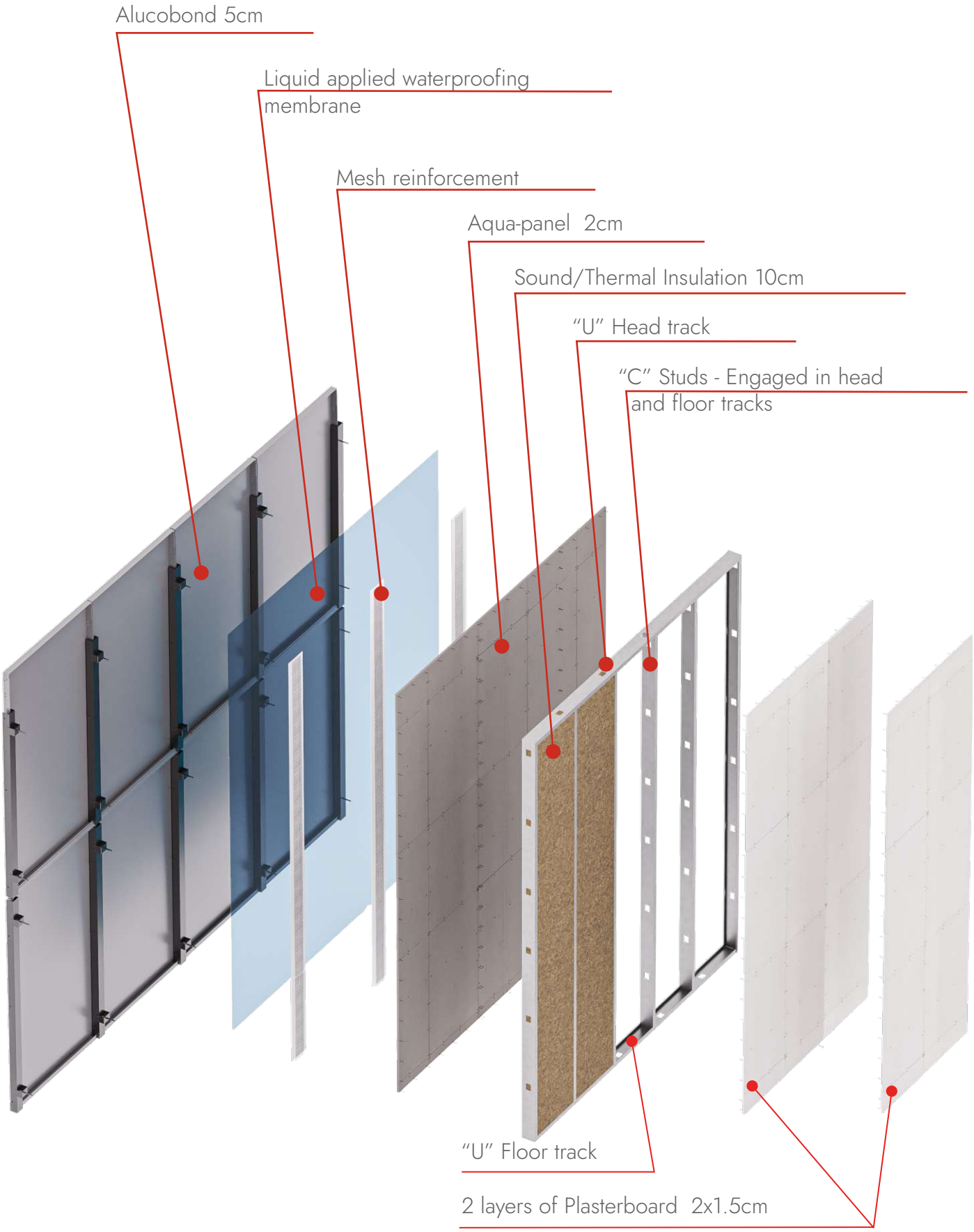


fig.85 - Detailed wall layering

D3 FLOOR SLAB

Wooden floor 2cm

Cement floor panels 2cm

Impact sound Insulation 6cm

Polyurethane liquid waterproof Membrane

Structural concrete 5cm

Reinforcement

Galvanized steel floor decking

Thermal Insulation 10cm

Alucobond 4cm

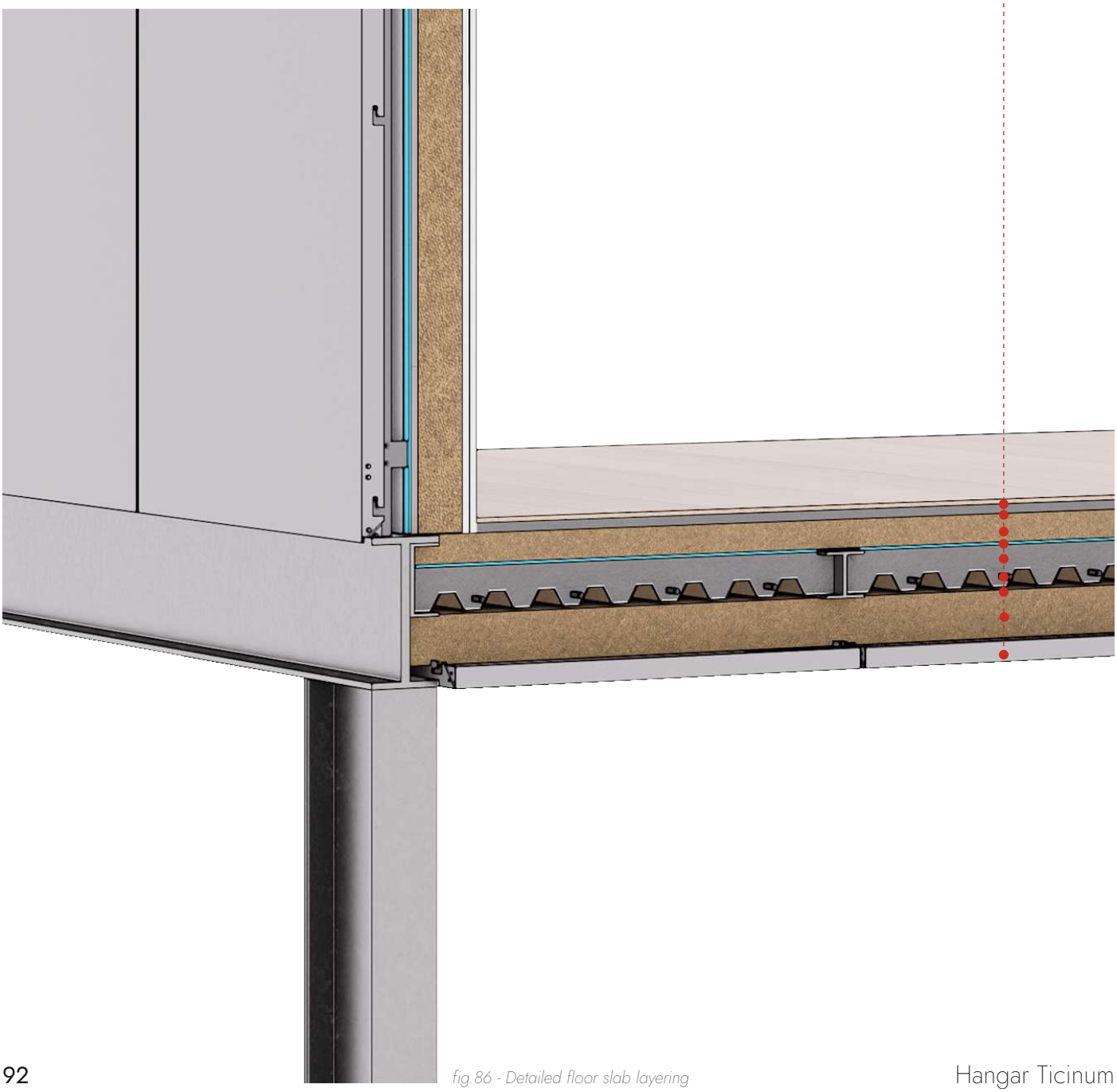


fig.86 - Detailed floor slab layering

D4 GROUND PLANE

Smooth concrete finish 1.5cm

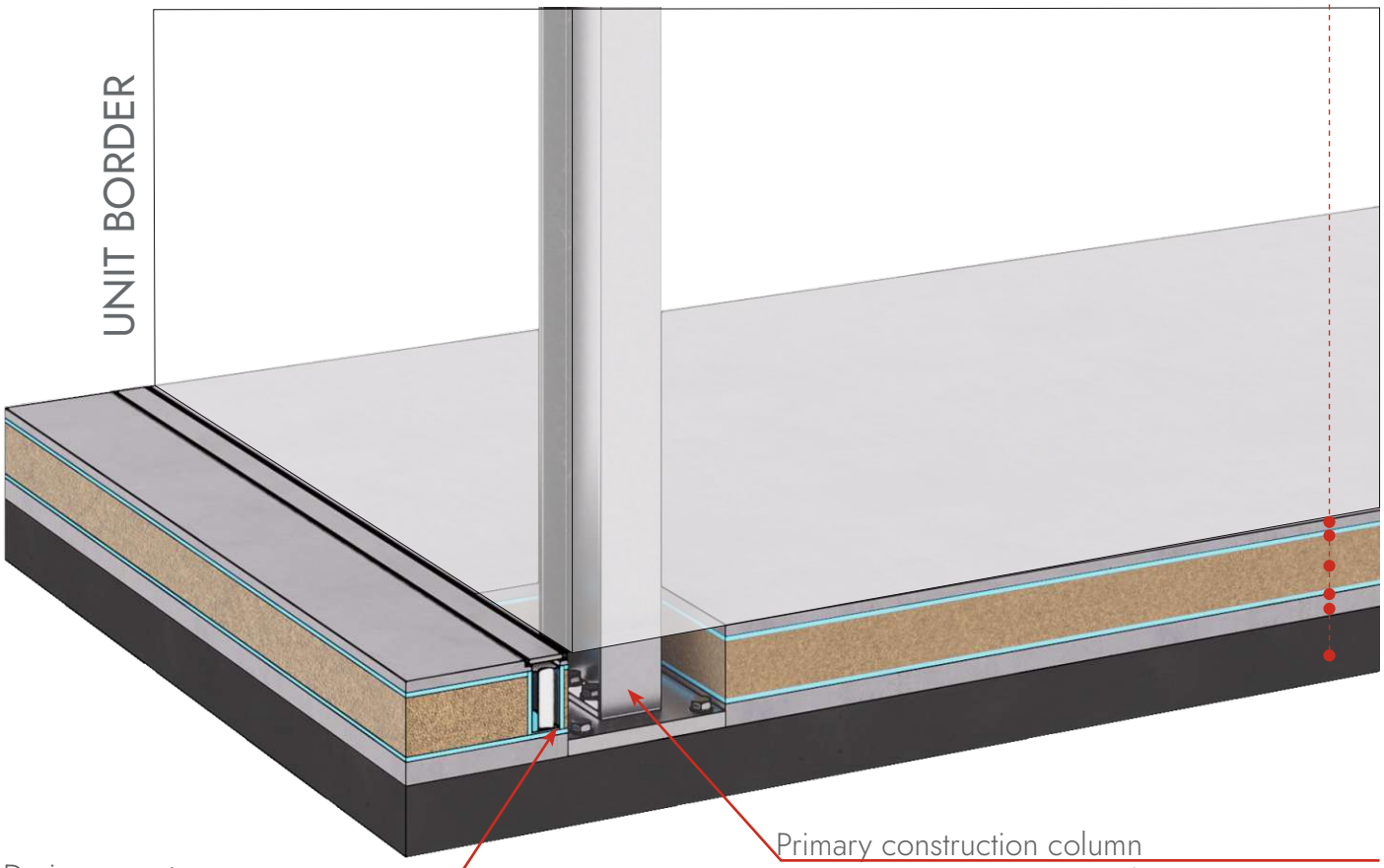
Water insulation 1cm

Compressed grade rigid foam insulation 12cm

Water insulation 1cm

