



tomas vacha

my journey through architecture

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@_tomas_vacha_
https://tomasvacha.com/



tomas vacha

“ I am passionate, dedicated and driven by a strong work ethic. Once I commit to a project, I approach it systematically, taking full responsibility to achieve the best results. I thrive on challenges, learning from setbacks to continuously improve. Creative and adaptable, I excel under pressure and enjoy tackling new challenges.

Outside of work, I am passionate about sports, which promote teamwork and personal growth. My travels, on the other hand, inspire my creativity and broaden my perspective. Photography allows me to explore new angles and details, while drawing serves as my form of meditation.

”

work experiences

0,5 Studio

07/2023 - 04/2025
Prague, Czech Republic
www.05studio.cz

Architect I Interior Designer

Concept Design for Residential Houses
Concept Design for Architectural Conversion
Interior Design I Presented Designs to Investors
Construction Documentation
Managing Coordination with Technical Specialists

arch_feel

08/2018 - 05/2023
Prague, Czech Republic
www.archfeel.cz

Junior Architect

Participation in Architectural Competitions
Urban Planning Development
Design of Family Houses
Building Permit Documentation
Creation of Visualizations and 3D Models
Managing Coordination with Project Consultants

qwert studio

04/2018 - 05/2023
Prague, Czech Republic
www.qwertstudio.com

Architect I Urban Designer

Participation in Architectural Competitions
Concept Design for Residential Houses
Concept Design for Public Buildings
Urban Planning and Public Space Development

Bevako

06/2014 - 06/2022
Planá n. L., Czech Republic
www.bevako.cz

Steel Structure Consultant

Construction Documentation
Basic Structural Calculations for Steel Structures
Creation of Visualizations and 3D Models

Dřevotvar

04/2016 - 09/2018
Chýnov, Czech Republic
www.drevotvar-ptak.cz

Construction Manager - Junior

Managing Building Site Preparation
Supervision of Construction Processes
Building Site Inspection

love. create. inspire.



education

Czech Technical University in Prague

Department of Architecture, Faculty of Civil Engineering
06/2023 Ing. Arch. Master's in Engineering and Architecture
06/2021 BcA. Bachelor's in Engineering and Architecture

STS of Mechanical and Civil Eng. in Tábor

05/2017 High School Diploma
in Mechanical Engineering and Civil Engineering

achievements

Inspireli Awards I Archicad Prize

09/2023 Honorable Mention in the Archicad Prize
for Sports Harbor & Shipyard Braník

The Professor Voděra Prize

09/2023 The best diploma thesis
at the Faculty of Civil Engineering for the year 2023

Yellow Card Award for Urban District Design

01/2023 Achievement for the best student project
in the Architecture program at CTU

Yellow Card Award for Bridge Design

05/2022 Achievement for the best student project
in the Architecture program at CTU

workshops

Jürg Konzett (Konzett , Bronzini, Gartmann AG)
2023 Bridge Design and Construction

VISUIN institut in Prague
2022 Adobe Illustrator 2020 Adobe InDesign 2020 Adobe PhotoShop

Department of Architecture, Faculty of Civil Engineering
2022 Lumion 2021 ARCHicad 2020 3ds Max 2017 AutoCAD
2019 Revit 2019 Revit 2018 Rhinoceros 2017 SketchUp

Architectural Drawing Courses
prof. Ing. arch. Jaroslav Sýkora, DrSc. & Ing. arch. Jana Krolupperová

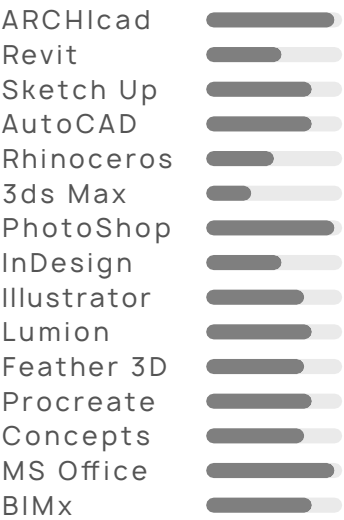
archiskills

Research & Site Analysis
Architectural Diagrams
3D Modeling & Rendering
BIM
Architectural Drawing
Construction Drawing
Construction Detailing

softskills

Communication
Teamwork
Problem-Solving
Time Management
Presentation Skills
Self-learning
Attention to Detail

software



languages

Language	Proficiency	Level
Czech	native	C2
English	fluent	C1
German	limited	B1
Spanish	basic	A1

FACULTY OF CIVIL ENGINEERING
DEPARTMENT OF ARCHITECTURE
doc. Ing. arch. Jaroslav Daďa, Ph.D.
DEPUTY HEAD OF DEPARTMENT



0,5
studio

BAT architecture

Gran Vía de Don Diego
López de Haro, 2, planta 7
48001 Bilbo, Bizkaia

Tomáš Vácha _ Recommendation Letter

I am writing to you in support of Tomáš Vácha, who is seeking a position in your studio. I am an associate professor and deputy head of the Department of Architecture at the Faculty of Civil Engineering, Czech Technical University in Prague, where I have been teaching since 2007.

Tomáš Vácha, under my supervision, completed his diploma thesis on the topic of the Braník Sports Port in Prague. This thesis won the award for the best diploma thesis at our faculty in 2023.

I met Tomáš Vácha in the pre-diploma studio. Throughout his studies, Tomáš Vácha has demonstrated excellent results and a responsible approach to his studies. This is evidenced by the many awards he has received for his studio semester projects. He is undoubtedly one of the best students in his class. He has great creative potential, his designs are bold and have a strong concept. Tomáš is a very conscientious, talented and goal-oriented student. He is also very well equipped linguistically.

Tomáš Vácha is very interested in the Spain as a country and its culture, especially the history, principles and specifics of the spanish approach to design and architecture.

Tomáš has a sensibility to his work that shows a deep and meditative thought process. He thinks through drawing and making. His intensity is balanced by a warmly collegial attitude that is productive and Inspiring to others in a team.

I endorse his candidacy without hesitation.

doc. Ing. arch. Jaroslav Daďa, Ph.D.

Prague, 16 May 2025

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VAT CZ68407700
KB PRAHA 6, BIC KOMBCZPPXXX
IBAN CZ7601000000195504610227

Name and surname of the referee: MgA. Vít Svoboda

Position in the studio: Managing Partner

Recommended person: Ing. arch. Tomáš Vácha

Tenure at 0,5 Studio: September 2023 – April 2025

Recommendation

Ing. arch. Tomáš Vácha was a valuable member of our studio for over a year. He joined 0,5 Studio after a successful selection process, during which he impressed us with the quality of his diploma project and his overall attitude. Throughout his time with us, he fulfilled all expectations and became a reliable and fully integrated member of the team. Tomáš participated in most of the key phases of architectural work – from formulating the brief in cooperation with clients, through interior design using SketchUp, AutoCAD, and conceptual sketches. He quickly and effectively mastered all of these tools within a few months. We collaborated on a wide range of projects, from family house studies to implementation documentation for apartment and house interiors.

Our studio uses a variant-based design approach, consciously seeking differing solutions to find the most suitable one. This method is intentionally demanding, but Tomáš adapted very well and actively participated in discussions about both concept and form. We also emphasize involving architects in client meetings – we see it as an essential part of professional growth. Tomáš took part in these meetings from the very beginning and gradually assumed part of the responsibility for managing communication.

An example of his active involvement is the design and realization of a functionalist apartment interior, where he contributed throughout the entire process – from the initial concept to the detailed construction drawings.

Skills

- **AutoCAD:** excellent
- **SketchUp – modeling:** very good
- **Conceptual thinking and architectural reasoning:** excellent
- **Drawing and technical detail sketches:** excellent
- **Working with design alternatives:** excellent
- **Independence in the design process:** yes

Evaluation

I hereby confirm that Ing. arch. Tomáš Vácha is a creative, conceptually thinking, conscientious, and precise architect. He is capable of working independently within a given task, thinks in the context of space and client requirements, and has a keen sense for selecting appropriate materials and presentation methods.

He was a full-fledged member of our team, and I confidently recommend him for a position in your studio.

19.5.2025 v Praze

MgA. Vít Svoboda

podpis

Czech Technical University in Prague

alma mater

0,5 Studio

previous employer



“ Each project in my portfolio begins as a quiet question—an inquiry into space, purpose and emotion. The answers unfold in form, light and material.

This collection traces my journey through architecture, where ideas are shaped into spaces and spaces speak back with meaning.

”

01 ecosystem

What does it mean to build where stories already live?

09-24

02 sport & culture

How can architecture move people—physically & emotionally?

25-52

03 community

How can architecture bring people together?

53-74

04 continuity

Can architecture listen before it speaks?

75-92

05 identity

Can space reflect who we are?

93-102

I LOVE
MIA-JANE

WHEN I WAS YOUNG
I WAS STUPID
BUT AFTER MANY YEARS
OF HARD STUDY
I AM NO LONGER



01

ecosystem

What does it mean to build where stories already live?

YELLOW
CARD
AWARD

A forgotten stretch along the Vltava river—scarred yet full of promise—calls for revival. Its proximity to the river hints at a future shaped by movement, leisure and nature.

The design introduces a cohesive urban block structure, punctuated by strong, legible landmarks that anchor orientation and define identity. Within this framework, green corridors are reconnected to form a living ecosystem—woven into the urban fabric.

Careful attention was given to massing, transparency and how built forms shape daily experience. Public spaces are choreographed to invite interaction, reflection and a renewed sense of belonging.

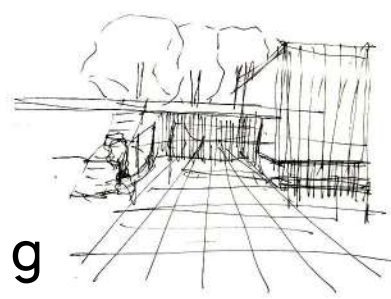
The design honours existing communities while bridging sport, culture and infrastructure—transforming an overlooked site into a sustainable and spirited part of the city.

location	Czech Republic Prague
year	2022
type	urbanism
author	solo project
scale	XXXL

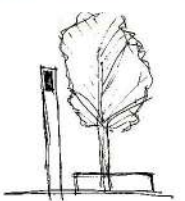
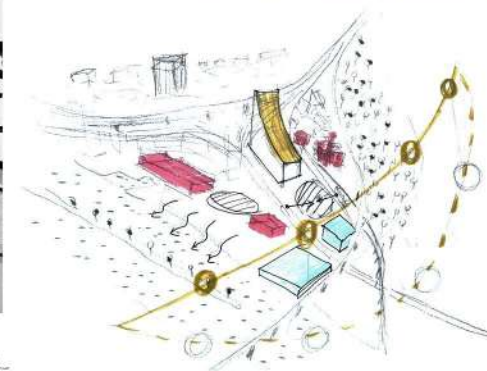
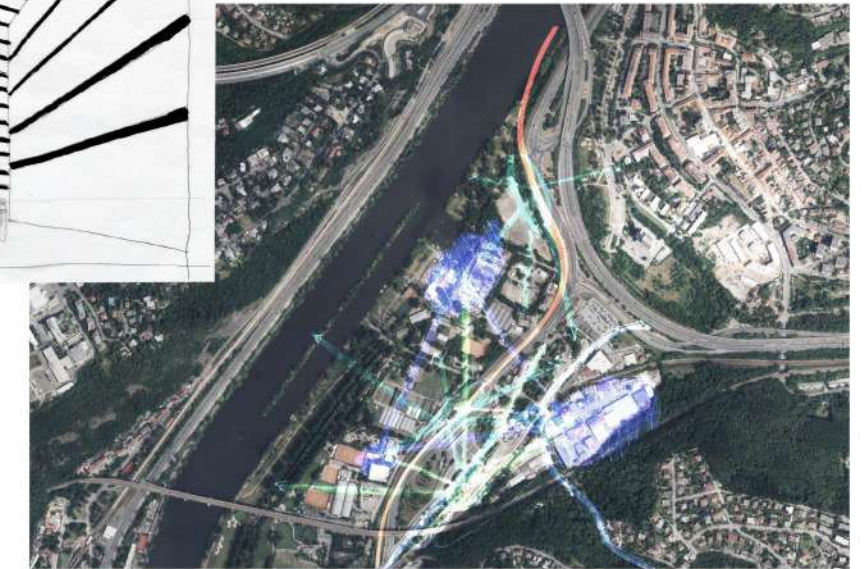
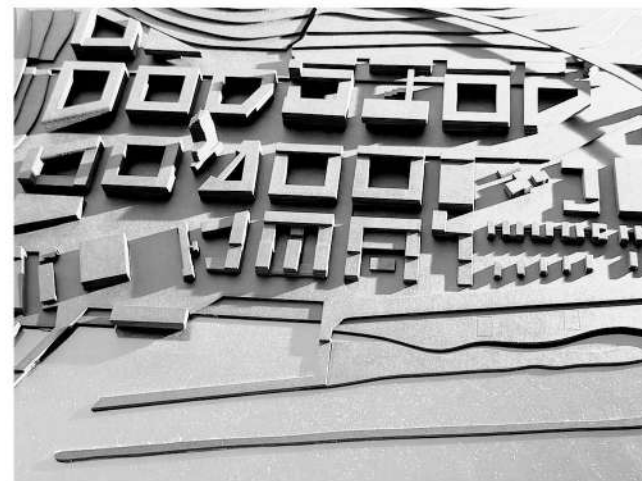
keywords

urban district development / urban regeneration / community integration / mixed-use development / riverfront development / green corridors / sustainable planning / infrastructure / public realm

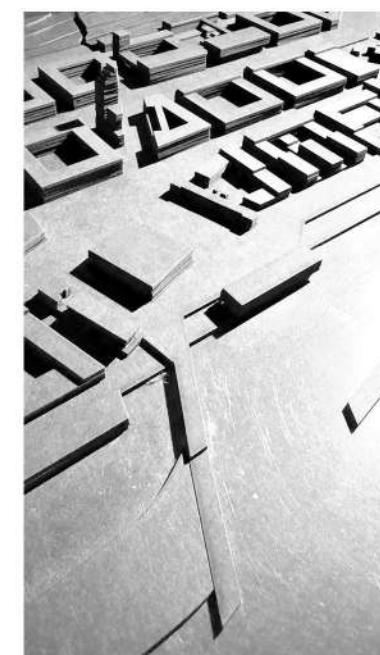
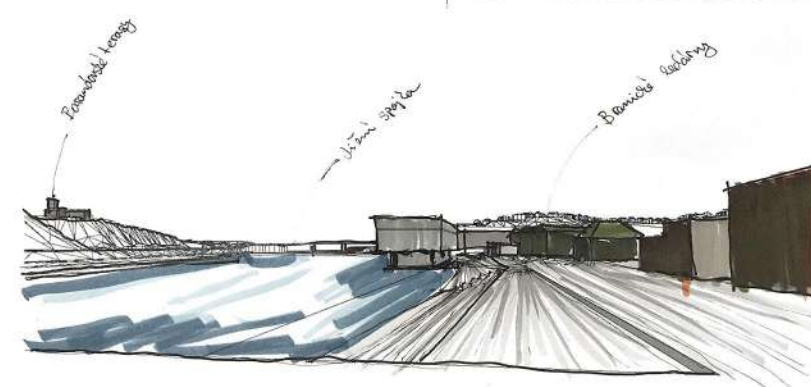
analysing

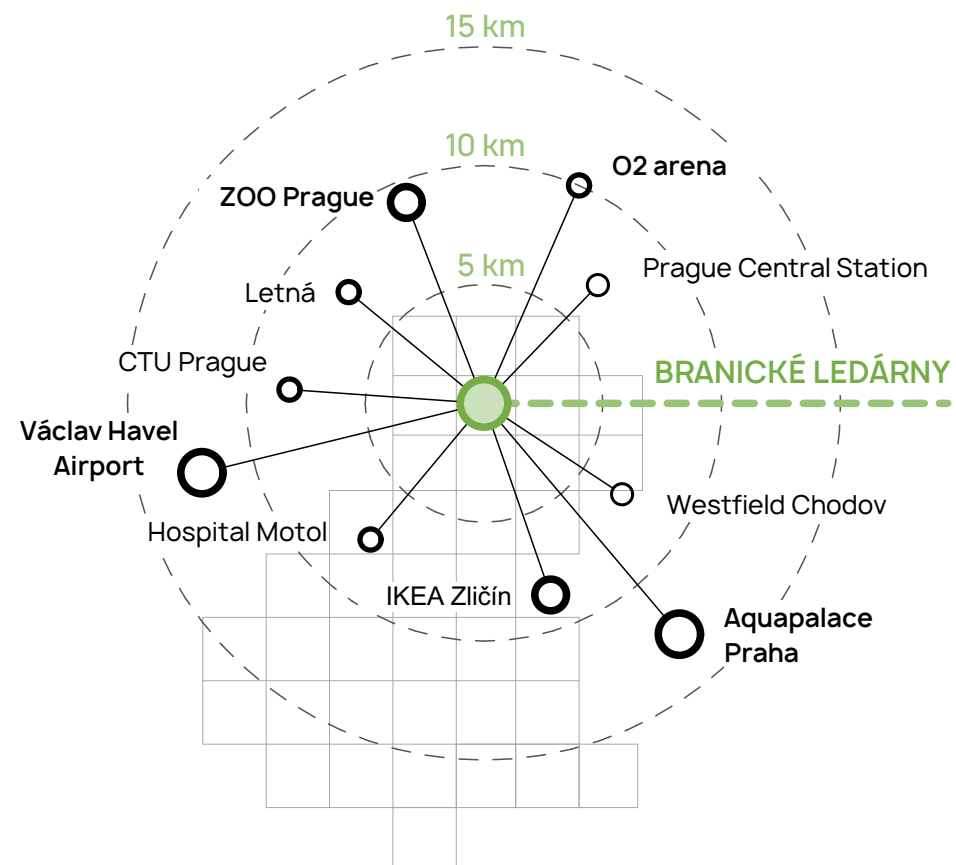


modelling



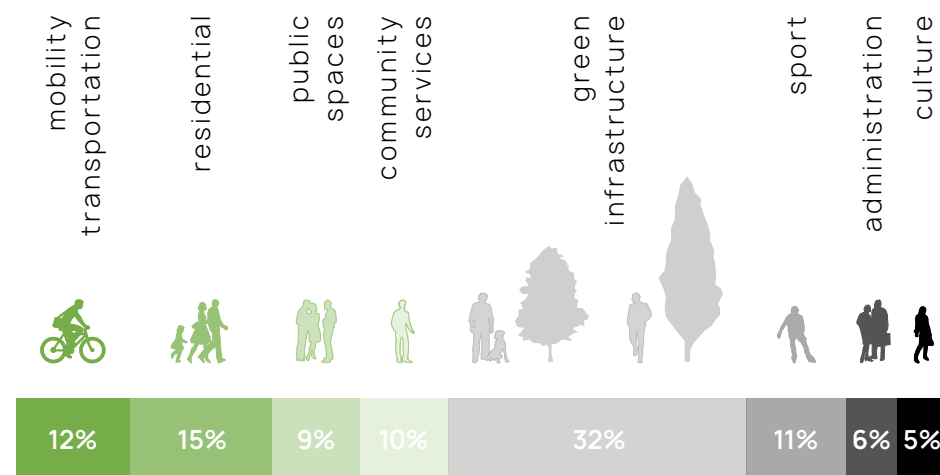
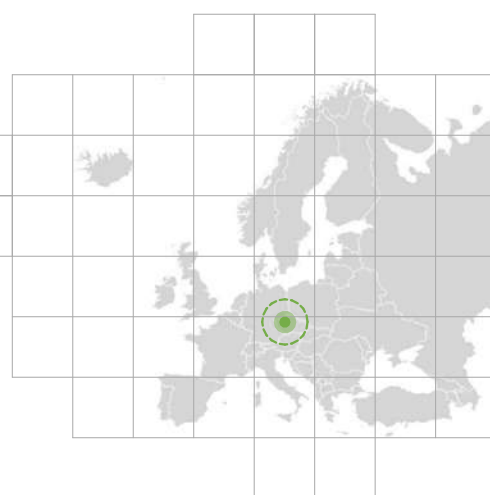
sketching
sketching
sketching





region
country
city
district

Central Europe
Czech Republic
Prague
Prague 4 | Braník



key functions in the area

by user type



water pavilion
families | older adults | tourists | cyclists



water sports hub
clubhouse for yachting & rowing



significant alley
pedestrians | runners | cyclists



tramway
existing embankment alignment



bay area
training for kayakers

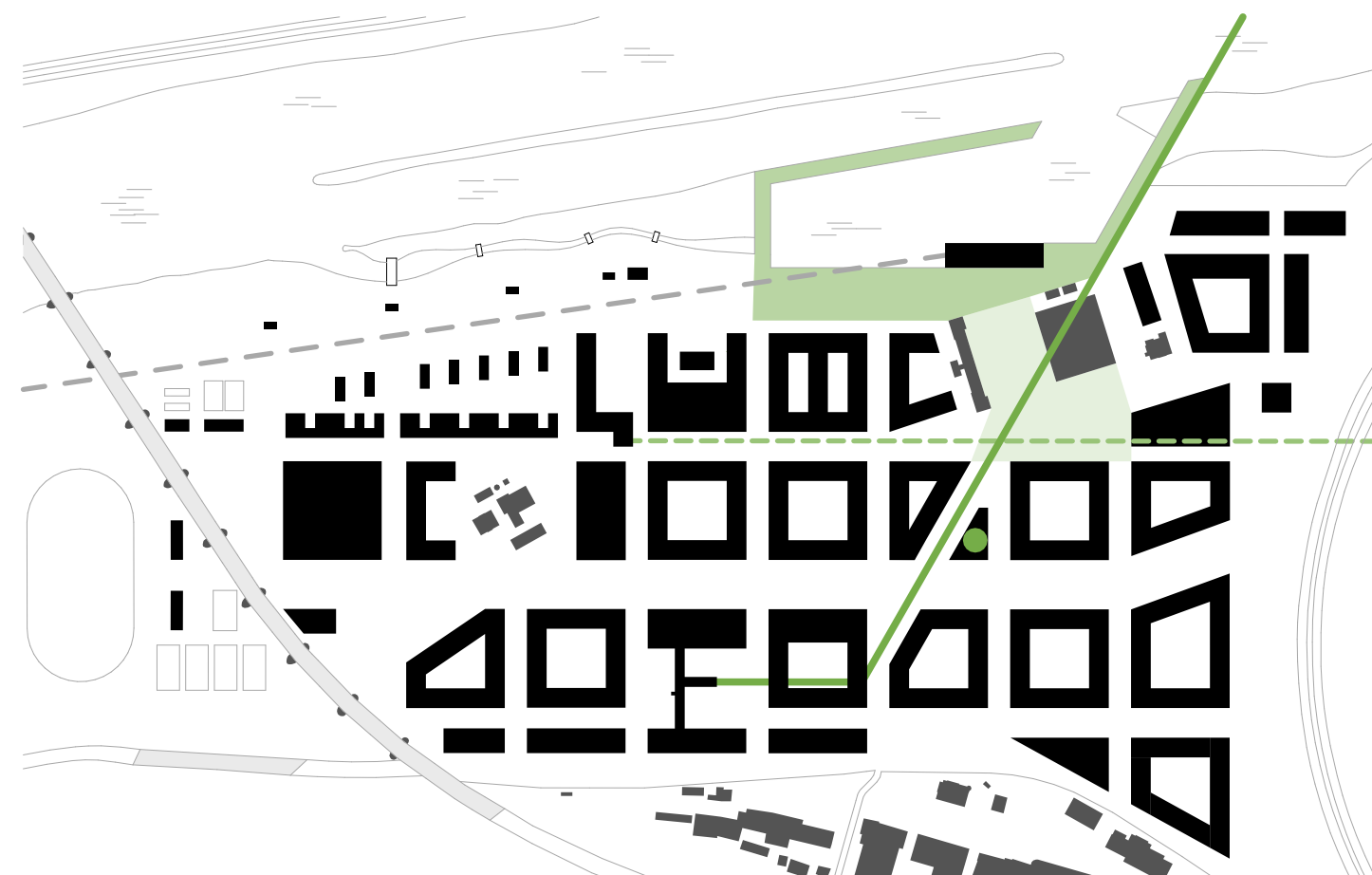


existing state

solved area
demolished objects

values in the area
significant alley

valuable buildings
surrounding buildings



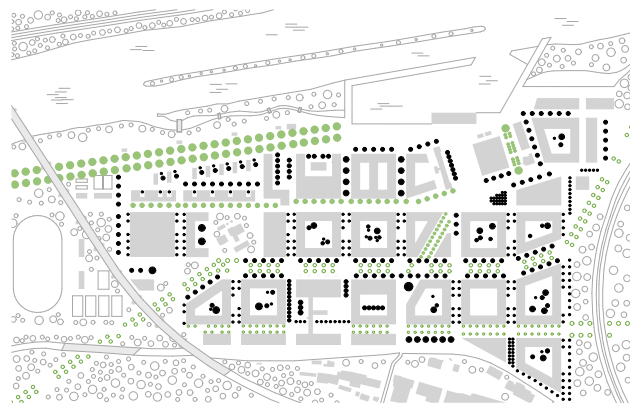
concept design

Barrandov terraces
Church of st. Prokop

the concept of harbour
the end of alley

orientation point
connection

existing
designed



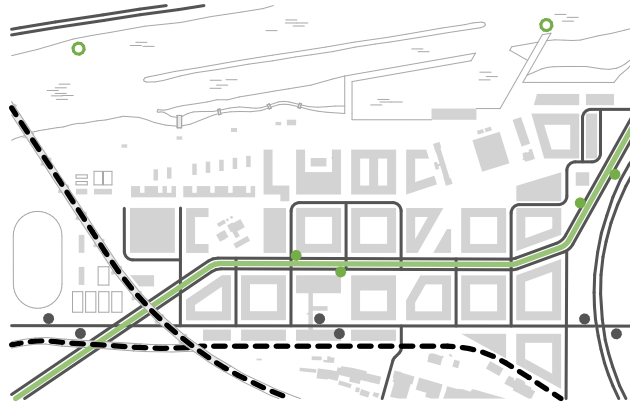
natural ecosystem

existing greenery ○ noise-buffering vegetation ○
significant alley ● climate-regulating greenery ●



pedestrian connections

main pedestrian corridor ■ urban center ■ points of interest ●
pedestrian corridor ■ cycling routes ■ scenic viewpoints ●
shelter from weather ■



transport network

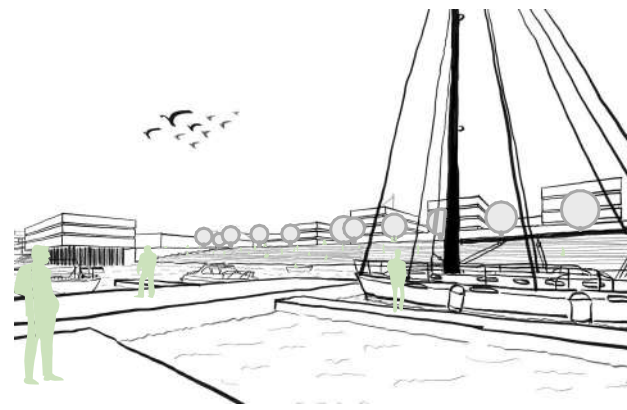
tram ● bus ● train ■ car traffic ■ tram line ■
river ferry ○ railway line ■



functional use

* mixed-use buildings always include active commercial ground floors

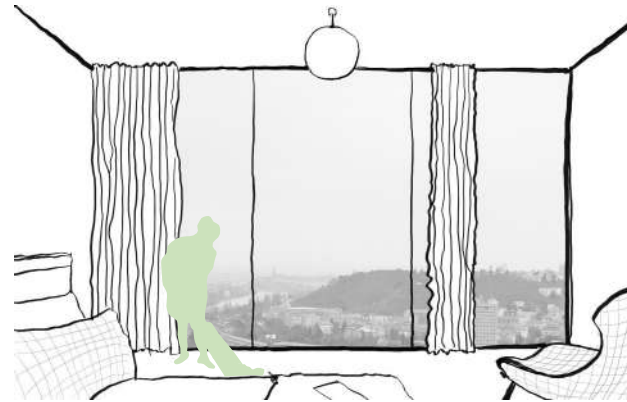
mixed-use buildings ■ cultural facilities ■ office buildings ■
residential buildings ■ sports facilities ■ civic amenities ■



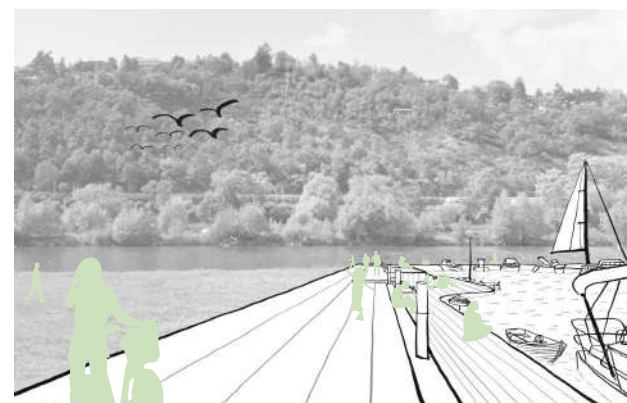
waterfront by the historic ice storage Braník
sloped "grandstand" with views of the Barrandov Cliffs



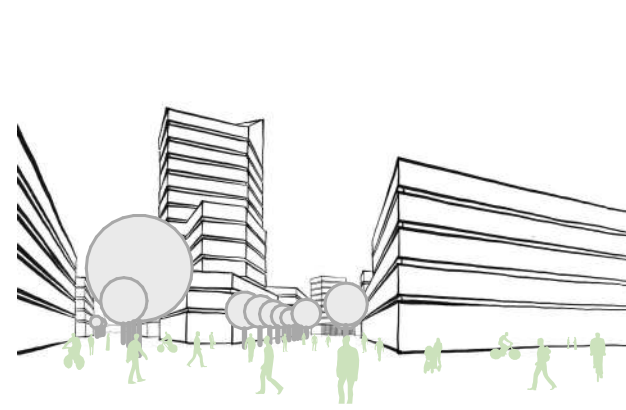
nursery school forecourt
protected area for social and group play



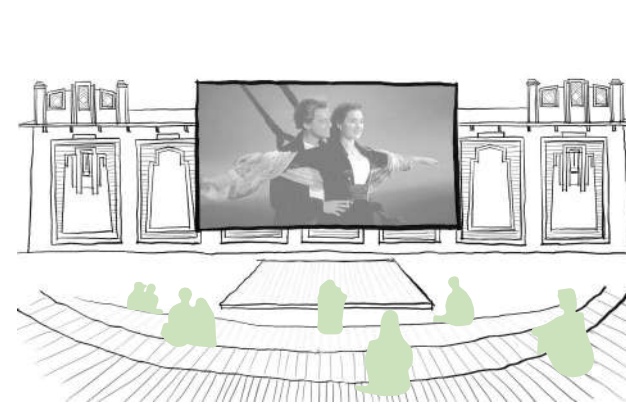
view from the high-rise room
framing the historic panorama of Vyšehrad



harbor with a view of the Barrandov Cliffs
transport zone with access to a quiet beach area



main boulevard
key orientation point of the area



stage in front of the ice storage building
summer cinema activates the waterfront even in early evening



significant tree-lined avenue
separated path: cyclists + runners | families | runners + cyclists

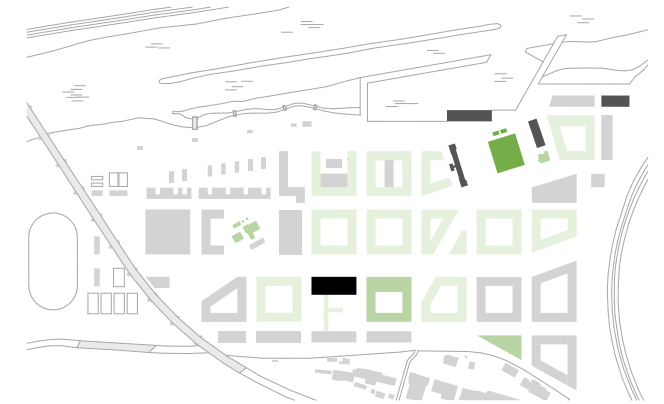


multipurpose sports court
several rooftop courts located above the supermarket



a typical work day

need coffee ● nature break ●
in need of inspiration ■ endorphin boost ■ lunch pause ●



cultural life

shopping center ■ multi-purpose cultural venues ■
concert hall ■ socially active retail ■ cultural & educational institutions ■



