

# DESIGN RESULTS

## BODIES, MOVEMENT & ARCHITECTURE: TOWARDS PHYSICAL RESONANCES IN SPACE

Anna Zita Leutgeb (5862965)

Guidance:  
Suzana Milinović  
Georg Vrachliotis  
Rufus van den Ban

Delft University of Technology  
Faculty of Architecture and  
the Built Environment

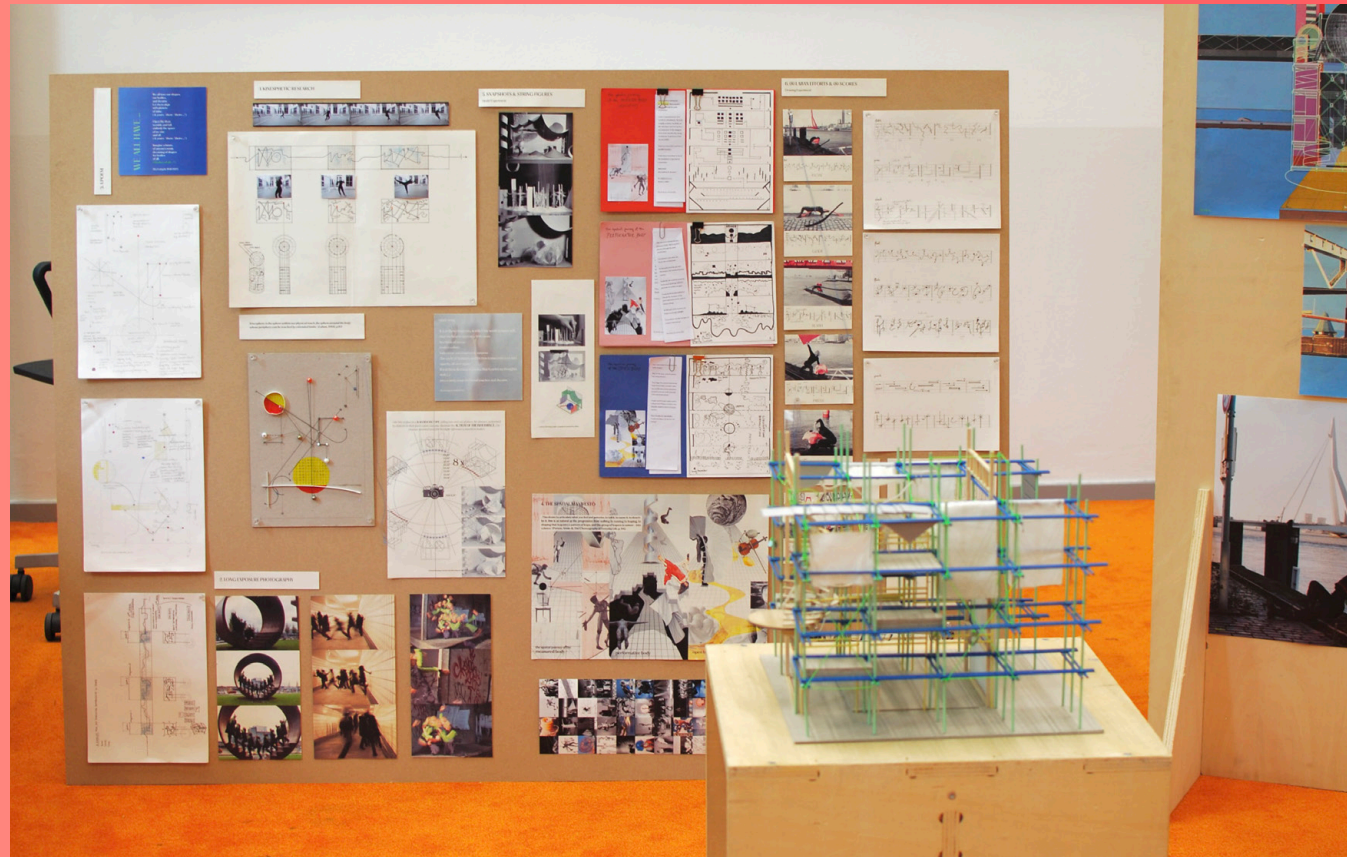
AR3A010 Reflection  
Explore Lab 27





# RESEARCH PRODUCTS

## P2 EXHIBITION BOARD



I walk, move, dance, and think with my own body as extended matter to absorb the space around me in its energies. By translating these experiences into **notational drawings, collages, physical models, poetry and chrono-photographic images**, the moments of reciprocal attunement between the body, dance and space come forth.



## approach & used methodology

In my research I walk, move, dance, and think with my own body as extended matter to absorb the space around me – my (dancing) body became my research tool. By translating somatic experiences into notational drawing systems, poems, collages, models, texts, and chrono-photographic images, the moments of reciprocal attunement between body, dance and space come forth. The process of collecting research material with the body is closely related to the dramaturgical process of conducting a performance process. It is about finding structures and connections between things that don't necessarily relate to each other in a direct manner; it is by this adjacent contextualization that new discoveries will emerge. In the book *And then it got legs* Jeroen Peeters describes his dramaturgical creation processes: *'I strongly believe in the powers of free association, in forms and materials showing up in a particular way or an unusual sequence. It is not so much coming from a decision or a preconceived thought, but it can be treated consequently.'*<sup>1</sup>

<sup>1</sup> Peeters, Jeroen. (2022). *And then it got legs*. Brussels/Oslo: Varamo Press, p.31.

*Bodies, Movement @ Architecture*, showcases an interdisciplinary approach to design, theoretical and physical research. Drawing from my background in dance I explore the inter-relational approach between the body, space, and architecture. I incorporate a mixed media approach with experimental research methods to weave together narratives that transcend the conventional boundaries of architectural research.

Within the booklets, the reader can jump forth and back between historical precedents, theoretical concepts, as well as visual, photographic and drawing experiments. Connecting threads between disciplines and experiments helps to unfold an imaginary world for the reader.



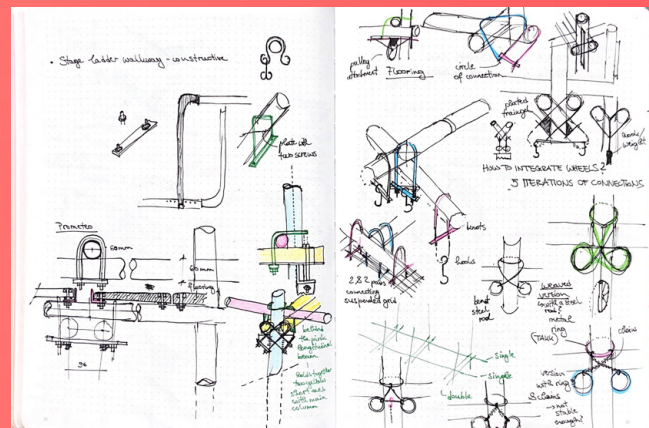
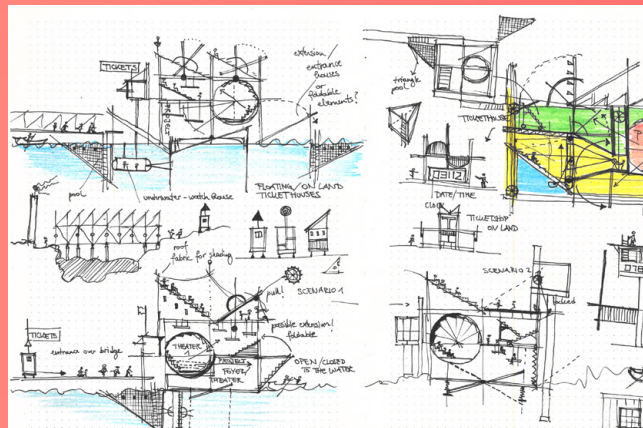
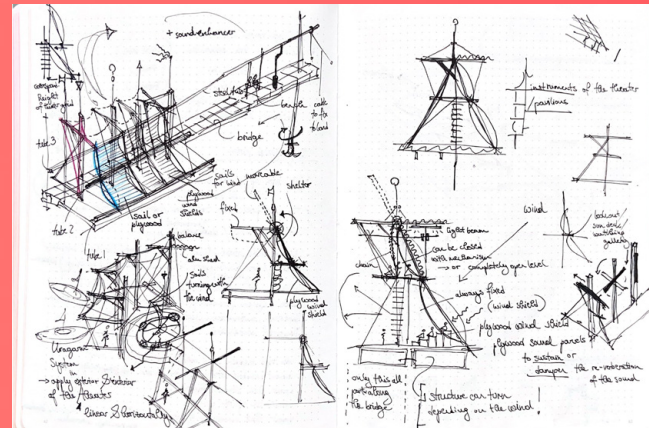
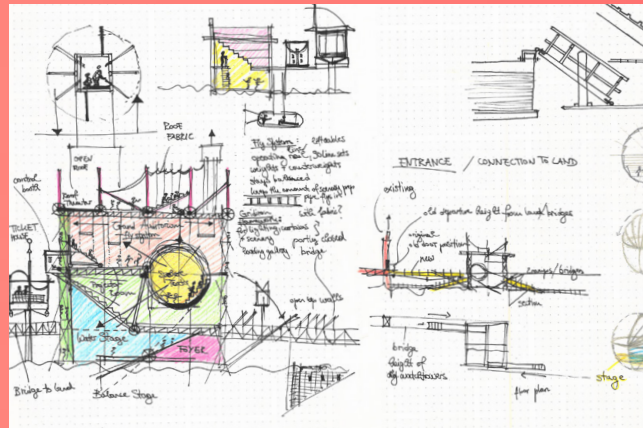
P2 research books



P2 presentation of research board



# DESIGN PROCESS



sketches of vertical theaters, connections and various configurations

In the design phase, I continued with the methodology of gathering material from sketches, to models in various scales, collages, drawings, and texts. By collecting material and physically laying it out in front of me, I not only rearranged the material in new sequences to discover something new but also questioned the design outcome in comparison to my progress of the week before. I kept a particular narrative with the way I used vibrant colors to navigate through my project – an elemental method closely connected to the power of free association of color choices during the whole process of designing. The color-coding of materialities and reactive movement features helped me to connect threads of my theoretical narrative.

Coupled with that, was the continuous power of play and freedom in my drawings and models. Relating to the concept of intuitive dramaturgy I added elements like textiles, ropes, wheels, wire puppets, sails, and wooden structures into my models and drawings week by week. The collected material is a base for discovering new ideas, thinking, and re-questioning the results of each week like a dramaturg of a scene or performance. A selection of my sketches in the logbook, which functioned as an extension of my mind in these weeks of designing, shows the continuation of my research method into the design phase, depicting the moving body in a space of possibilities.



P3 table layout



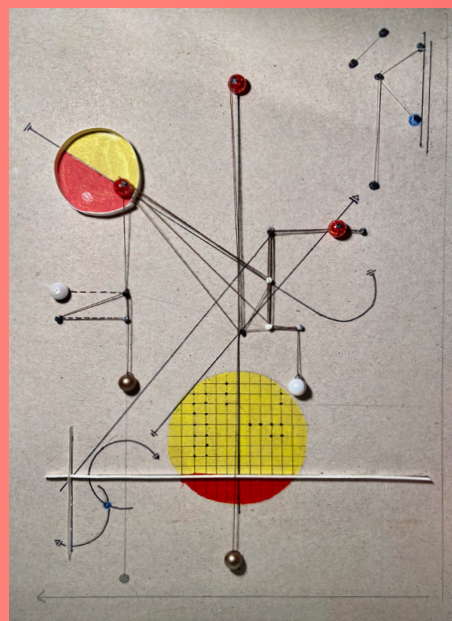
collage of architectural elements on site (watchtowers, bridges, docks...) with first design ideas



## How did your research influence your design and how did the design influence your research?

The design seeks to create a space that celebrates the individuality as well as synchronization of bodies which embraces the varieties of ways in which bodies move through space. It empowers individuals to directly interact with the surrounding built environment and other bodies – forming a collective choreography. The stage with a hanging sphere theater as an element of public space for Rotterdam frames the city's historical center as a backdrop for performances.

The proportion, scale, and materiality of my design are closely connected to the bodies' possibilities of movement within its built environment. In spaces with an immediate, smaller scale of material boundaries, visitors are encouraged to interact and manipulate within their immediate surroundings. Just as the research was a constant testing of the bodies' limitations within spaces, the building is a moving machine that allows people to play within the structure and test its limits. Moreover, the design itself became an embodiment of movement, inviting occupants to actively participate in its transformation.