Sloped concrete plate 4-6 cm

Existing concrete slab 15 cm



Drainage system
Laid on both opposite ends of each unit.

Primary construction column
Secured onto the existing floor plate, buried beneath the new layering

fig.87 - Detailed ground floor layering

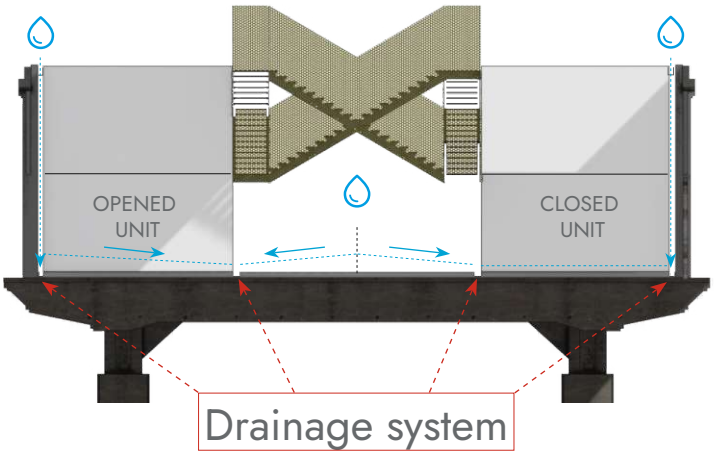


fig.88 - Drainage system directions

The sloped concrete layer is thickest in the middle of the floor plane, leading the water to the drainage systems located on both ends of each unit row. Where the unit is opened, the concrete slopes towards the middle to accomplish a smoother transition.