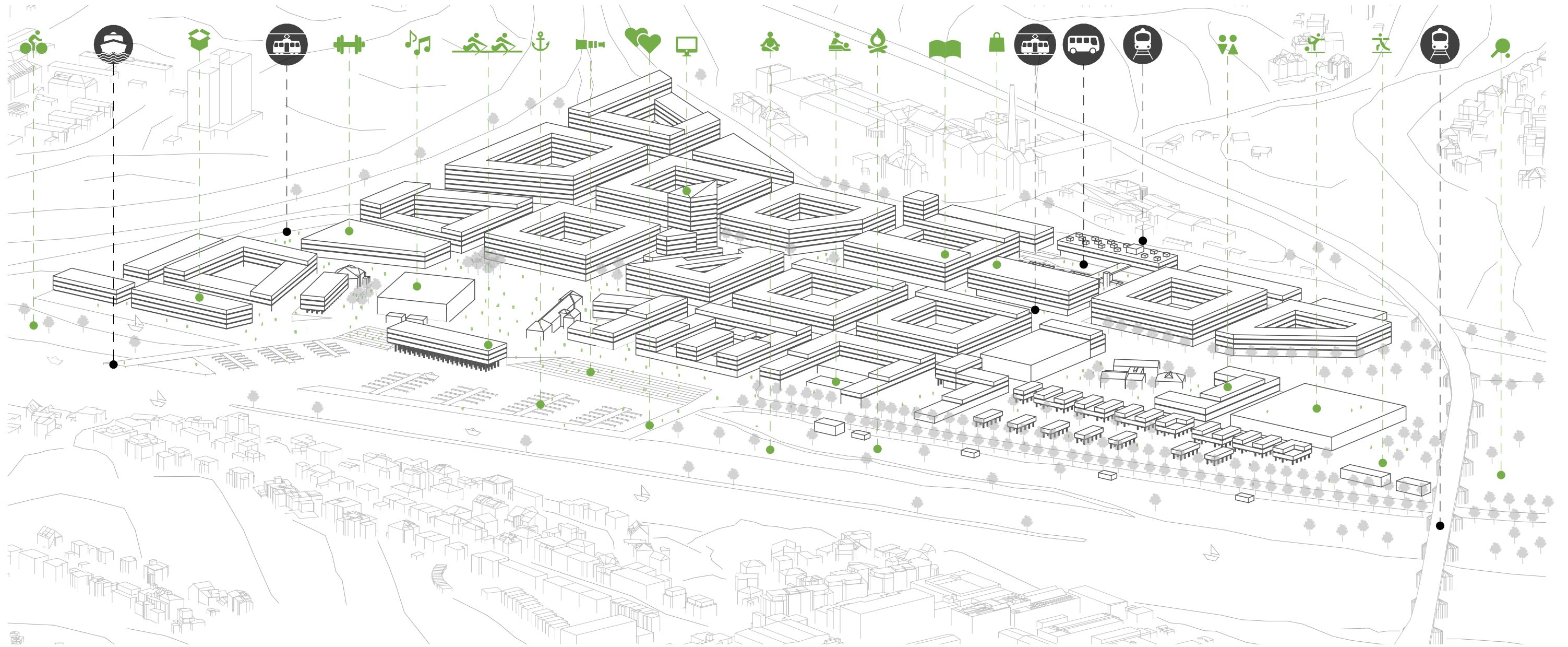
body & soul

significant alley ■ regeneration ■ team sports ■
relaxation zones ● water sports ■ individual sports ■



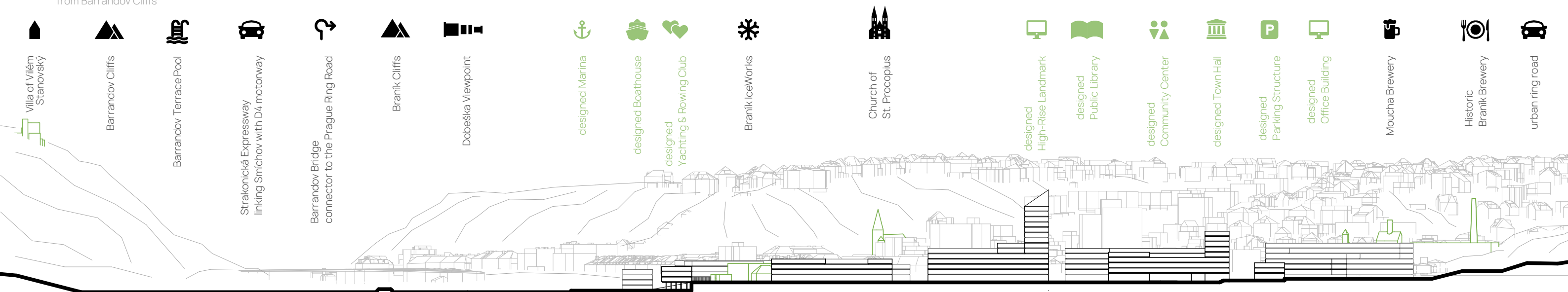
nightlife

cinema & theatre ■ bars & restaurants ●
live music concerts ■ street performances ●



axonometric view

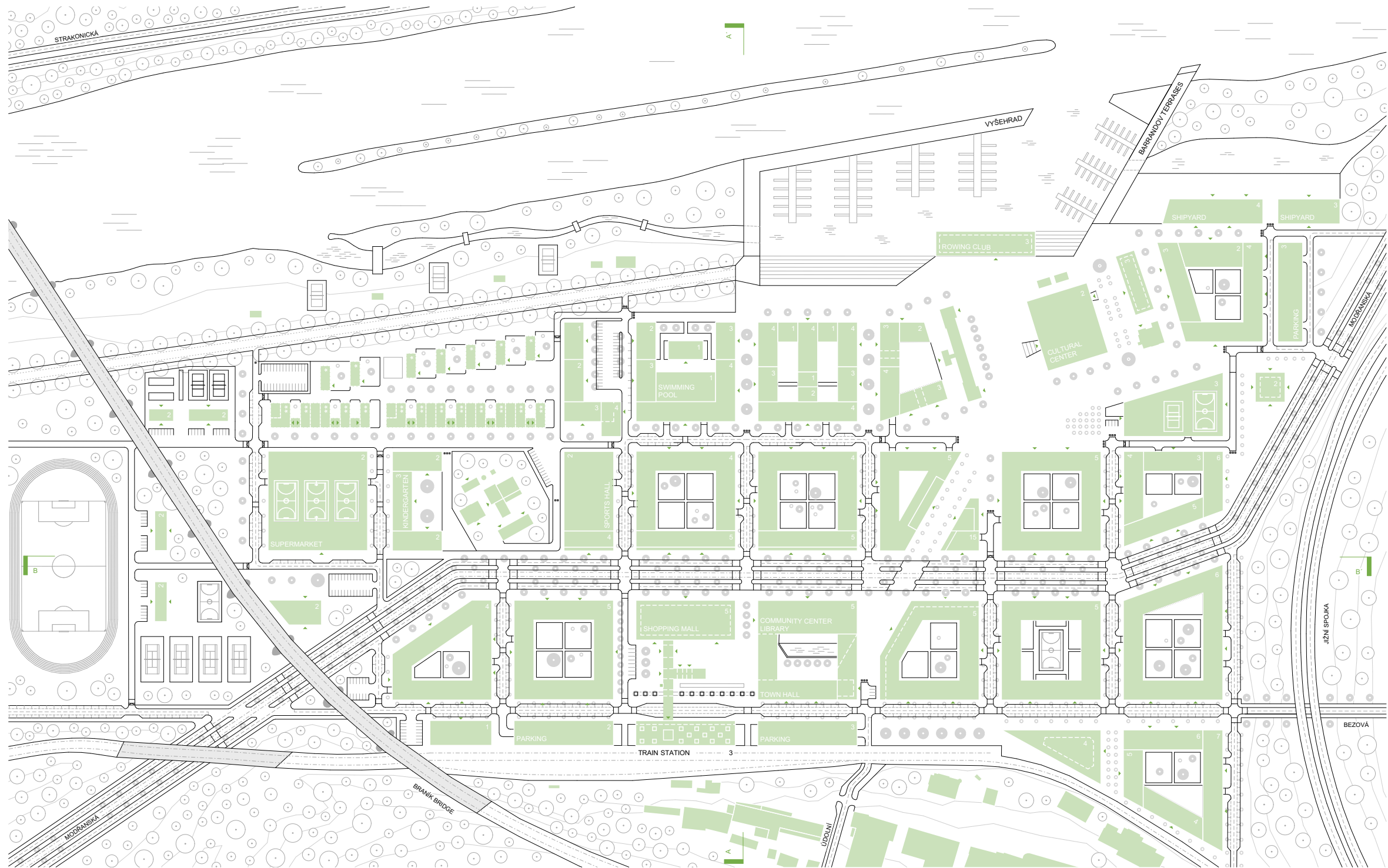
from Barrandov Cliffs



site cross-section

A-A



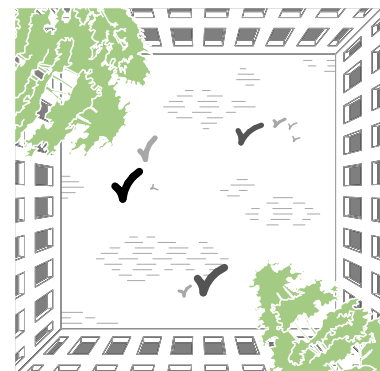


site plan
Prague 4 | Braník

building entrances
access ramps to underground garages

existing trees
designed trees

* villa houses on pilotis + 1 Floor
** villa houses on pilotis + 2 Floors



concept idea
looking up from the ground

A harmonising urban structure unfolds through a grid of square blocks—subtly adjusted to the site. Rhythmic elements, vertical landmarks and carefully placed buildings define generous and inviting public spaces.

The tram returns to street level, reviving urban intimacy. The harbour grows and new layers of culture, sport and recreation emerge—shared by residents and visitors alike.

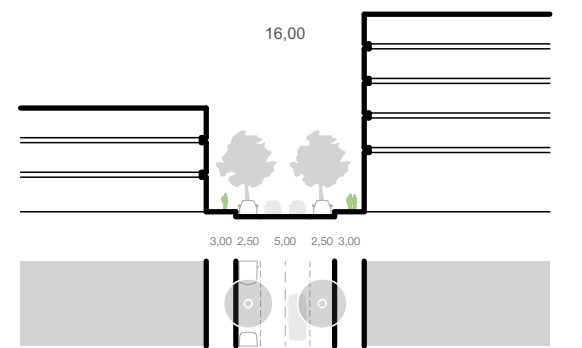
A district once fragmented begins to reconnect, open up and belong.

a block like a village

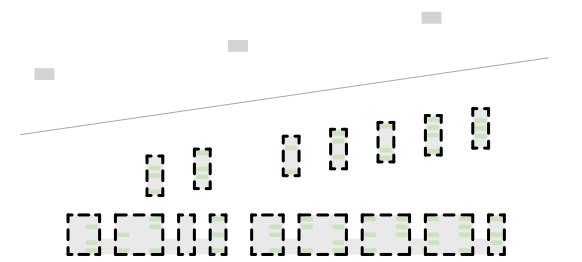
a block like a forest

The block becomes a small village—or a clearing in the urban forest—nestled within the wider structure of the city. This scale fosters a sense of proximity and trust among neighbours, who share courtyards, furnishings and collective amenities within the block.

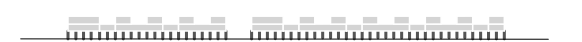
At its heart lies a sheltered inner courtyard, immediately connected to the homes it serves. Its quality, therefore, directly impacts everyday life—becoming not just a space, but a reflection of care, community and quiet ownership.



cross section through the Nádražní street



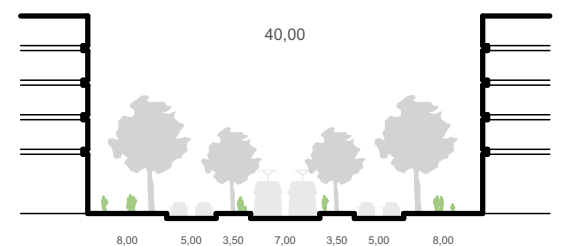
floor plan of parking below villa houses



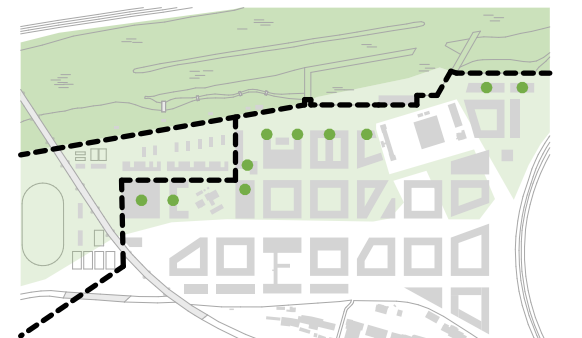
parallel view of villa houses

parking option below villa houses

passenger vehicles parking spaces buildings on pilotis

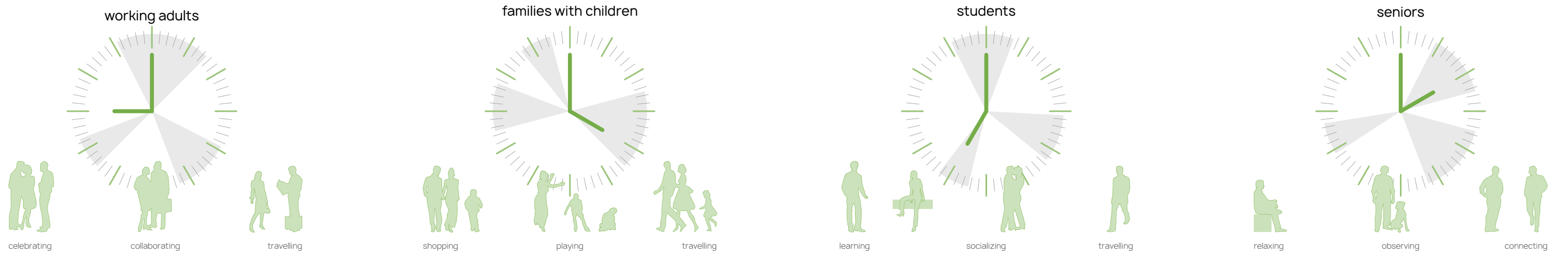


cross section through the main street

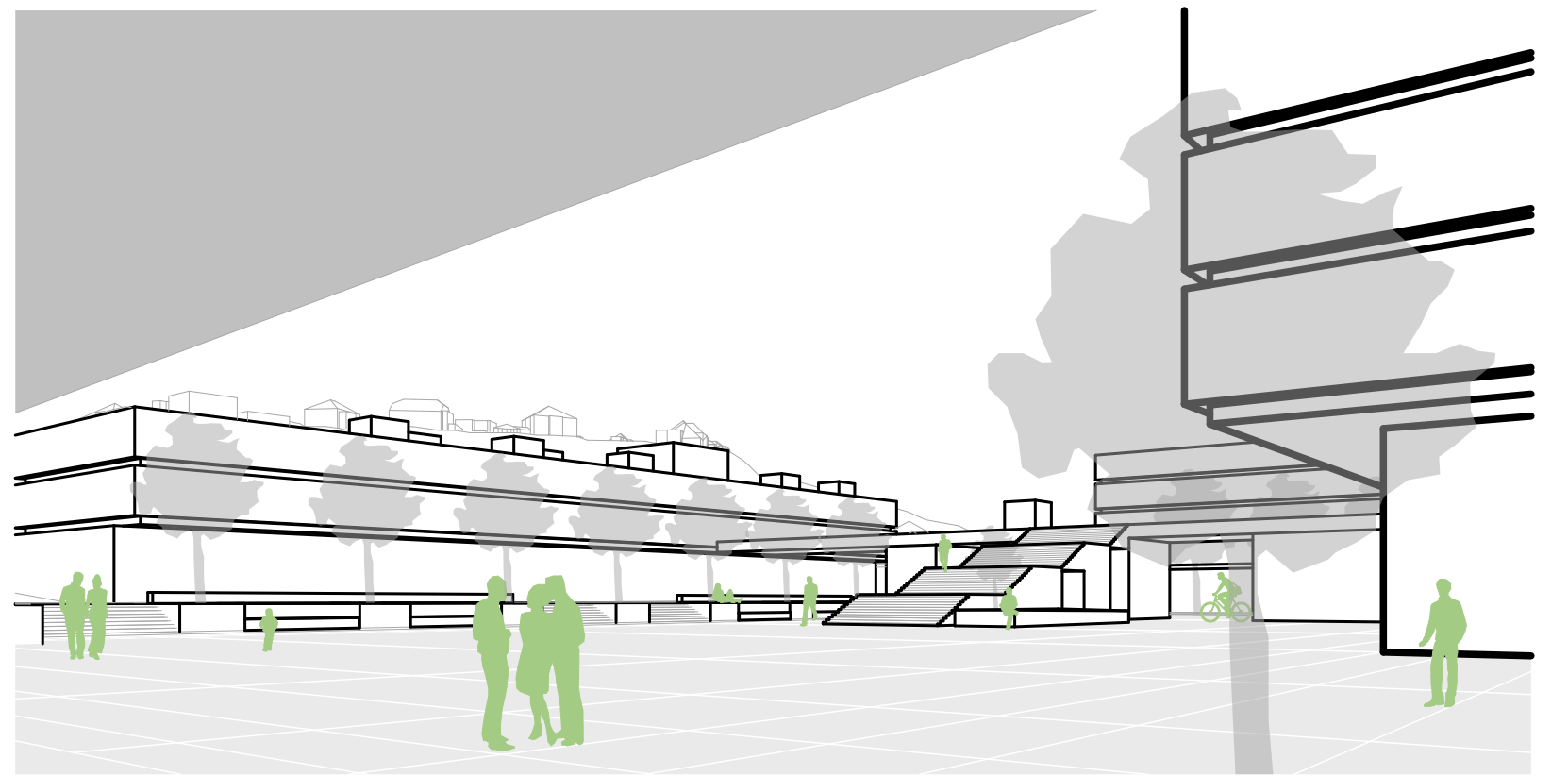
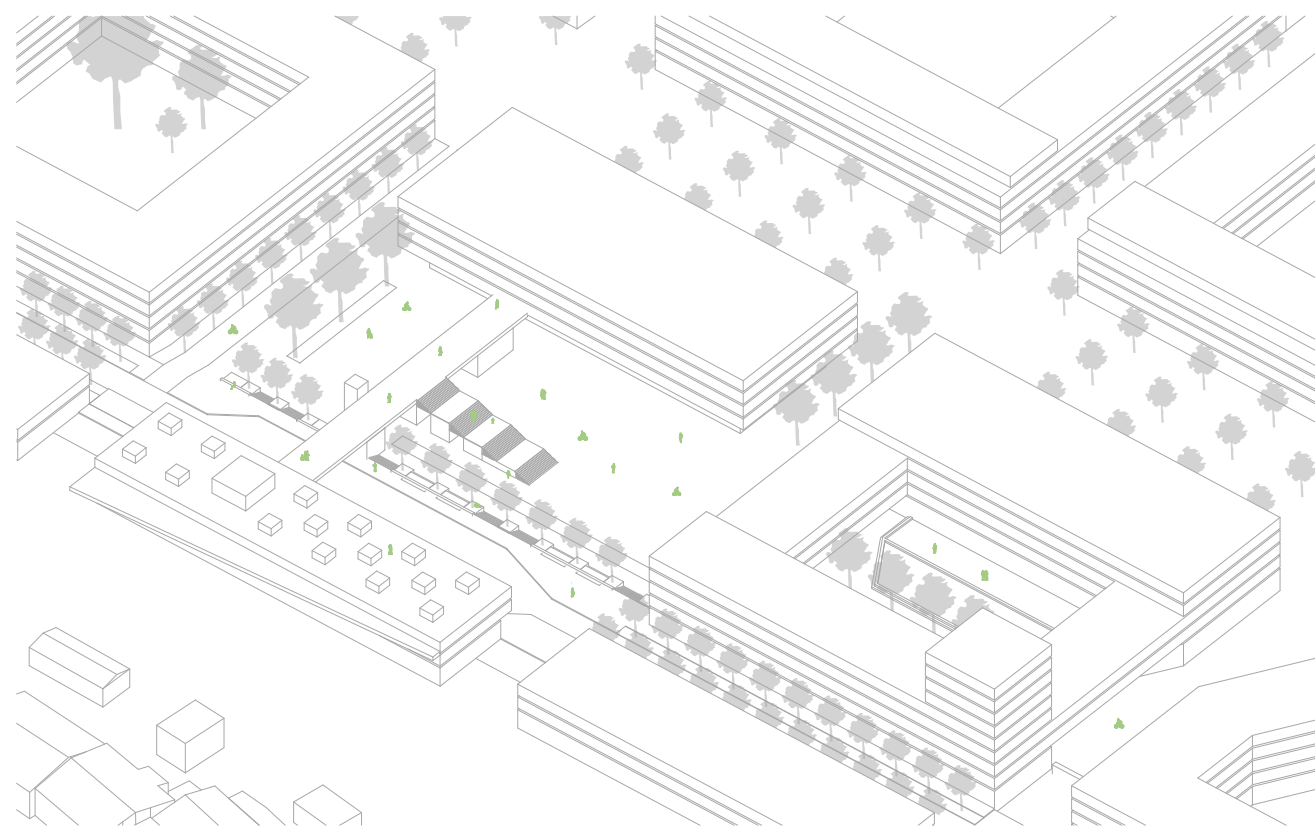


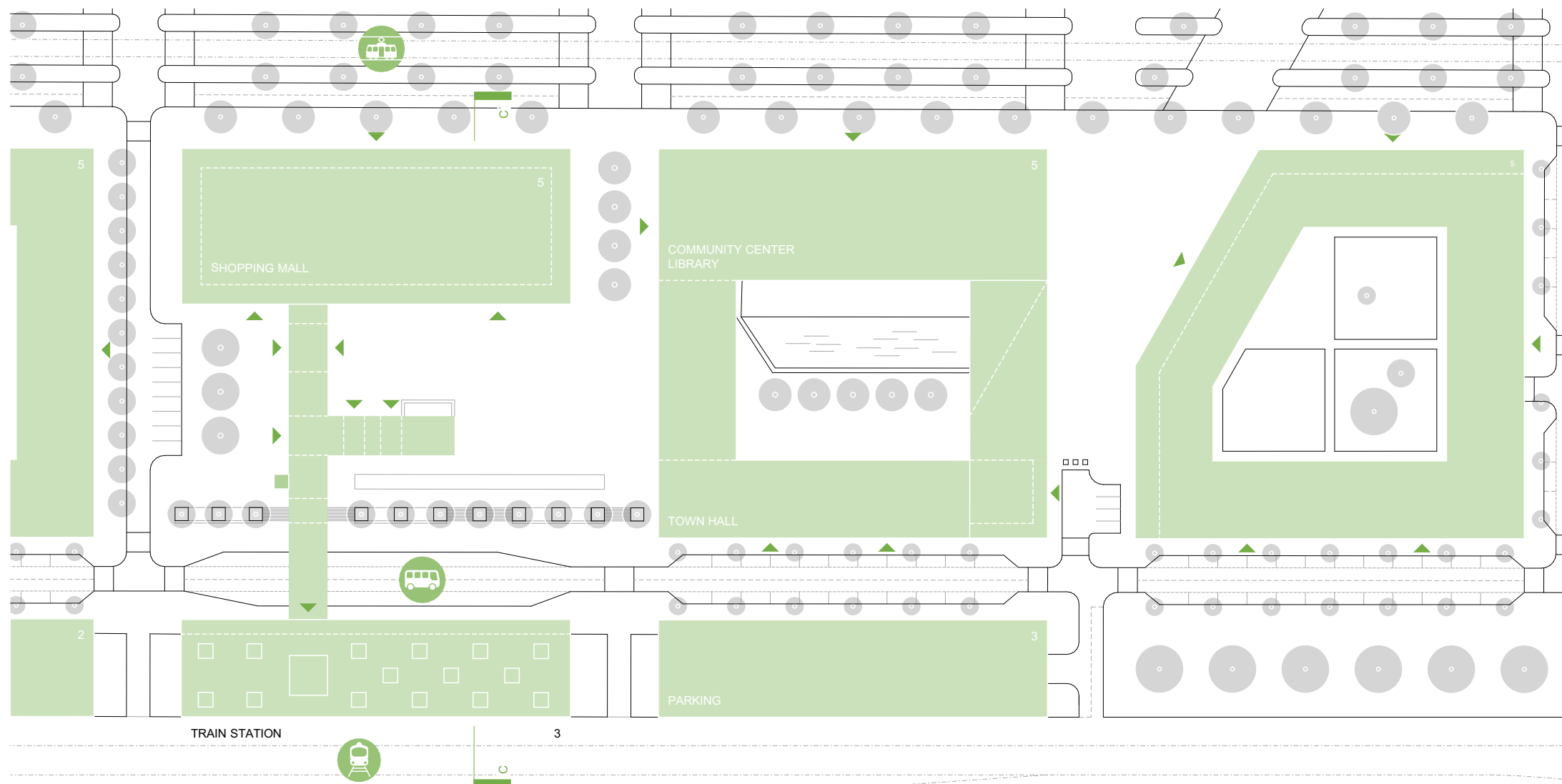
flood protection

flood area in 2002 Vltava floodplain protected flood zone flood barrier storage

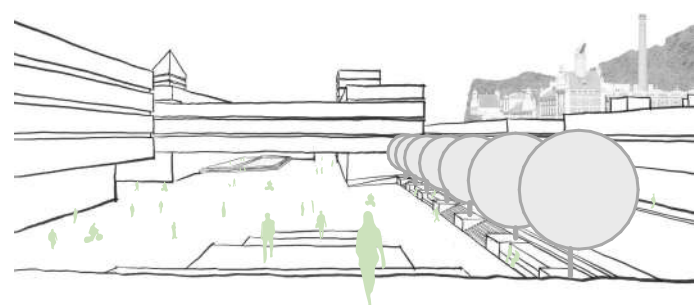


user groups
activities within the space

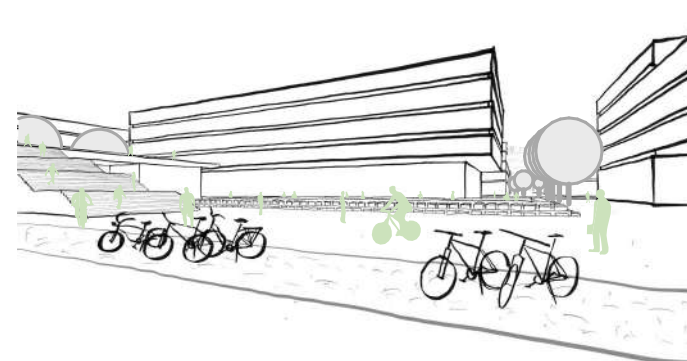




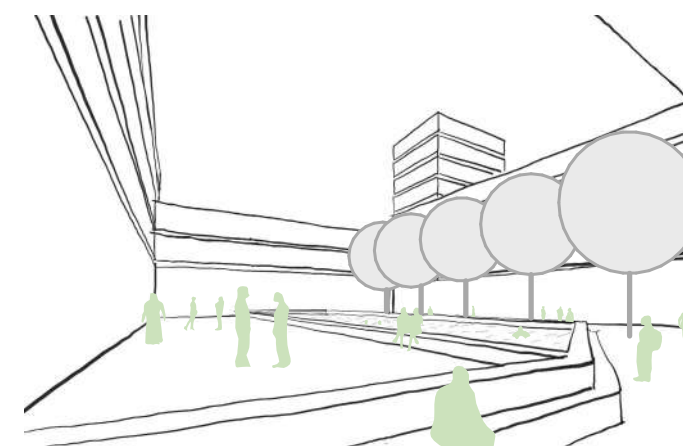
site plan
railway station



integration of quiet, commercial & transit ground floors
view from the footbridge connecting the station & shopping center

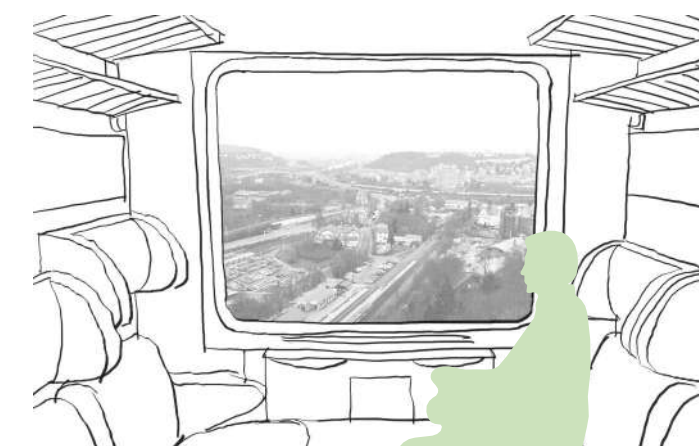


farmers' markets
demonstrating the flexibility of the station forecourt



regional library atrium
space linking the district's cultural heart with its transit zone

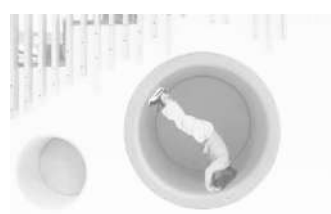
railway station
building design



train journey across the braník bridge
view of the existing condition



lower level lighting
referencing the tramp tradition of the Sázava Pacific Railway



staircase _ play zone
integrating play elements into the staircase design



staircase _ seating zone
utilizing non-through areas for seating



seating in terrain transition
separating the public zone from traffic infrastructure



play element in the ground level
removable and subtle play structure integrated into the streetscape



library forecourt
quiet zone within the public realm



work capsules
distributed throughout the station building & shopping center



capsule hotel
single | multi-bed | duplex capsules

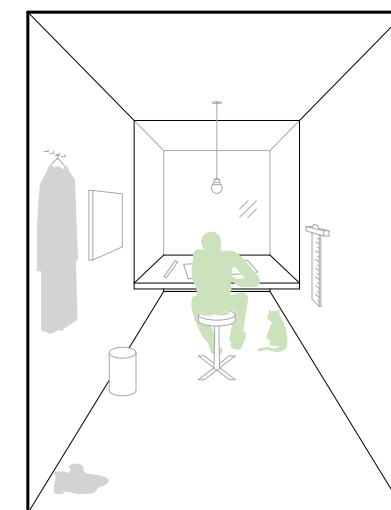
The train station serves as a convergence point for a diverse public—commuters, families, students, and seniors.

Though their lives differ, all come here to travel. The proposal turns passive waiting into a meaningful experience, encouraging return through comfort & practical amenities.

The ground floor open to the street, offers more than transit: a café, hair & nail salon, a hardware shop bring everyday life into the station.

The second floor is centred around an open atrium and hosts a restaurant.

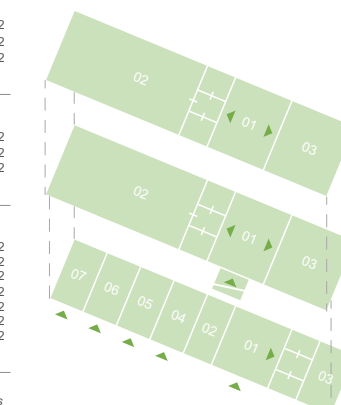
Above, a capsule hotel spans two levels—offering overnight rest for late travellers or those in transit. Select units rise above the roofline, framing views of the city beyond.



duplex capsule
for overnight stays & remote work

3NP	01 atrium 02 capsule hotel 03 laundry	320 m2 760 m2 360 m2
2NP	01 atrium 02 restaurant 03 commercial unit	320 m2 760 m2 360 m2
1NP	01 atrium 02 reception counter 03 commercial unit 04 commercial unit 05 commercial unit 06 commercial unit 07 commercial unit	370 m2 140 m2 170 m2 160 m2 160 m2 160 m2 160 m2

* unmarked units (on all floors) serve as sanitary facilities





02

sport & culture

How can architecture move people—physically & emotionally?

INSPIRELI
AWARDS
-
ARCHICAD
PRIZE

PROF.
VODĚRA
PRIZE

A new harbour district emerges along the banks of the Vltava, at the edge of Prague 4—anchored by a multifunctional building that balances sport, leisure and community life.

At its core lies a rowing & kayaking club, complete with boat storage, changing rooms, fitness & wellness zones and quiet spaces to rest. Above, a sports shop, yoga studio and rooftop restaurant overlook the water.

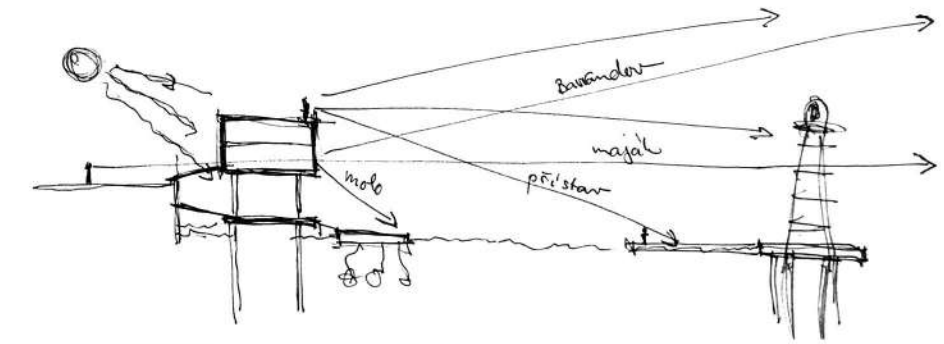
The building completes the square near the historic Braník iceworks while remaining open—framing views of the port and the Barrandov cliffs. To the south, it concludes a significant alley. Toward the river, it rises confidently, like a lighthouse—a symbol for the site's new identity.

This project reveals the site's vast potential, helping transform Braník into a lively district for culture, sport, and shared experience.