2,5 model, tension and gravity play

The building's reactive features respond dynamically to human presence, creating a symbiotic relationship between architecture and bodies. Pivoting, turning, shading, or climbing possibilities will let you discover new perspectives and viewpoints to the water of Rotterdam or the central happenings on the stage. The micro movement on a small level of a human hand touching a wheel elevates into something new on a larger scale when adding the movements of all other dancing bodies into a whole scene. Then, the theater moves like a machine with multiple bodies. This interplay of movement and space ends up in a choreography, where individual actions animate the theater as a collective entity. Through the bodies' navigation through the building in a particular individual way or in an unusual sequence, the great picture of the performance of the beating, vibrant theater will be unmistakably unique every day.



2,5 model, watchtowers and sphere theater



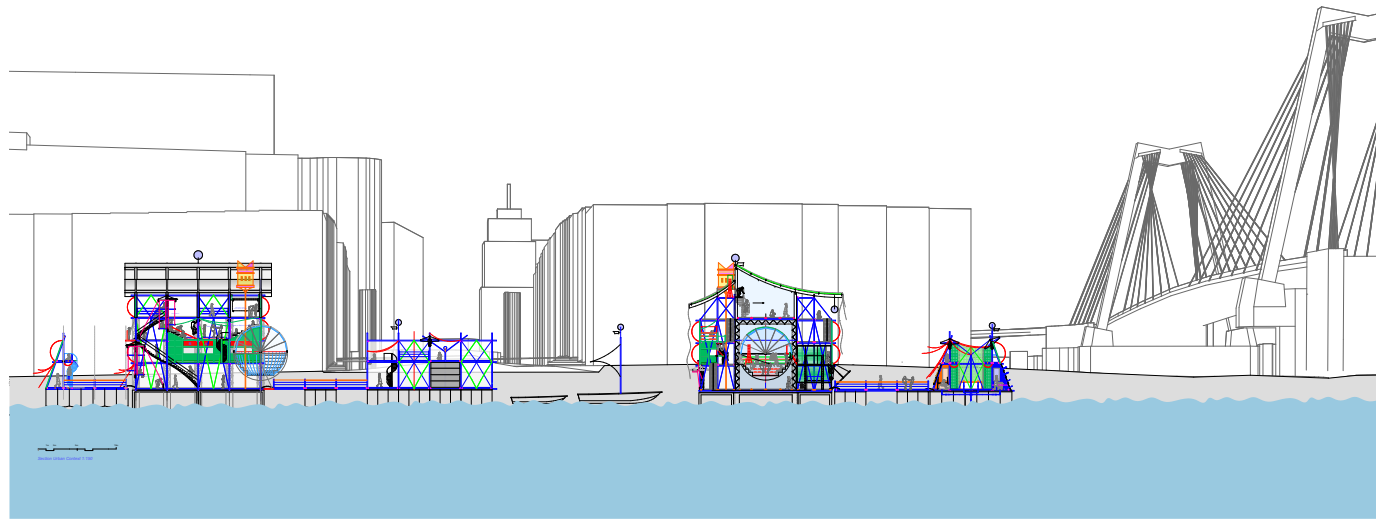
Boat Dock as a stage for urban engagement and dance, Rotterdam Kop van Zuid, dancer: Agnes Leutgeb



a little girl joins the performance, architectural elements inspire bodies to move

The city itself with its urban spatial elements offers an inspiration for bodily engagement. During a site visit with my sister Agnes a large scale boat dock transforms into a stage platform, framing my site with Rotterdams bridges as a backdrop. The movement of my sister Agnes sparks curiosity in a little girl that passed by. Eventually she climbs up the boat dock and together they create a spontaneous performance. A moving event initiated with found urban objects on the port of the Maas!





Regatta of Moving Bodies on the Water



movement on site, Rotterdam Noordereiland, dancer: Agnes Leutgeb



site plan 1:1500, 2 docking possibilities, Noordereiland in Rotterdam



collage of architectural elements on site

On an urban scale, the design resembles a Venetian Regatta on the water, a space of event. The building as a moving machine, together with pathways leading from water to land, boat docks and arrival pavilions on the water, from a network of scenic event and showtime elements on the water. This flowing network is in itself a choreography, initiated by the bodies of visitors and performers navigating, or call it dancing, through the theater. Spatial surprises and reactive bodily features unfold within the journey of discovering the building. Upon arrival in the theater, bodies navigate their way through the building and find a crowning rehearsal space under the wooden beams of the curved roof.

Movements of bodies influence the theater's navigation and positioning on the water. Pivoting, rotating, balancing, reactive elements can be manipulated by any body. As the bodies navigate and playfully interact with the spatial environment, they automatically become part of the larger choreography, the performance of the building as a moving event on the water.



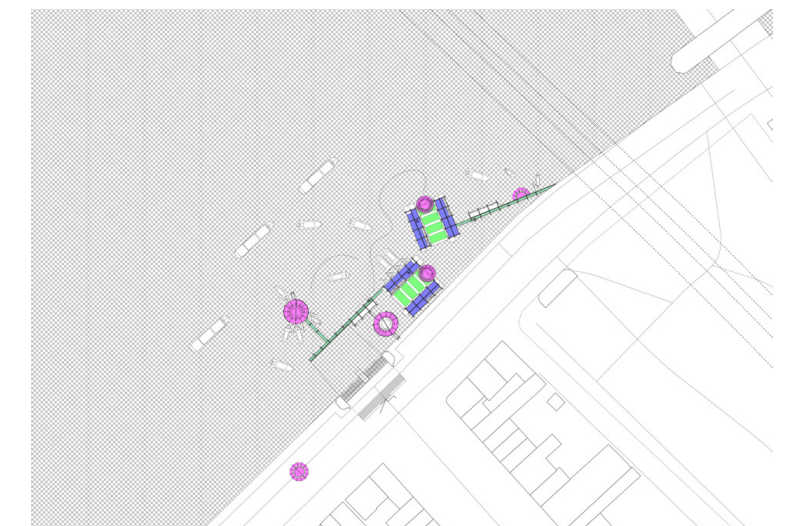
Aldo Rossi's inspiration for Teatro del Mondo, Venice



site plan 1:500, Koninginnebrug Noordereiland, Rotterdam



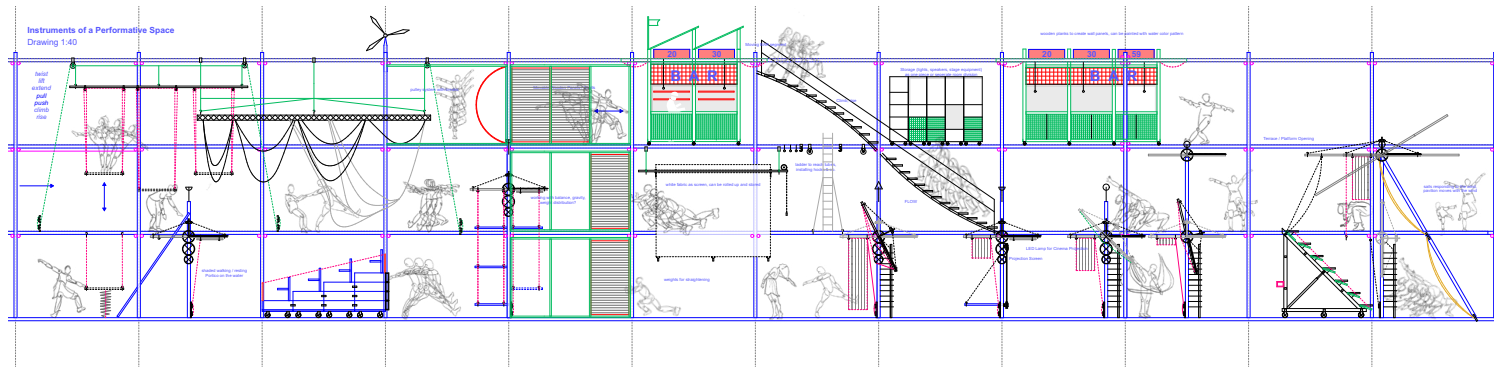
Regatta on the water, Venice



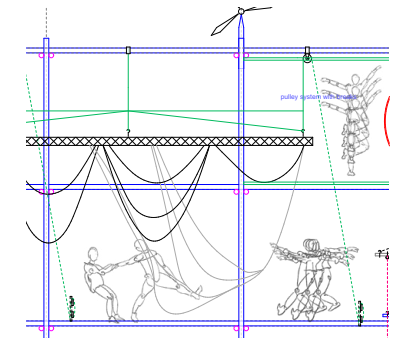
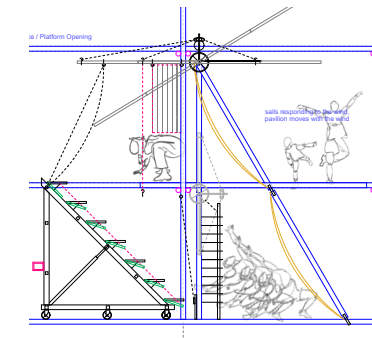
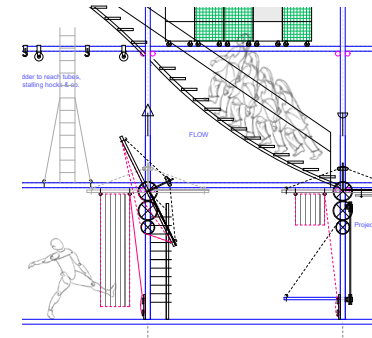
site plan 1:500, Maaskade Noordereiland, Rotterdam