STAIR ASSEMBLY

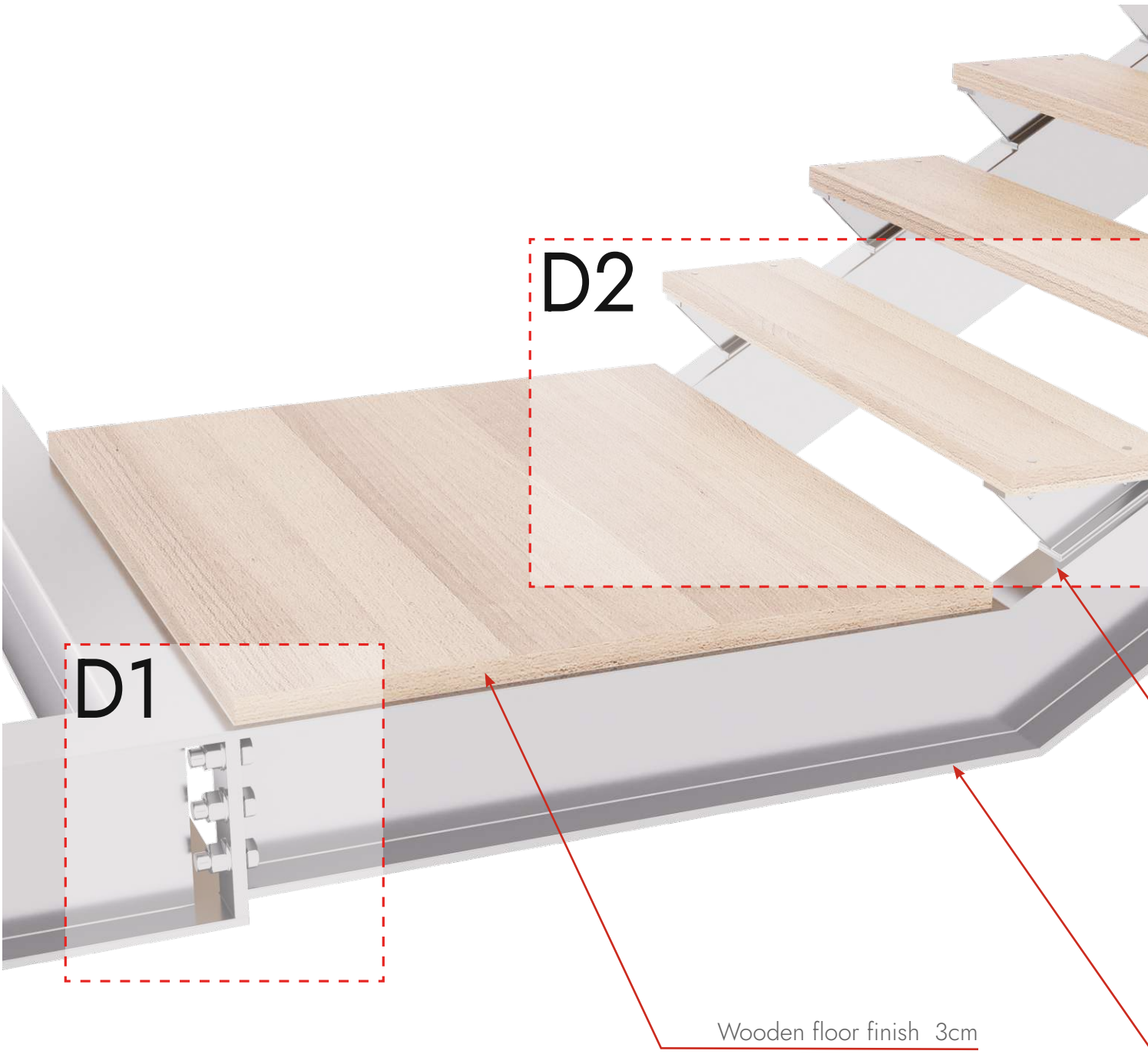
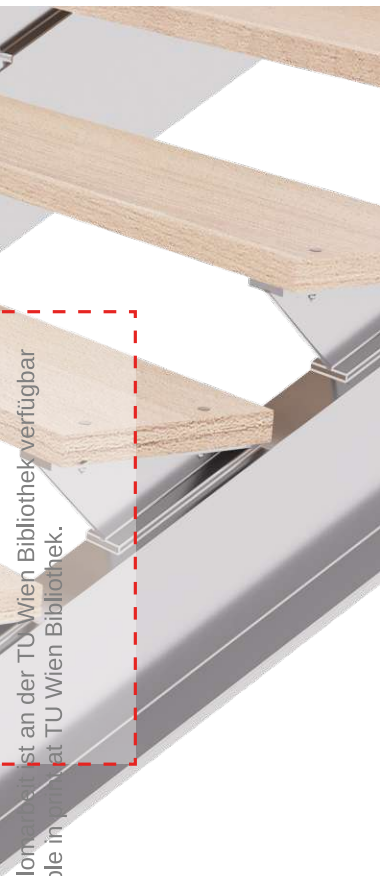