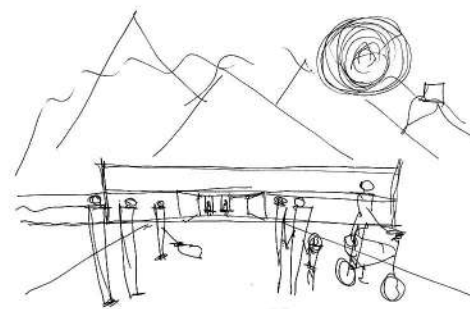
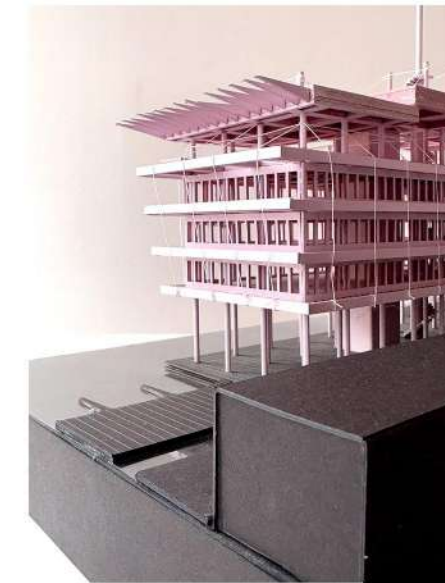
location	Czech Republic Prague
year	2023
type	recreational
author	solo project
scale	XXL

keywords

sports harbour complex / marine / rowing & kayaking club / sport & leisure / waterfront architecture / multifunctional public building / rowboat & kayak storage / steel structure / riverside infrastructure



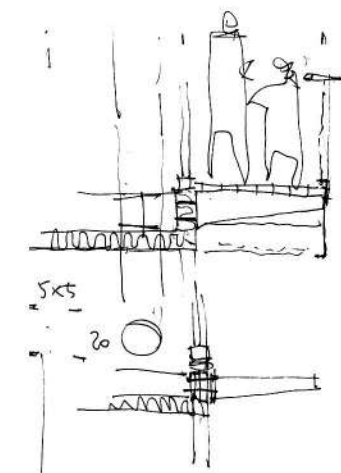
light



space



emotions





Barrandov Terraces
downstream along the Vitava River



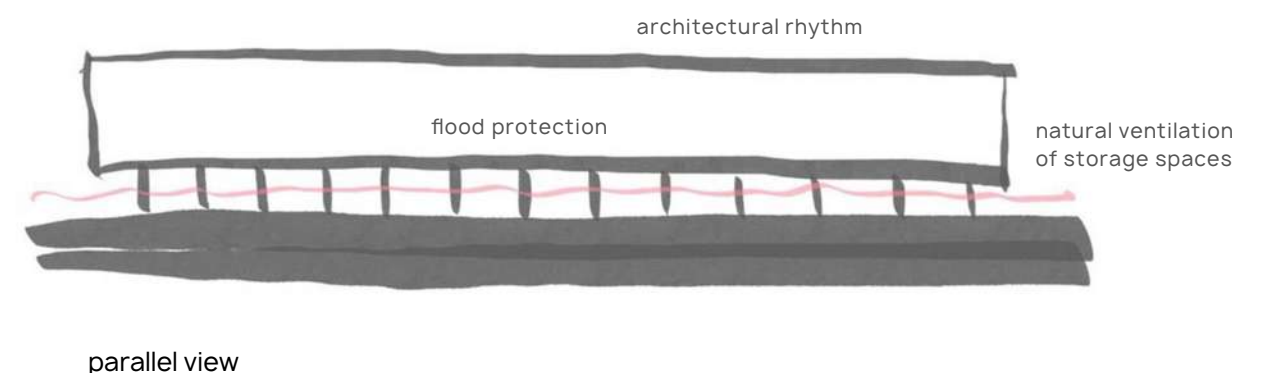
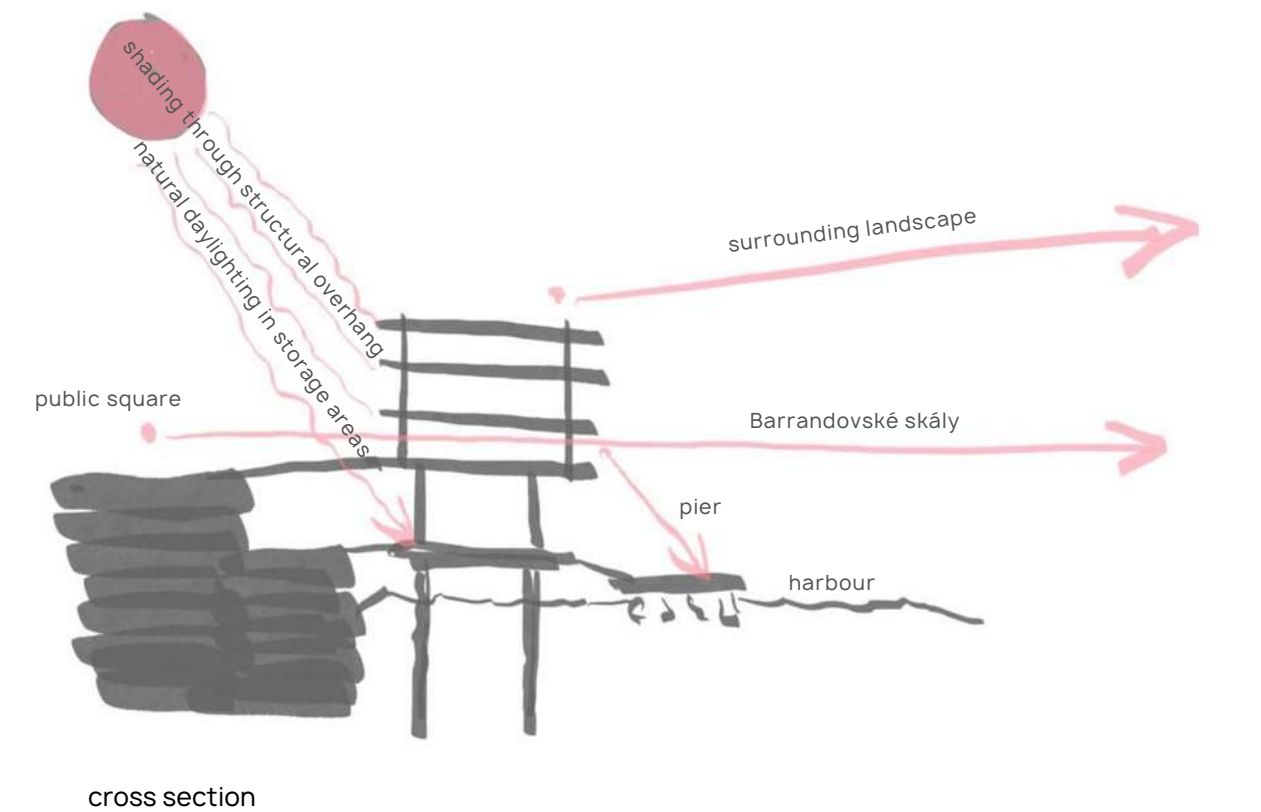
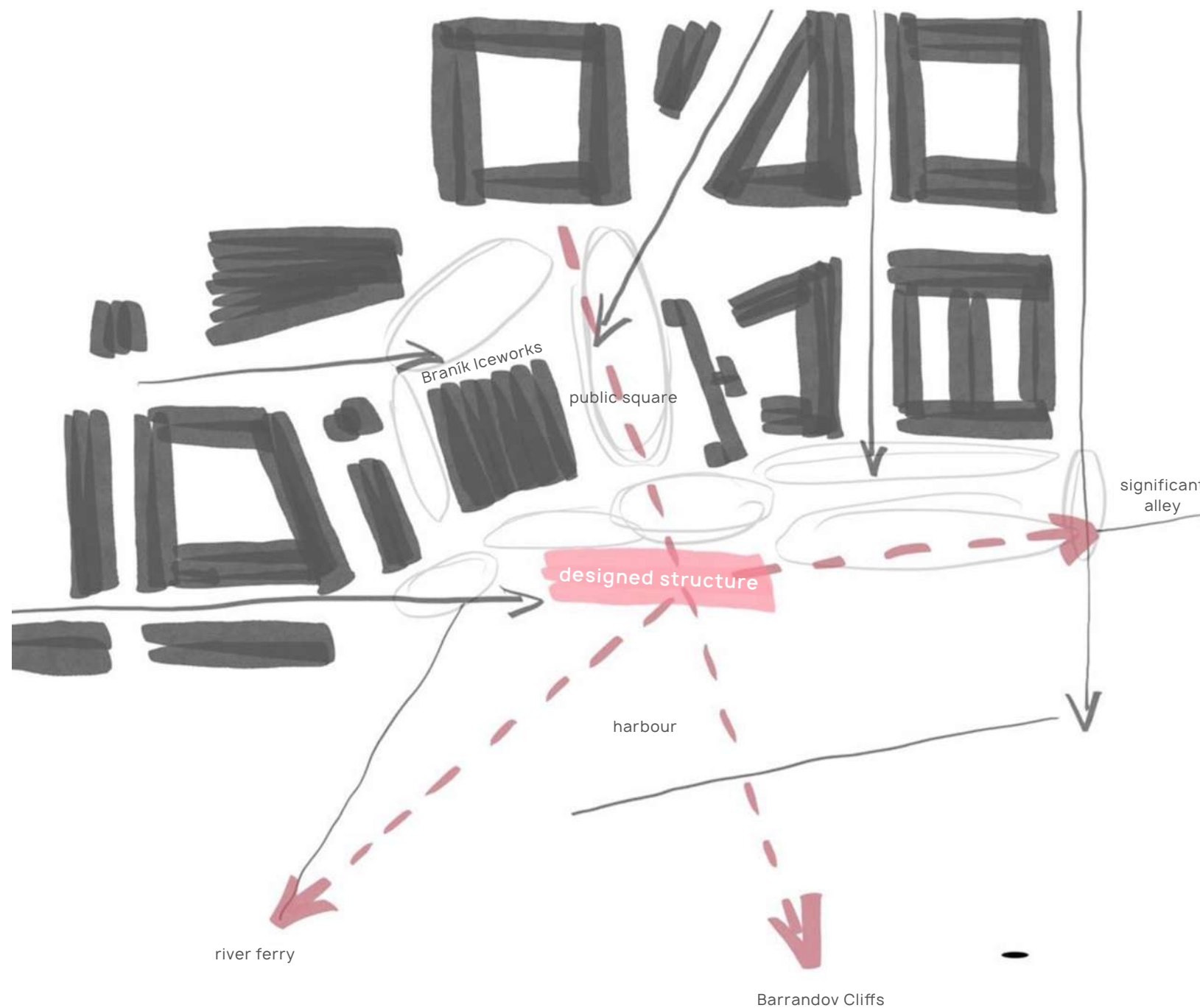
Barrandov Cliffs
peeking urban houses

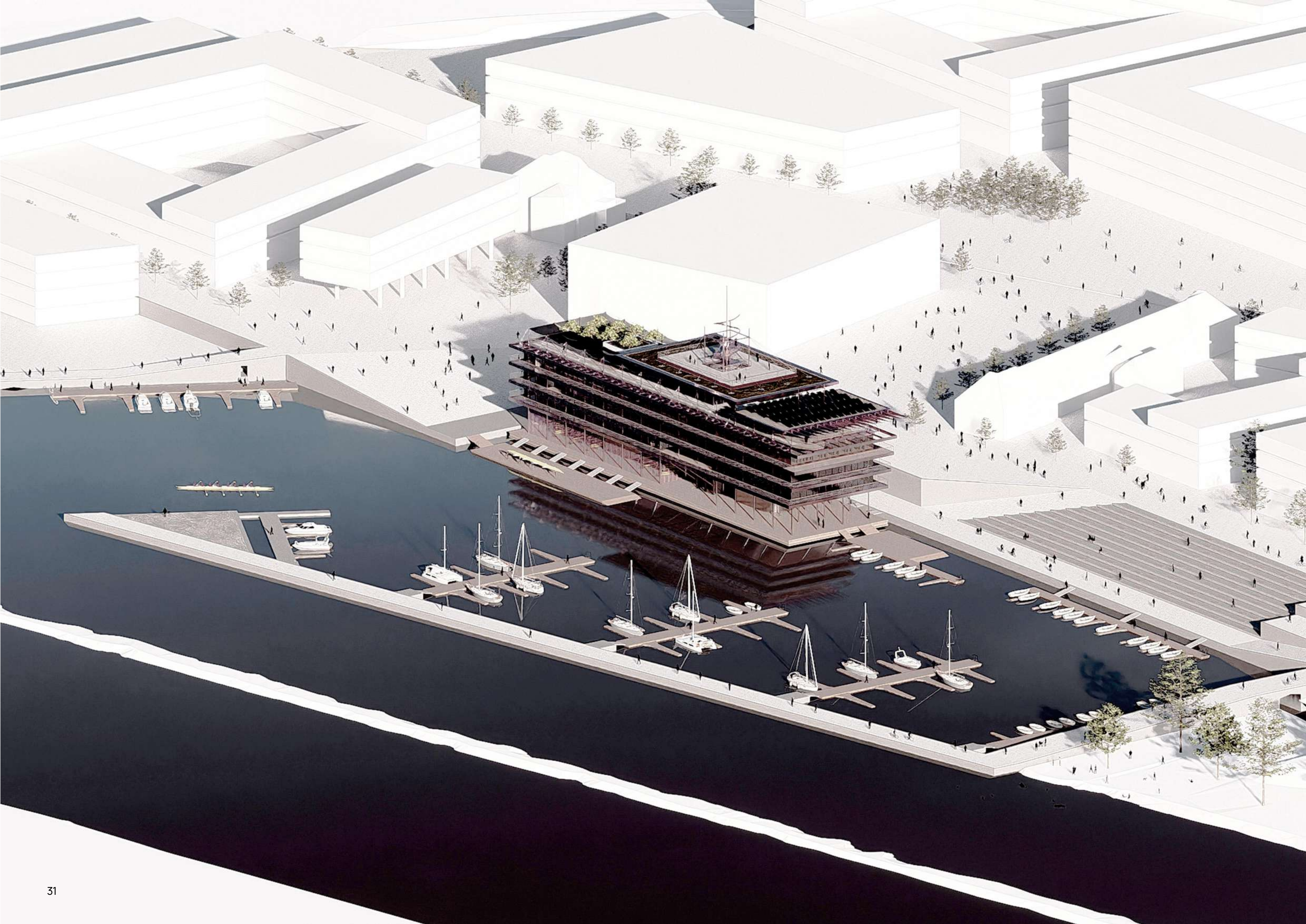


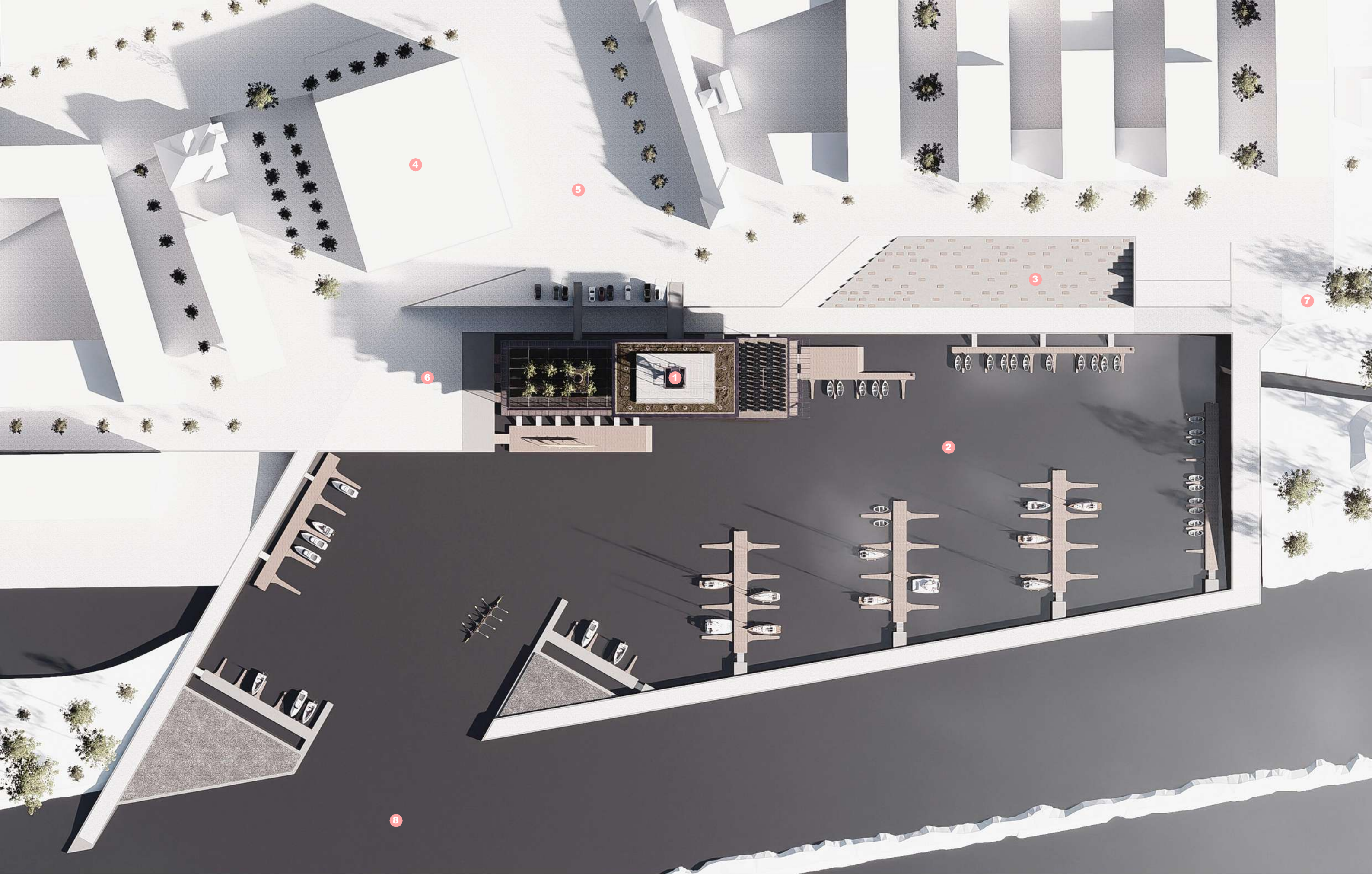
urban beach
surface of the Vitava River



Braník Bridge
upstream along the Vitava River







site plan

Prague 4 | Braník

- 1 designed building
- 2 designed marina

- 3 designed surroundings
- 4 Braník Iceworks

- 5 Iceworks Square
- 6 boat access to the building

- 7 significant alley
- 8 Vltava River

0 20

70

150 m



context

This building completes and defines the square near the Braník Icehouses. Its gently rising roofline concludes the visual axis of the existing tree-lined avenue and follows the direction of the river, subtly revealing its primary purpose.

generosity

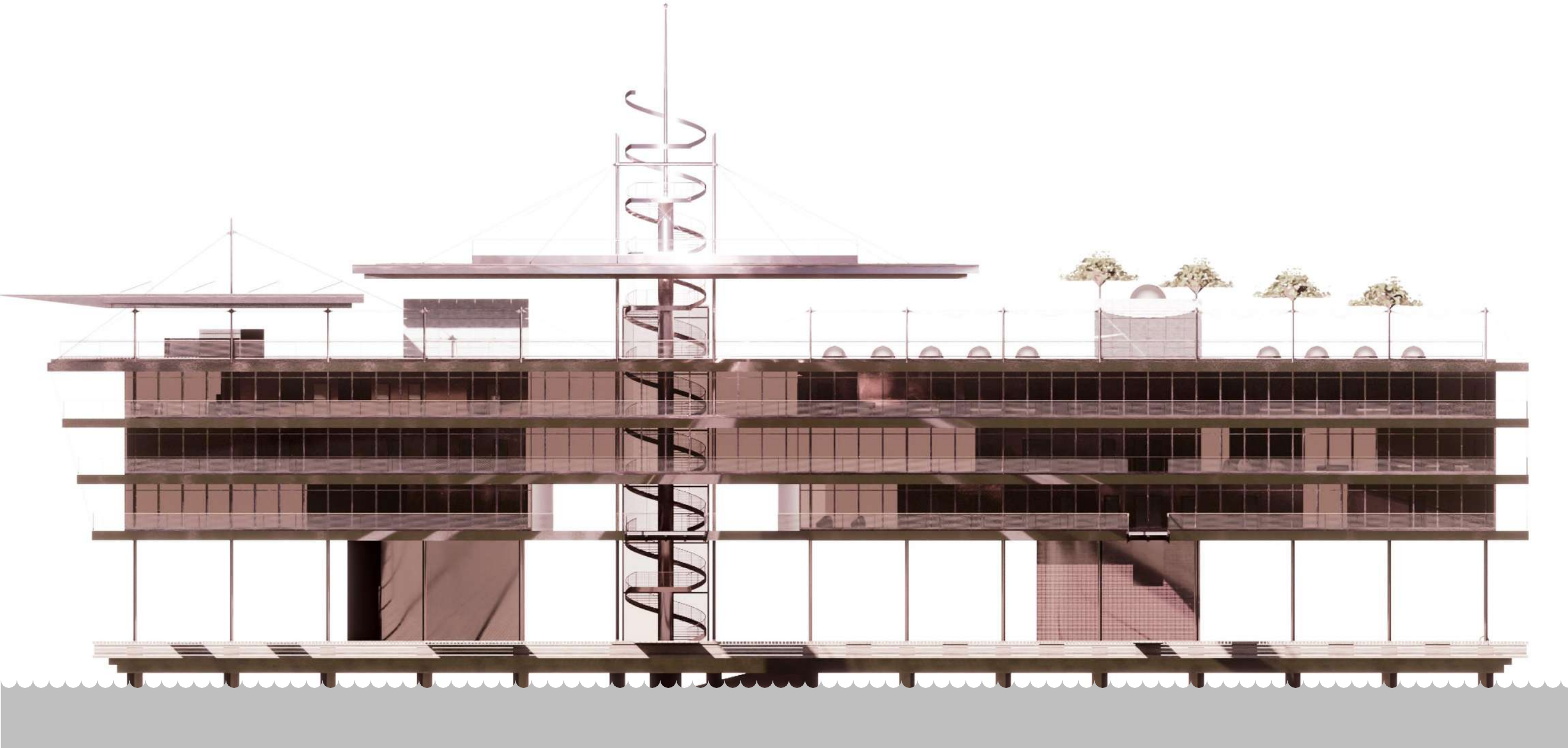
I see this as a civic building—a natural extension of the public square. A connecting node between the square and the riverside harbor. For this reason, the design responds closely to the needs of the public, as it is largely a space for them.

connection

Rowing is an outdoor sport. Athletes will spend many hours in this space, so the architecture should act not as a barrier but as a gentle threshold between interior and exterior. This applies both visually (through transparent glazing) and physically (by allowing windows and façades to open and invite the weather in).

light

The steel structure naturally creates a play of light and shadow. Another key idea was to bring daylight into typically closed-off areas—such as storage spaces, stairwells, and corridors leading to the accommodation wing. At night, the building offers a calm, glowing presence, echoing the soft tones of the setting sun.



east elevation

realistic rendering





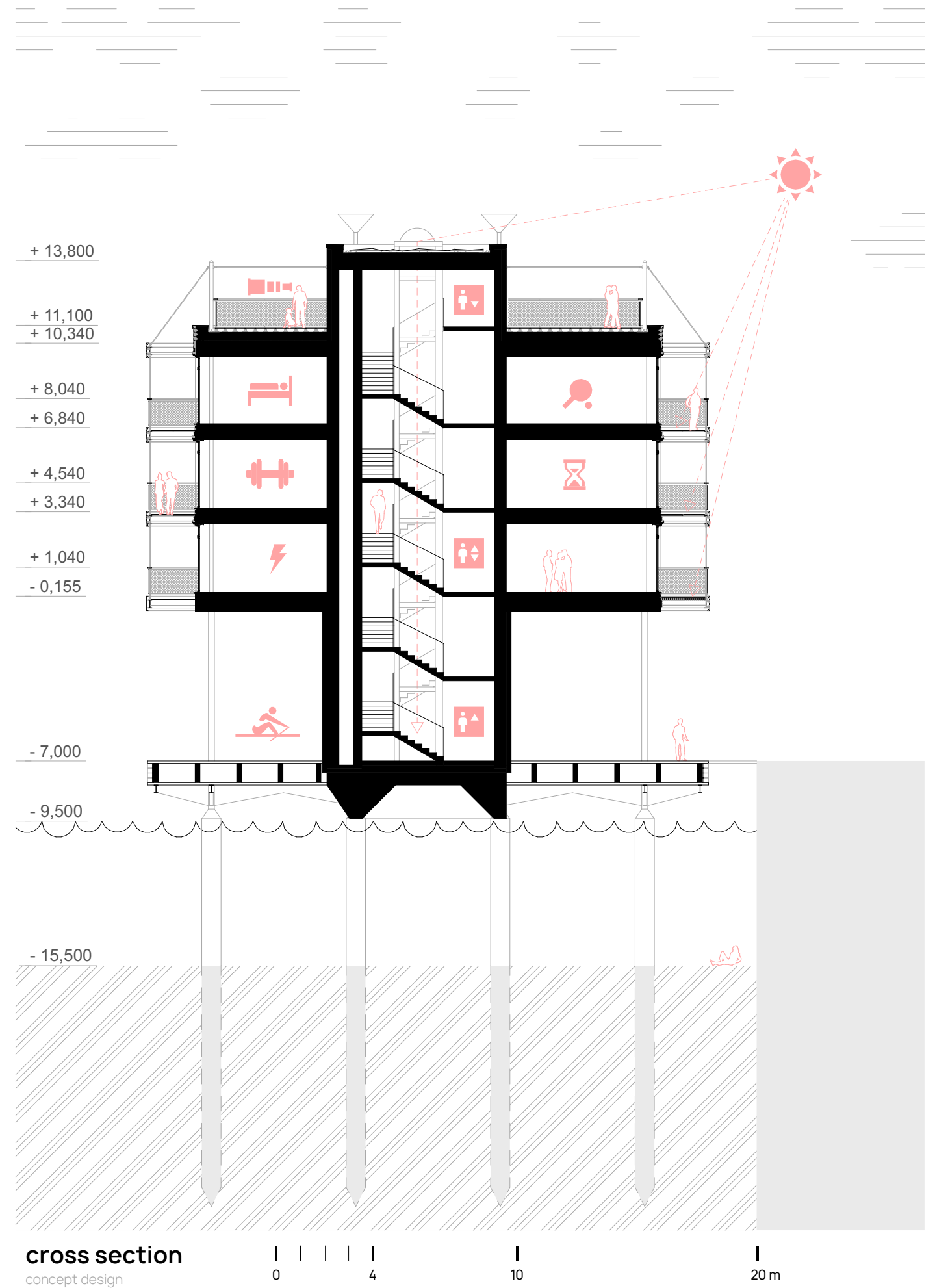
it's a rainy day in Prague,
but you go to training anyway – because Olympic dreams don't wait.

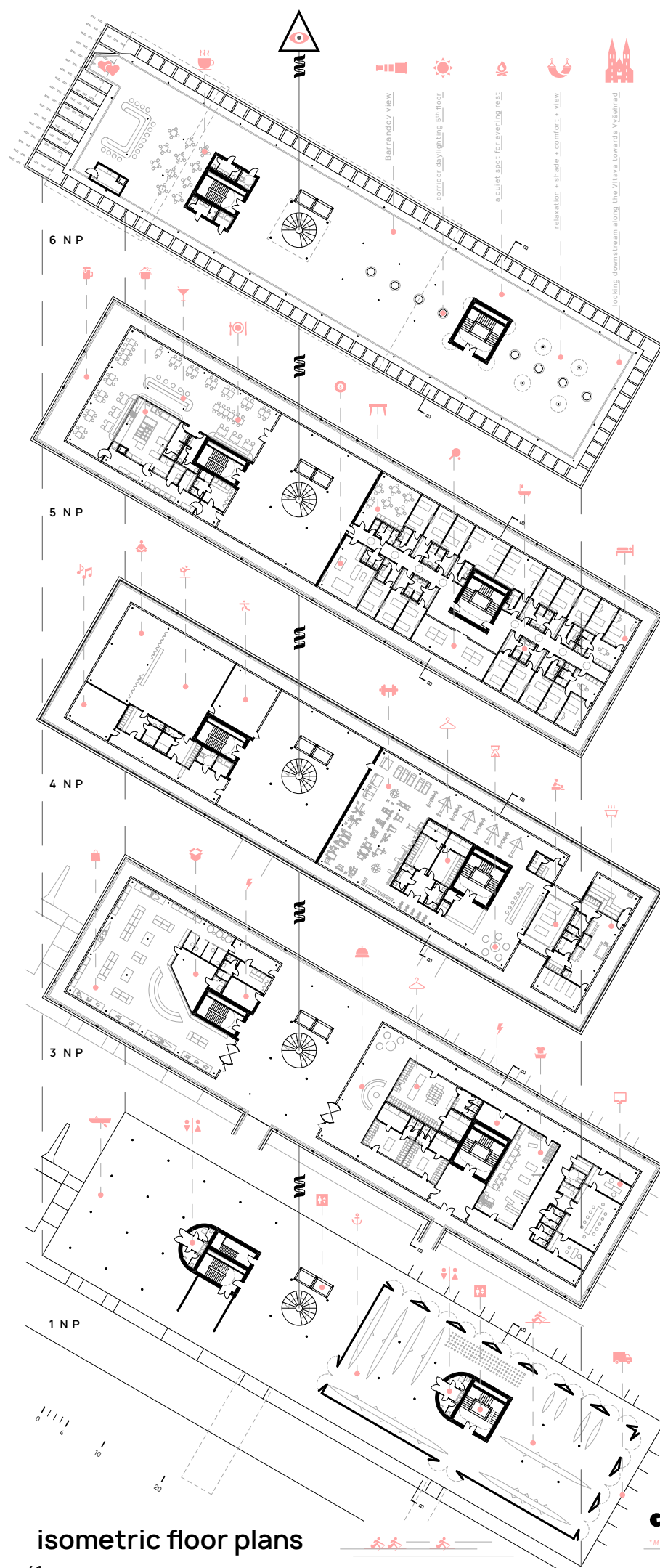


urban beach
downstream along the Vltava River



significant alley
visual anchor at the end of the alley





The Valenta Family's 1st Visit to Iceworks Square

It's their very first time here.
Suddenly, Eduard spots a footbridge.
Where does it lead?
Curiosity pulls him forward.
The rest of the family follows.

They find themselves in a clearing—
A moment of stillness.
They see the harbor.
Birdsong floats in the air.
The wind brushes against their cheeks.
Cliffs rise in the distance.
Eva leans on the railing, drinking in the river's flow.

Then—a rustle.
She tilts over the edge.
Rowers!
She turns to show Eduard—
But he's already heading into the shop with the kids.

She hurries after them...

They emerge again, stepping out into the light.
Upward they go, spiraling higher and higher.
The children press their faces to the glass.
"They're doing yoga," Eva says with a smile,
Watching the calm inside the hall.

They continue up.
Where does this path lead?

"Wow!"
"No way!"
"Amazing!"
Their voices echo at the top of the spiral.
The view steals their breath.

They begin the descent.
"Mmm, something smells good!" Ryan shouts.
Drawn by the scent, they all step into the restaurant.

Later, they leave—happy, full, laughing.
But not down the stairs.
Instead, they step into glass boxes,
Floating gently downward,
Watching the harbor rise up to meet them.

Then—touchdown.
They're on the dock.