# DESIGN PRINCIPLES

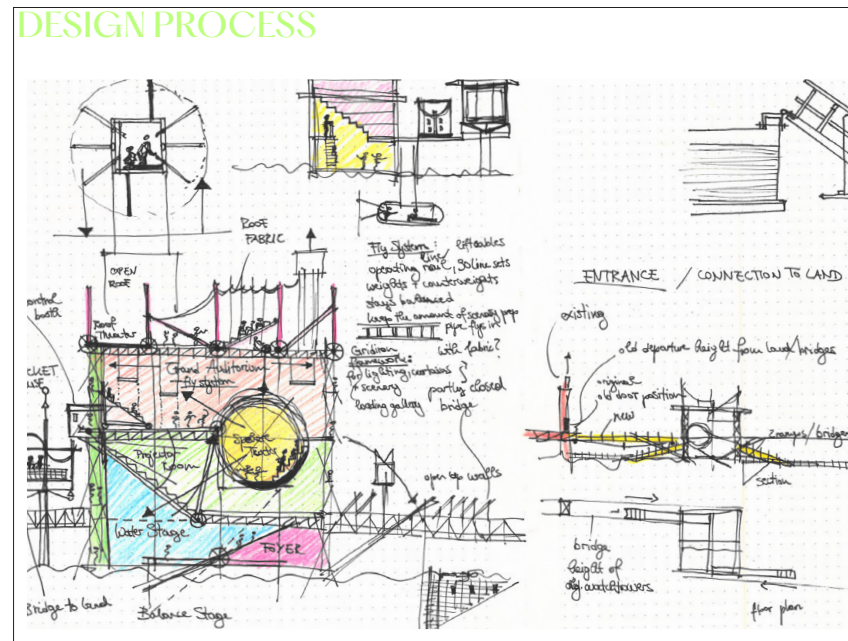


section, library of reactive elements

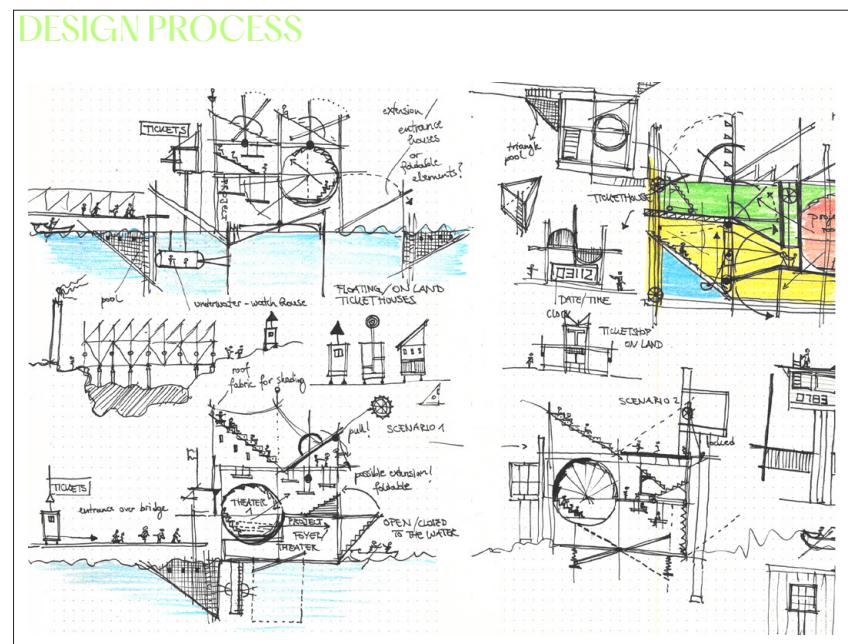


reactive elements, bodies in action hand-drawn

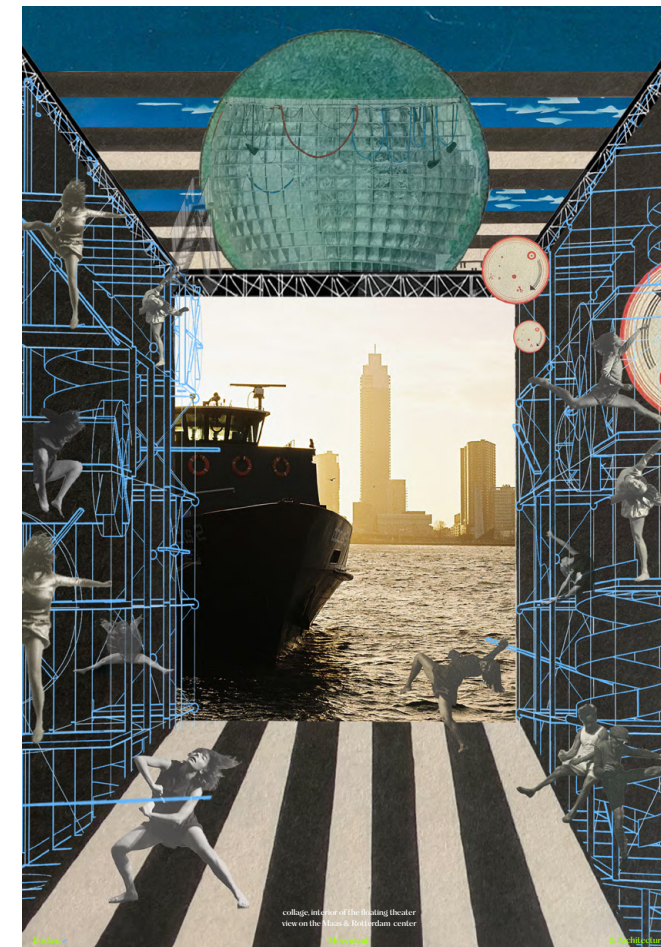
## DESIGN PROCESS



## DESIGN PROCESS



sketches of initial design ideas, sphere theater as a connecting element



P2 collage of first design principles



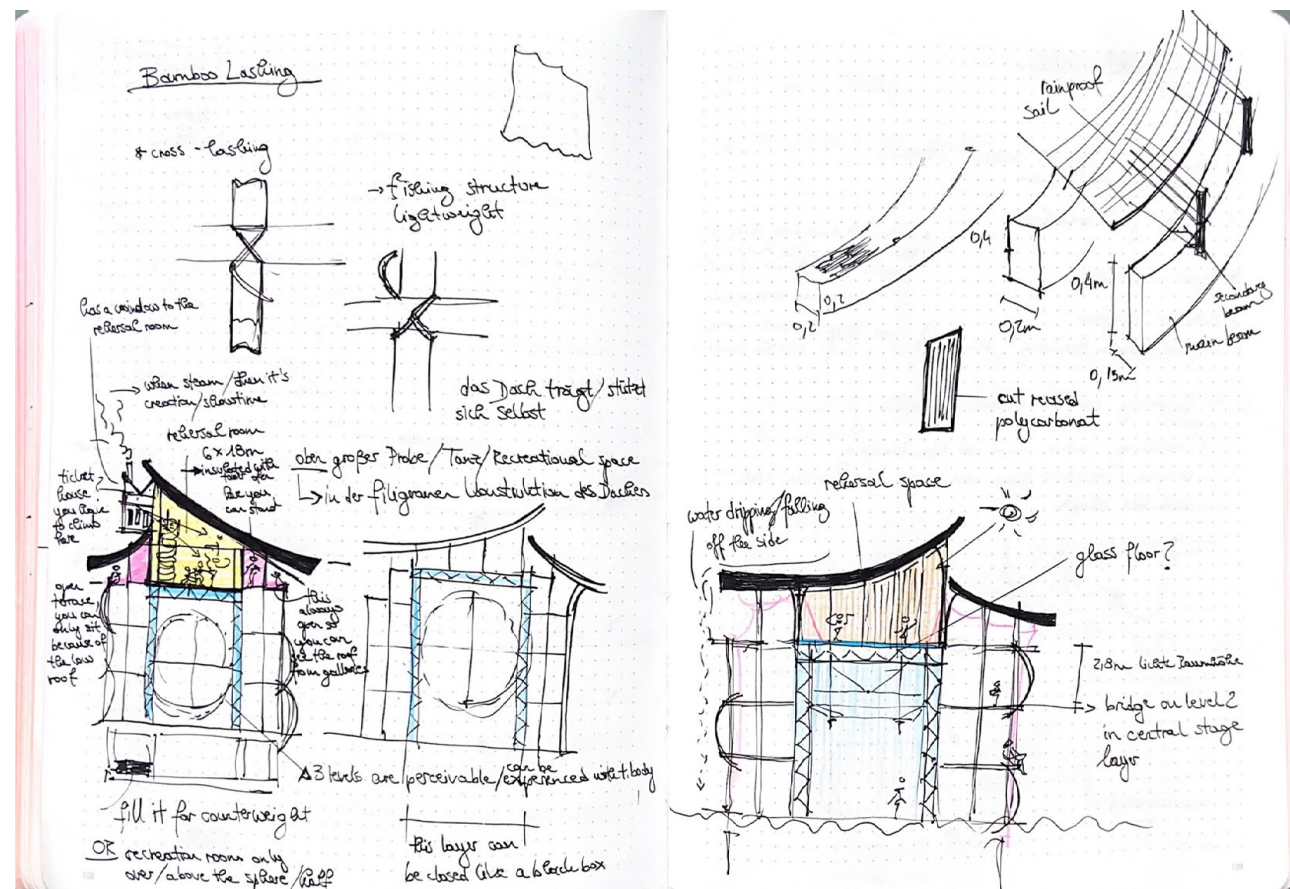
urban elements on site, Noordereiland, Rotterdam