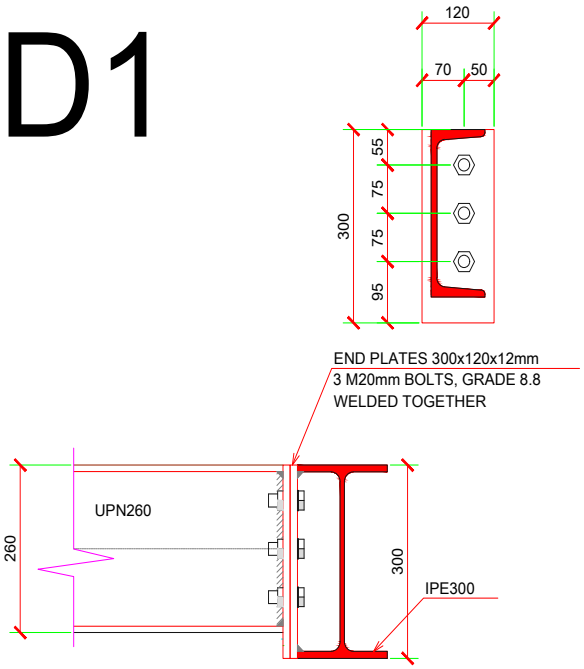
fig.89 - Stair detail
Hangar Ticinum



Welded together

Stair steel beam UPN260

D1



UPN260 STRINGER CONNECTION TO IPE300 MAIN SUPPORT BEAM

fig.90 - Stair detail D1

D2

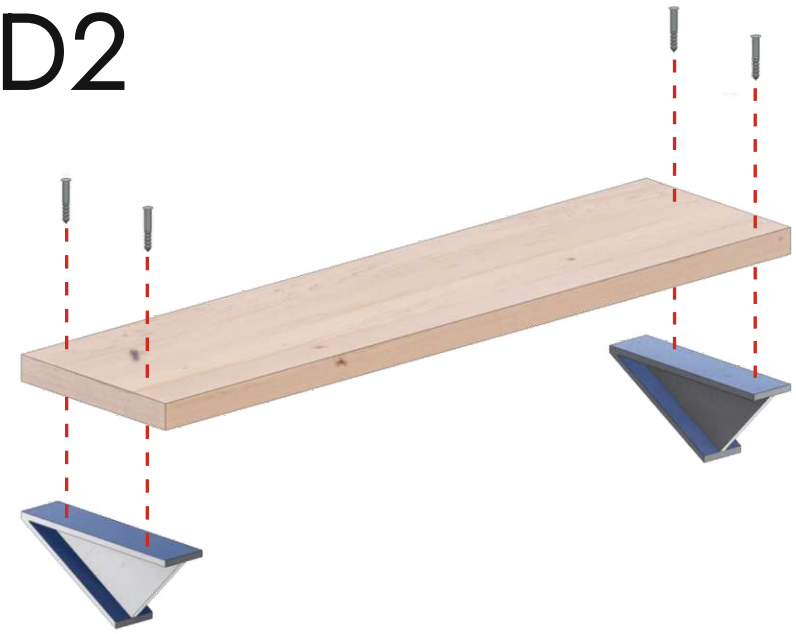


fig.91 - Stair detail D2

FENCE ASSEMBLY

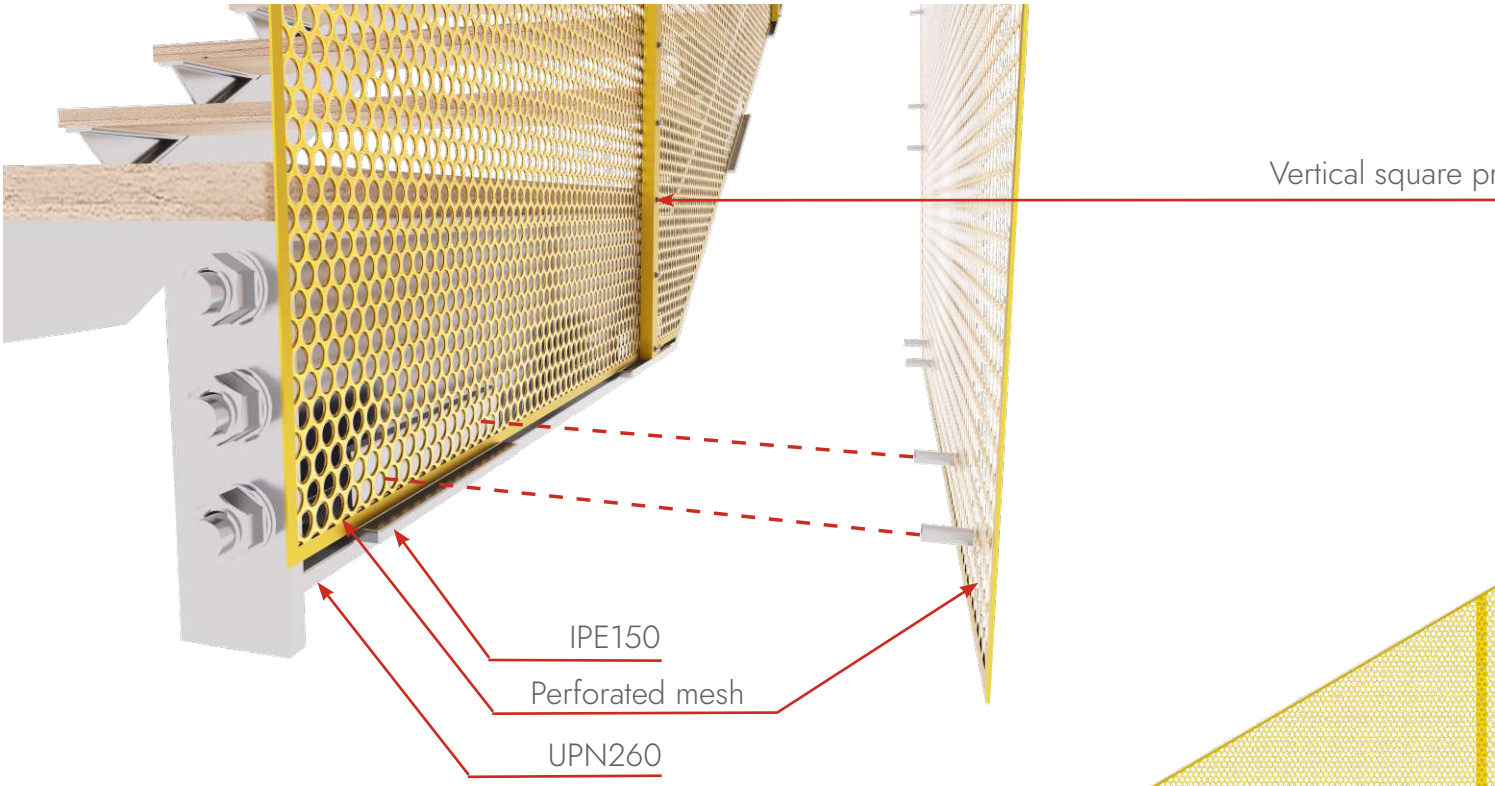


fig.92 - Stair fence assembly

Two layers of a perforated stainless steel mesh sheet are screwed onto vertical square profiles 40/20mm which are secured by IPE150 profiles that are welded to the main staircase beam UPN260.

Along with the support of the IPE150 profiles, the layers of the mesh are further secured by screws along the entire length of the vertical profiles to ensure stability. Finally, the whole assembly is closed with a stainless steel "U" cap on all visible edges of the fence, to contribute to both, aesthetics and robustness.