"Look! A boat!"
Little Isabela squeals with delight.
"Daddy, Mommy—can we rent a boat too?"



symphony of water

elegance



spatial abstraction

emotions



rhythms in architecture

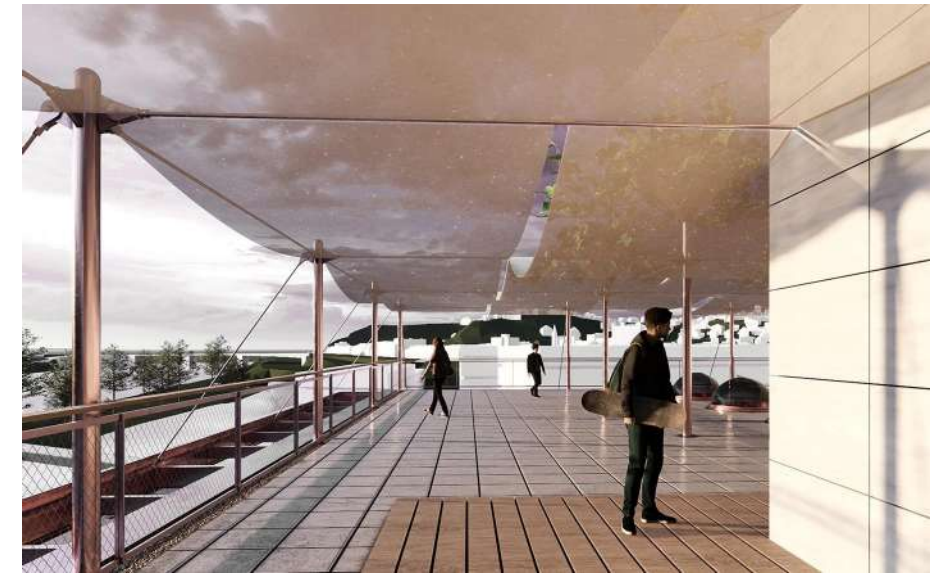
harmony



walkable rooftop terrace
a public platform opening views into the surrounding landscape



central spiral staircase
evoking the presence of a ship's main mast



public rooftop terrace
fabric shading stretched over protruding columns



peripheral walkway
floor structure made of steel grating



termination of the spiral
a symbolic reference to a ship's crow's nest



lookout above the roofline
suspended roof structure



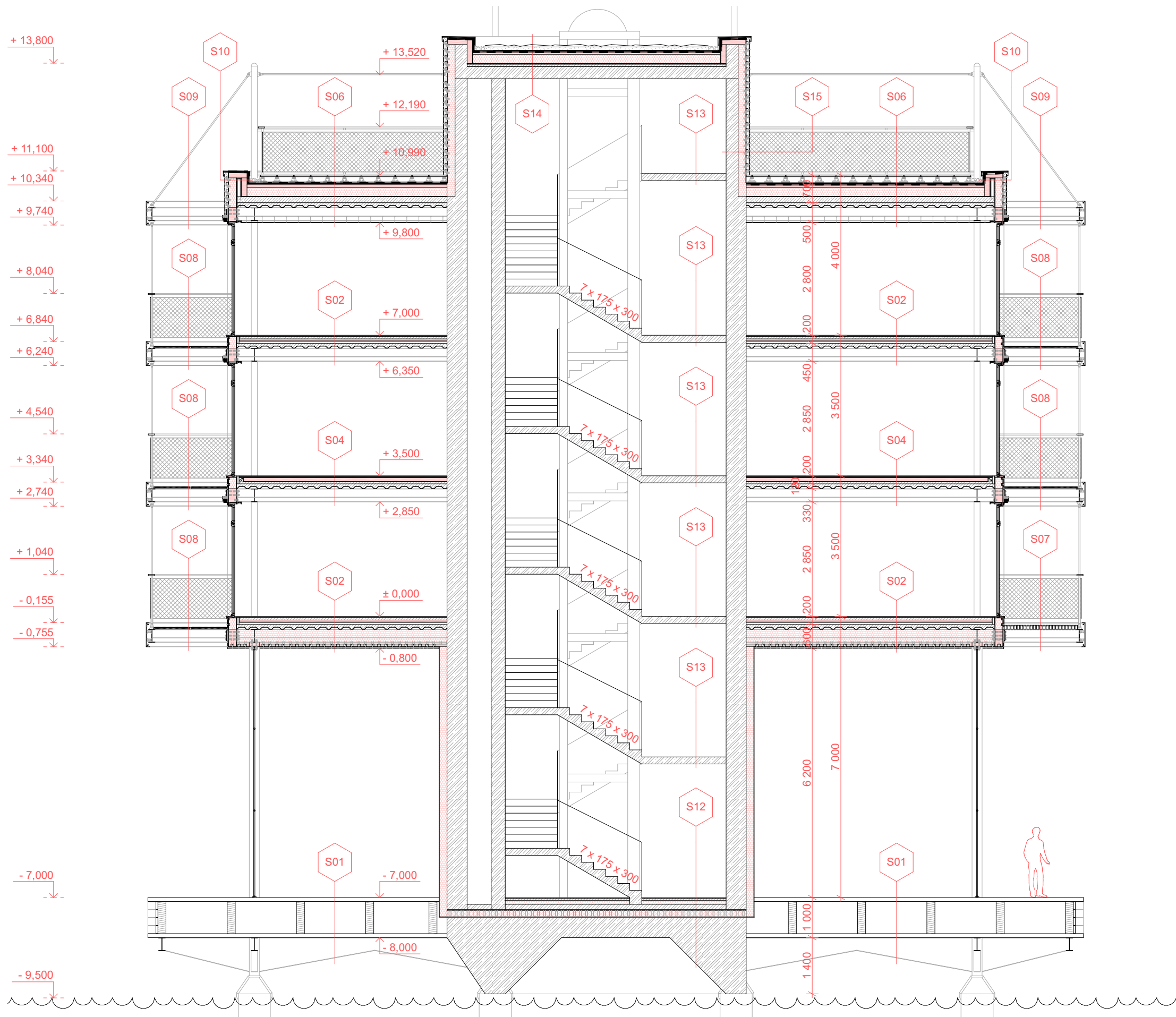
facade with entrance footbridge
continuous horizontal glazing



setback of the facade structure
restroom unit serving the wellness centre



extension of the rooftop terrace
termination of the axis of the significant alley



construction section
building permit documentation

- S01

AVAILABLE IN THE CONSTRUCTION LAYERS LIST
(upon request)
- S12
- S13

POLYURETHANE ANTI-SLIP COATING (wearing layer)

RF. CONCRETE LOAD-BEARING STRUCTURE

LIME PLASTER

(th. 1 mm)

(th. 175 mm)

(th. 15 mm)
- S14

EXTENSIVE VEGETATION MIX

STABILISING & WATER-RETAINING SUBSTRATE

PP NON-WOVEN FILTER FABRIC

DRAINAGE DIMPLED MEMBRANE

PP NON-WOVEN PROTECTIVE FABRIC

PVC WATERPROOFING MEMBRANE

PP NON-WOVEN SEPARATION FABRIC

EPS THERMAL INSULATION

STABILISING PU ADHESIVE

EPS THERMAL INSULATION

STABILISING PU ADHESIVE

SBS VAPOUR BARRIER STRIP (with aluminium insert)

PRIMER

MONOLITHIC SLOPED SILICATE LAYER

MONOLITHIC REINFORCED CONCRETE SLAB

LIME PLASTER

(th. 40 mm)

(th. 80 mm)

(th. 2 mm)

(th. 20 mm)

(th. 3 mm)

(th. 2 mm)

(th. 3 mm)

(th. 80 mm)

(-)

(th. 220 mm)

(-)

(th. 4 mm)

(-)

(th. 60 mm)

(th. 300 mm)

(th. 15 mm)
- S15

FACADE PANEL

EPDM BACKING STRIP

VENTILATED CAVITY

BREATHABLE WIND & SECONDARY WEATHER BARRIER INSULATION

EPS THERMAL INSULATION (+ horizontal & vertical battening – auxiliary structure)

REINFORCED CONCRETE

LIME PLASTER

(th. 10 mm)

(-)

(th. 30 mm)

(th. 40 mm)

(th. 200 mm)

(th. 300 mm)

(th. 15 mm)

MATERIAL LEGEND

	REINFORCED CONCRETE
	CONCRETE
	THERMAL INSULATION 01
	THERMAL INSULATION 02
	THERMAL INSULATION 03

SOLAR ENERGY



GEOTHERMAL ENERGY



ELECTRICITY



COLD WATER



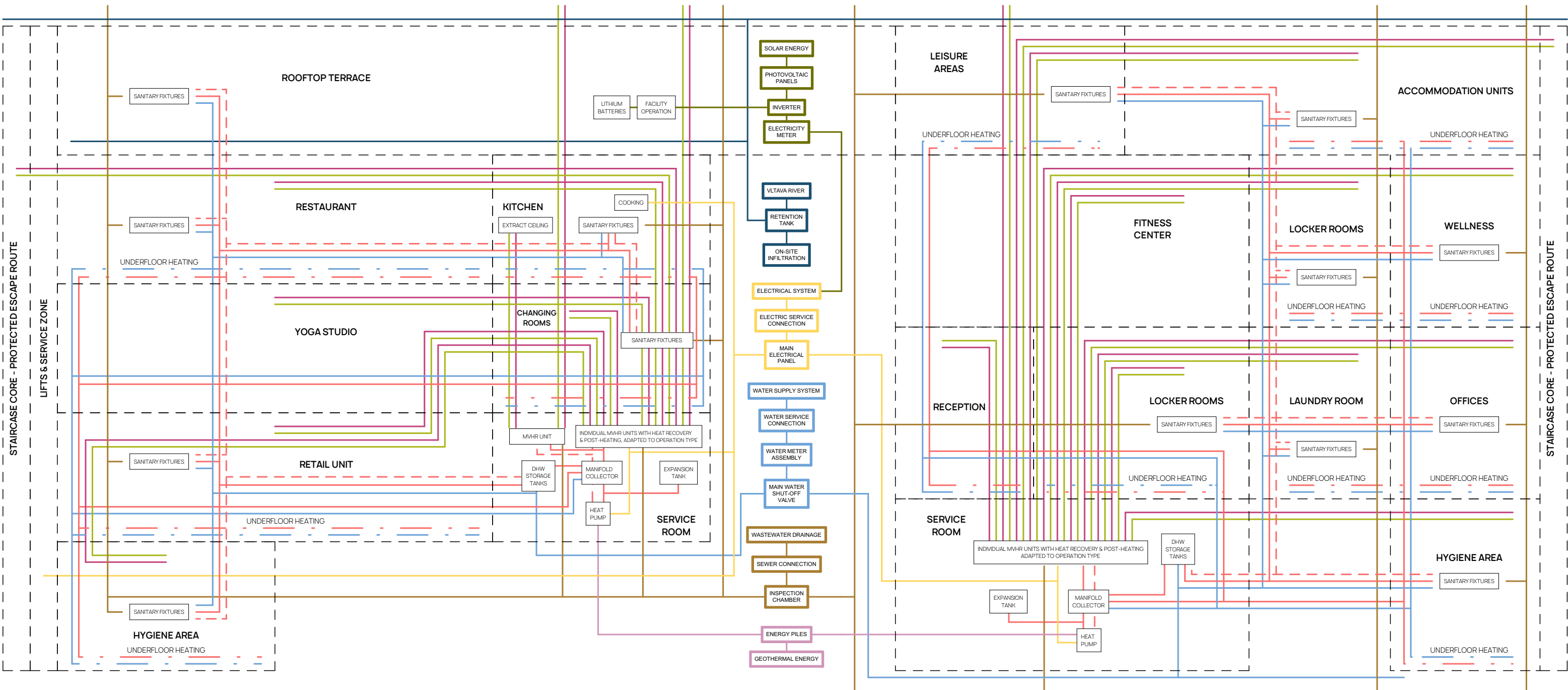
HOT WATER



RAINWATER DRAINAGE



SANITARY SEWER



individual mvhr units with heat recovery & post-heating, adapted to operation type

- MVHR 01 RETAIL UNIT
- MVHR 02 CHANGING ROOMS | YOGA STUDIO
- MVHR 03 RESTAURANT
- MVHR 04 PROTECTED ESCAPE ROUTE

individual mvhr units with heat recovery & post-heating, adapted to operation type

- MVHR 05 RECEPTION | OFFICES
- MVHR 06 LAUNDRY ROOM
- MVHR 07 LOCKER ROOMS | FITNESS CENTER | WELLNESS
- MVHR 08 LEISURE AREAS | ACCOMMODATION UNITS
- MVHR 09 PROTECTED ESCAPE ROUTE

schematic diagram of building services

energy use, water systems, and waste handling across the building



03 community

How can architecture bring people together?

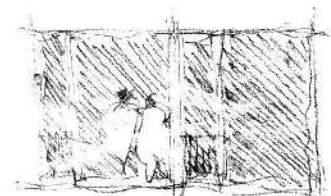
The aim of this project was to unlock the unused potential of an inner courtyard in central Prague. The design creates a balanced urban mix—bringing together Catholic priests, seniors, students, young families, and the upper class into a shared oasis.

The preserved skeleton of a former functionalist garage is complemented by lightweight timber additions, forming low-energy housing for seniors and students. A second five-story residential building for young families rises from the footprint of a lower garage structure.

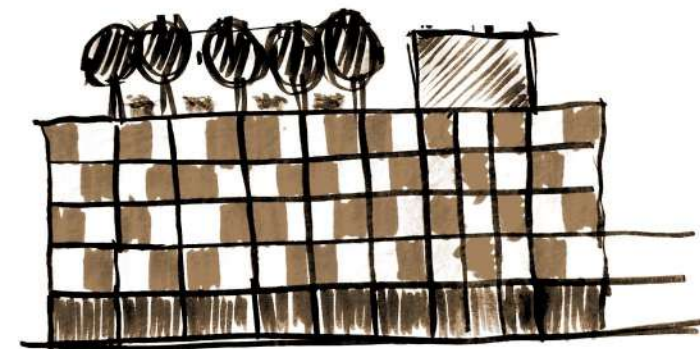
The entire courtyard is revitalized to support a healthy microclimate, promote social interaction, and restore meaning to a long-overlooked urban void.

location Czech Republic | Prague
year 2021
type urban living
author solo project
scale XL

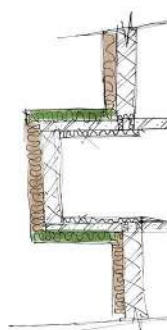
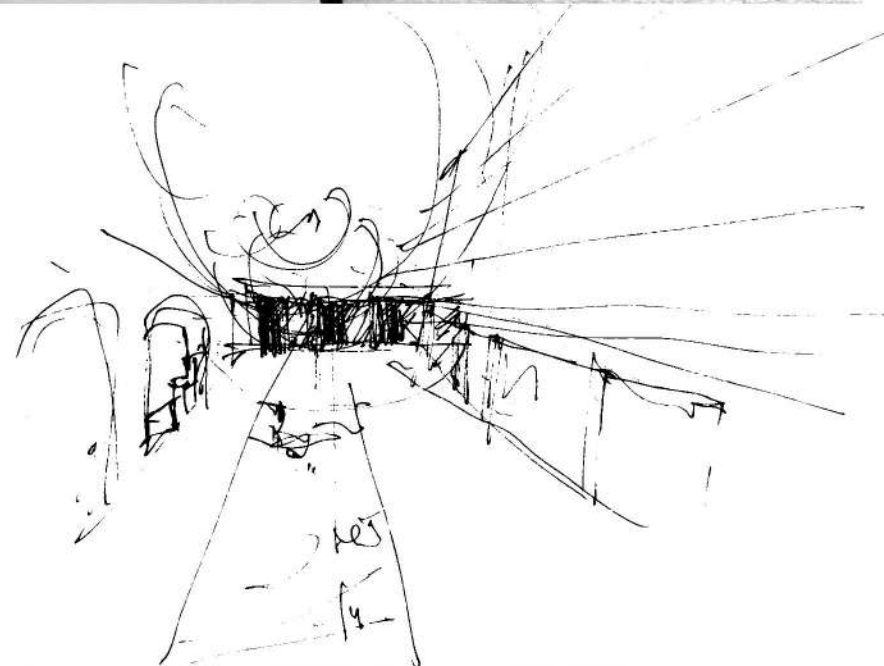
keywords intergenerational housing / community living / urban revitalization / functionalism reuse / low-energy architecture / courtyard regeneration / inclusive design / adaptive reuse / social cohesion through space



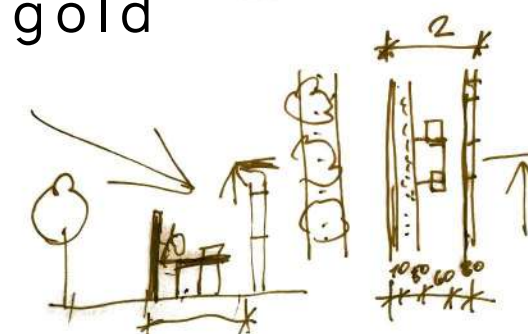
latent

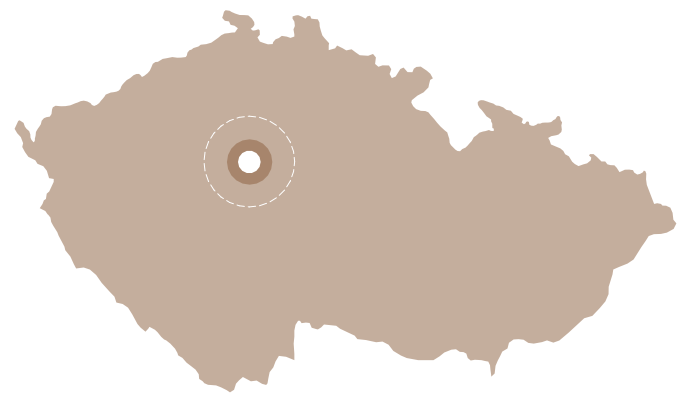


alive
spirit



old
but
gold





Czech Republic
○ Prague 2 | Podskalí



existing state
■ existing



concept design
■ designed
■ transformed
■ existing



existing state

site plan analyse



functionalist garages
view from the entrance



functionalist garages
view from the courtyard



courtyard
view from the rooftop



Catholic priests

reside in the existing rectory / lead religious services /
tend the parish garden / host gatherings and events



elderly residents

rest / socialise / meet / go for walks / converse / exercise /
attend services / care for the community garden



students

provide technical support within the complex + assist seniors
= reduced rent



young families with children

go for walks / play / care for the community garden / work /
interact with seniors / attend services



upper-class residents

relax / exercise / work / attend services / meditate /
play sports

user groups

inhabiting the designed courtyard

- 1 church entrance
- 2 forecourt in front of the church
- 3 transformer station structure
- 4 park & church surroundings
- 5 parish garden
- 6 street wall by the church
- 7 inner courtyard wall by the church
- 8 residents' parking
- 9 residents' shed
- 10 main functionalist garages
- 11 internal ramp connections
- 12 secondary functionalist garages
- 13 courtyard park

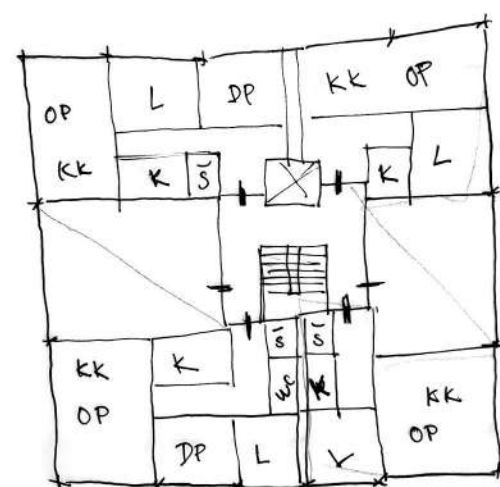
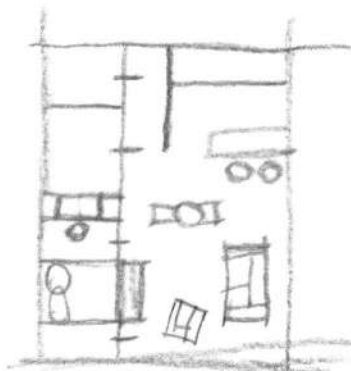
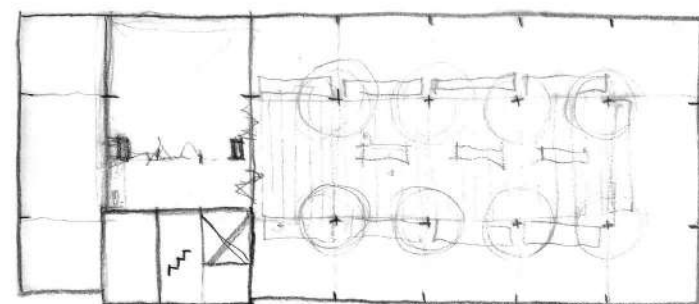
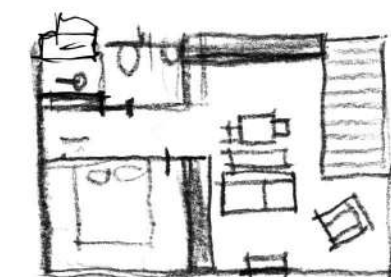
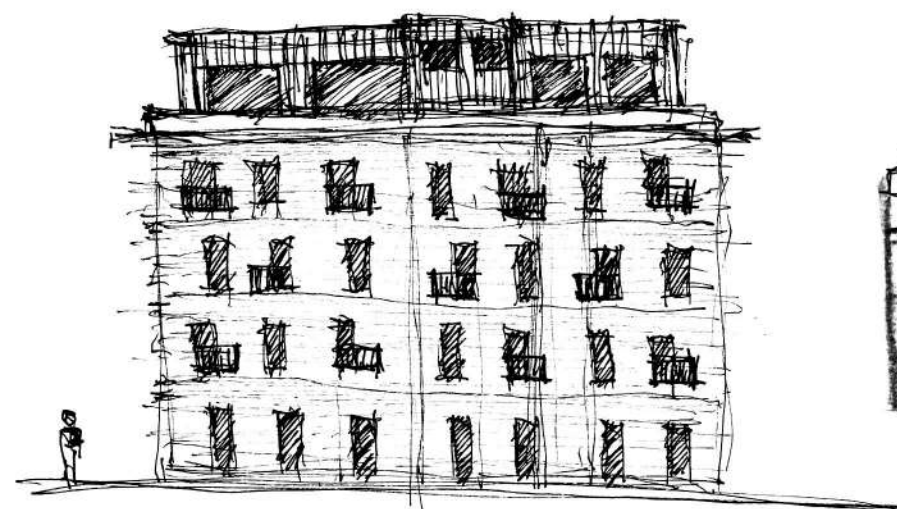
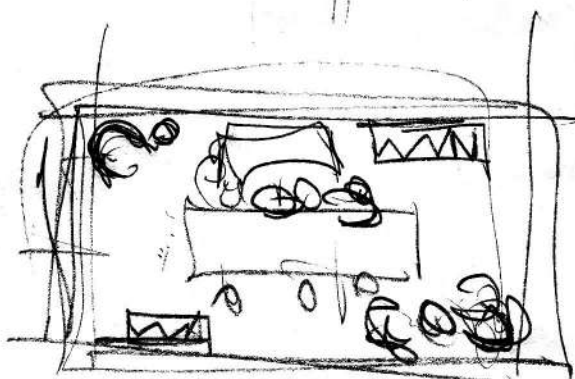
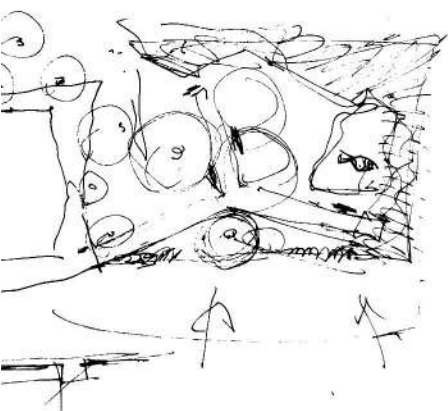
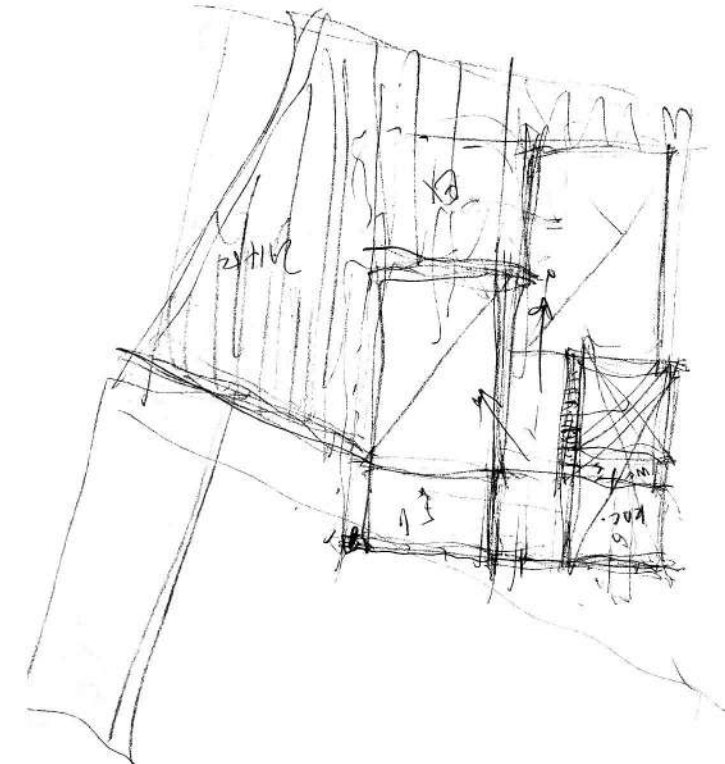
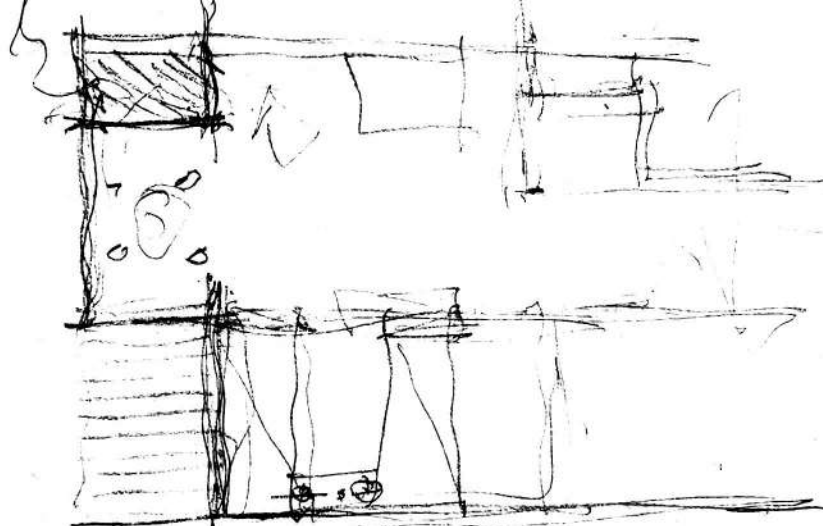
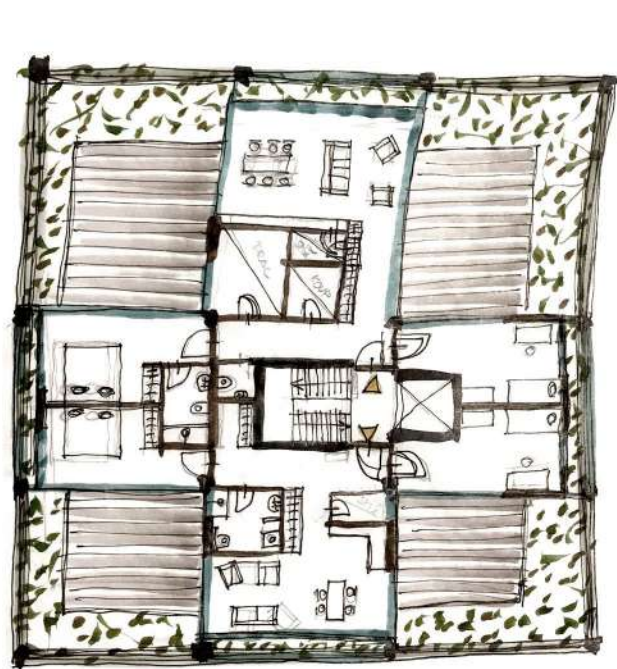
- ⊖ complicated
- ⊖ unremarkable
- ⊖ limiting
- ⊕ mature trees
- ⊕ environmental value
- ⊕ noise shielding
- ⊖ configuration
- ⊖ impractical
- ⊖ unnecessary
- ⊕ structural mass
- ⊖ unsuitable
- ⊕ structural mass
- ⊕ exceptional quality

site SWOT

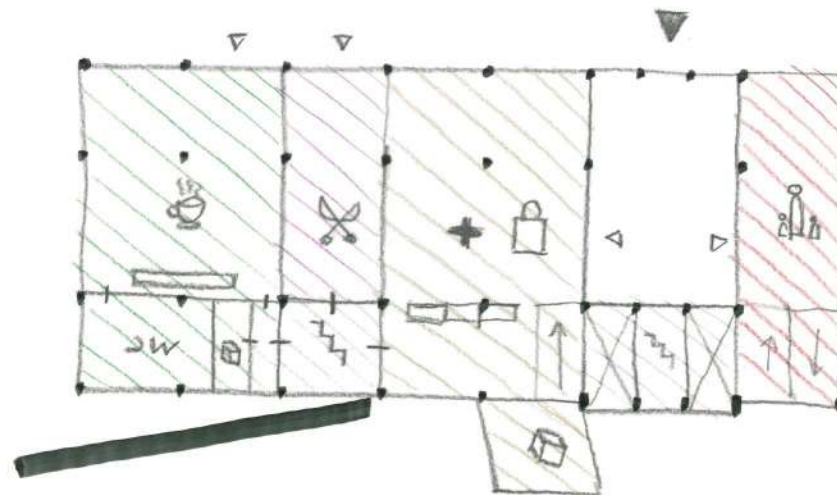
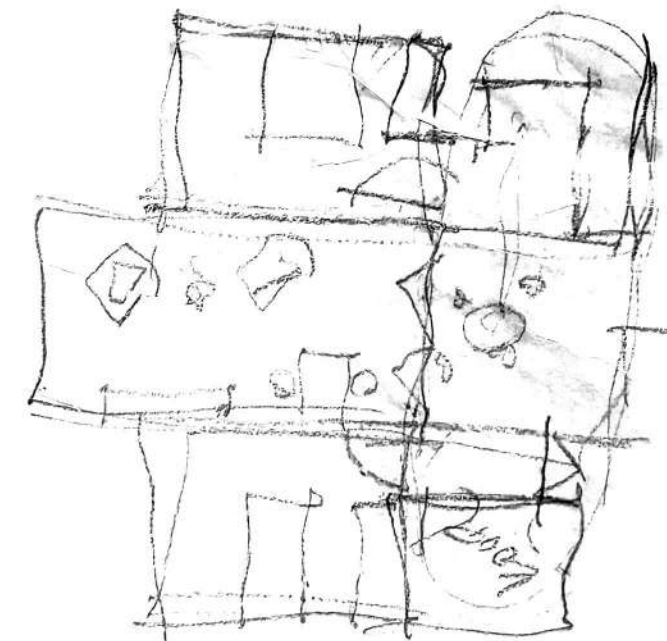
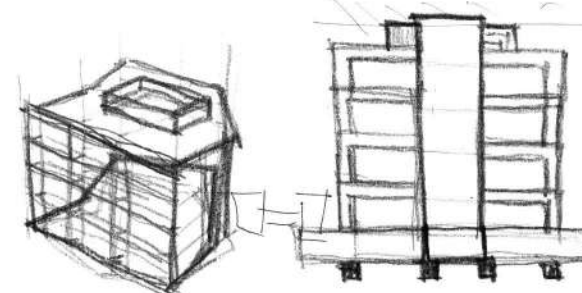
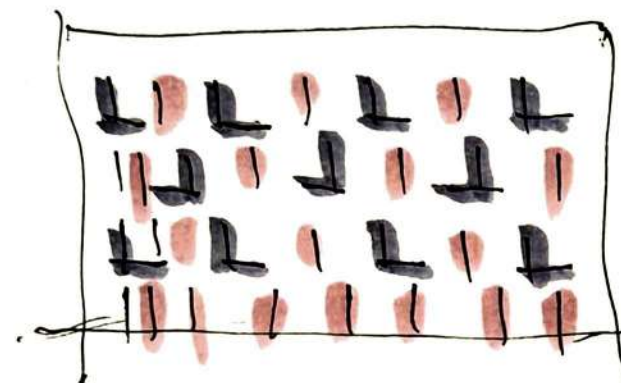
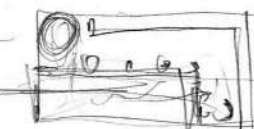
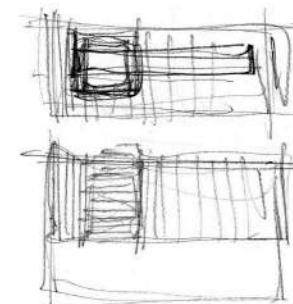


surrounding development
view from the rooftop





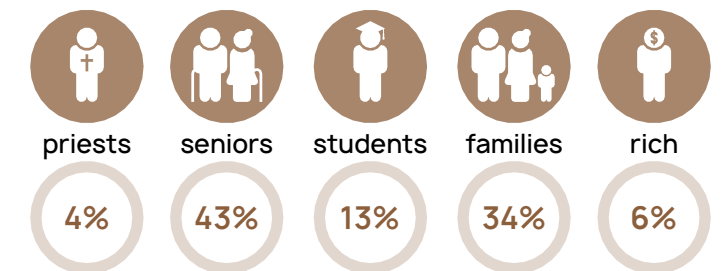
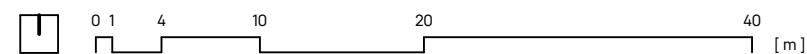
design
process



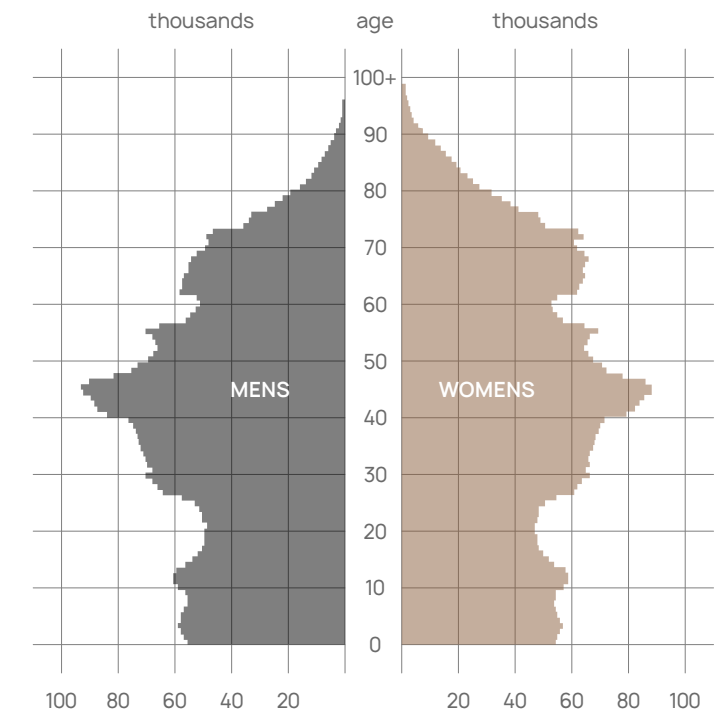


site plan

Prague 2 | Podskali



inhabiting the designed courtyard



population in the Czech Republic

existing buildings

- 1 Catholic church
- 2 parish house
- 3 elementary school
- 4 cultural heritage building
- 5 car repair shop