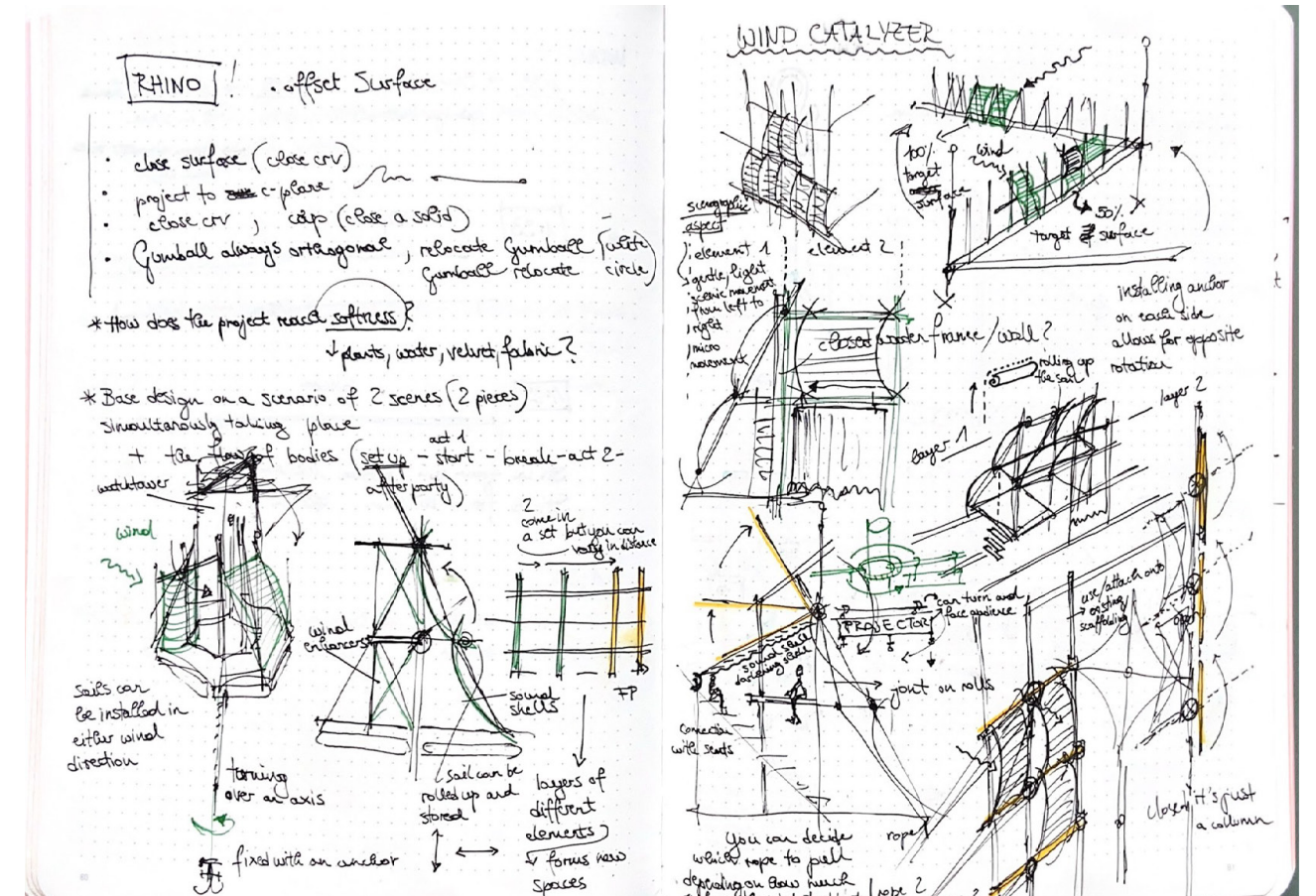
# REACTIVE FEATURES





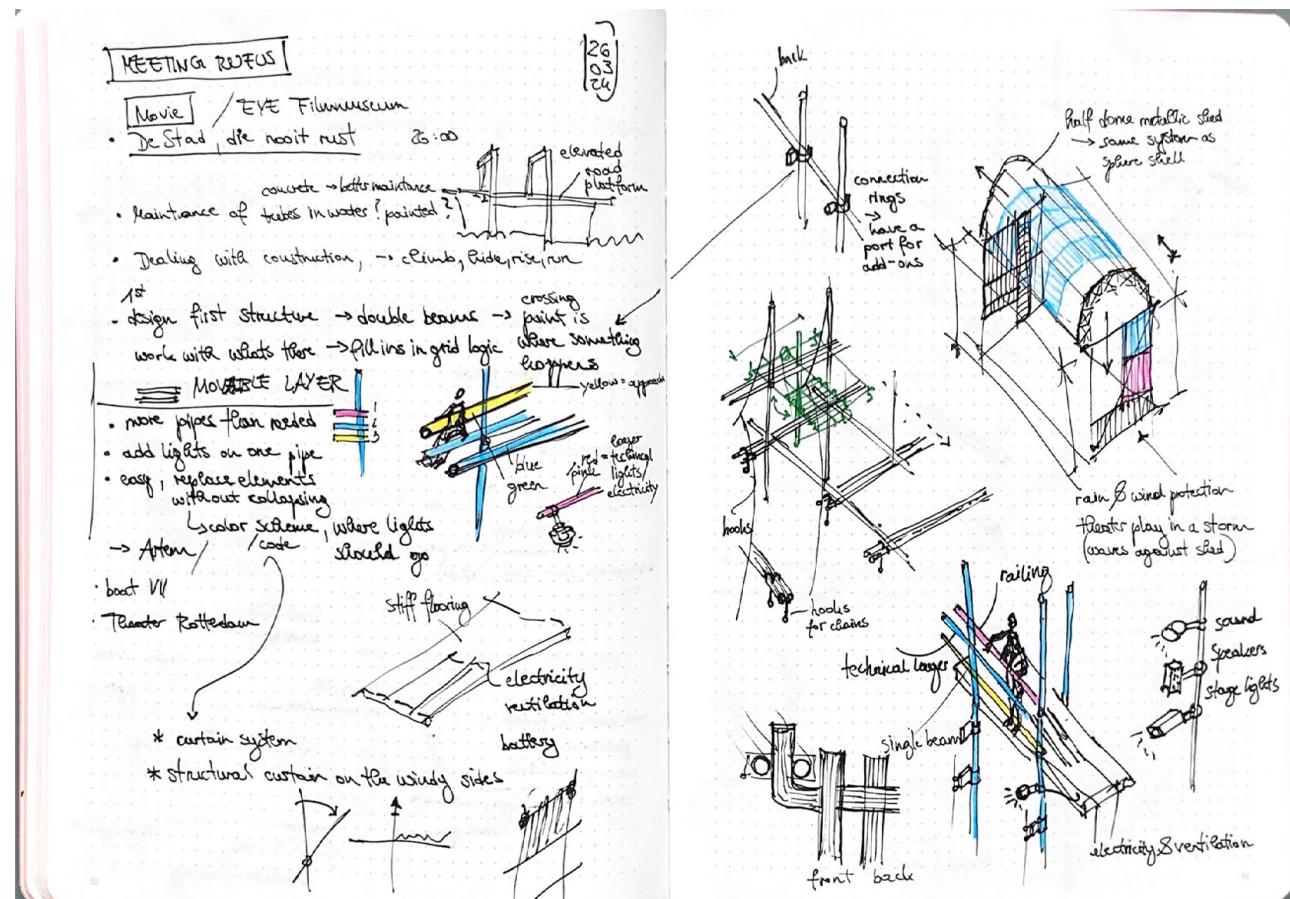


roof construction research

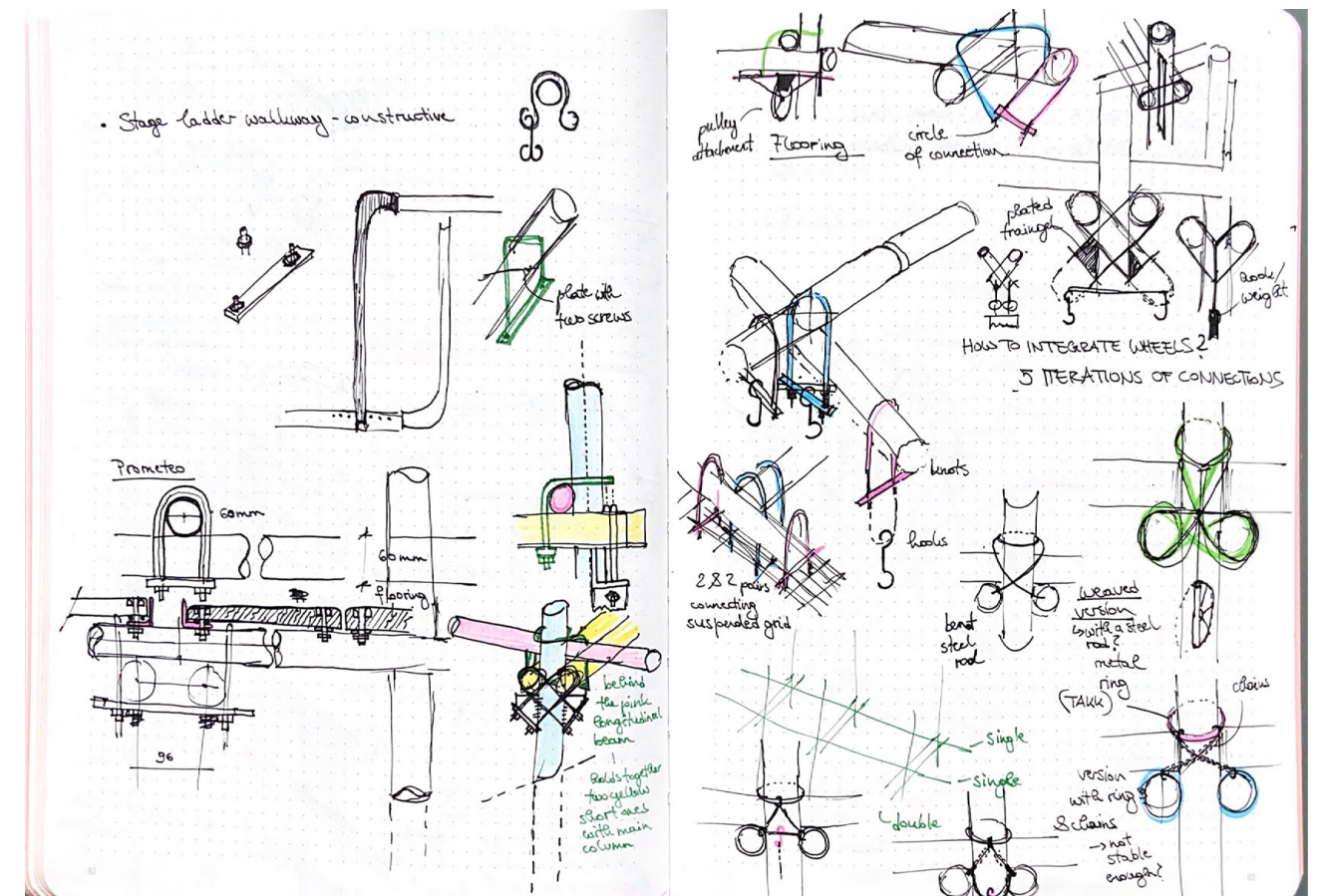


sketches of wind catalyzer, moving machines



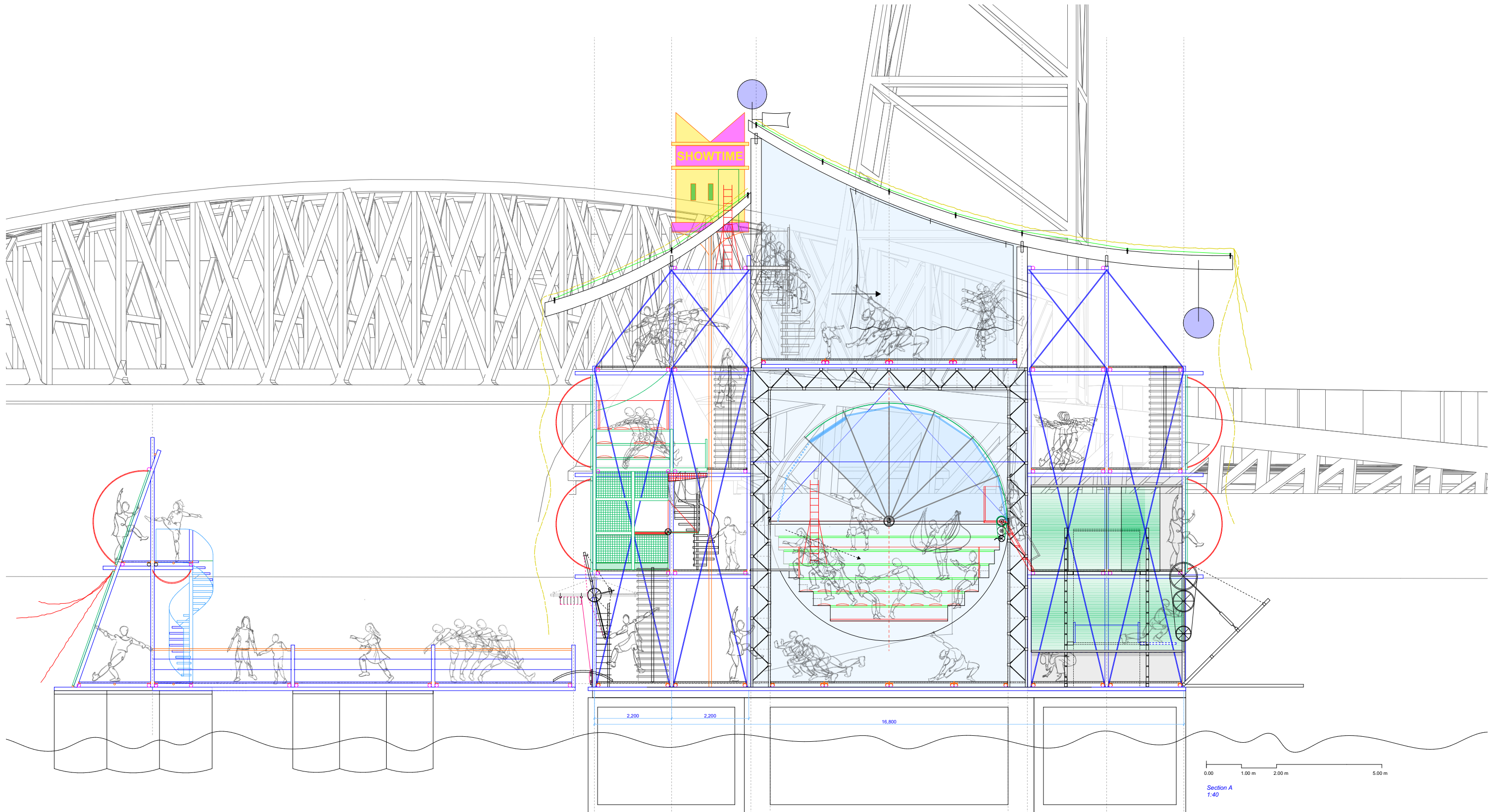


structural thoughts, railings, knots, threads



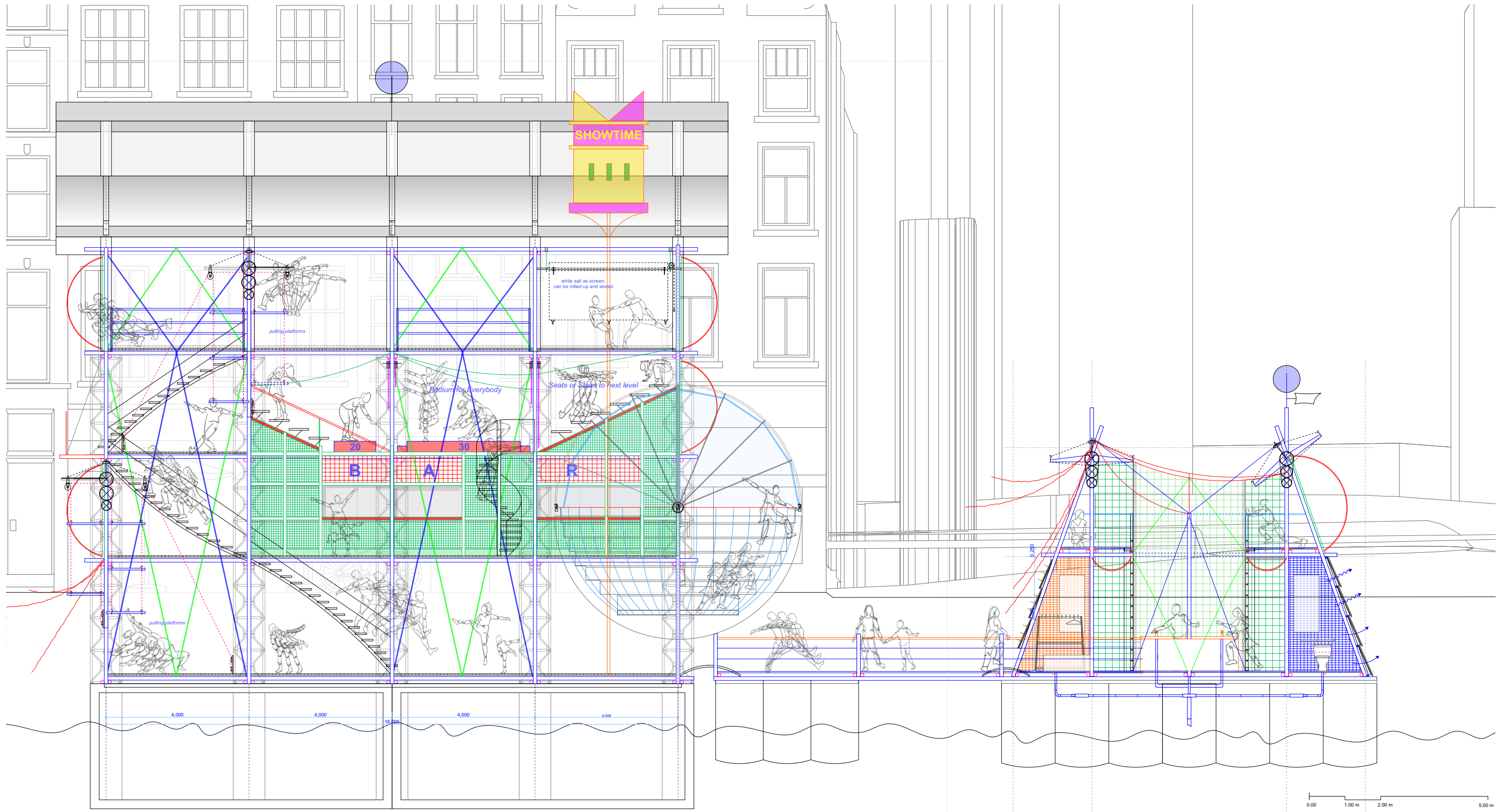
sketches of detail connections, knots, various options