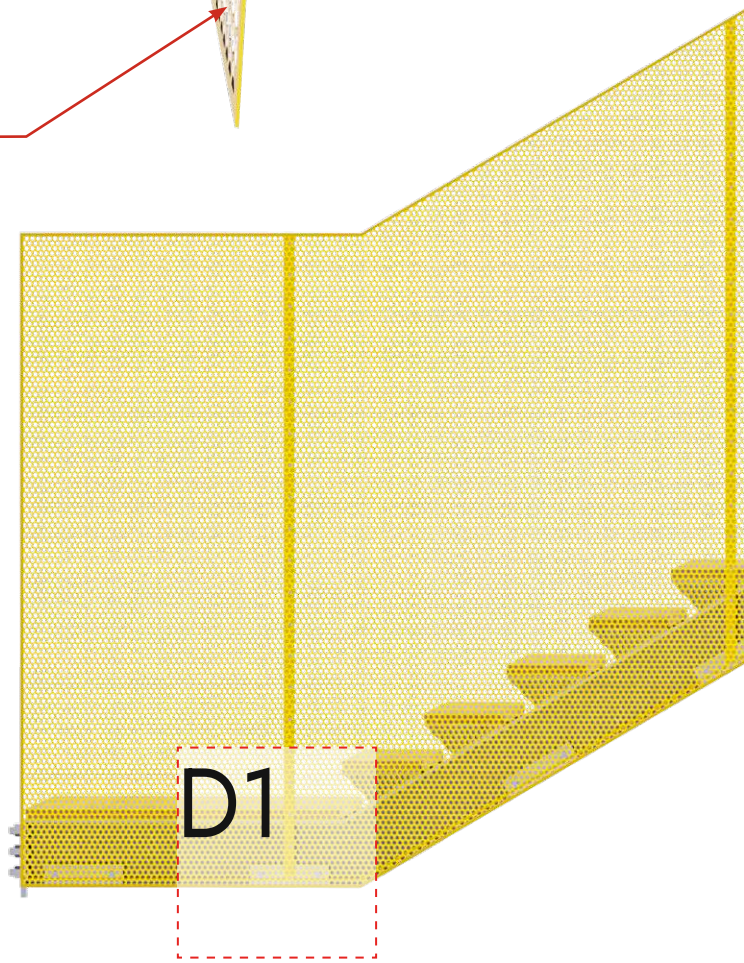
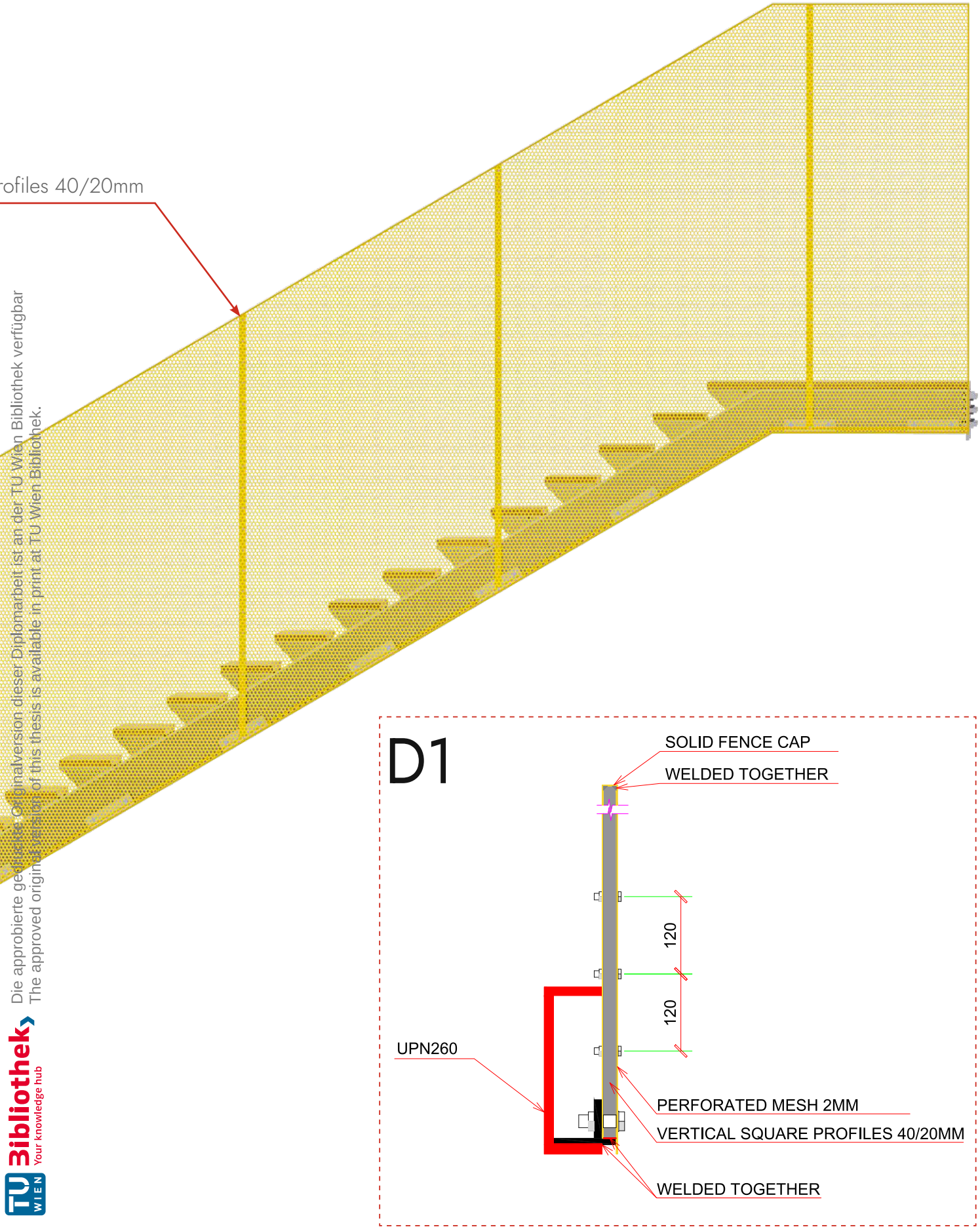