- existing development

functional use of buildings

- 25 entrance vestibule
- 26 hair salon
- 27 café
- 28 manicure & pedicure
- 29 kindergarden
- 30 dance hall
- 31 entrance lobby
- 32 stroller & bike storage
- 33 ground-floor flats with private gardens

designed buildings

- 22 conversion of functionalist garages
- 23 construction of residential building
- 24 construction of fitness centre

designed modifications

- 6 access road to the courtyard
- 7 church forecourt
- 8 bicycle parking
- 9 kiss & ride parking
- 10 inner courtyard wall by the church
- 11 park & church surroundings
- 12 parish garden
- 13 alley with senior play elements
- 14 pétanque court
- 15 children's playground
- 16 community orchard
- 17 ramp to underground parking
- 18 accessible green roof
- 19 private front gardens
- 20 inner courtyard pond with a pier
- 21 revitalisation of the courtyard park





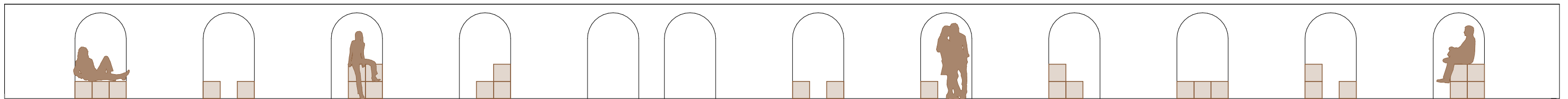
conversion of functionalist garages
pedestrians | runners | cyclists



parish garden
microclimate / environmental value

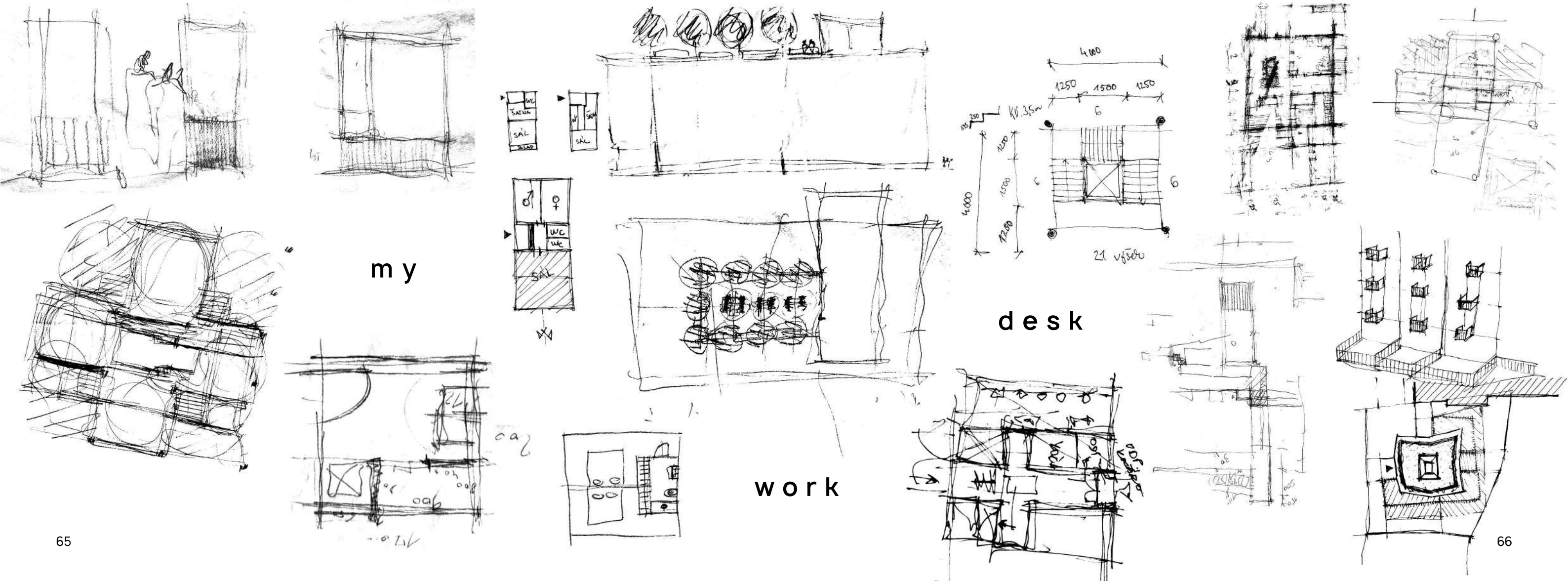


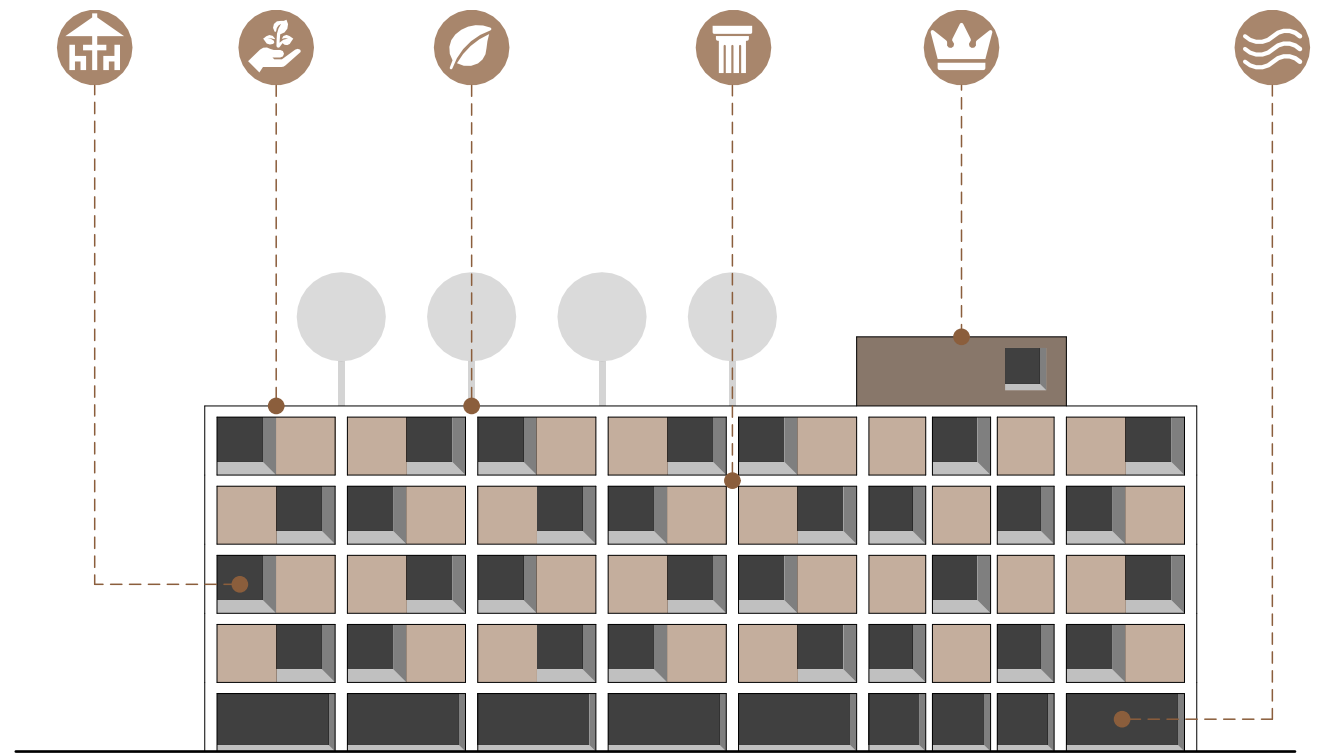
alley with senior play elements
pedestrians | runners | cyclists



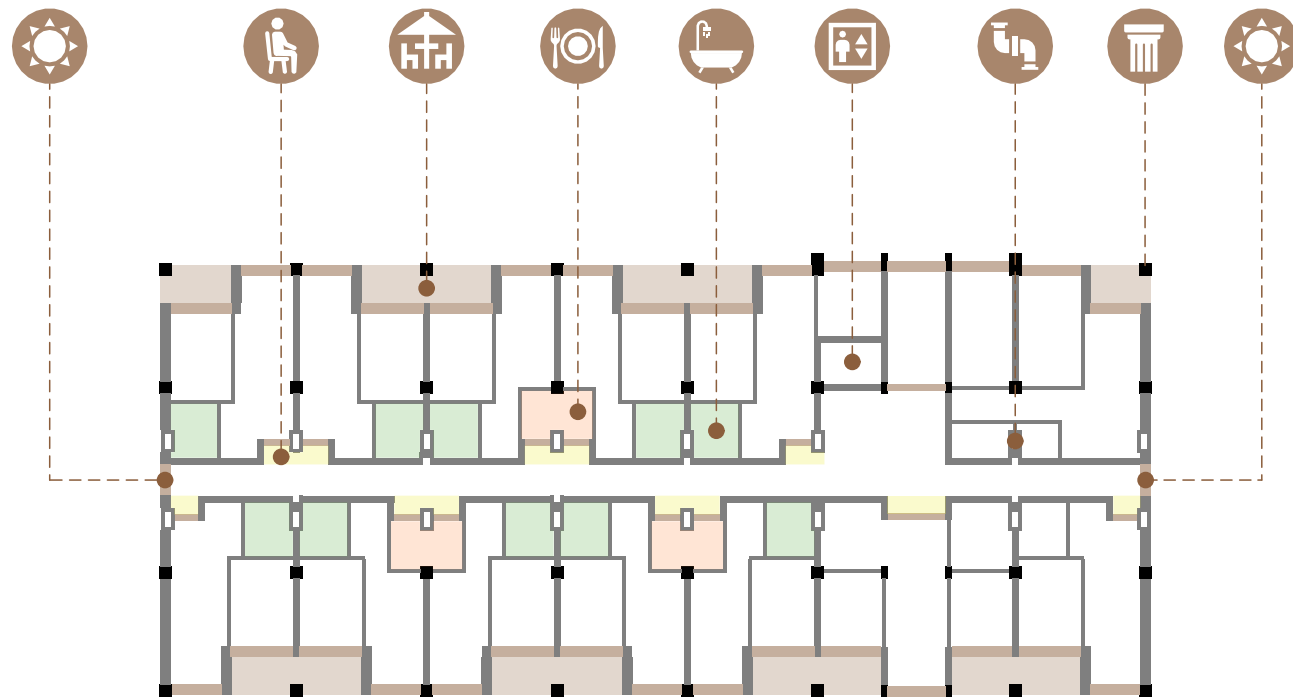
designed inner courtyard wall by the church

"This wall plays a crucial role in defining the space. It separates the lively, recreational part of the courtyard from its calm, meditative zone. The design is inspired by the strict spatial boundaries found in monastic grounds of medieval Prague."

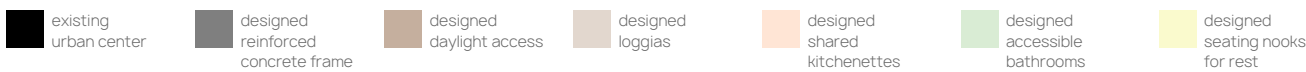




parallel view

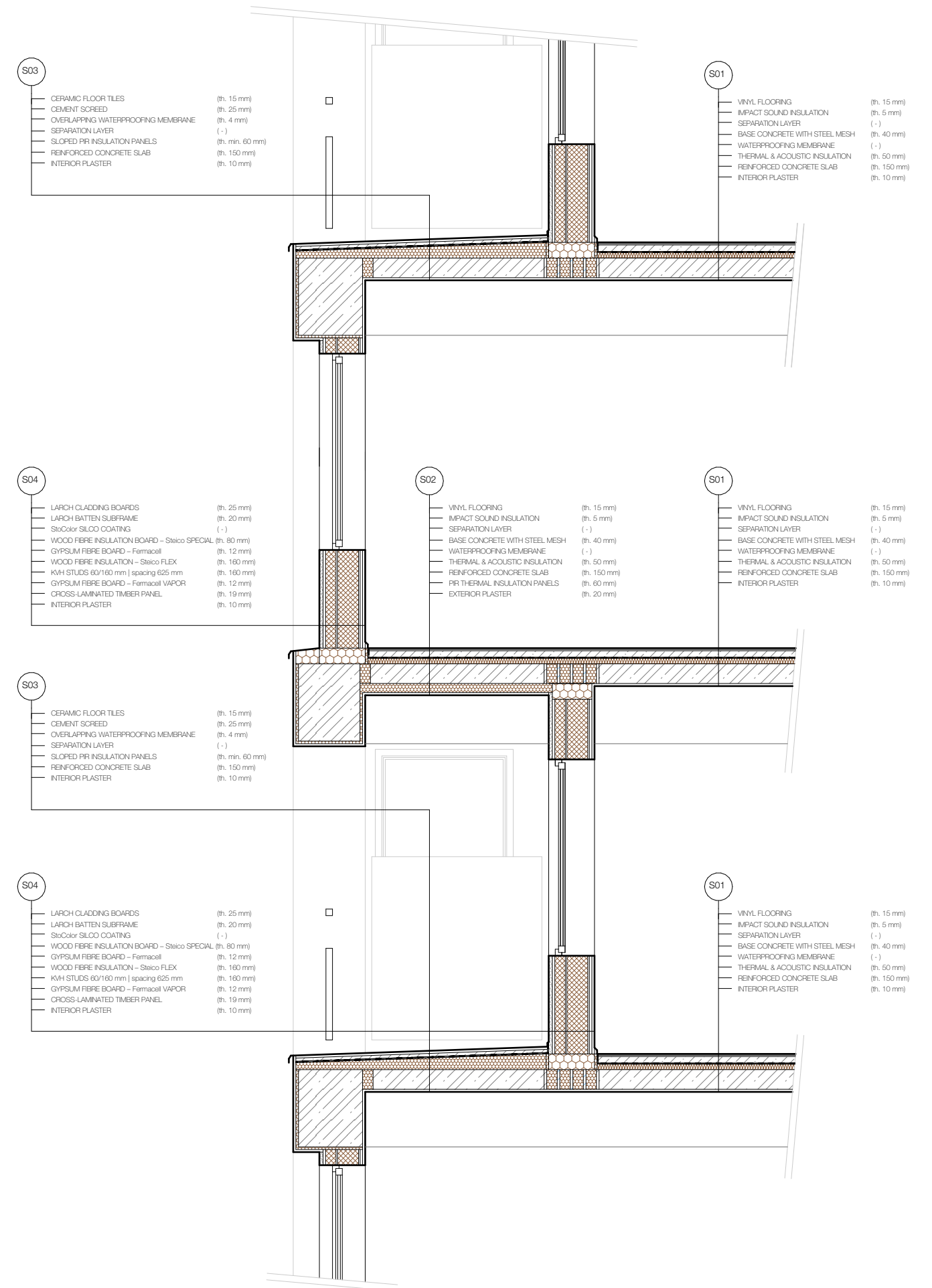


floor plan



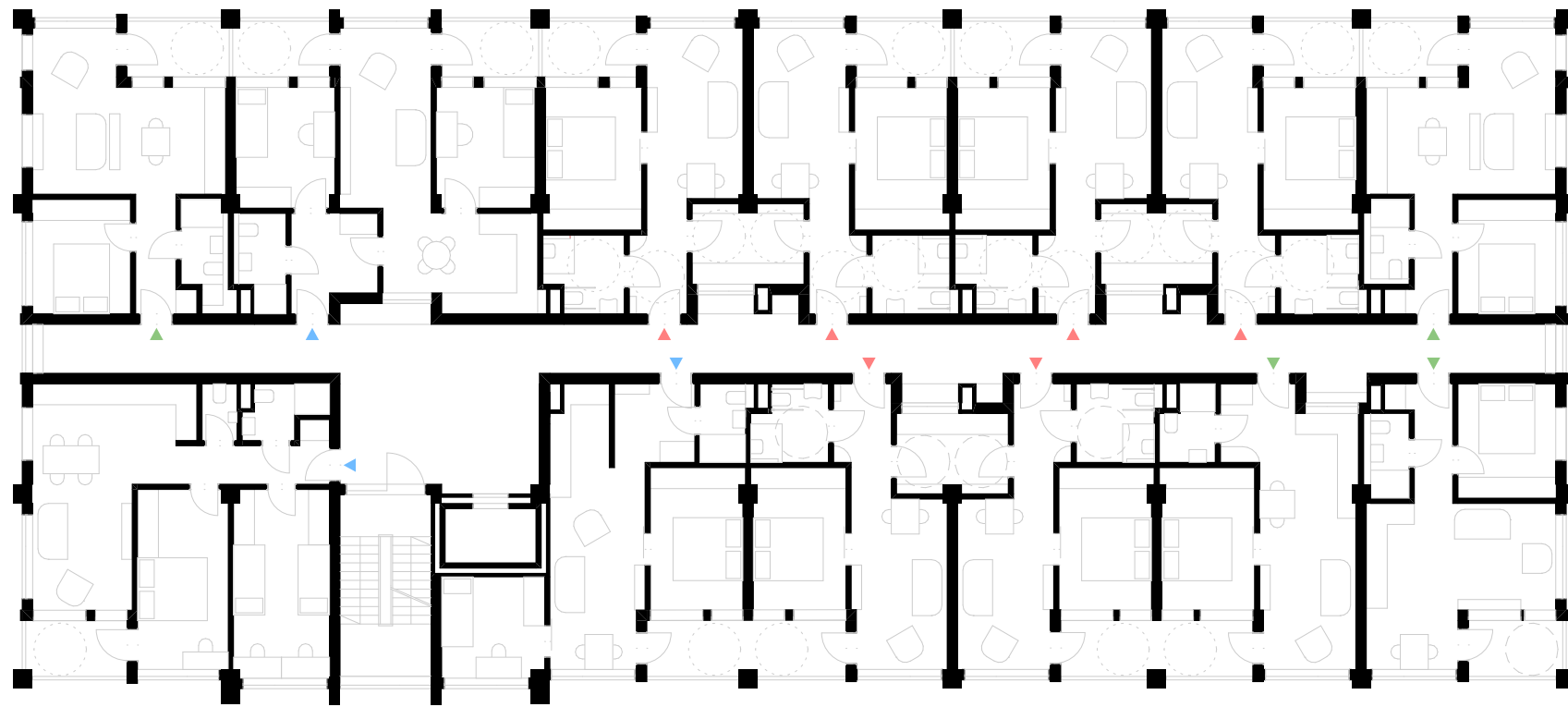
concept design

structure, topography, space, light, emotion

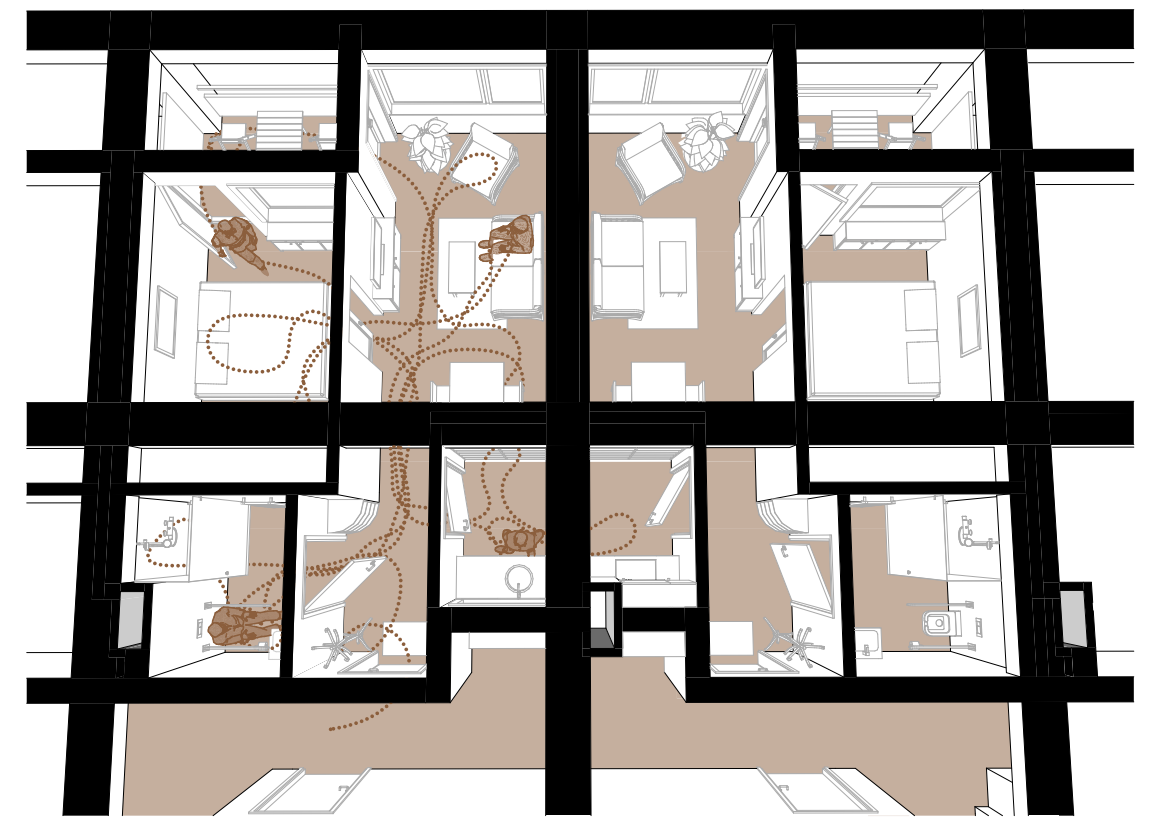
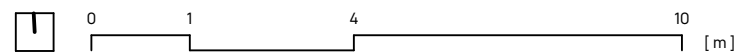


technical solution

building permit documentation



typical floor plan
conversion of functionalist garages

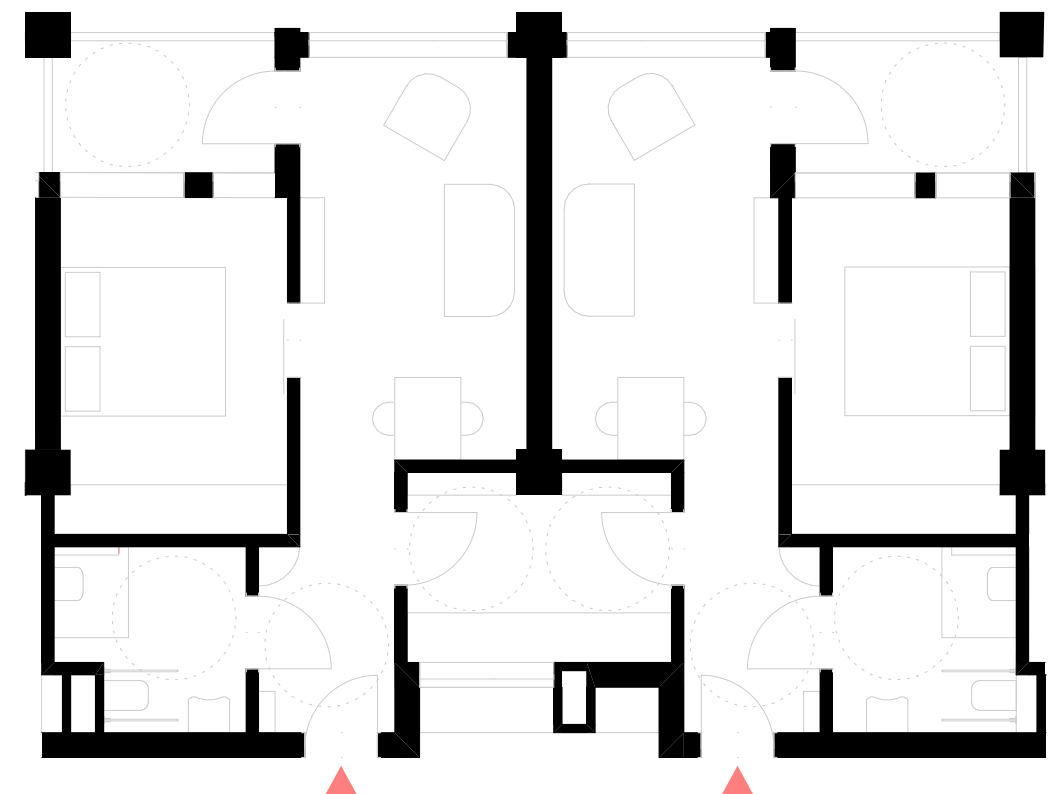


typical room
barrier-free residential modules with a shared kitchen

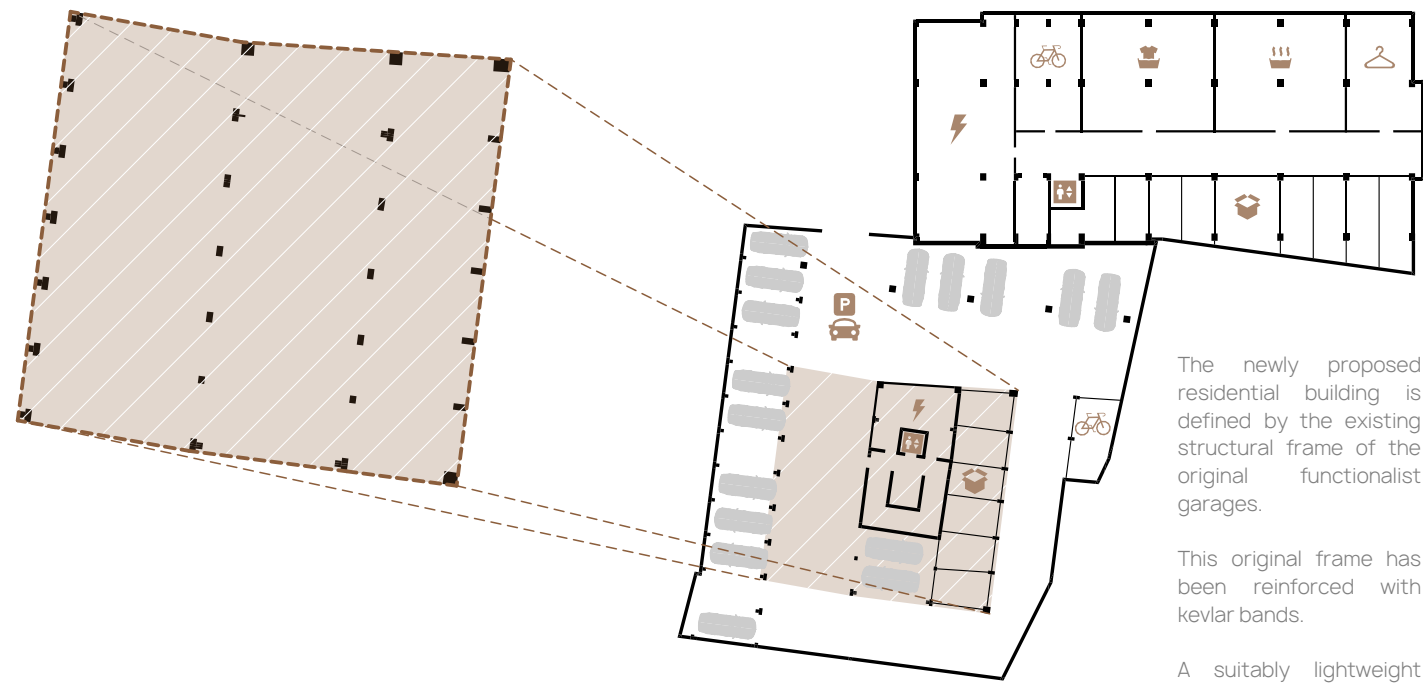


architectural design of the corridor
longitudinal & cross-lighting / seating nooks for rest / built-in library

- ▶ **students**
 - 12 residential units
 - 4 parking spaces
 - 8 basement storage units
 - pram and bike room
 - laundry room & drying room
 - linen storage
- ▶ **senior (barrier-free)**
 - 24 residential units
 - 6 parking spaces
 - 12 basement storage units
 - pram and bike room
 - laundry room & drying room
 - linen storage
- ▶ **senior (non-barrier-free)**
 - 16 residential units
 - 8 parking spaces
 - 10 basement storage units
 - pram and bike room
 - laundry room & drying room
 - linen storage