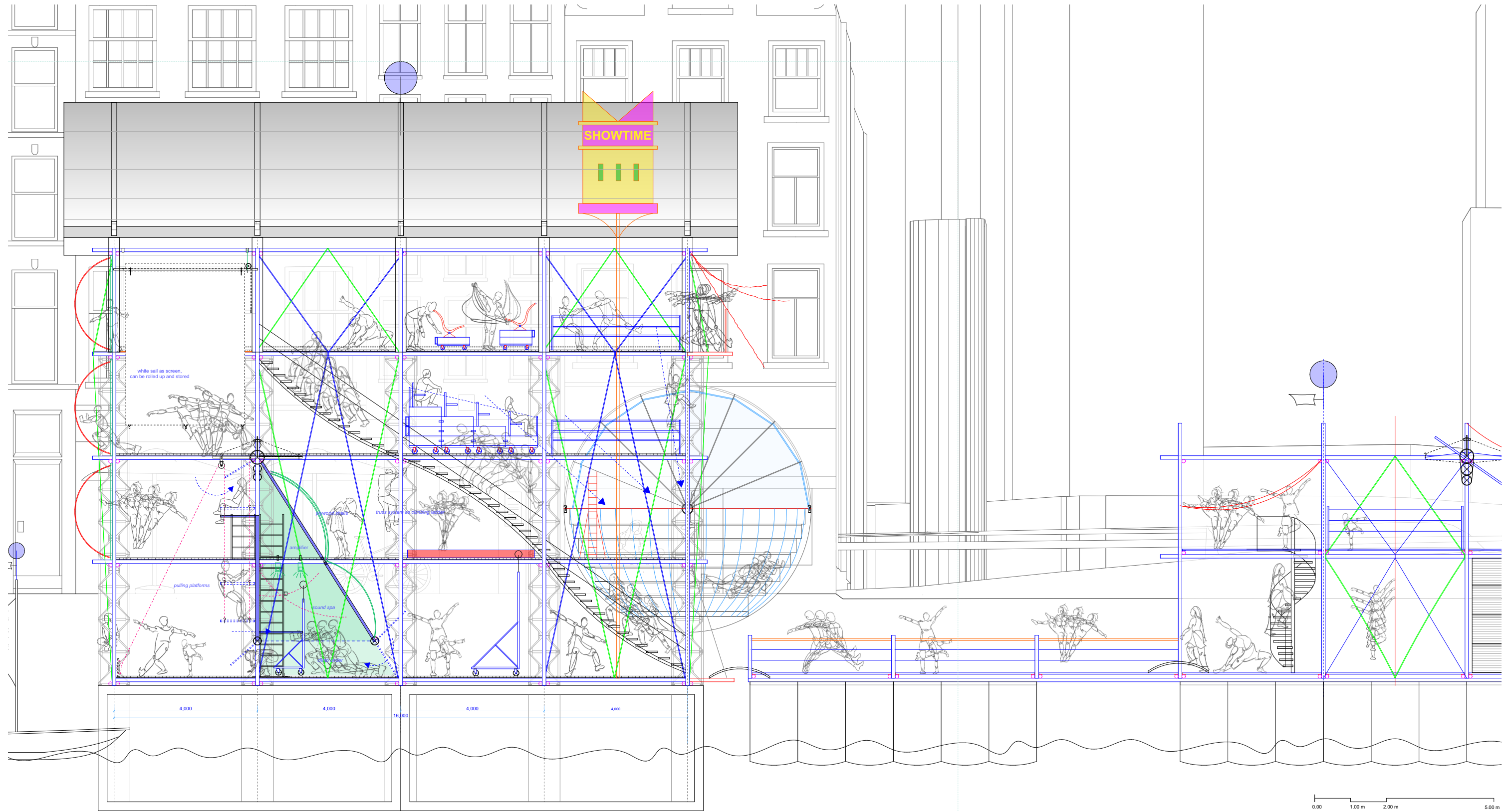
section A, printed in 1:50 for the exhibition, De Hef Brug in the background





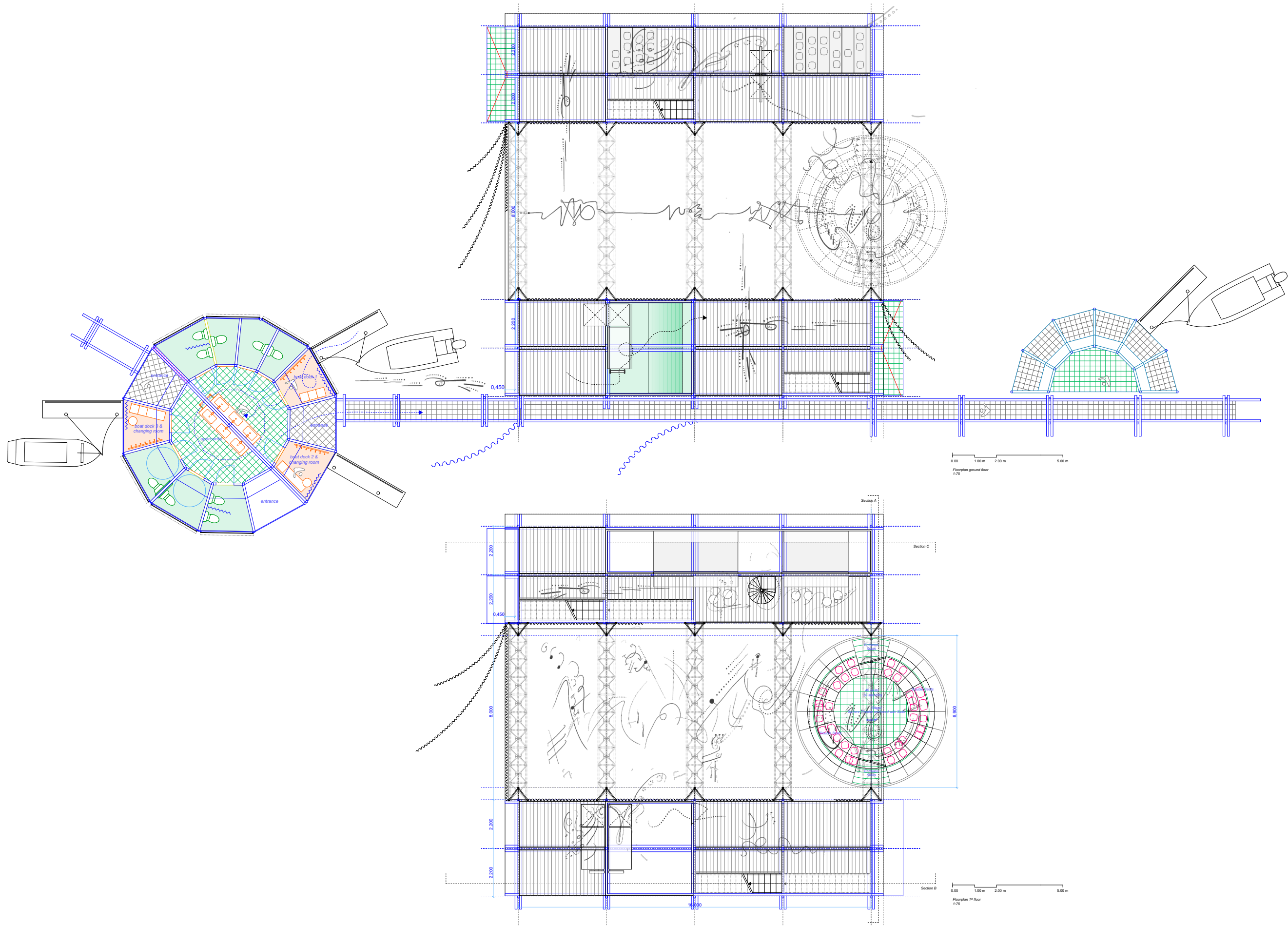
section C, printed in 1:50 for the exhibition, Noorderciland in the background





section B, printed in 1:50 for the exhibition, Noorderciland in the background

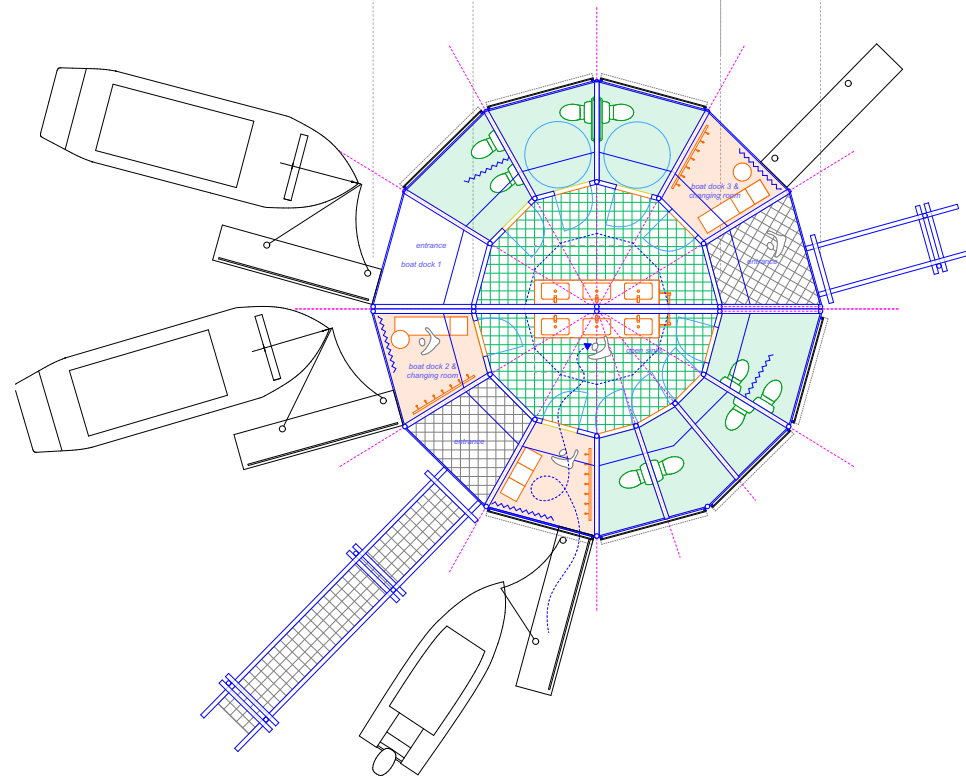
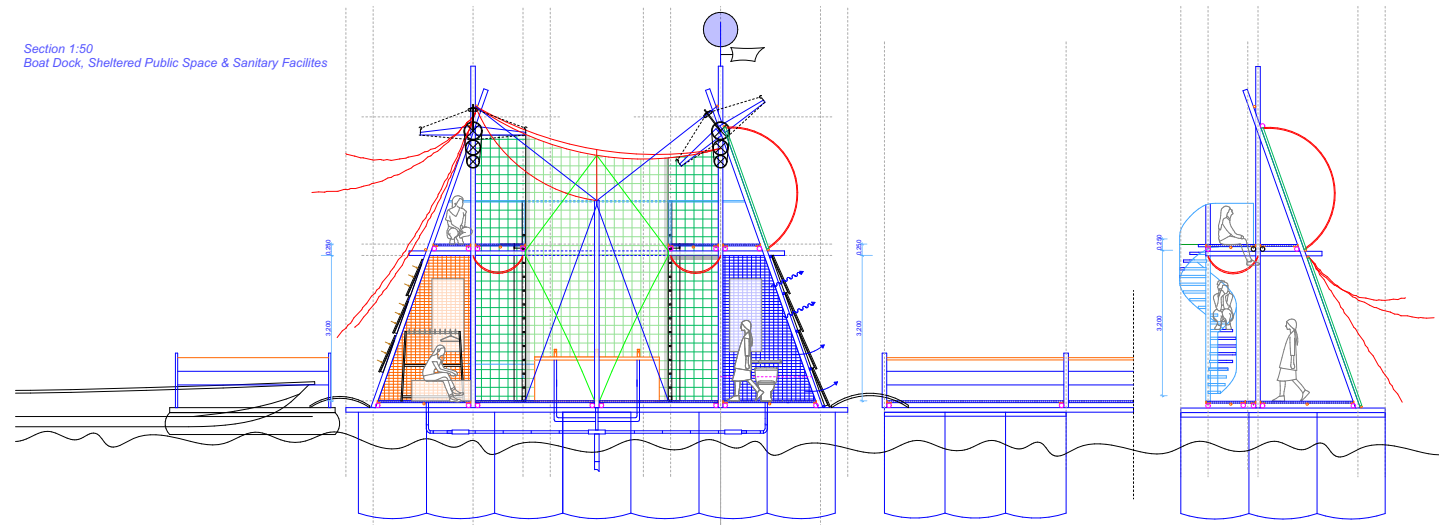