fig.93 - Stair fence elevation



RENDERINGS

fig.95 - Rendering - View from Secondary entrance

fig.96 - Rendering - Bird eye view

fig.97 - Rendering - Multifunctional area

fig.98 - Rendering - View from staircases

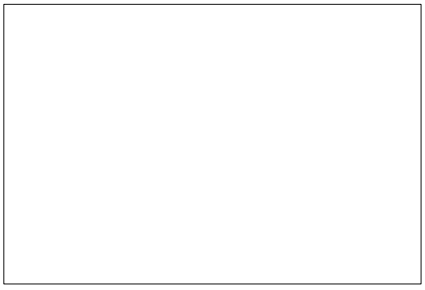
fig.99 - Rendering - Library

fig.100 - Rendering - Roof View

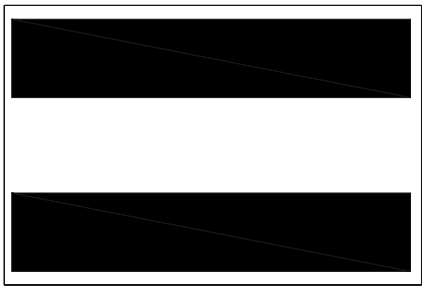
fig. 101 - Rendering - River View

fig.102 - Rendering - Entrance

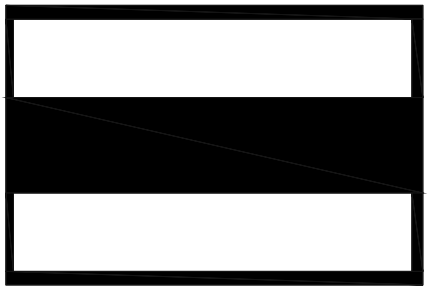
6. EVALUATION



Parcel
860m²

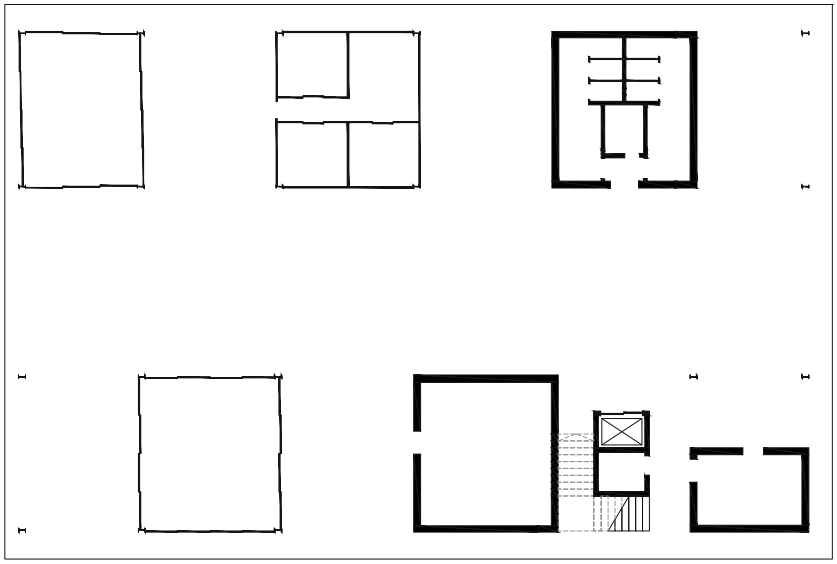


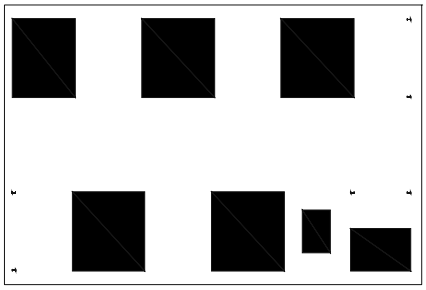
Built area
460m²
53.5% from the parcel



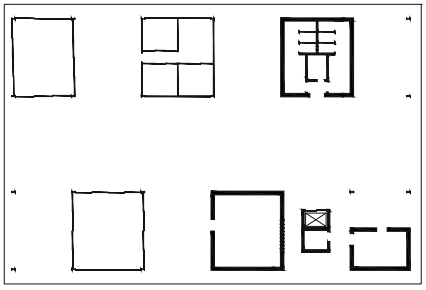
Open space
400m²
46.5% from the parcel

LEVEL 0

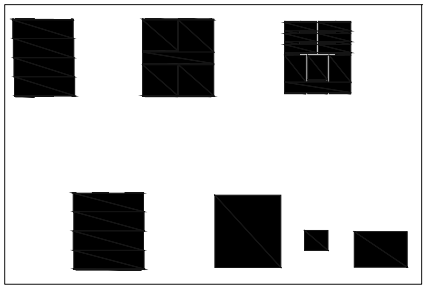




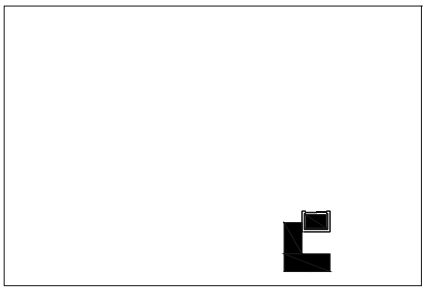
Built area
234m²



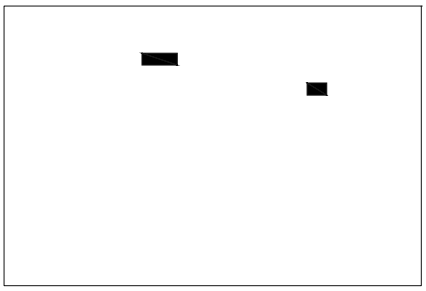
Construction
26.2m² (11.2% from built area)



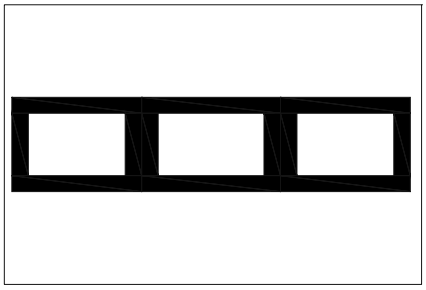
Netto area
190.9m² (81.6% from built area)



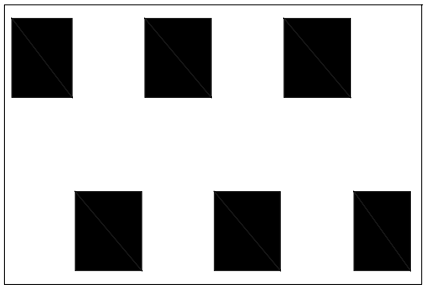
Vertical circulation
12m² (5.1% from built area)



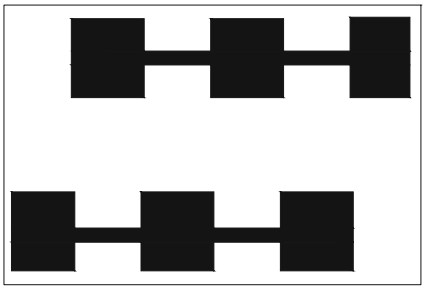
Horizontal circulation
4.8m² (2% from built area)