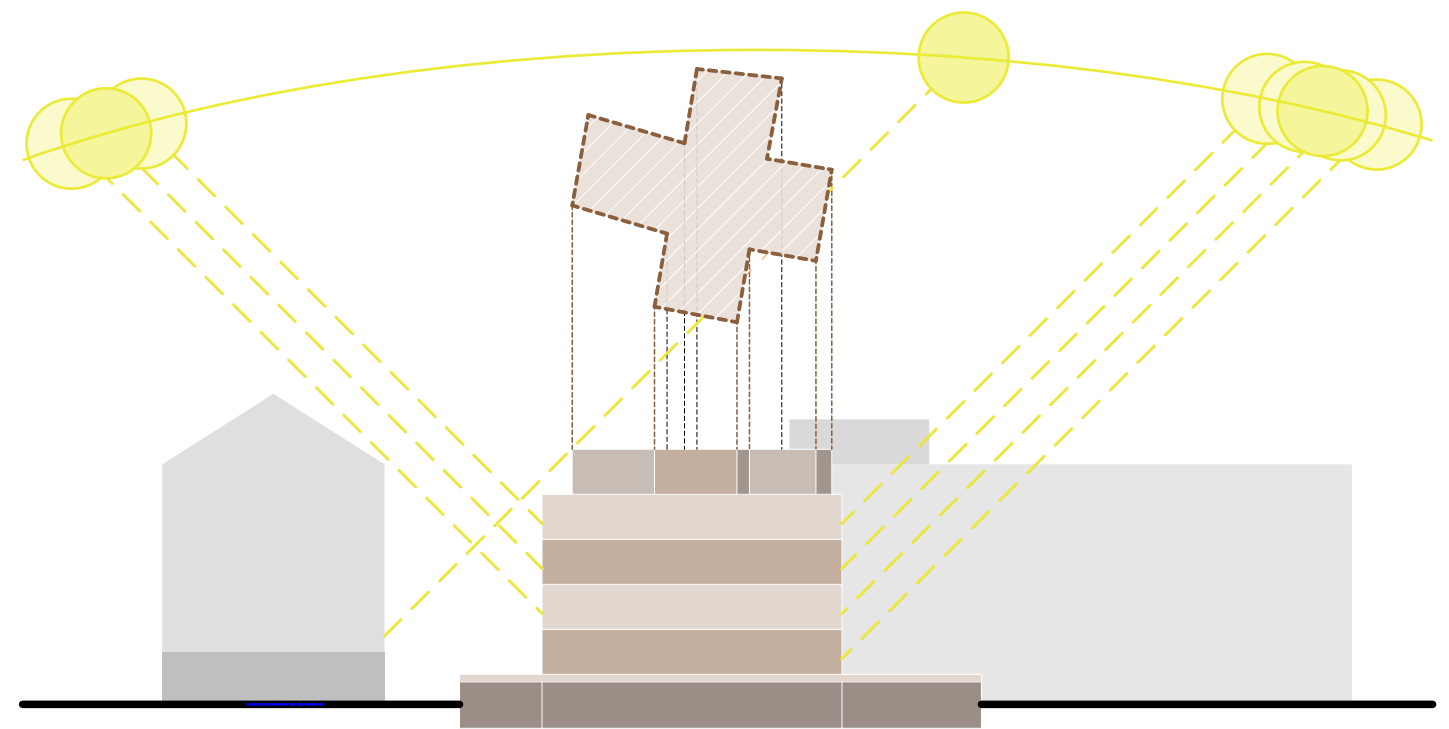


typical room
barrier-free residential modules with a shared kitchen



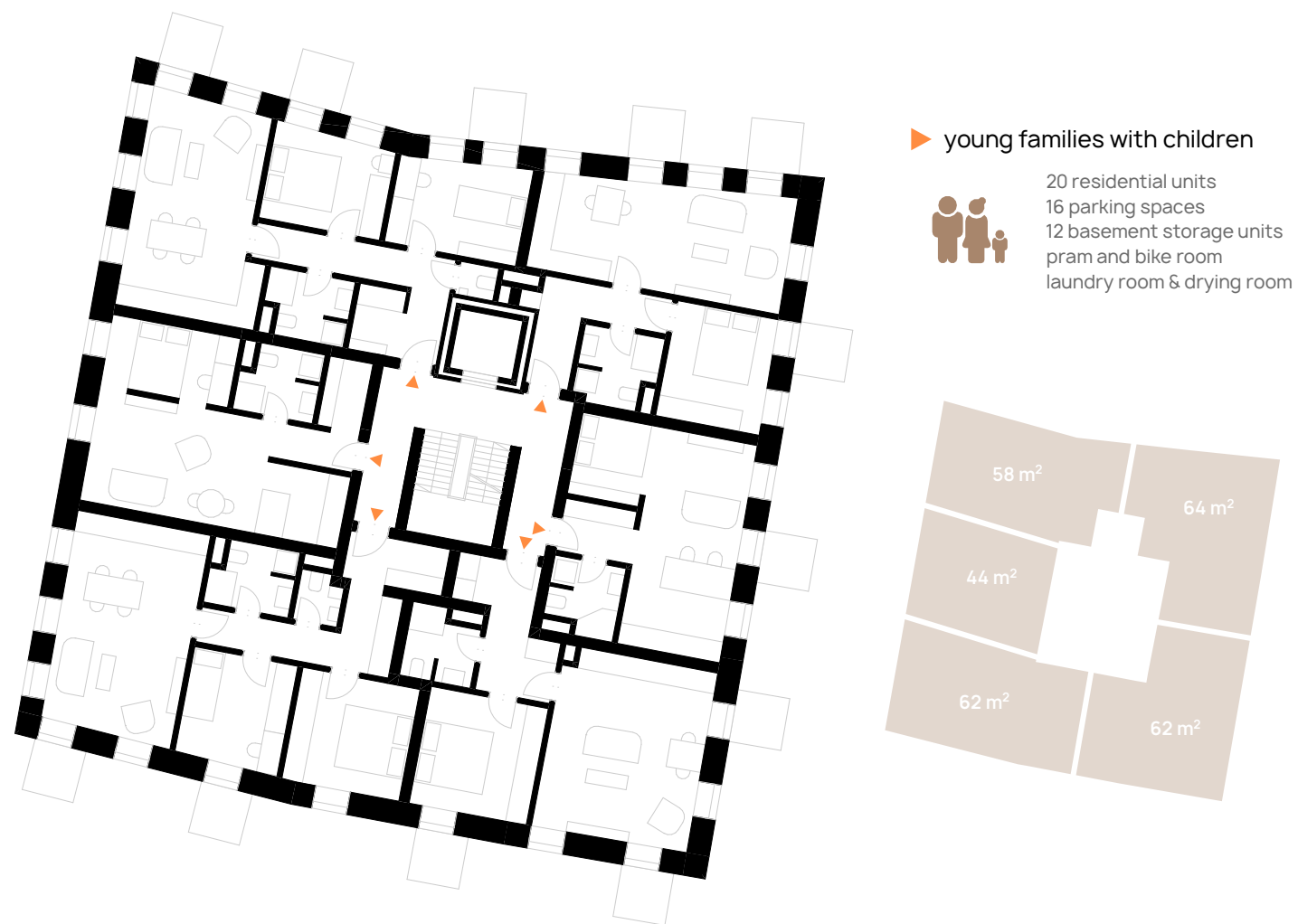
residential building design

layout of existing single-storey functionalist garages



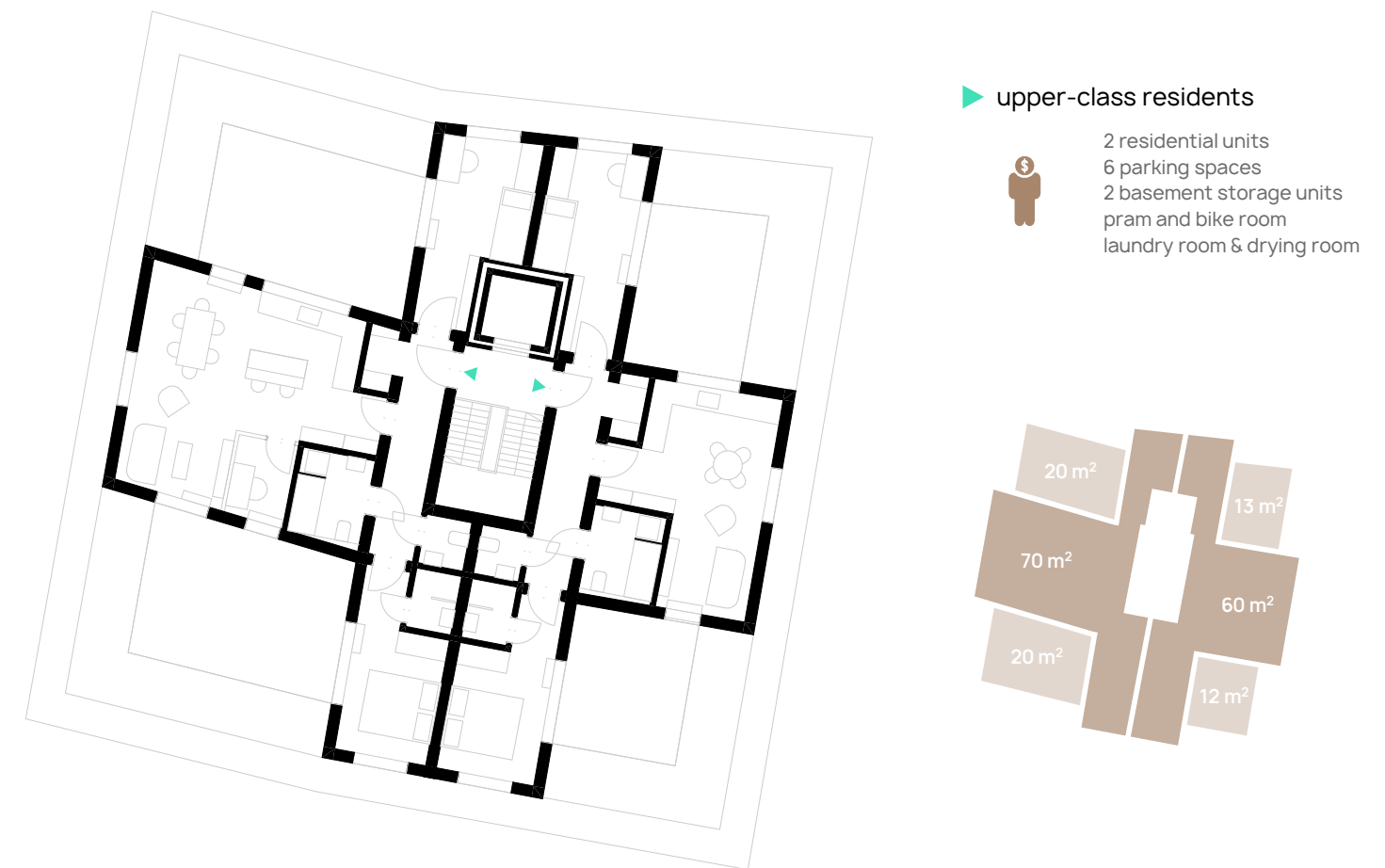
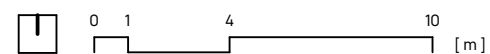
residential sunlight regulation

according to the legislation of the City of Prague



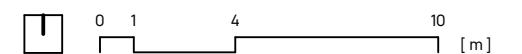
typical floor plan

residential house



attic floor plan

residential house

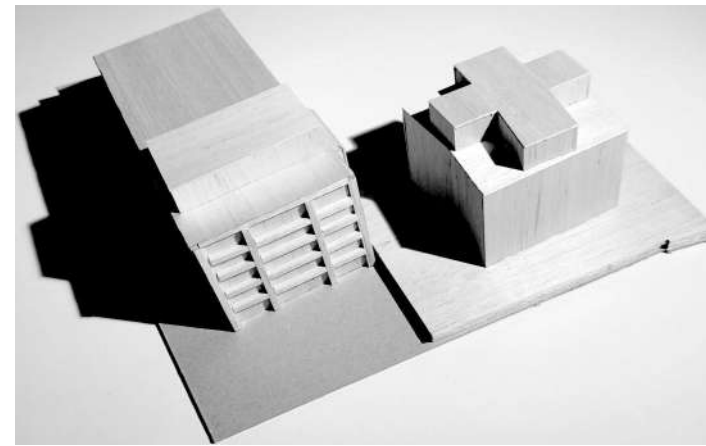




harmony of volumes
flow of sunlight



visual corridors
roof plane



interaction of forms
conversion of functionalist garages



dialogue of proposed structures
rooftop addition of a residential building on single-storey garages

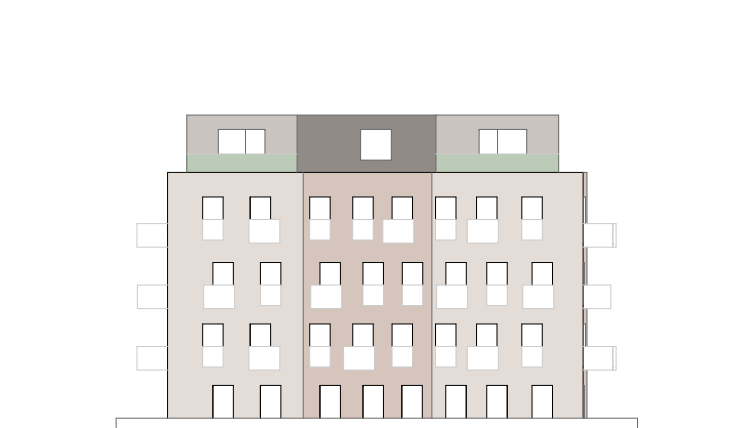


north elevation
conversion of functionalist garages

0 1 4 10 [m]

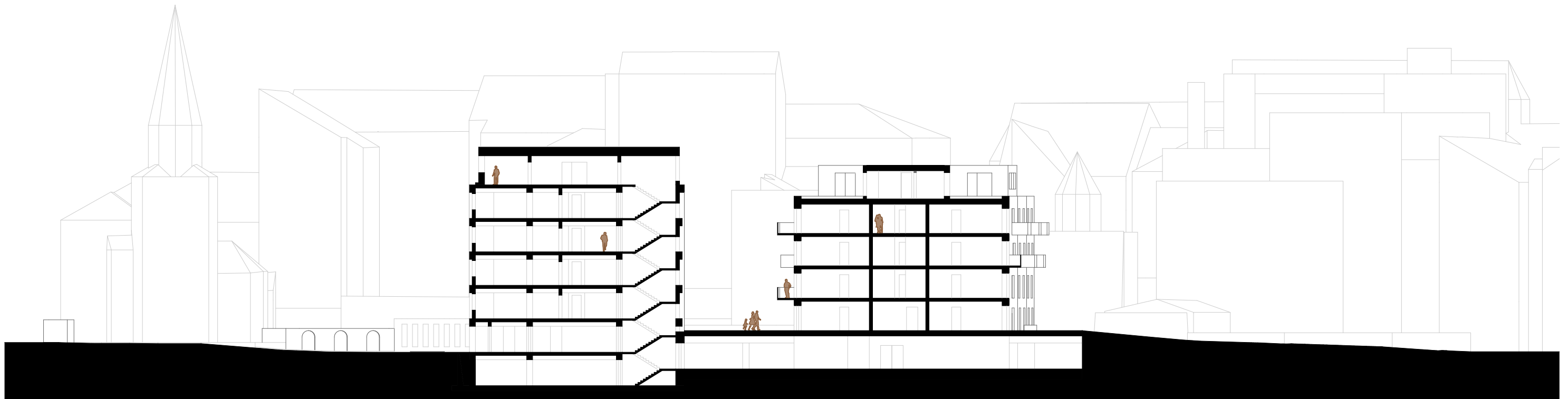


east elevation
conversion of functionalist garages



east elevation
designed residential building

0 1 4 10 [m]



cross section
Prague 2 | Podskali

0 1 4 10 20 40 [m]



04

continuity

Can architecture listen before it speaks?

YELLOW
CARD
AWARD

A bridge is a curious structure! It leads footsteps toward a place where once there was none.

I searched for a way to unite two gestures: the bridge itself, and the modest structures alongside it.

The bridge is light and primitive in form—delicate, yet grounded. It doesn't intrude, it links, softens, and respects the landscape.

The shelters share this quiet presence. They offer privacy and pause, with a touch of playfulness beside the water.

After all, river meander, shift, and teach—just as architecture can.

These elements aren't meant to impress, but to serve. For those who stop, they offer stillness, shade, and space to breathe.

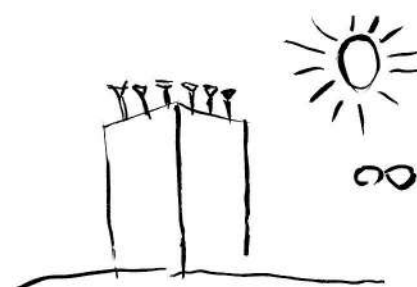
location
year
type
author
scale

Czech Republic | Semín + Přelouč
2022
infrastructure
solo project
L

keywords

bridge design / suspension bridge / pedestrian bridge / genius loci / steel structure / infrastructure / spaces connection / future systems / human scale elements / landscape integration / slow space

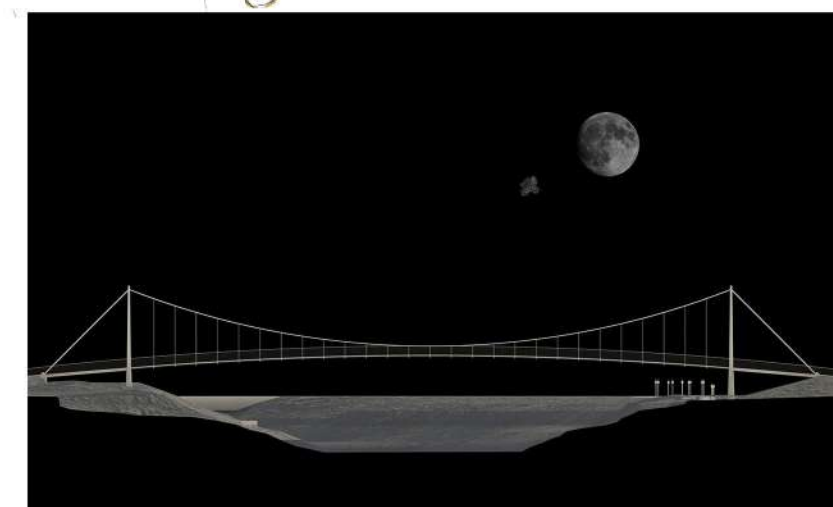
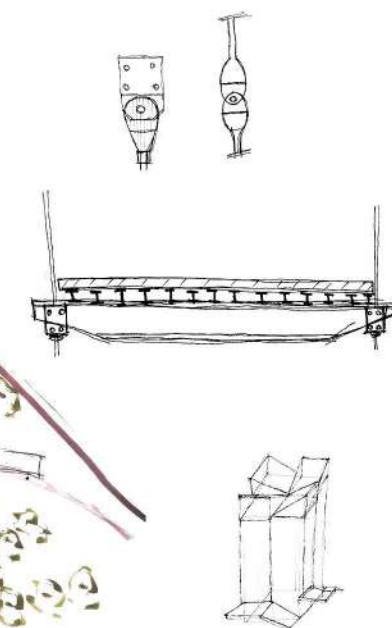
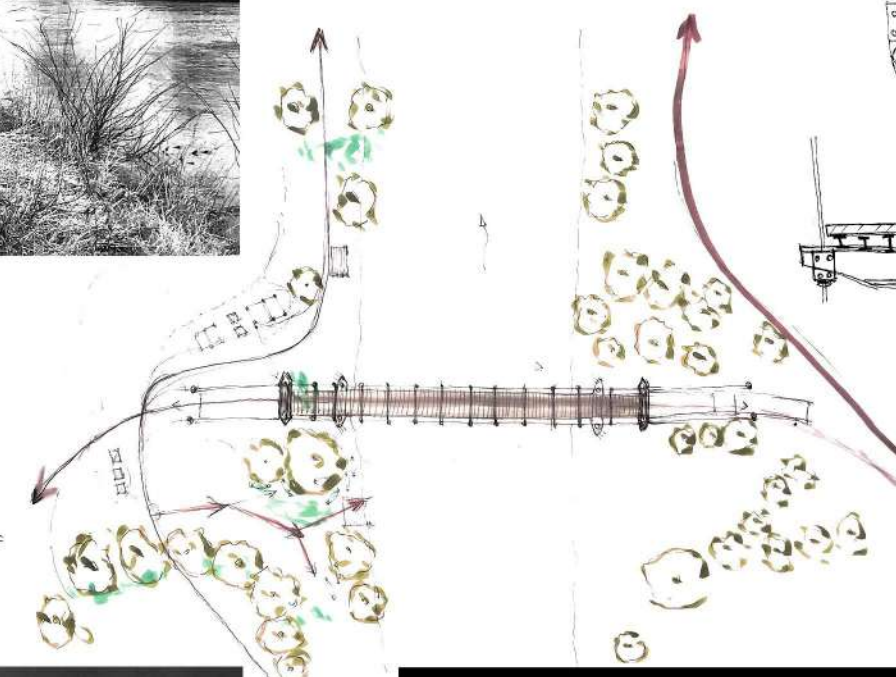
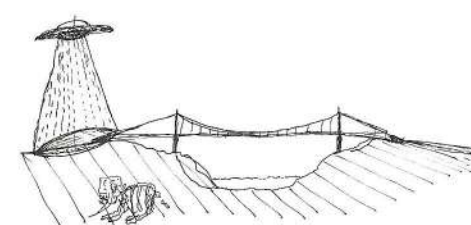
unique



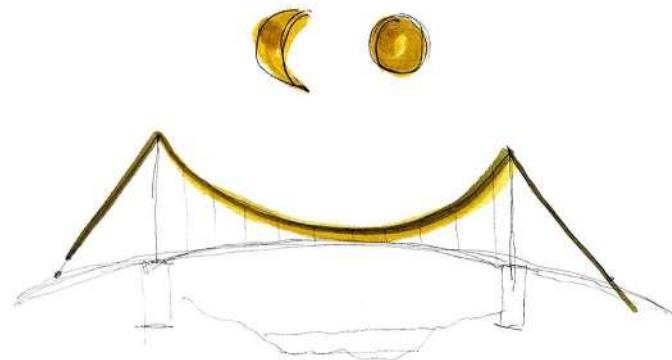
refined



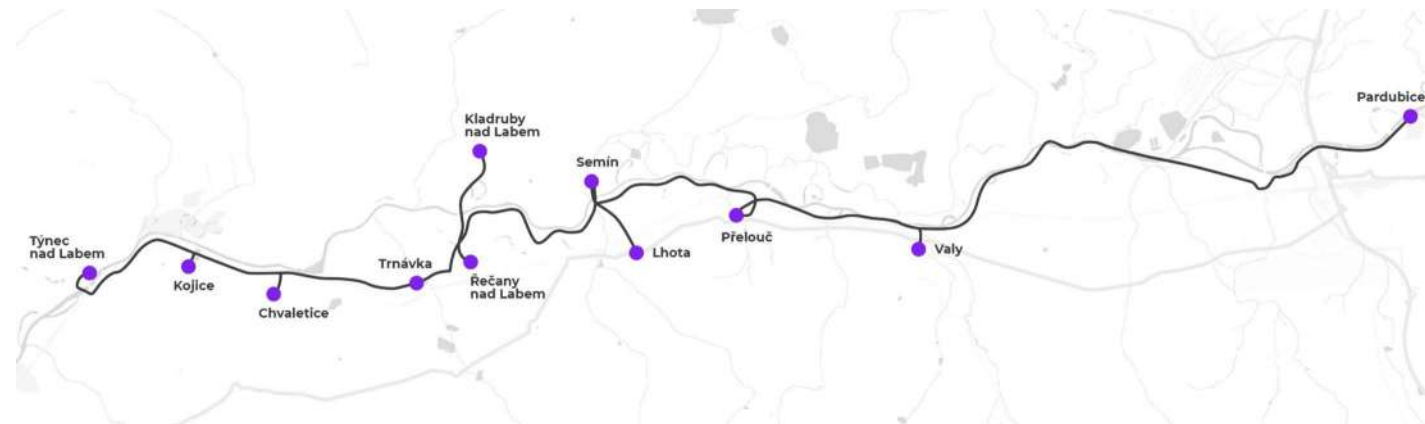
natural



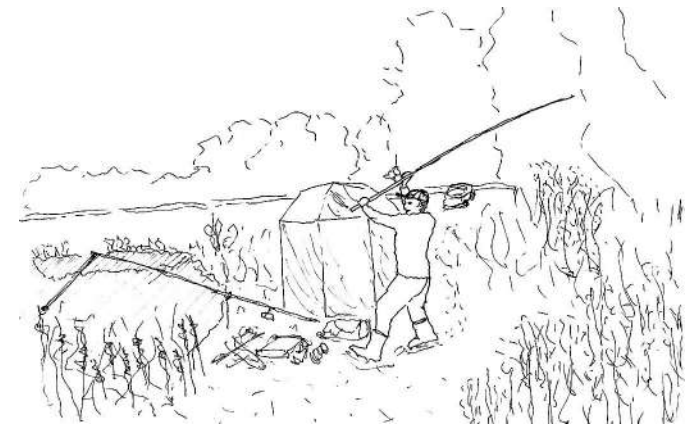
future-oriented



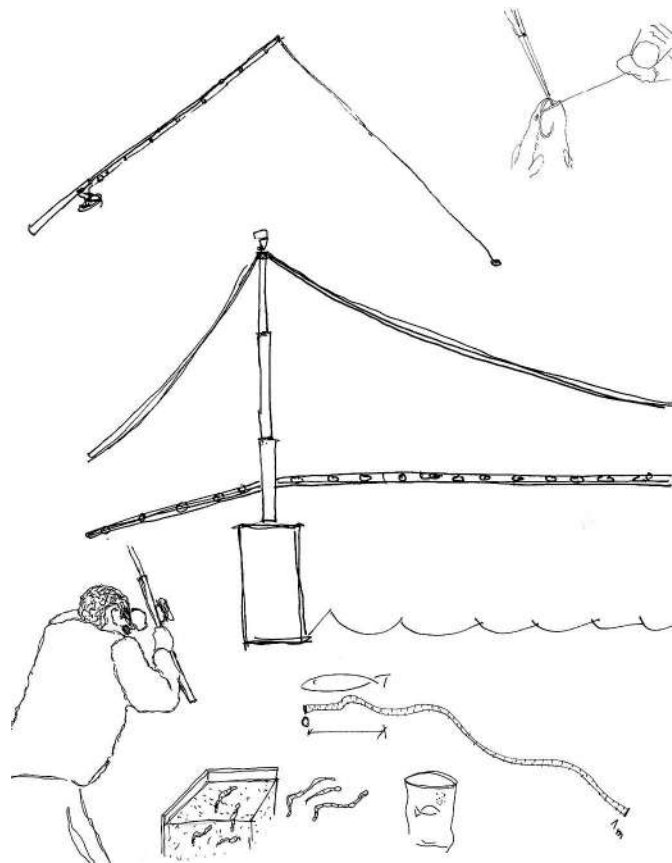
idea sketch of the bridge
a connection between two worlds



Elbe cycle path
national cycling trail along the banks of the Elbe river



inspired by fishing
sketched directly in the designed site



fishing as the main source of inspiration
discovered within the project area

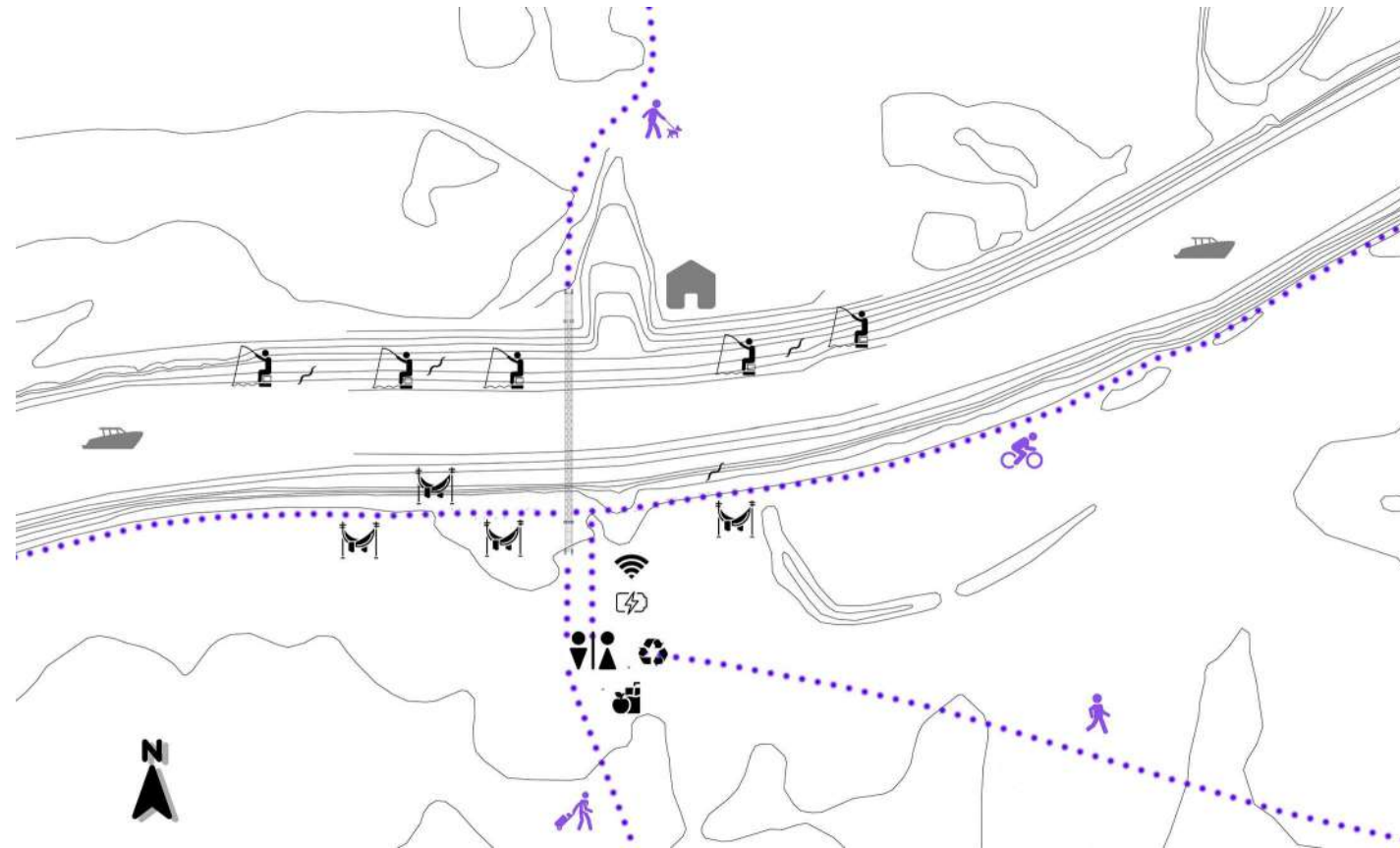
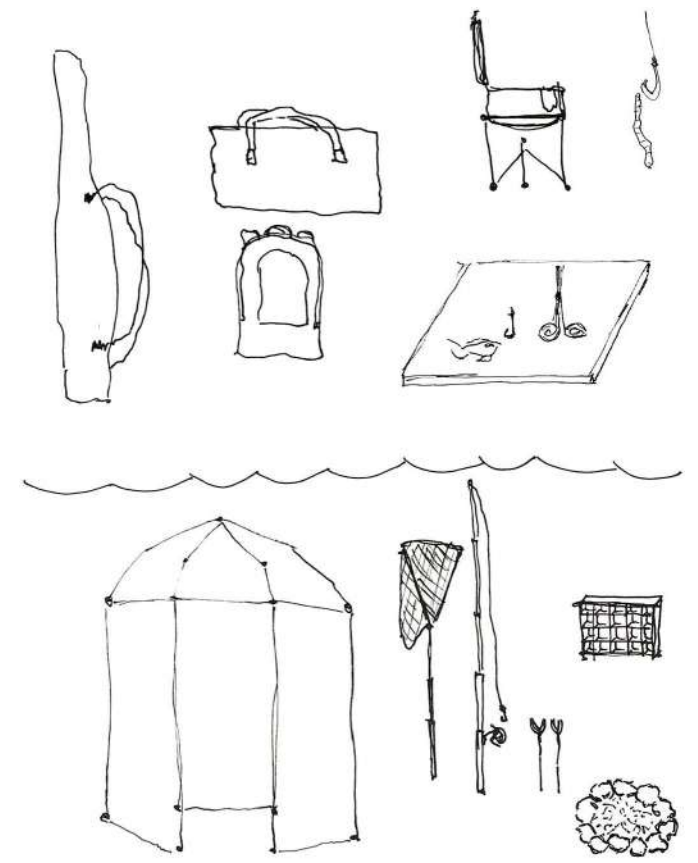


diagram of site connections & uses
pedestrian & cycle network



fishing gear as source of inspiration
observed on site



designed location of the bridge
view downstream along the Elbe



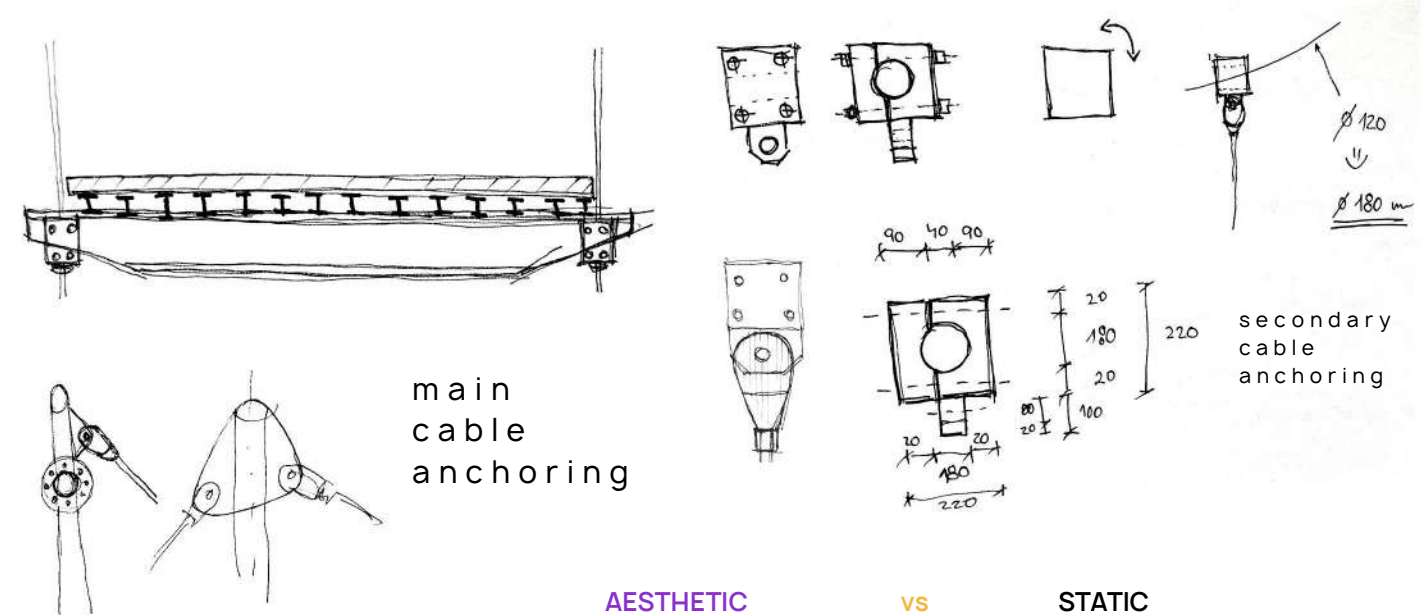
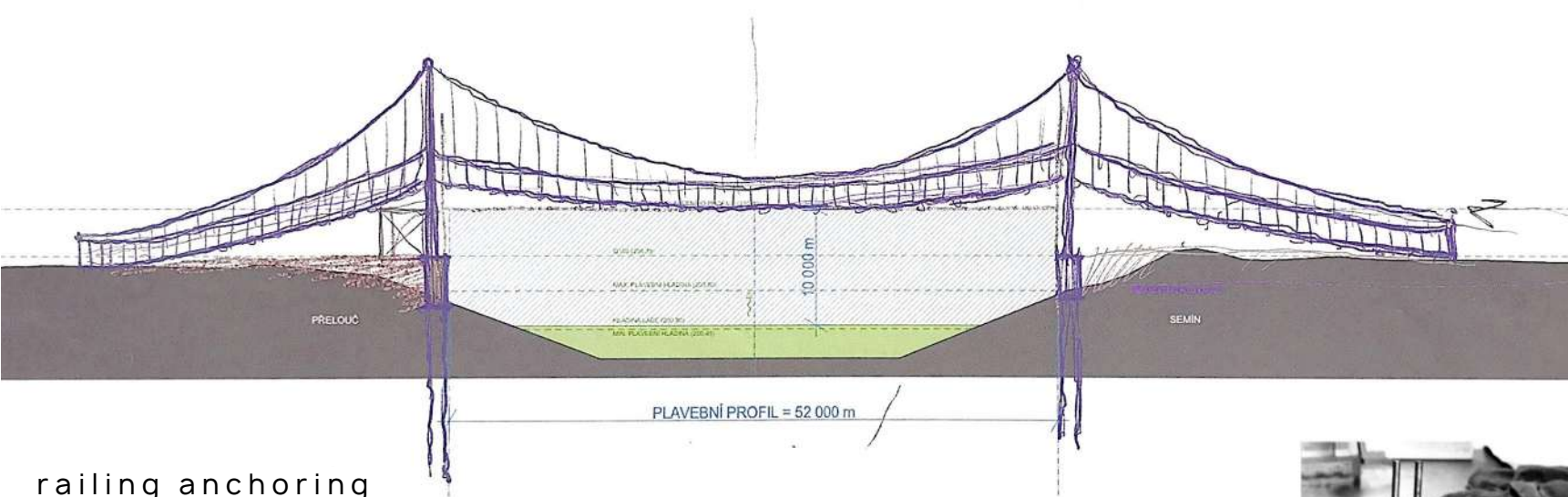
poetry of riverbanks
view upstream along the Elbe