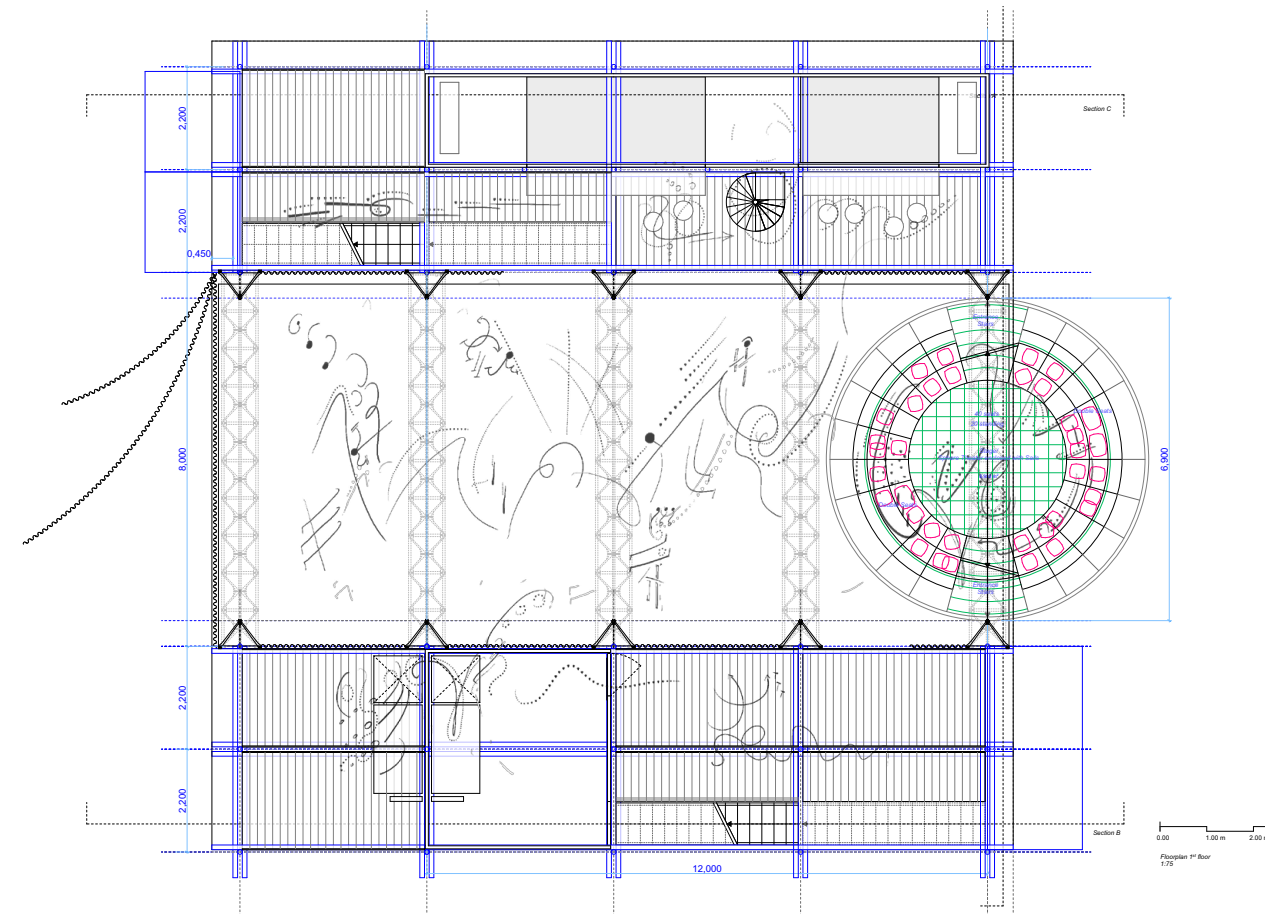
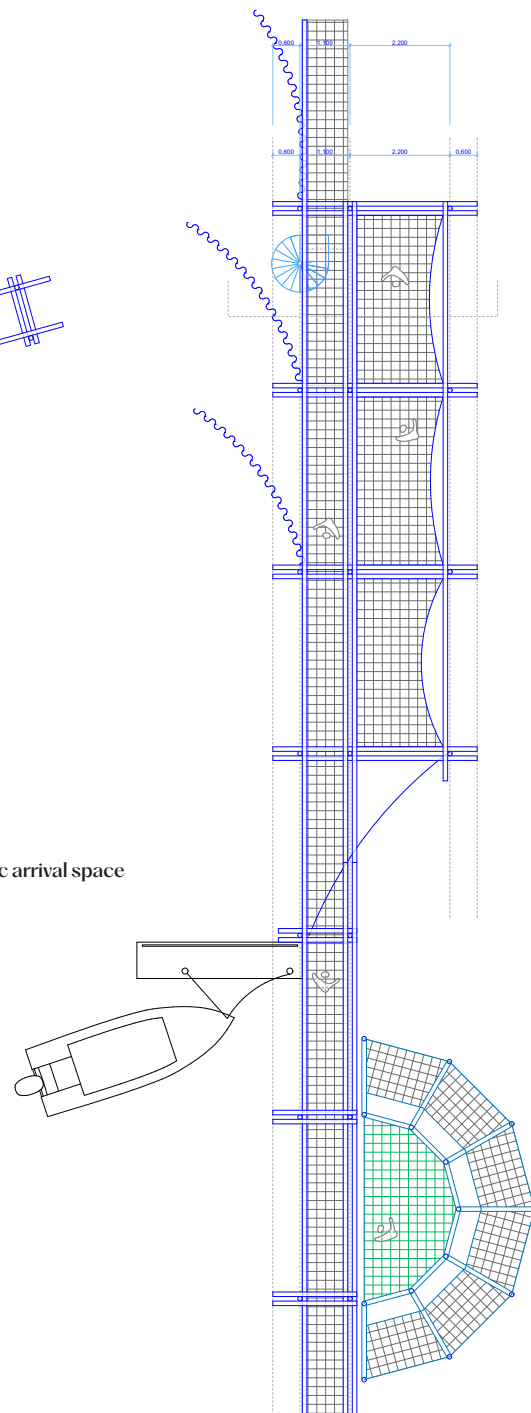
floor plans, printed in 1:50 for the exhibition, including pathways and arrival pavilion



Section 1:50  
Boat Dock, Sheltered Public Space & Sanitary Facilities



floor plan and section of boat dock & sheltered public arrival space



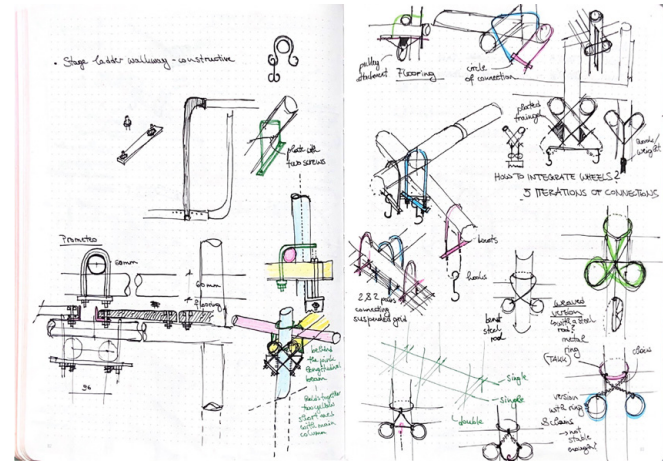
floor plan 1<sup>st</sup> floor, printed on 1:50, tracing of movement lines