Additional area
Floated staircase
140m²

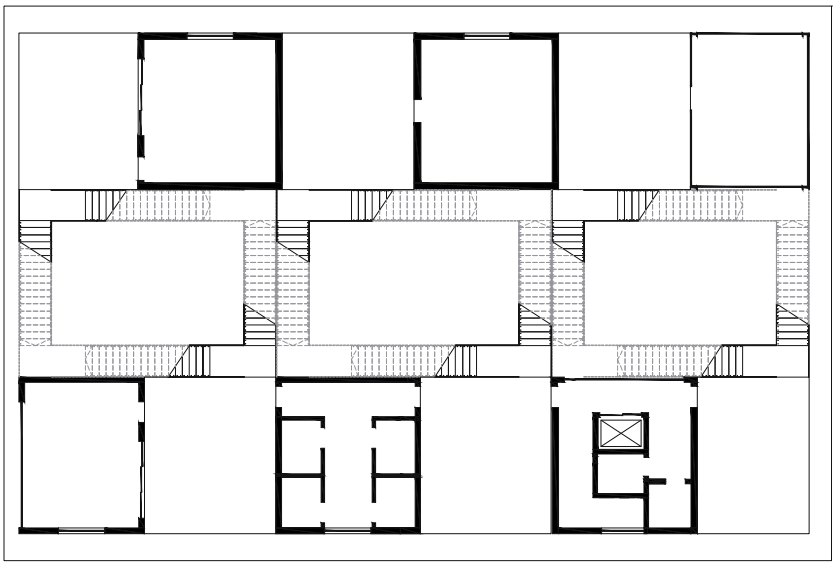


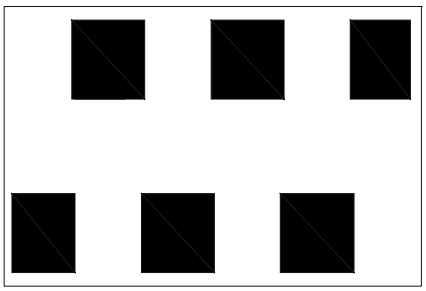
Additional area
Deck - level 1
222m²



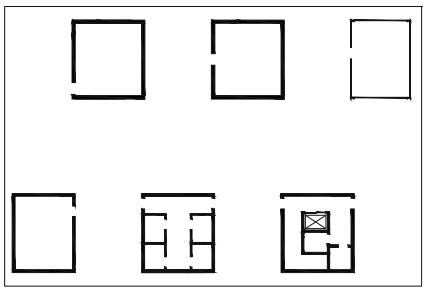
Additional area
Deck - level 2
269m²

LEVEL 1

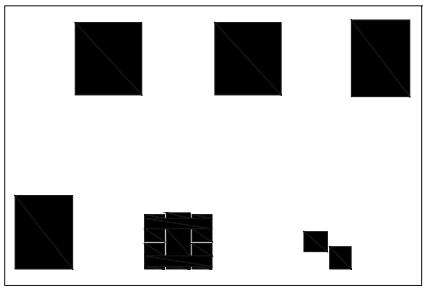




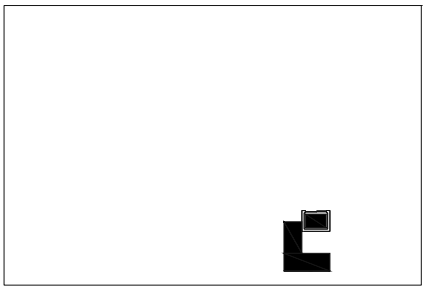
Built area
241.5m²



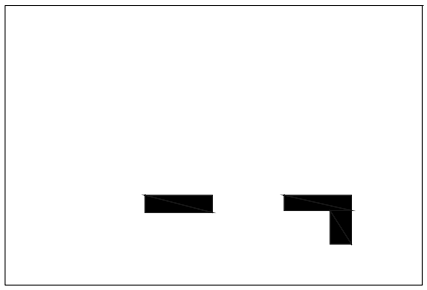
Construction
37.2m² (15.4% from built area)



Netto area
167.2m² (70.5% from built area)



Vertical circulation
12m² (5.1% from built area)



Horizontal circulation
21.3m² (8.8% from built area)

7. CONCLUSION

The main intention behind this thesis was to create a unique place for people and art. Art in all spheres of people's lives, art of living, art of creating, art of cooking, art of communicating... A place that would serve the community in any imaginable way.

The key ideas of the projects are: bringing back a long forgotten valuable building back into the lives of the community; giving it a new shape and feeling that would bring it back to life and invite people in; providing a perfect place for entertainment and relaxation where one would end up after a long day of visiting the historical centre of Pavia; merging the "old" and "new" in a way that respects the history but also manages to signal that something new is happening within the walls of the old; pay special attention to the location and the scenic surrounding of the building...

Why is this project relevant? This Project challenges the conventional idea about relationship between an old hydroplane hangar and a modern multicultural centre, about turning something old, ruined and even forgotten into something new, bright and remarkable.

The Design itself is a kind of a sculpture, it's bright yellow stairs to peek out of the old walls and be visible from many places of the City, potentially becoming one of the main tourist attractions, a landmark of the City itself, uniting art and practical purposes of the building content.

The Idroscalo is only one example of many historically valuable, yet forgotten, buildings in Pavia alone. All of which once had their purpose and served the community, but due to modernization in all spheres of life, lost their primary purpose and are left to their decaying today. Being built long time ago, they have an advantage for extraordinary locations which makes them deserving of a second chance to serve the people once again and potentially become the "new" landmarks of the cities.

Let that be always a challenge of the new generations to investigate, to find those long-forgotten memories, converse them into something new and bright, without loosing the primal identity of the past.

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10. Knauf suspended ceiling - http://knauf.iq/en/systems/ceiling/
11. Knauf Aquapanel - http://knauf.iq/en/products/aquapanel-cement-borads-accessories/

Image References

fig.01 - The abandoned Idroscalo - Source: https://www.terravivacompetitions.com/hangar-ticinum-competition
fig.02 - Map of Europe - Source: https://commons.wikimedia.org/wiki/File:Blank_map_of_Europe_cropped.svg
fig.03 - Urban Fabric of Pavia - Source: https://www.openstreetmap.org
fig.04 - Weather diagram for Pavia - Source: https://www.ncei.noaa.gov/
fig.05 - Weather diagram for Vienna - Source: https://www.ncei.noaa.gov/
fig.06 - Pavia in Roman time - Source: https://commons.wikimedia.org/wiki/File:Pavia_old_map.jpg
fig.07 - Historical centre of Pavia - Source: https://www.openstreetmap.org
fig.08 - 1. Cathedral of Pavia - Source: https://www.freepik.com/premium-photo/aerial-view-cathedral-pavia-italy_16295981.htm
fig.09 - 2. Ponte Coperto - Source: https://www.freepik.com/premium-photo/aerial-view-ponte-coperto-pavia-italy_16293015.htm
fig.10 - 3. Borgo Ticino - Source: https://elevation.maplogs.com/poi/pavia_province_of_pavia_italy.118153.html
fig.11 - 4. Visconti Castle - Source: https://www.dreamstime.com/visconti-castle-pavia-aerial-view-image159952833
fig.12 - 5. The University of Pavia - Source: https://fartakapply.com/university-of-pavia/?lang=en
fig.13 - 6. Collegio Borromeo - Source: http://news.unipv.it/?p=69686
fig.14 - Map of Italy - Source: https://commons.wikimedia.org/wiki/File:Blank_map_of_Europe_cropped.svg
fig.15 - The Idroscalo 1934 - Source: https://www.ilgiornaledelpo.it/il-primo-volo-da-trieste-a-torino/
fig.16 - The Idroscalo surrounded by vegetation - Source: https://www.terravivacompetitions.com/hangar-ticinum-competition/
fig.19 - Location graphic, Tiana Tasevska
fig.20 - Walkaway to street destroyed - Source: https://www.terravivacompetitions.com/hangar-ticinum-competition/
fig.21 - Situational Analysis, Tiana Tasevska
fig.24 - Option 1 - Axo, Tiana Tasevska
fig.22 - Option 1 - Openness, Tiana Tasevska
fig.23- Option 1 - Views & Daylight, Tiana Tasevska
fig.25 - Option 1 - View from street, Tiana Tasevska
fig.28 - Option 2 - Axo, Tiana Tasevska
fig.26 - Option 2 - Openness, Tiana Tasevska
fig.27 - Option 2 - Views & Daylight, Tiana Tasevska
fig.29 - Option 2 - View from street , Tiana Tasevska
fig.30 - Option 3 - Removing volumes, Tiana Tasevska
fig.32 - Option 3 - Rotation of the second row of units, Tiana Tasevska
fig.33 - Option 3 - Openness, Tiana Tasevska
fig.31 - Option 3 - Views & Daylight, Tiana Tasevska
fig.34 - Option 3 - Axo, Tiana Tasevska
fig.35 - Option 3 - View from street , Tiana Tasevska
fig.36 - Roman's Pavia urban fabric, Tiana Tasevska
fig.36 - Laying Pavia's urban fabric over the plane of the