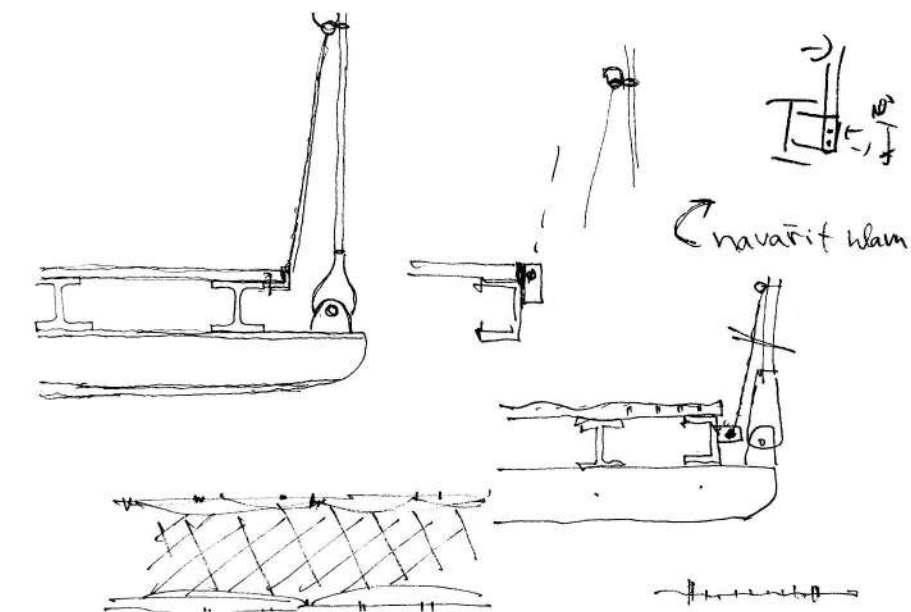
oxbow lakes of the Elbe
unique natural ecosystems in the surroundings



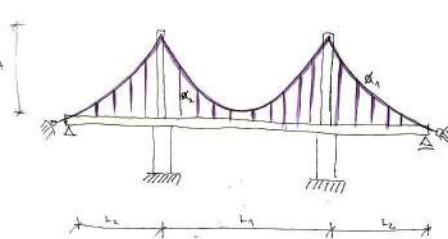
reflection of the river
material inspiration for the bridge & cabins



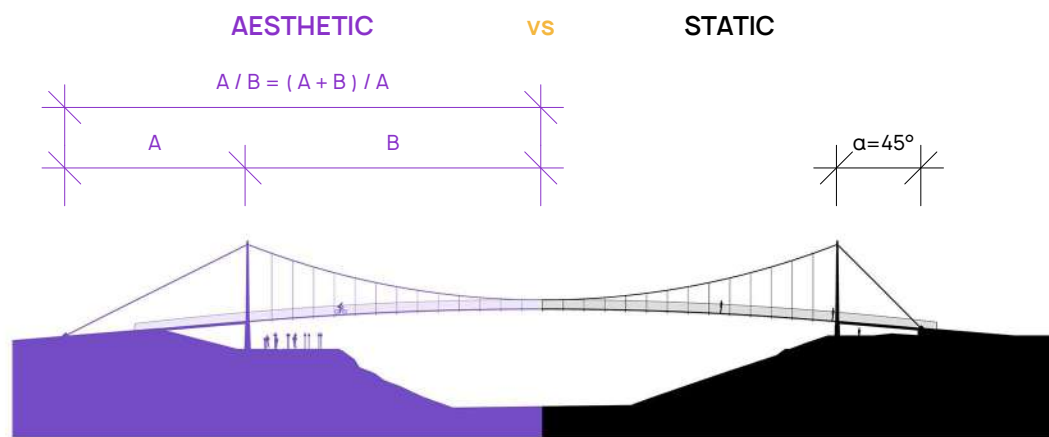
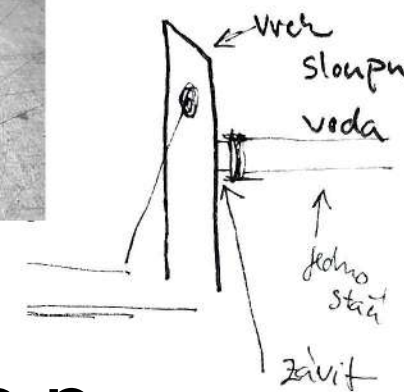
railing anchoring



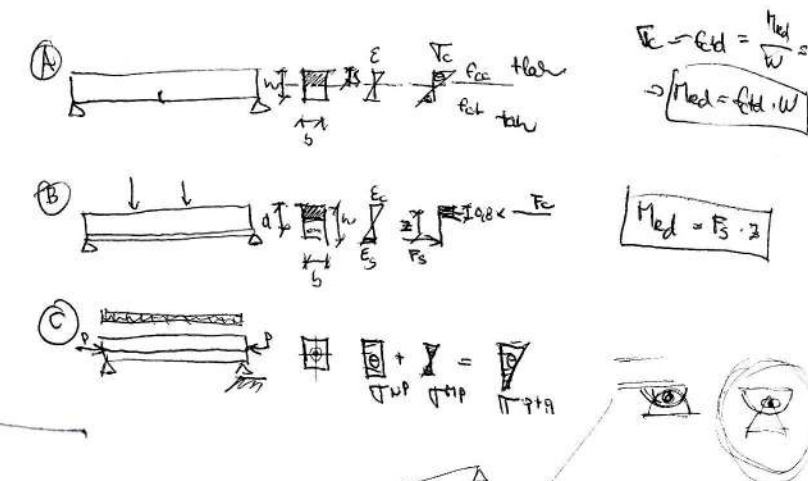
navarít hlau



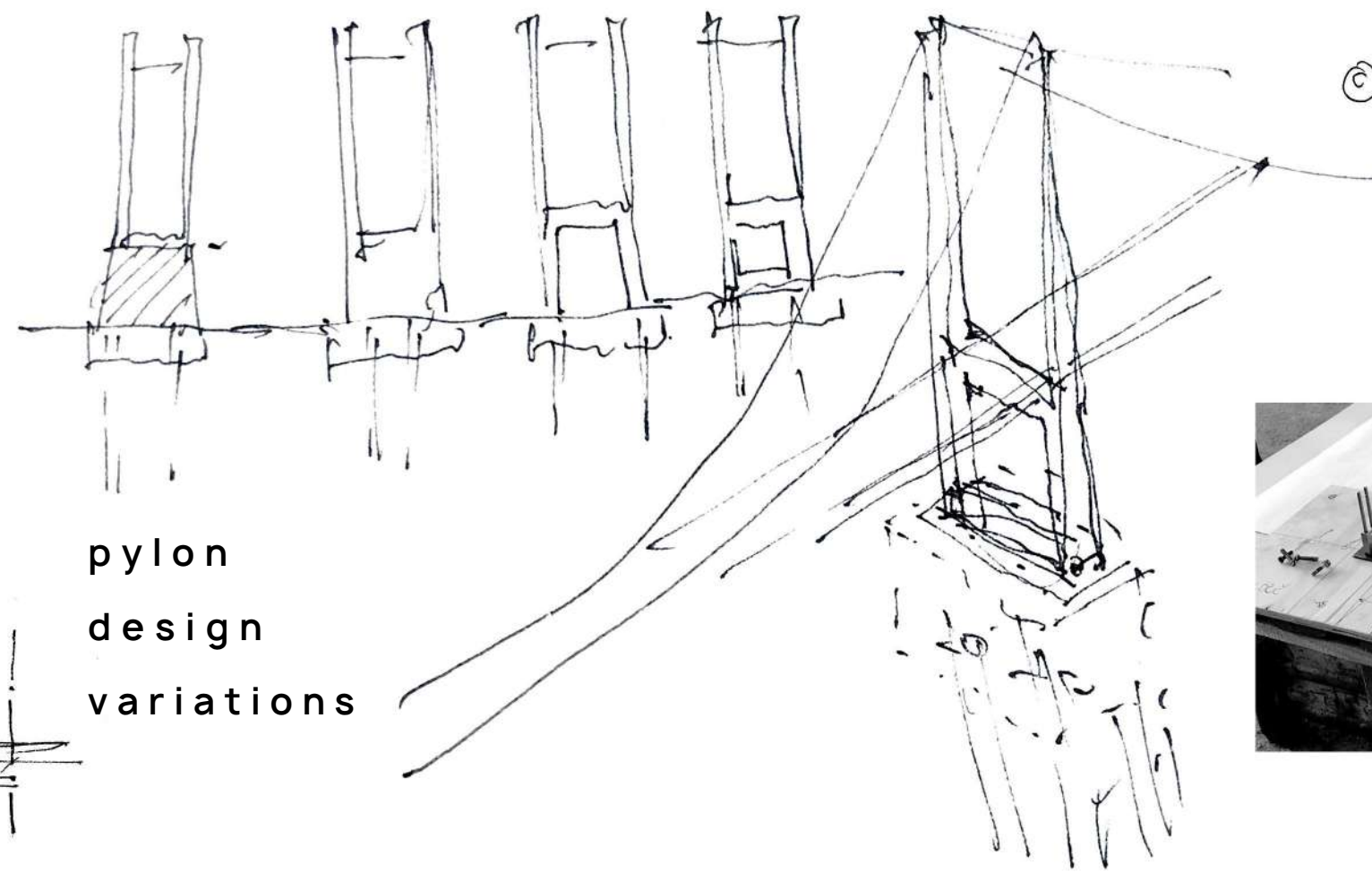
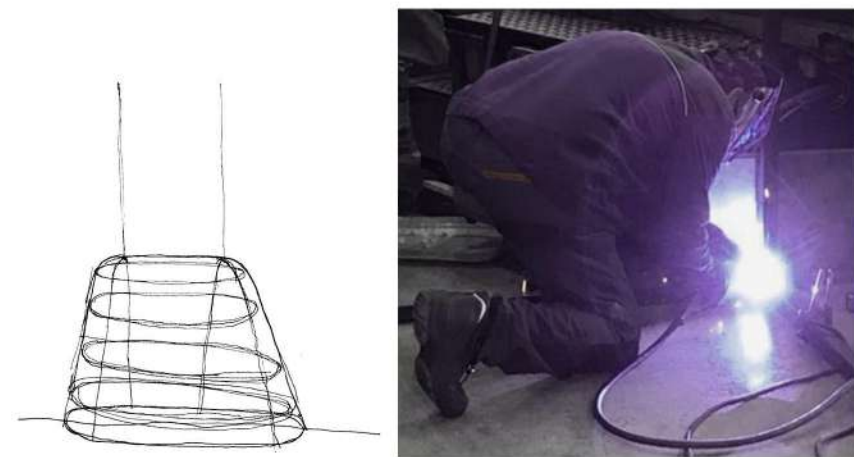
column head



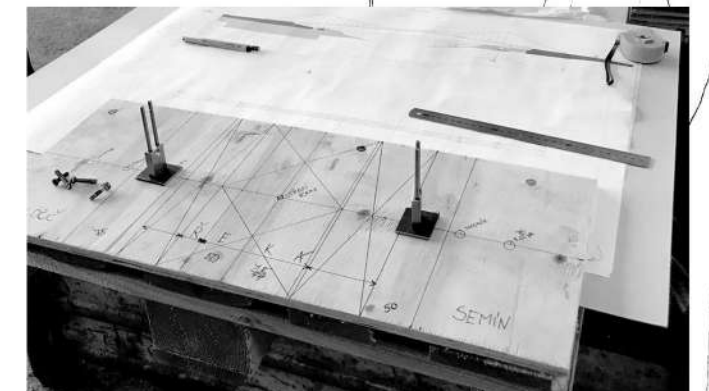
structural diagrams

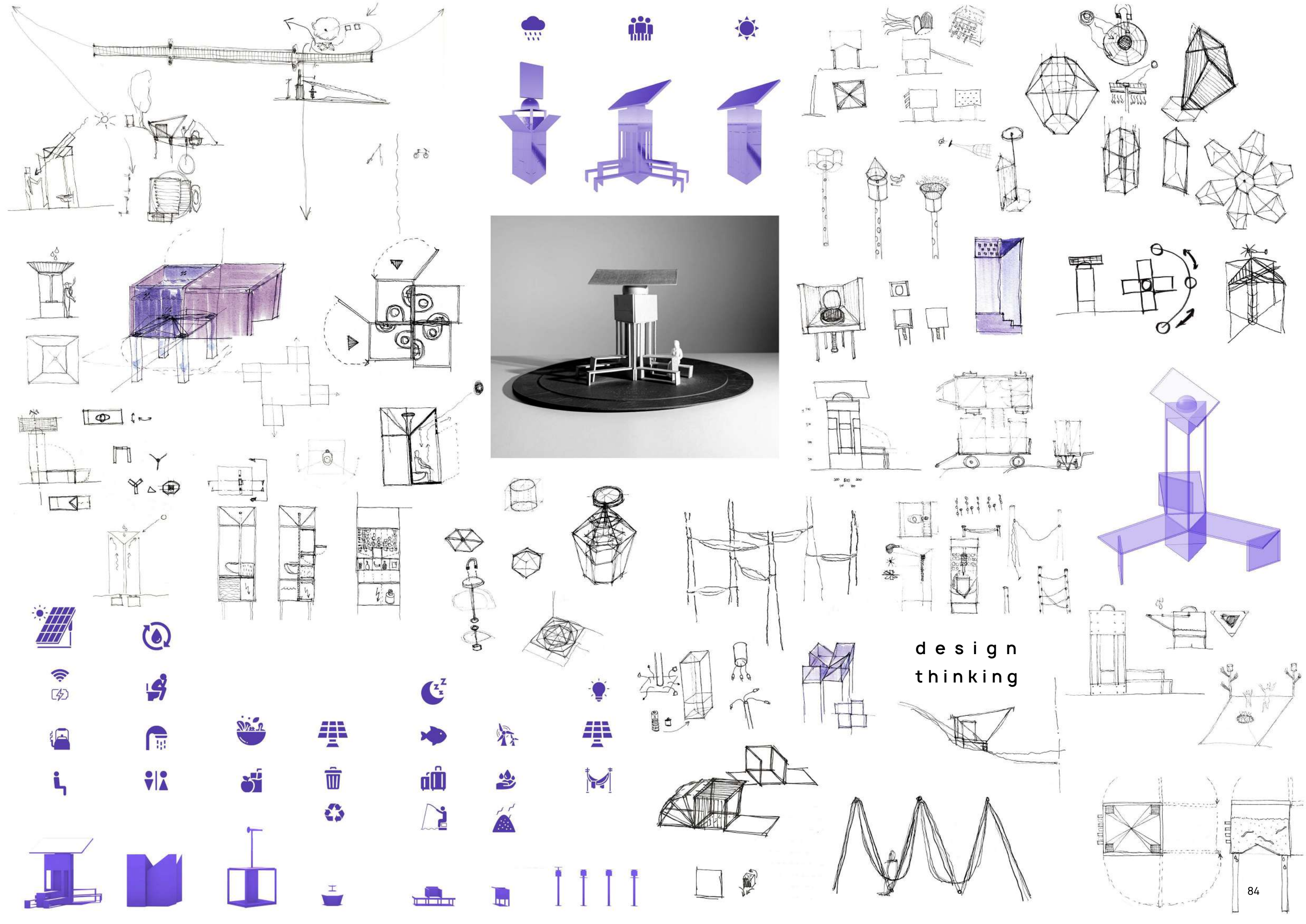


optimization

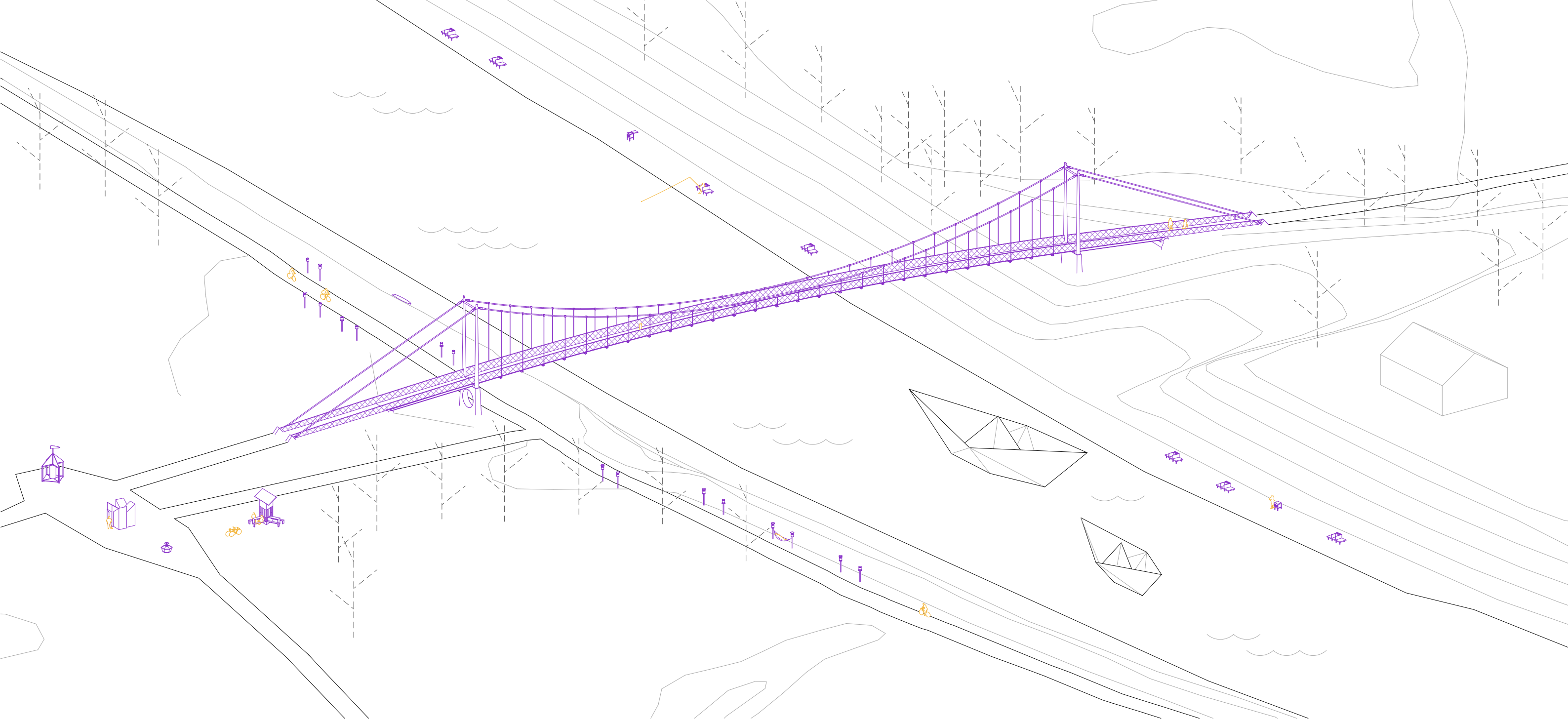


pylon design variations



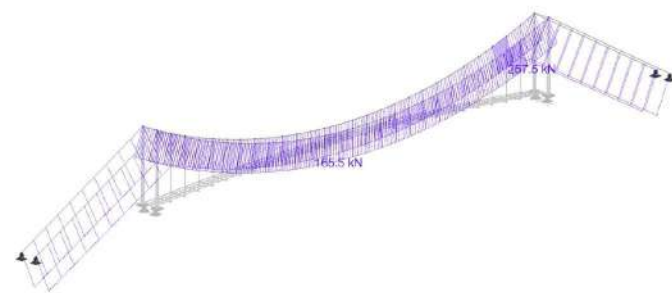


design
thinking



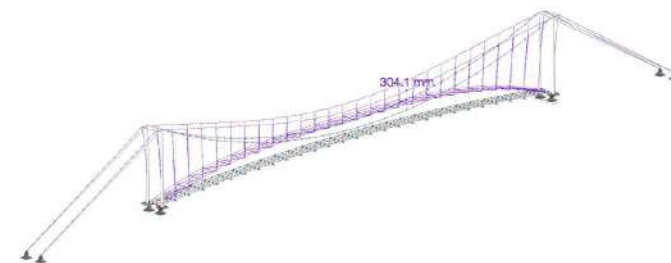
axonometric view

bridge & cabins + users



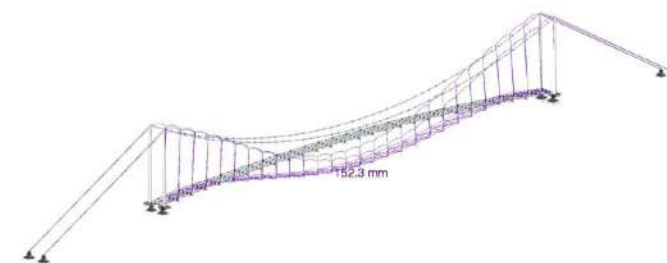
prestressing of the bridge structure

a prestressing force of 257.5 kN was applied to the structure



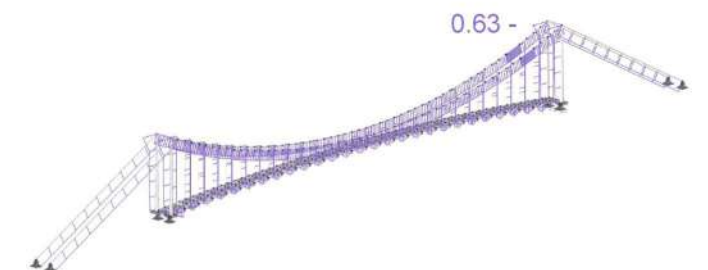
bridge uplift due to prestressing

due to prestressing, the structure lifts by 304 mm



global deformation of the bridge structure

after considering self-weight and variable load, the deflection reaches 152 mm -> the deflection limit is 340 mm



ultimate limit state of the bridge structure

the load-bearing capacity of the bridge was verified according to eurocode EC3 -> the maximum utilization of the designed cross-sections reached 63%

structural utilization of the bridge structure

the structural analysis was carried out using the software Diubal RFEM 5



A | silence

A place for a fisherman or a quiet observer of the water's surface. When needed, the shelter unfolds to provide overnight refuge or protection from the elements.



B | habitat

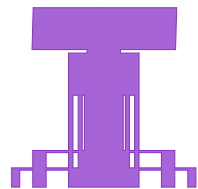
A home for the worm population. Soil is naturally aerated and nourished by the surrounding environment.

* residents have access to emergency exits



C | private need

A unit with a composting toilet, washbasin, shower and a calm viewing space. Rainwater is filtered and reused for hygiene. Ash from composting fertilizes the nearby fields.



D | insulin

A structure that recharges energy.

phase 01: collects and purifies rainwater

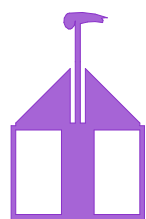
phase 02: harnesses solar energy

phase 03: offers rest, recharges devices & e-bikes – even brews tea or coffee



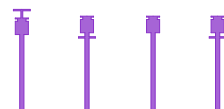
E | nature first

A waste bin made of six triangular capsules for sorting daily waste. The structure gathers sunlight by day and glows after dusk.



F | hunger

A food dispenser. The central cylinder stores drawers filled with goods from local producers. Wind power provides cooling. During rain or intense sunlight, the roof tilts to protect the content.



G | weightlessness

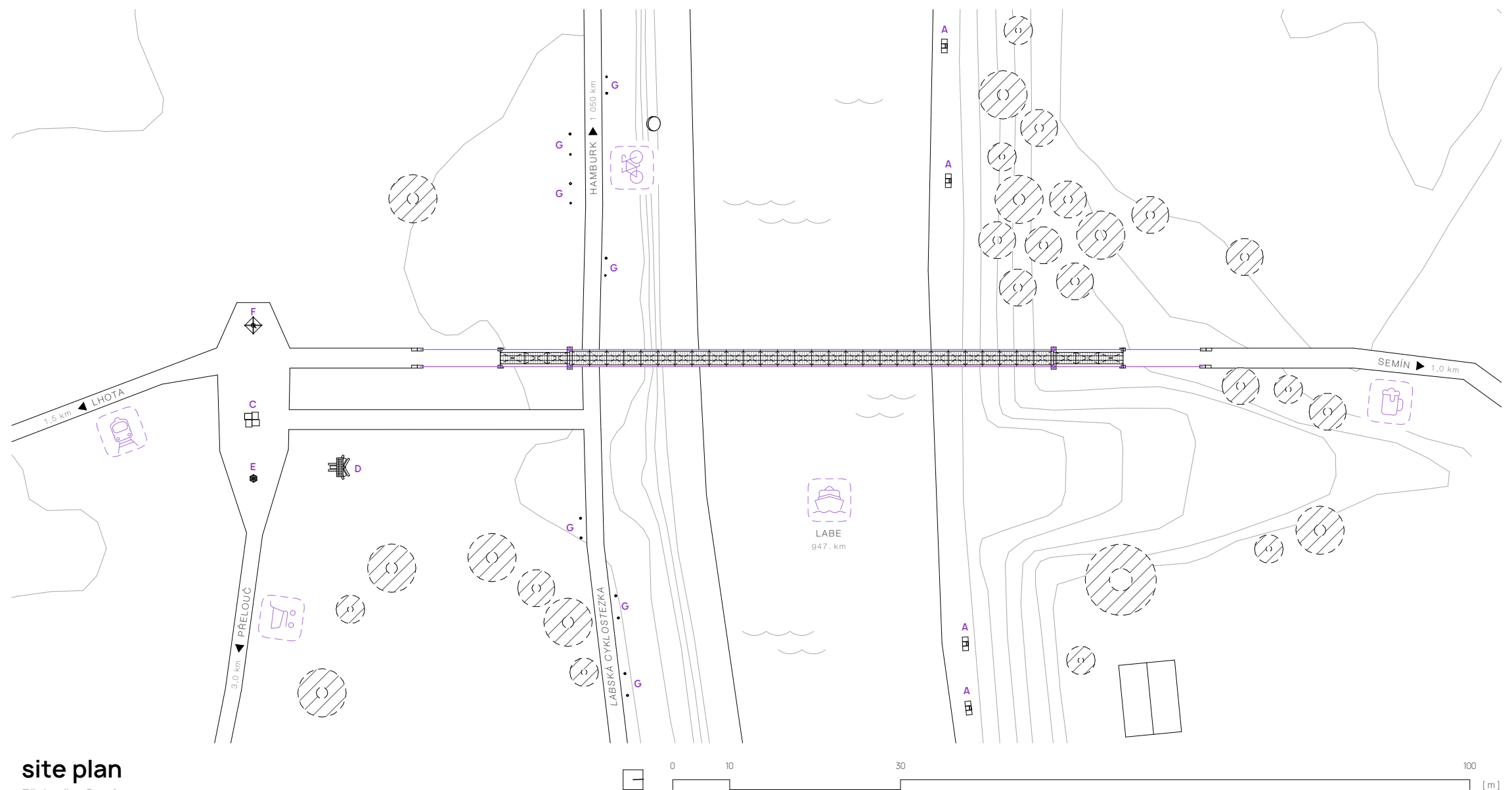
Metal posts lining the cycle path hide hammocks at the top. They can be strung freely between two posts. At night, the system lights the route.



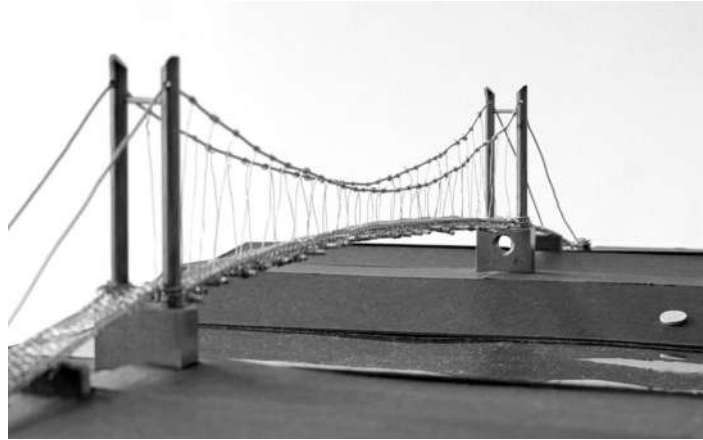
pedestrian connection between Semín & Přelouč
a trail enhanced with future systems cabins



Elbe cycle path passing under the designed bridge
visual dialogue between footbridge, cabins and river flow



site plan
Přelouč _ Semín



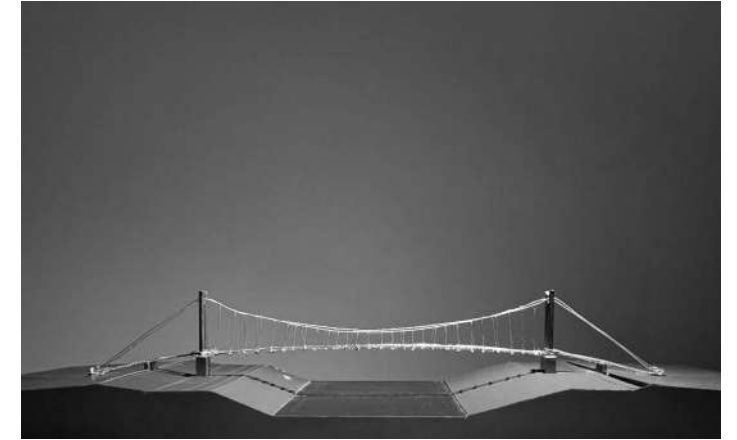
elegance of the steel structure
mirroring the shimmer of the river's surface



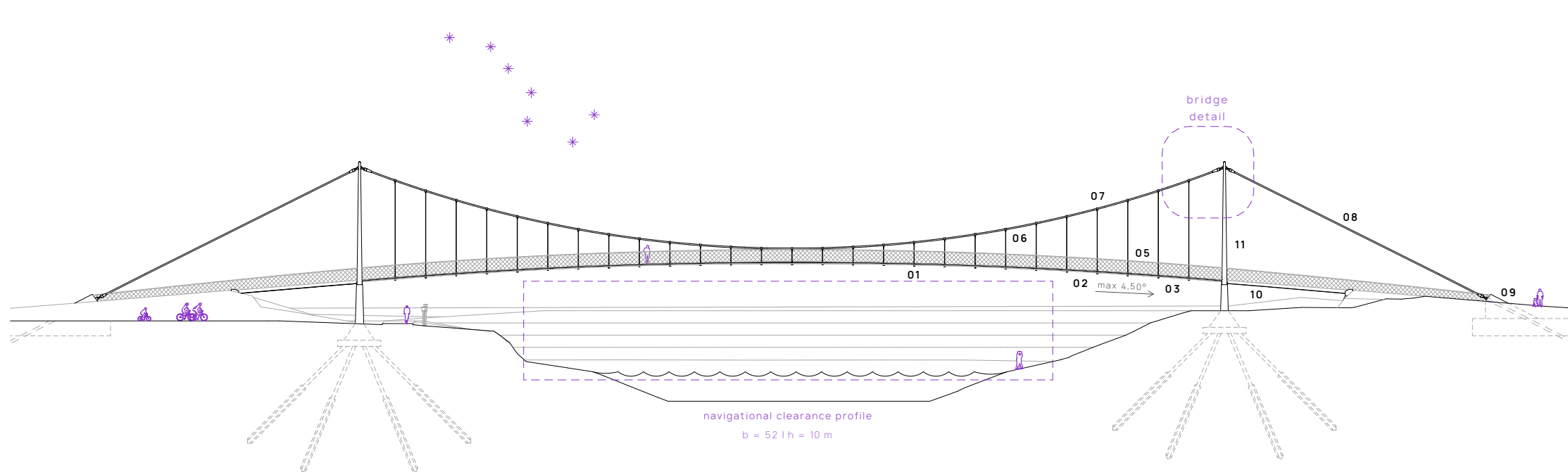
structural lightness
placing the pylon further from the riverbank



engineering wit
a circular column deciding to roll off along the elbe trail



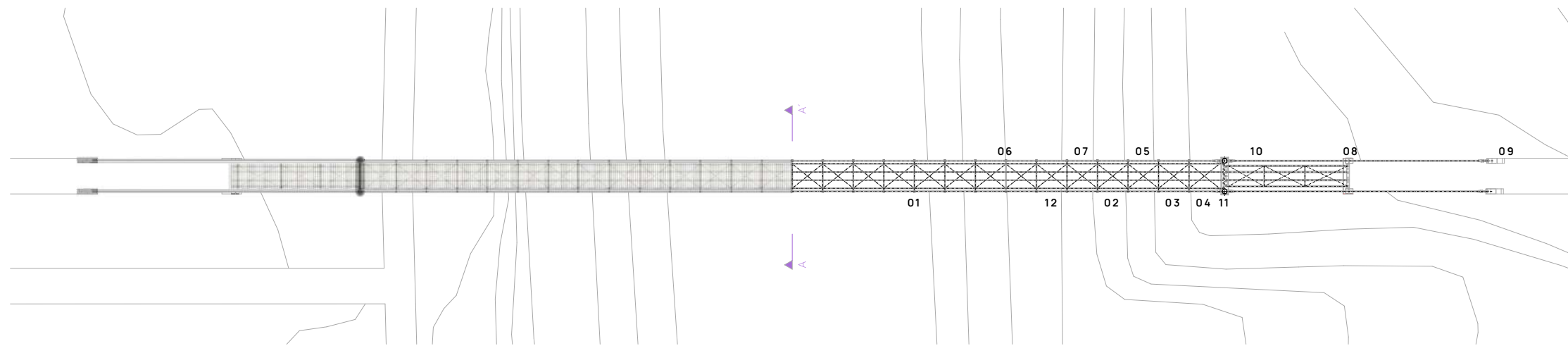
dialogue between the banks
bridge symmetry guided by the river's current



east elevation

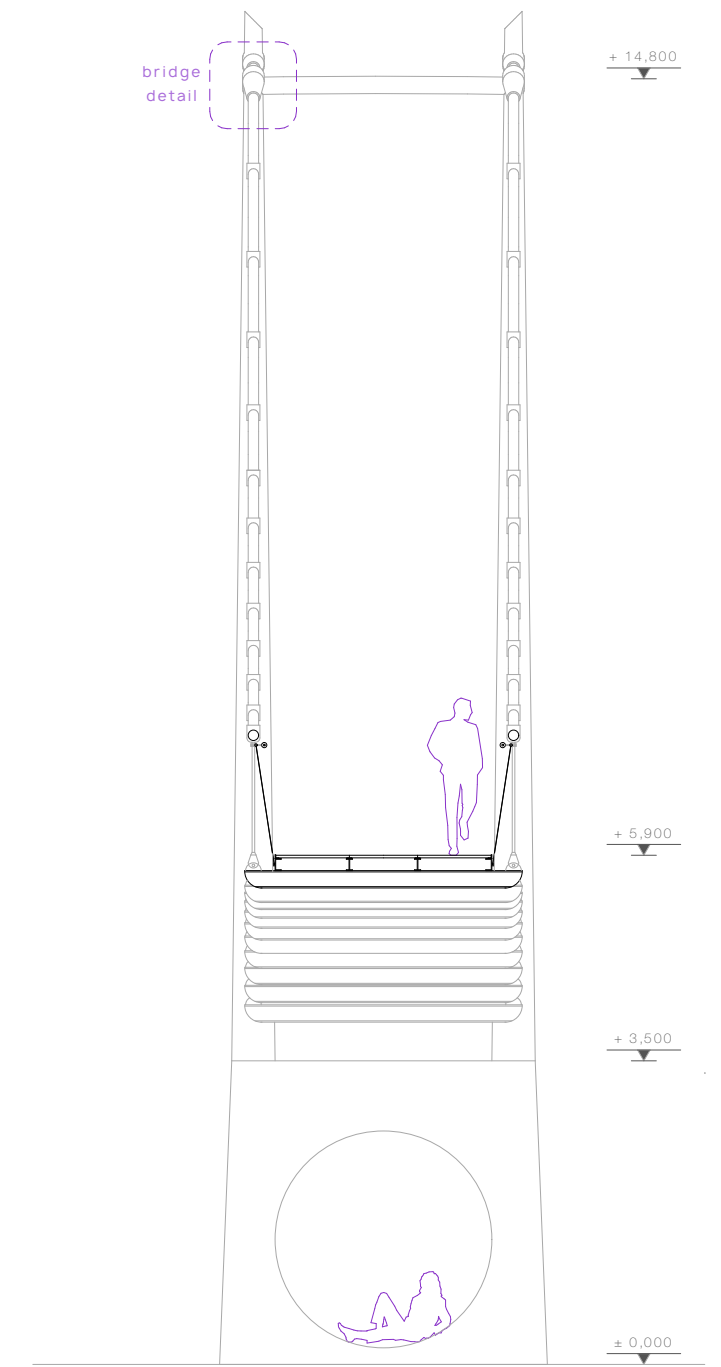
view downstream along the Elbe

- | | | |
|--|--|--|
| 01 transverse beam _ IPE 200 I S 355 | 05 railing _ X-TEND I 120x70 mm | 09 foundation _ concrete C 55/67 XC4, XD3, XF4, XA3 |
| 02 bracing _ RO 60x10 mm I S 355 | 06 hanger cable _ d = 30 mm I S 460 NL | 10 beam _ IPE 400 I S 355 |
| 03 longitudinal girder _ UPE 140 I S 355 | 07 main load-bearing cable _ d = 130 mm I S 460 NL | 11 column _ RO1 273x25 mm, RO2 610x25 mm I S 355 |
| 04 longitudinal girder _ IPE 140 I S 355 | 08 pre-tensioning cable _ d = 130 mm I S 460 NL | 12 decking _ open steel grating mesh size 34.33x33.33 mm |