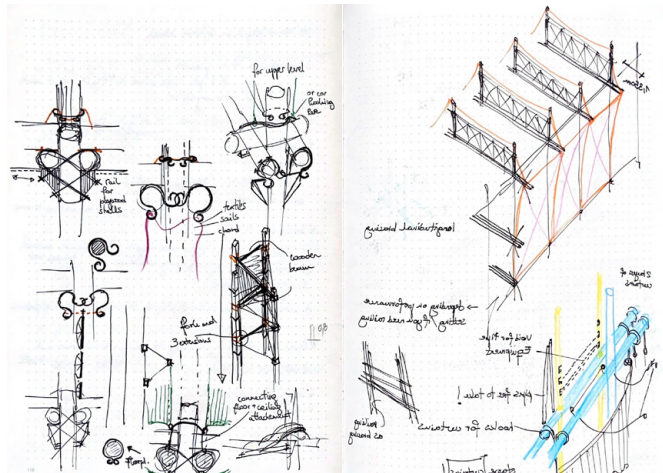
# DETAILING & MATERIALITY



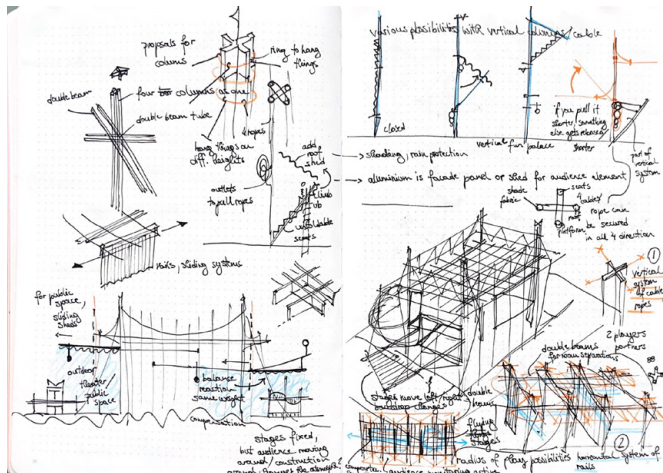
1:10 detail model connection



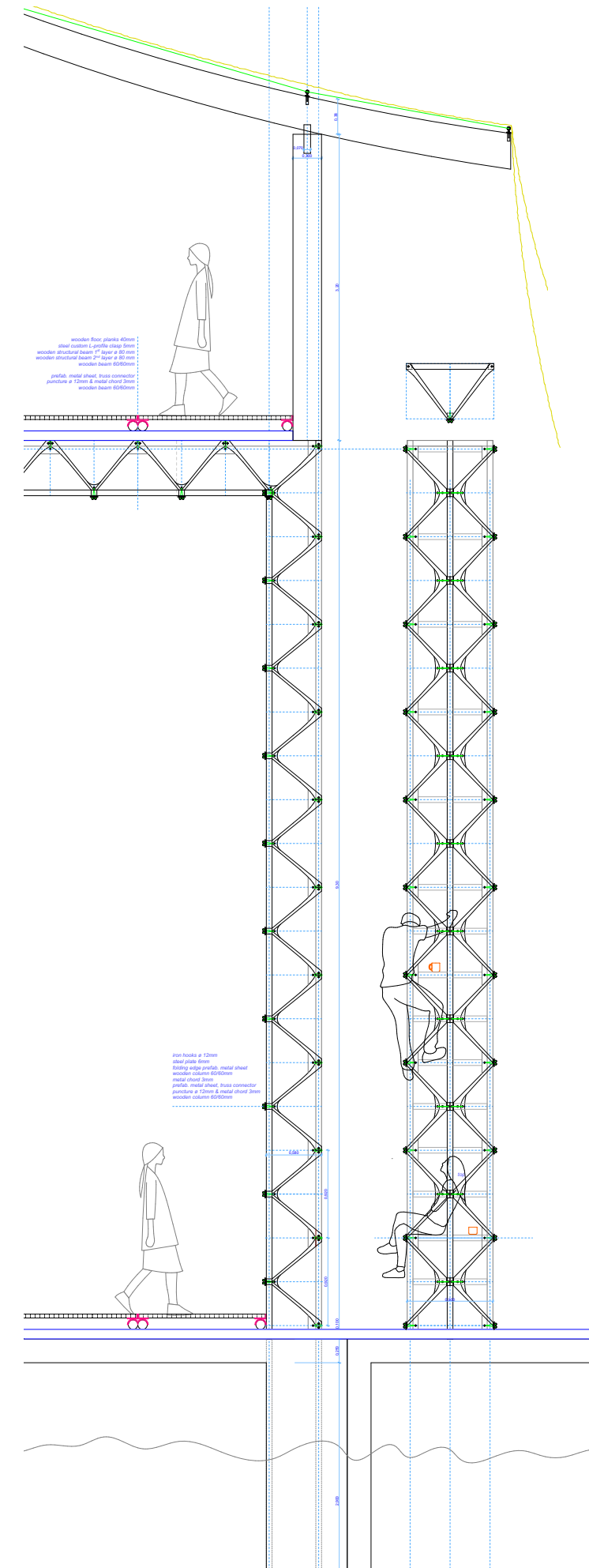
1:10 detail model connection



1:50 model roof view

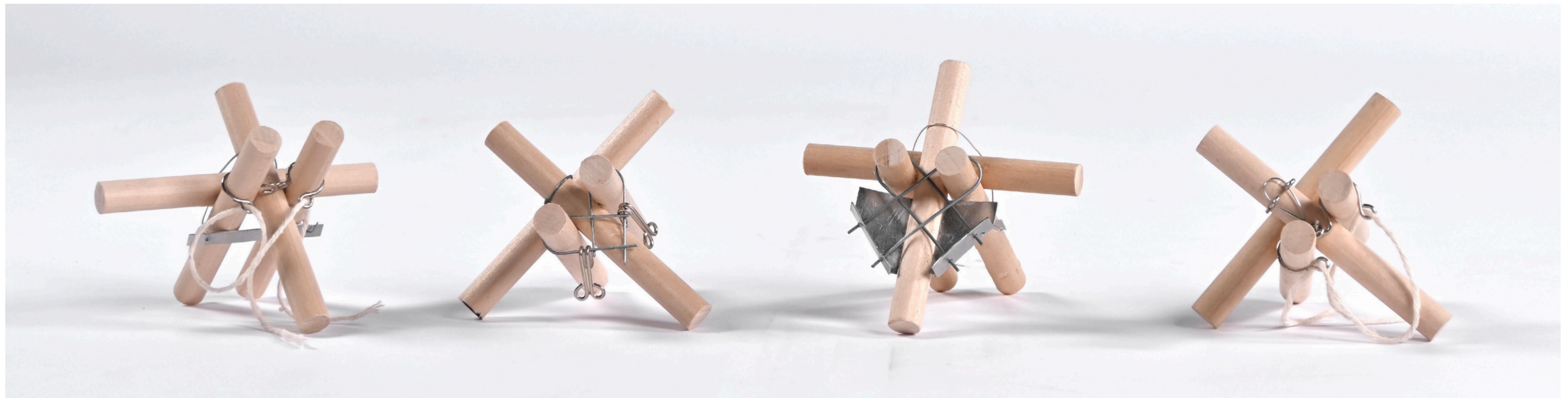
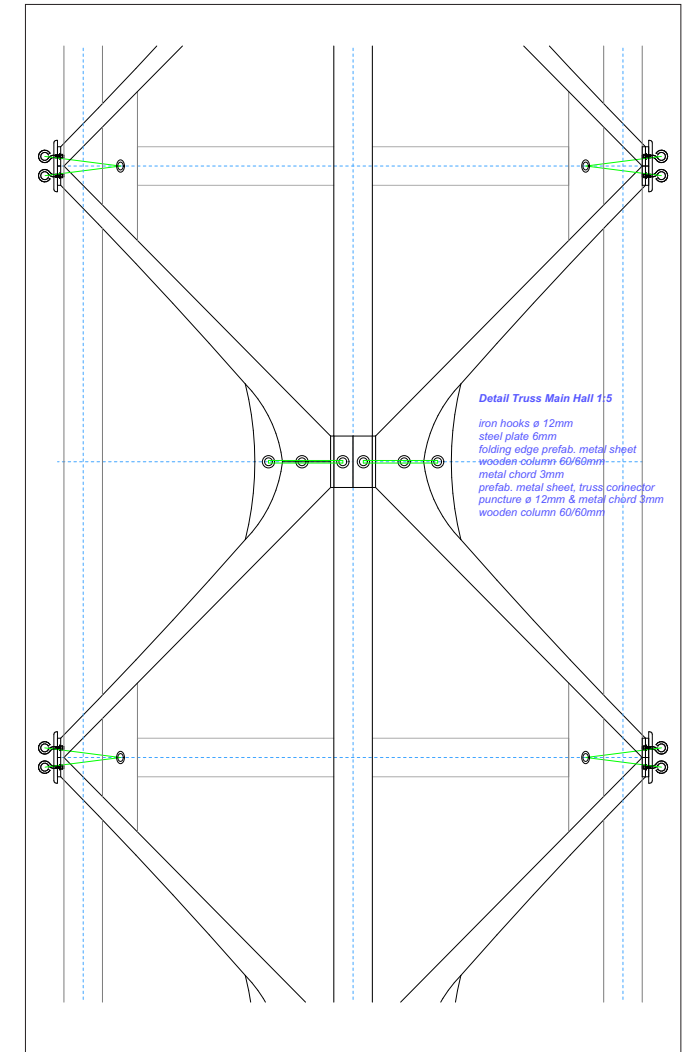
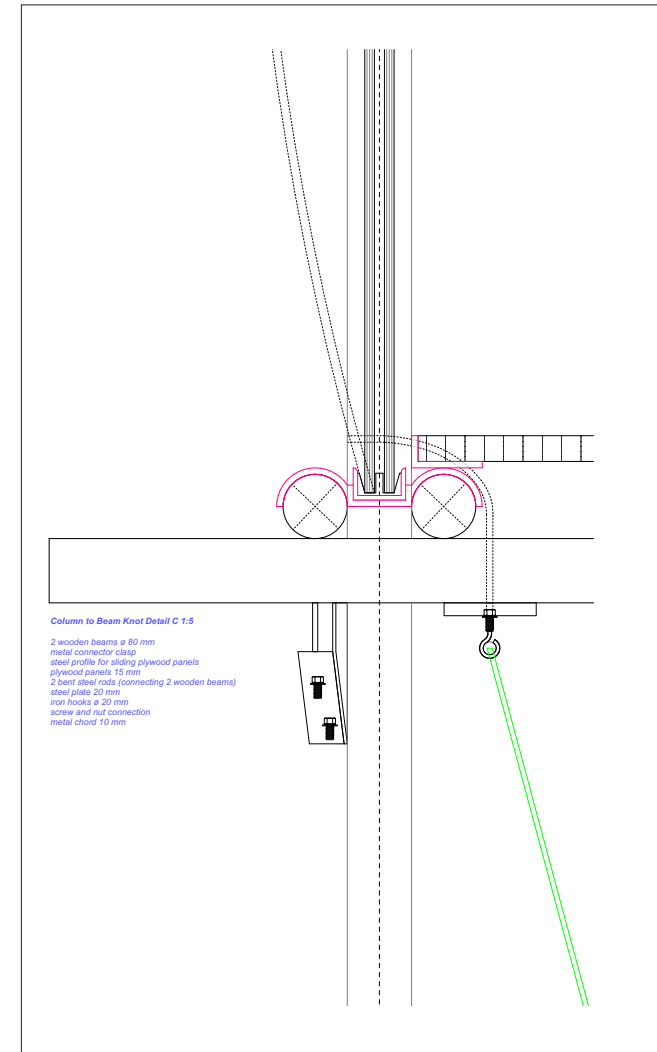
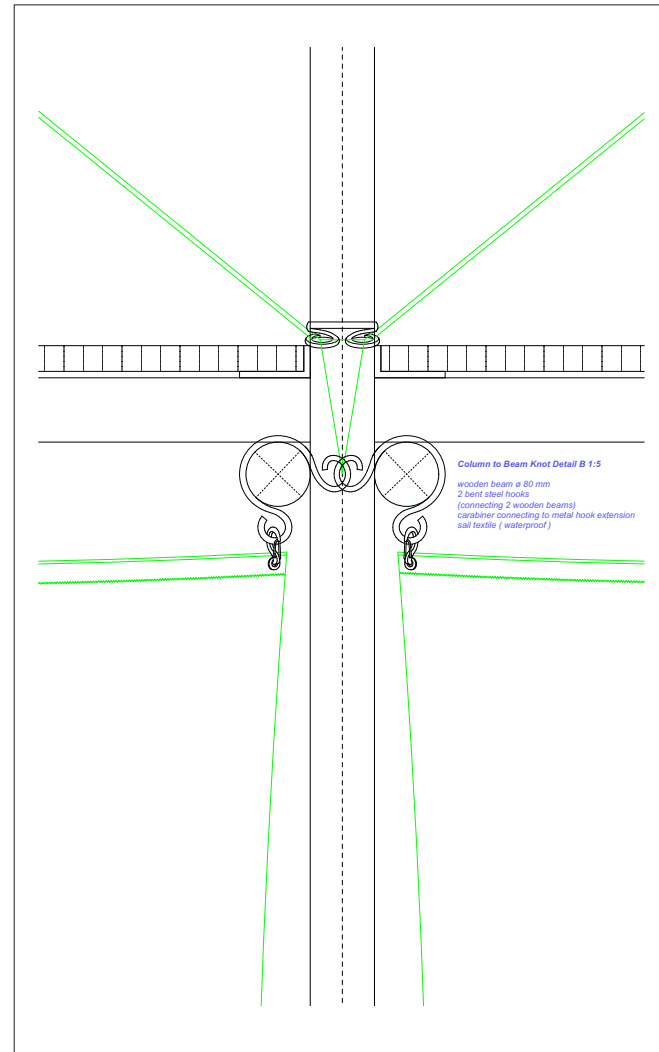
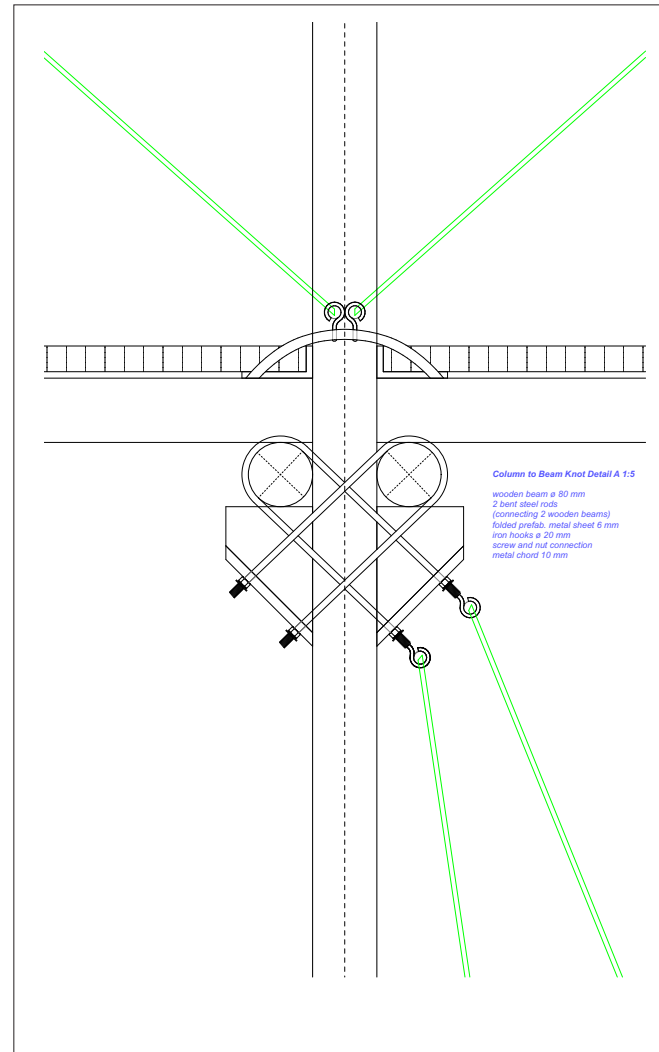