Idroscalo, Tiana Tasevska
fig.38 - Deployment of the units over the existing grid, Tiana Tasevska
fig.37 - Pushing the boxes to the sides of the plane, Tiana Tasevska
fig.39 - Adding second layer of units on top, Tiana Tasevska
fig.44 - Adding the stairs, Tiana Tasevska
fig.40 - Existing condition, Tiana Tasevska
fig.42 - Adding the secondary entrance over the old ramp, Tiana Tasevska
fig.41 - Removing the roof & windows, Tiana Tasevska
fig.43 - Adding the units, Tiana Tasevska
fig.45 - Connecting the Idroscalo to the street, Tiana Tasevska
fig.46 - Idroscalo today , Tiana Tasevska
fig.47 - Idroscalo in 5 years, Tiana Tasevska
fig.48 - Idroscalo in 10 years, Tiana Tasevska
fig.49 - Idroscalo in 15 years, Tiana Tasevska
fig.50 - Analysis of bridge use 01, Tiana Tasevska
fig.52 - Analysis of stair use 01, Tiana Tasevska
fig.51 - Analysis of bridge use 02, Tiana Tasevska
fig.53 - Analysis of stair use 02, Tiana Tasevska
fig.54 - Analysis of movement, Tiana Tasevska
fig.55 - Vertical communications analysis, Tiana Tasevska
fig.56 - Construction grid, Tiana Tasevska
fig.57 - Existing construction elements, Tiana Tasevska
fig.58 - Main structure elements , Tiana Tasevska
fig.59 - Main structure elements dimensions, Tiana Tasevska
fig.61 - Stair beam dimensions, Tiana Tasevska
fig.60 - Stair construction, Tiana Tasevska
fig.61 - Stair assembly, Tiana Tasevska
fig.62 - Stair finish, Tiana Tasevska
fig.63 - Stair hight, Tiana Tasevska
fig.64 - Multifunctional area, Tiana Tasevska
fig.65 - Layout development, Tiana Tasevska
fig.66 - Suggested uses of units LVL 0, Tiana Tasevska
fig.67 - Suggested uses of units LVL1, Tiana Tasevska
fig.68 - Suggested uses of units LVL2, Tiana Tasevska
fig.68 - Location, Tiana Tasevska
fig.69 - Site Plan, Tiana Tasevska
fig.70 - Floor plan 0, Tiana Tasevska
fig.71 - Floor plan 1, Tiana Tasevska
fig.72 - Floor plan 2, Tiana Tasevska
fig.73 - Section A-A, Tiana Tasevska
fig.74 - Section B-B, Tiana Tasevska
fig.74 - 3D Section A-A, Tiana Tasevska
fig.75 - 3D Section B-B, Tiana Tasevska
fig.76 - North view , Tiana Tasevska
fig.77 - South view, Tiana Tasevska
fig.78 - East view , Tiana Tasevska
fig.79 - West view, Tiana Tasevska
fig.80 - Detail section location, Tiana Tasevska
fig.81 - Unit sub - construction, Tiana Tasevska
fig.82 - Detailed unit section, Tiana Tasevska
fig.83 - Detailed roof deck layering, Tiana Tasevska
fig.84 - Detailed roof deck cross section, Tiana Tasevska
fig.85 - Detailed wall layering, Tiana Tasevska
fig.86 - Detailed floor slab layering, Tiana Tasevska
fig.88 - Drainage system directions, Tiana Tasevska
fig.87 - Detailed ground floor layering, Tiana Tasevska
fig.89 - Stair detail, Tiana Tasevska
fig.90 - Stair detail D1, Tiana Tasevska
fig.91 - Stair detail D2, Tiana Tasevska
fig.92 - Stair fence assembly, Tiana Tasevska
fig.93 - Stair fence elevation, Tiana Tasevska
fig.94 - Stair fence detail D1, Tiana Tasevska
fig.95 - Rendering - View from Secondary entrance, Tiana Tasevska
fig.96 - Rendering - Bird eye view, Tiana Tasevska
fig.97 - Rendering - Multifunctional area, Tiana Tasevska
fig.98 - Rendering - View from staircases, Tiana Tasevska
fig.99 - Rendering - Library, Tiana Tasevska
fig.100 - Rendering - Roof view, Tiana Tasevska
fig.101 - Rendering - River view, Tiana Tasevska
fig.102 - Rendering - Entrance, Tiana Tasevska

C U R R I C U L U M V I T A E

TIANA TASEVSKA

INFO

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SOCIAL

ABOUT ME

I'm a 28 year old graduated student of architecture at the American College in Skopje, Macedonia.

In 2017, I moved to Vienna to start my Master of architecture at the TU University.

As a student I had the privilege to be lectured by famous architects from all over the world. During this time I have developed a great desire to explore the creative world of architecture even further.

WORK EXPERIENCE

HACKMAN CAPITAL
hackmancapital.com
Los Angeles, USA
Feb 2021 - Present

FREELANCE
FIVERR + UPWORK (TOP RATED)
Nov 2020 - Present

FREELANCE
DSC DESIGN
dscdesign.com.mk
Skopje, Macedonia
Feb 2020 - Present

EMPLOYED
ARCHINOA
achinoa.com
Vienna, Austria, Aug 2017 - Mar 2018

INTERN
ARCHINOA
achinoa.com
Vienna, Austria, 3 months

INTERN
DSC DESIGN
dscdesign.com.mk
Skopje, Macedonia

INTERN
AD BETON
beton.com.mk/en
Skopje, Macedonia

EDUCATION

2021

2020

Vienna, Austria
student at TU University (Master studies)

2019

2018

2017

UACS - Skopje, Macedonia
Bachelor's degree in Architecture

2016

Space - maker workshop - learning Rhino
Skopje, Macedonia

Ohrid - 3rd interbational summer school of architecture and design
Behaviorology in Ohrid
Mentors: Atelier BOW-WOW
Arch: Yoshisharu Tsukamoto & Momoyo Kaijima

2015

Ohrid - 2nd interbational summer school of architecture and design
Mentors : Penezic & Rogina Architects
Arch: Kresimir Rogina, Zagreb

2014

COURSES / EXIBITIONS

ALLPLAN - Basic + Advanced Course
Certified.

LUMION - Realistic Rendering - Nuno Silva

Sustainable Interior Design Week - UGREEN
Graduating from a 10 hour green building training.

Sustainable Architecture Week - UGREEN
Graduating from a 10 hour green building training.

3Ds MAX + Corona Render - Realistic rendering week
Online course - 1 week - Ander Alencar

Final exibition of American College 2016
project "Munnicipality of Star Dojran", which was selected to be a part of the exibition.
Dojran, Macedonia

Final exibition of American College 2016
project "Nurturing home & Kindergarten", which was selected to be a part of the exibition.
Dojran, Macedonia

SOFTWARE

Microsoft Office	Adobe Photoshop	Adobe Illustrator	AutoCAD	Sketch Up	Lumion	3ds Max	ALLPLAN	Revit	ArchiCAD
90%	90%	90%	90%	90%	90%	75%	60%	60%	40%

LANGUAGES

MACEDONIAN	ENGLISH	GERMAN	SERBIAN	CROATIAN
NATIVE	C1	C1	B2	B2

EXPERTISE

Graphic design	Product design	Interior design	Architectural design	Landscape design	Urban design	3D Visualizations
50%	20%	80%	70%	70%	50%	90%