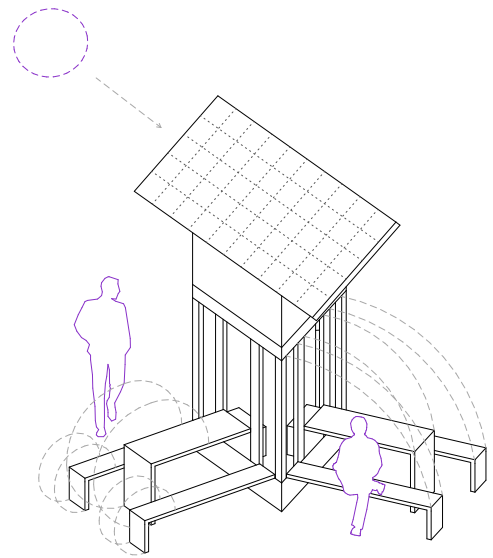
plan view

realistic view + technical drawing



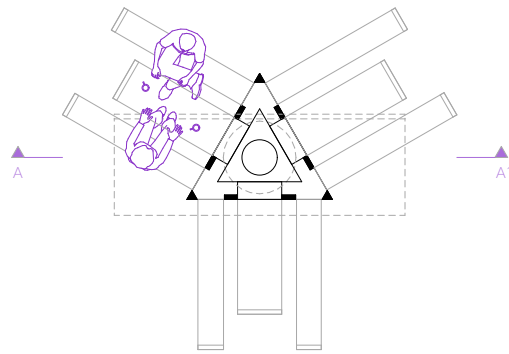
cross section

structural lightening through engineering



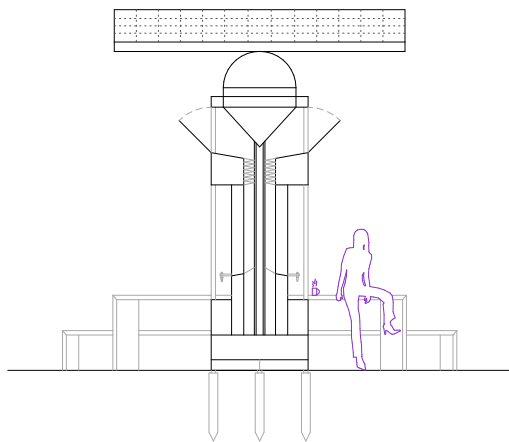
axonometric view

insulin _ energy harvesting



plan view

insulin _ seating mode



cross section

insulin _ water heating

detail footbridge

The designed bridge features pylons with a height of 3.5 m. Conical steel columns, each 12 m tall, are fixed into these pylons. Their diameter tapers from 610 mm at the base to 273 mm at the top, with a wall thickness of 25 mm.

The primary load-bearing elements are pre-tensioned steel cables (s 460 nl) with a force of 260 kn. Secondary suspension cables, 30 mm in diameter, are hung from these main cables.

The bridge deck is supported by transverse beams (IPE 200), with longitudinal beams composed of two UPE 140 sections at the edges and two IPE 140 sections at the center.

The perforated steel deck is made from grating with mesh size 34.33 x 33.33 mm c.t.c.

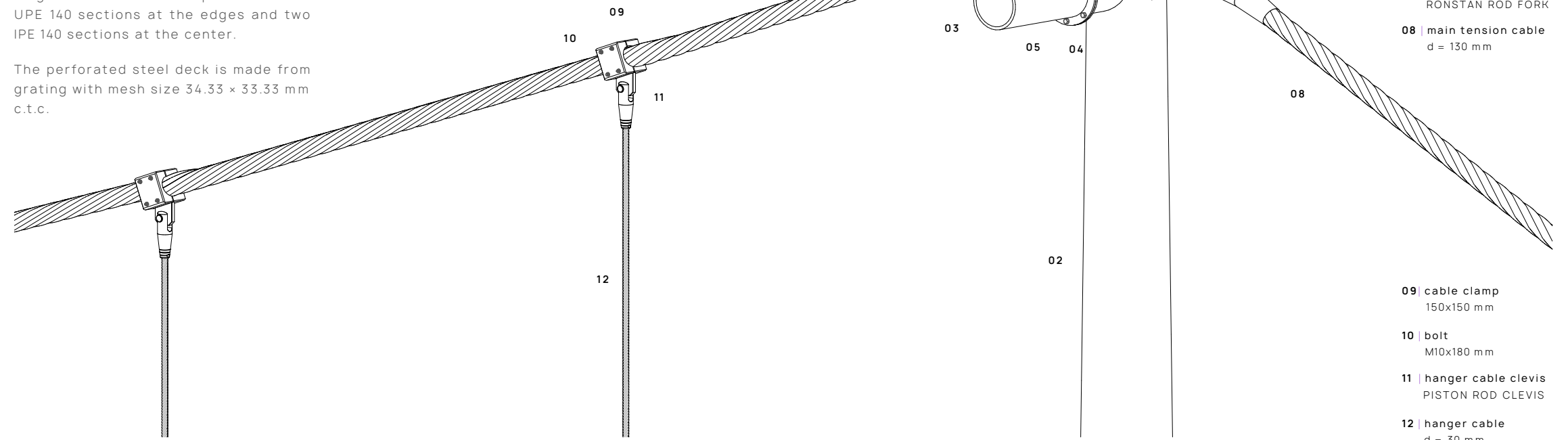
The railing is composed of stainless steel cable mesh (x-tend), meeting a load requirement of 1 kn/m'.

The approach ramp is designed as a simply supported beam made of IPE 400 profiles.

The pylons are spaced at 84 m.

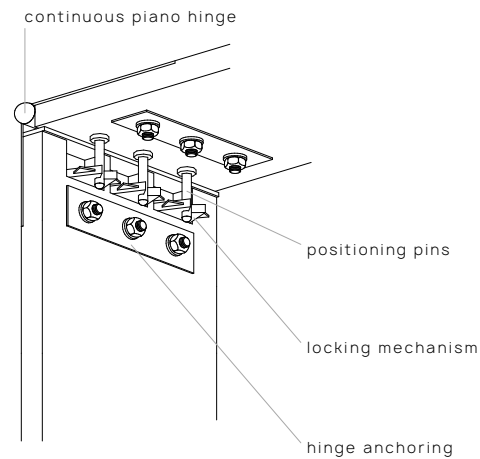
The total bridge length is 140 m.

The design complies with navigational clearance
b = 54 m, h = 10 m.



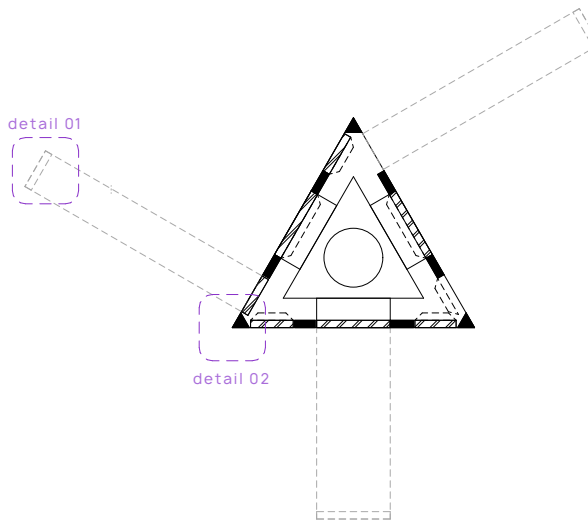
bridge detail

structural system of the footbridge



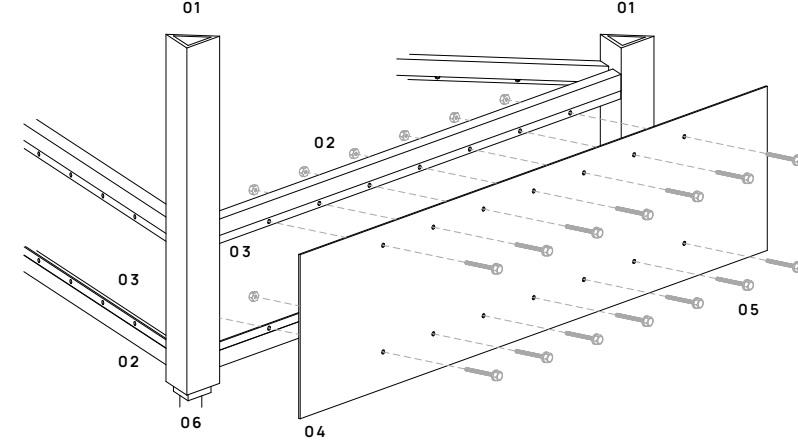
detail 01

folding seat locks on the insulin module



plan view

detail diagram



detail 02

front panel cladding of the insulin structure

bridge detail

- 01 | steel cap plate
plech tl. 20 mm
- 02 | conical column
RO1 273x25 mm
RO2 610x25 mm
- 03 | cross brace tube
d = 220x20 mm
- 04 | steel flange
300x20 mm
- 05 | bolt
M20x80 mm
- 06 | gusset plate
tl. 70 mm
- 07 | turnbuckle eye
RONSTAN ROD FORK
- 08 | main tension cable
d = 130 mm
- 09 | cable clamp
150x150 mm
- 10 | bolt
M10x180 mm
- 11 | hanger cable clevis
PISTON ROD CLEVIS
- 12 | hanger cable
d = 30 mm

detail 02

- 01 | triangular section
supplier: kondor
l = 115 mm, t = 12 mm
- 02 | rectangular section
supplier: kondor
40x40x5 mm
- 03 | flat bar
supplier: ferona
30x5 mm
- 04 | steel plate
supplier: mateza
1600x1600x2 mm
- 05 | bolt
supplier: din
M8x50 mm
- 06 | adjustable leg
supplier: ozab
M36x90 mm



05 identity

Can space reflect who we are?

A young couple & their cat, searched endlessly for the right place to call home.

They dreamed of light, order, honesty of materials. A space where they could grow a family and live with quiet elegance. Their hearts belonged to functionalism, to Loos, to the bold restraint of Art Deco. On Letná, above the iconic cinema BIO Oko, they found it. A forgotten apartment with rhythm, promise and soul.

They asked us to shape a dialogue—between calm modern lines and Loosian bursts of colour. Between tradition and precision. Between the raw and the refined. A space where emotion meets function and life meets form.

Design here became not just a solution, but a reflection of who they are.

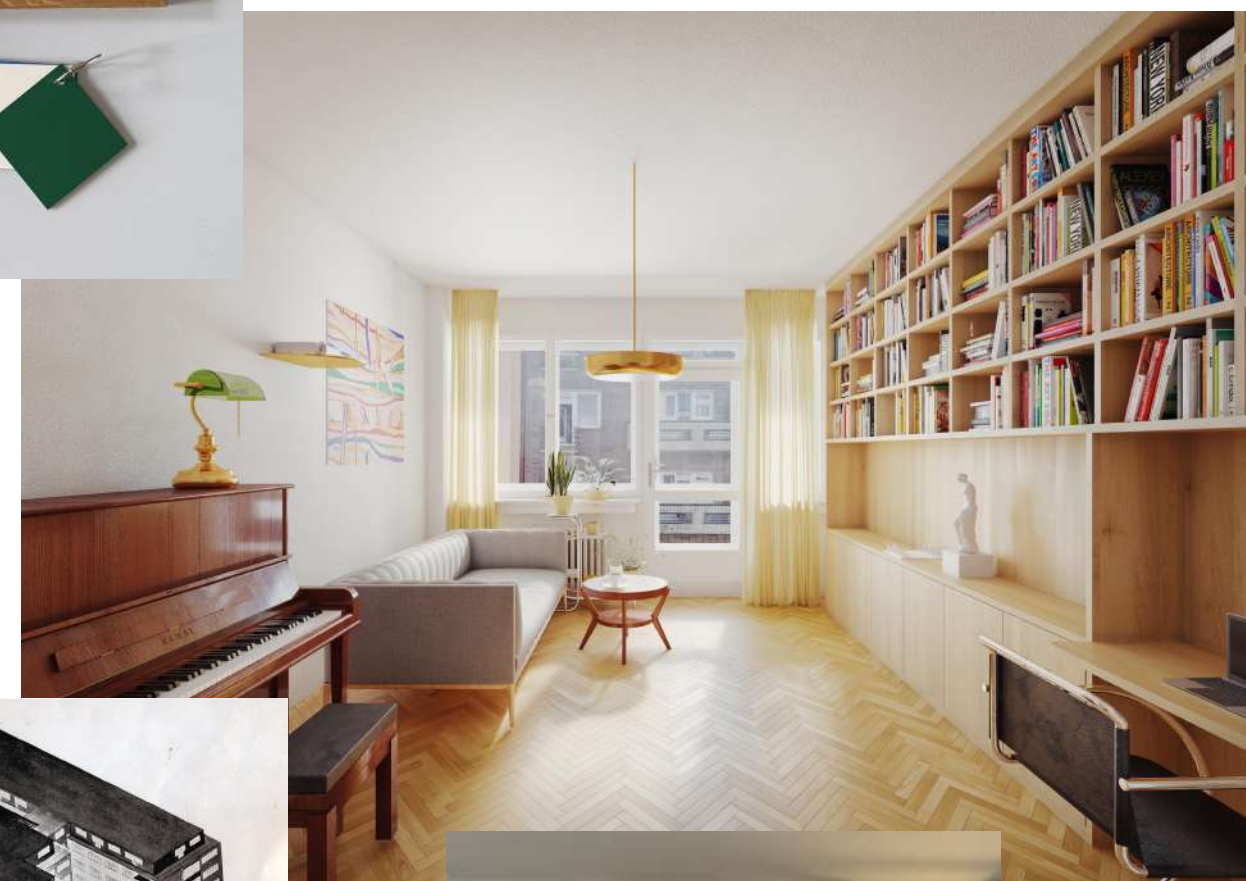
location Czech Republic | Prague
year 2024
type interior
team Vít Svoboda
Tomáš Vácha
Jitka Máčová
scale S

keywords interior design / functionalism architecture / renovation / reconstruction / glassblocks / Adolf Loos Style / bio oko complex / personal style / home transformation / Prague center



ADOLF
LOOS

1937



designed
apartment



residential house



The iconic cinema, with its raw geometries and timeworn elegance, became both anchor and inspiration for a residential project layered above it

Bio Oko



M o r r i s

our clients' cat and arguably the true project supervisor



Loos's interiors, with their quiet grandeur and layered spatial depth, reveal a world where restraint becomes the highest form of elegance.

Interior of Adolf Loos

my role in this project:

I led a small team through all stages of interior design development—from early concept to final implementation.

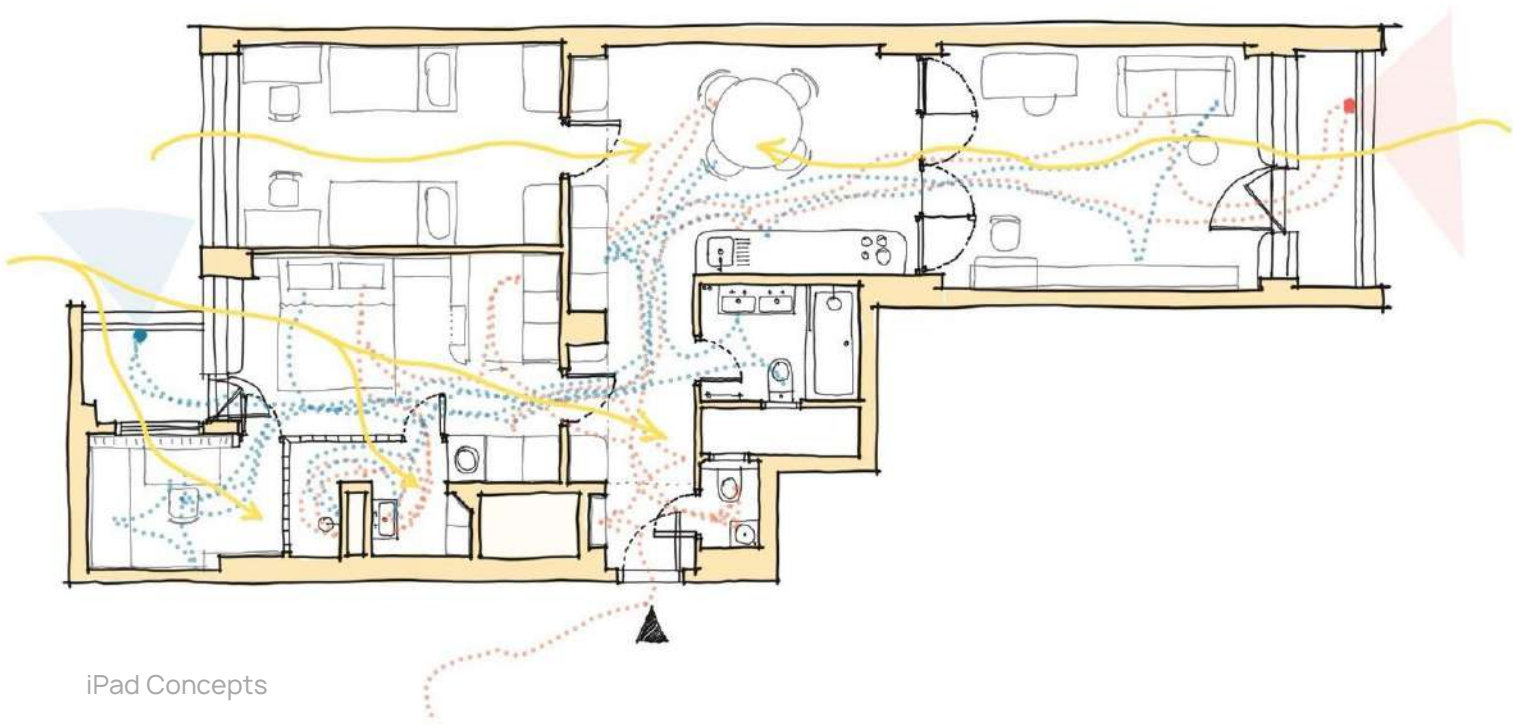
My responsibilities included remote coordination with clients, design consultations with team members and delivering clear, compelling presentations in both digital and in-person formats. I produced 3D models in SketchUp and developed detailed drawing sets from initial studies to full construction documentation, including bespoke joinery details.

I maintained close communication with suppliers and manufacturers to ensure precision, feasibility and design integrity throughout the entire process.

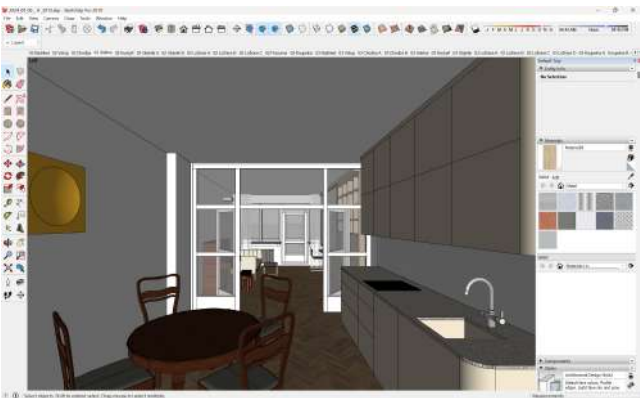
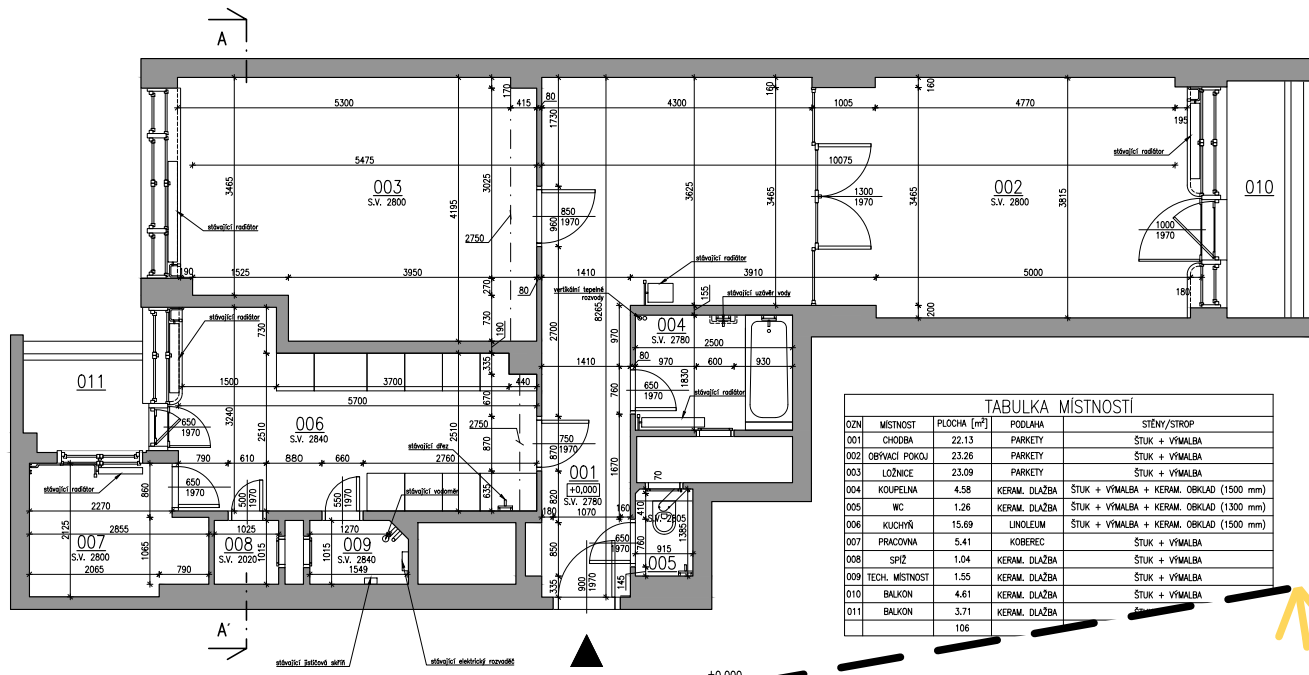


analyses

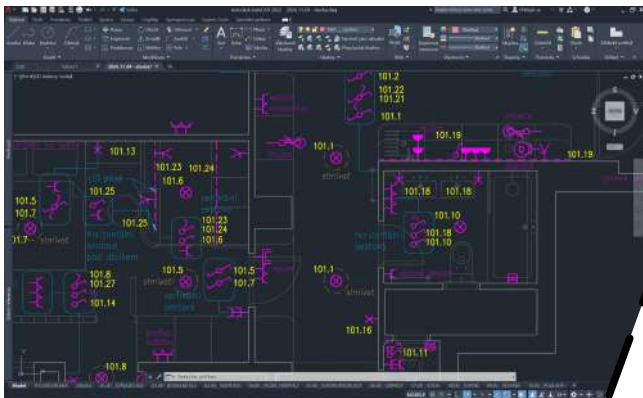
build



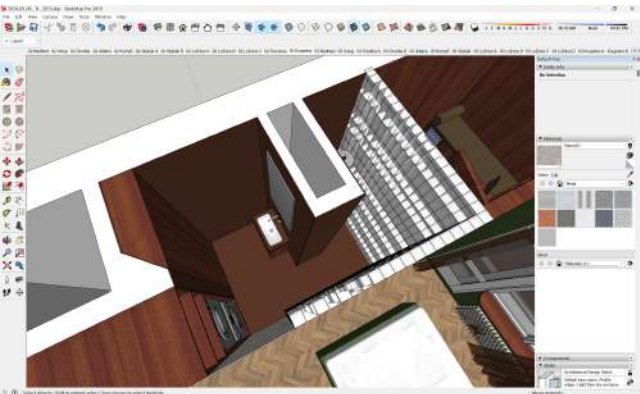
iPad Concepts



SketchUp Pro



Autodesk AutoCAD

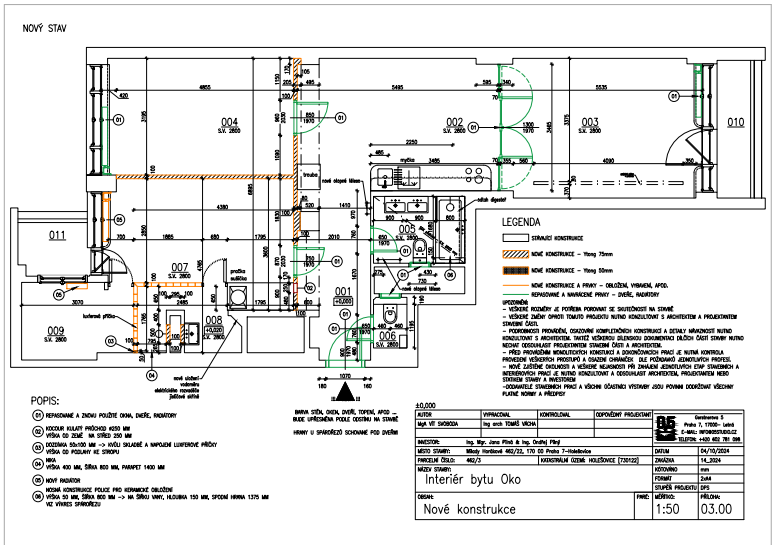
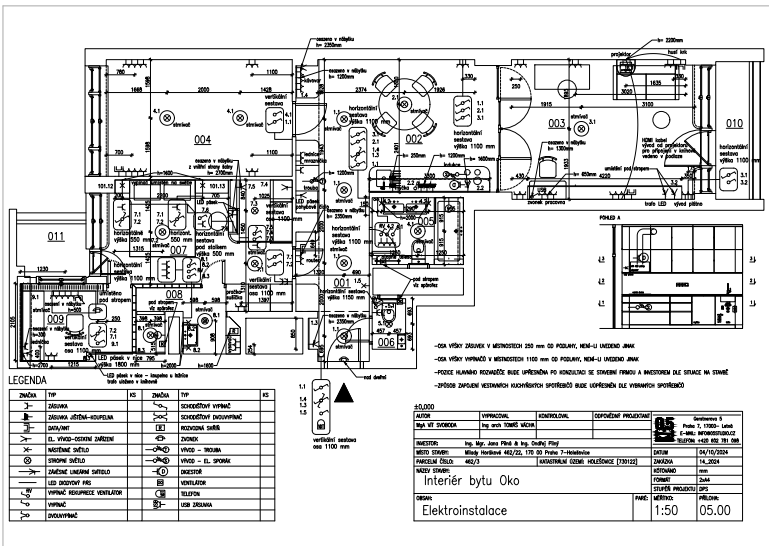
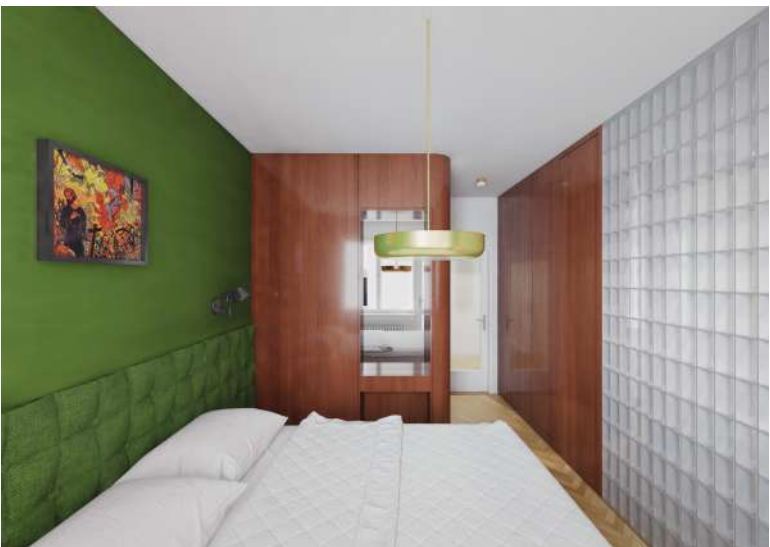
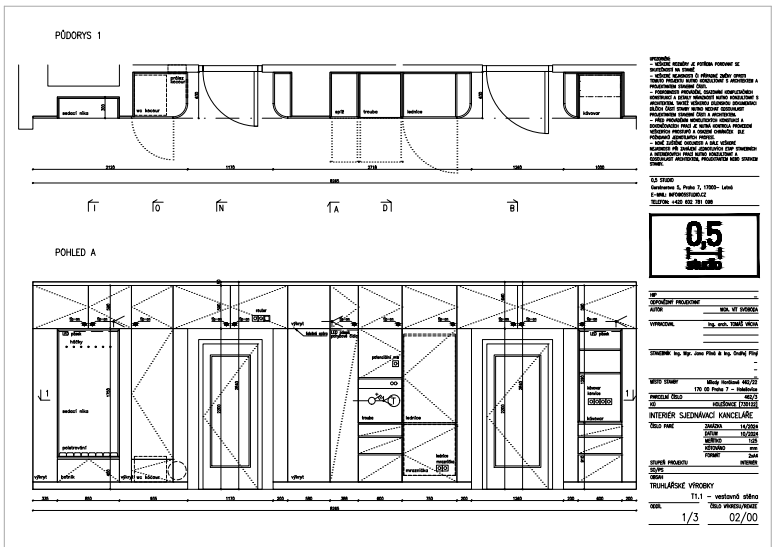


concept



Adobe PhotoShop

design

[illegible]

love.
create.
inspire.

“ This portfolio is a signal-meant to connect with those who share the same energy, vision and passion.

I'm driven to keep learning, keep growing and to keep pushing the boundaries of what's possible when we build something we truly believe in-together.

”

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@_tomas_vacha_
<https://tomasvacha.com/>



tomas vacha

my journey through architecture