sketches of knots, detailing, structural principles





# DETAILING & MATERIALITY



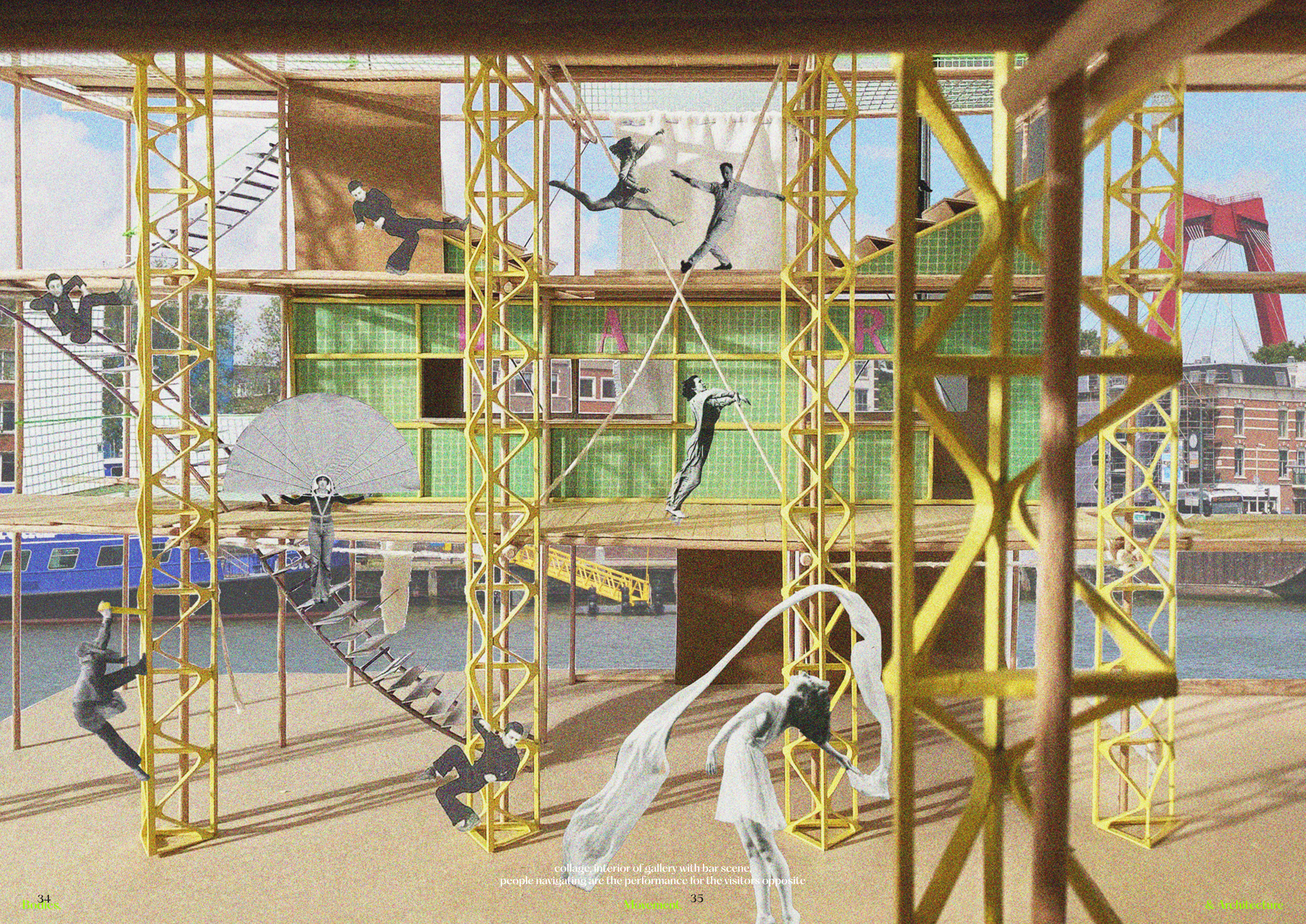
1:10 models of double beam to column connections, interlocking & woven solutions





collage of exterior view, Koninginnebrug & De Hef





collage, interior of gallery with bar scene,  
people navigating are the performance for the visitors opposite





rehearsal space for artists in residency under the curved roof





collage, interior of sphere theater

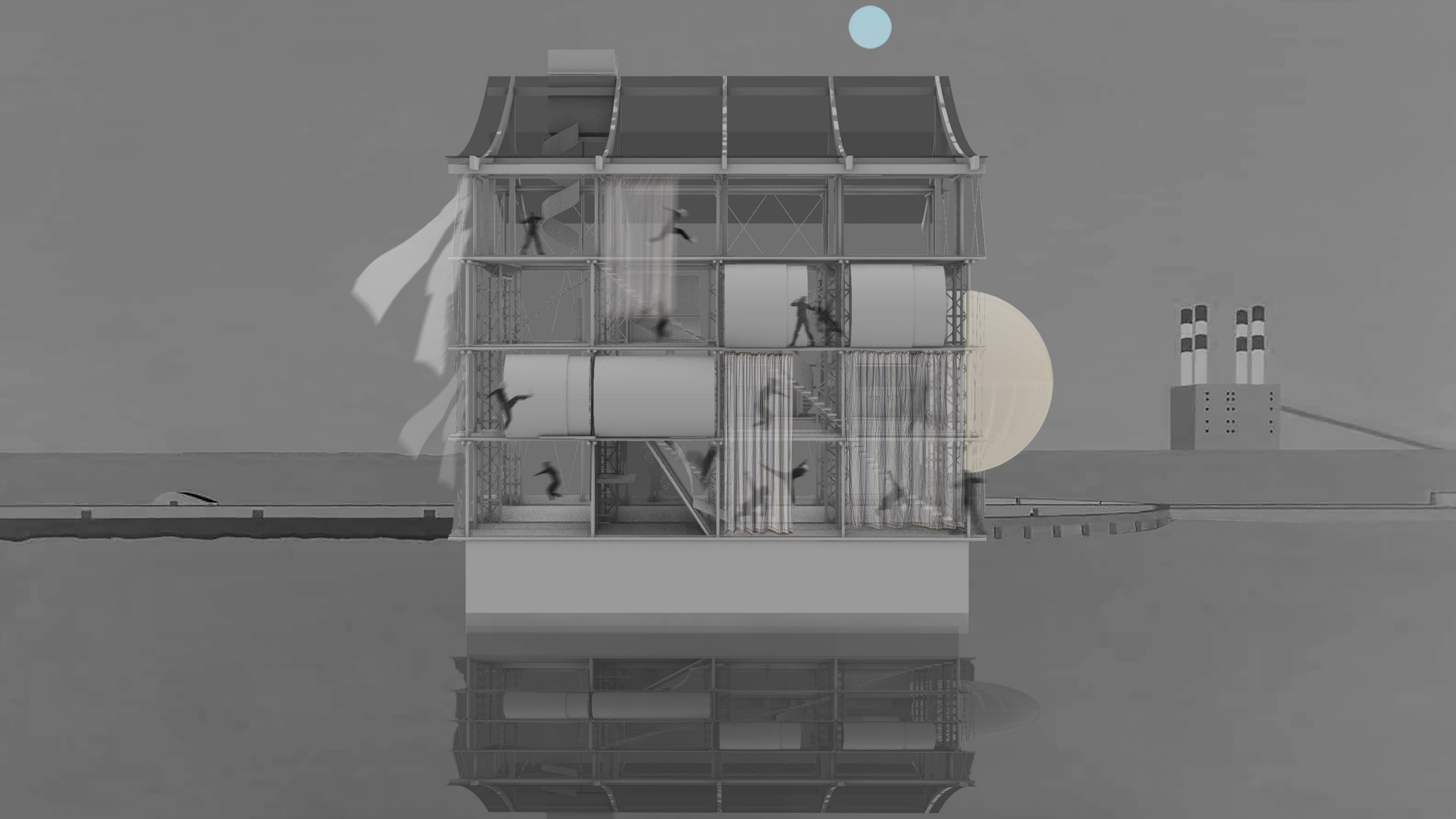




collage, interior of gallery space  
Sound Spa in the back, Willemisbrug on the left



# WATER SCENE



Let us discover our natural talent as space-makers and choreographers of our own surroundings.  
The body and space are interdependent constructs, each of them constantly shaping the world we inhabit.



# WATER SCENE



My design is a spatial, bodily experience where you enter a journey of performative action in a new way. It is space to make you aware of your (bodily) potential to climb, rise, hide, run, scream, and dream.



















P5 presentation & exhibition



collage of spatial encounters, by the author



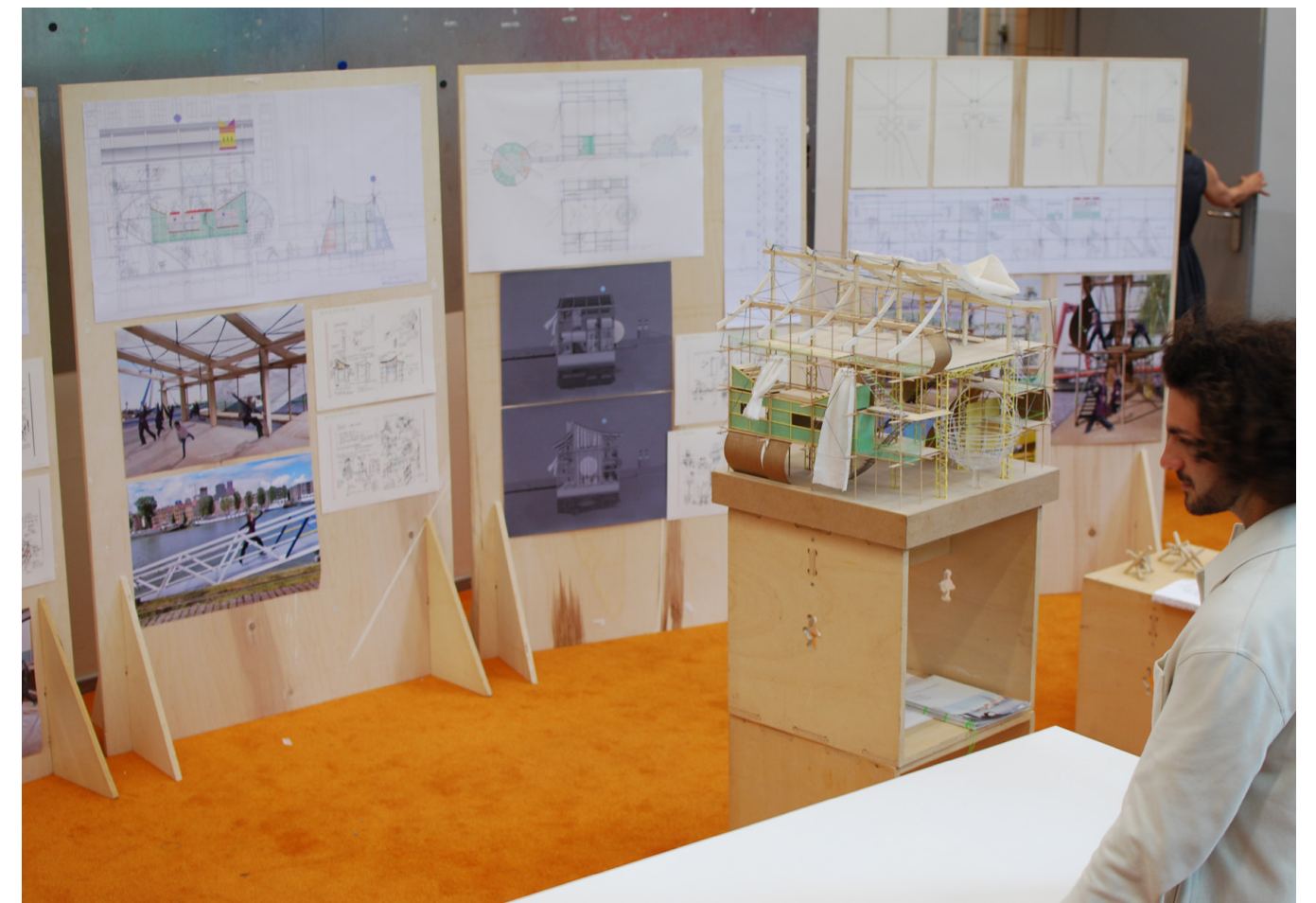


P5 presentation & exhibition





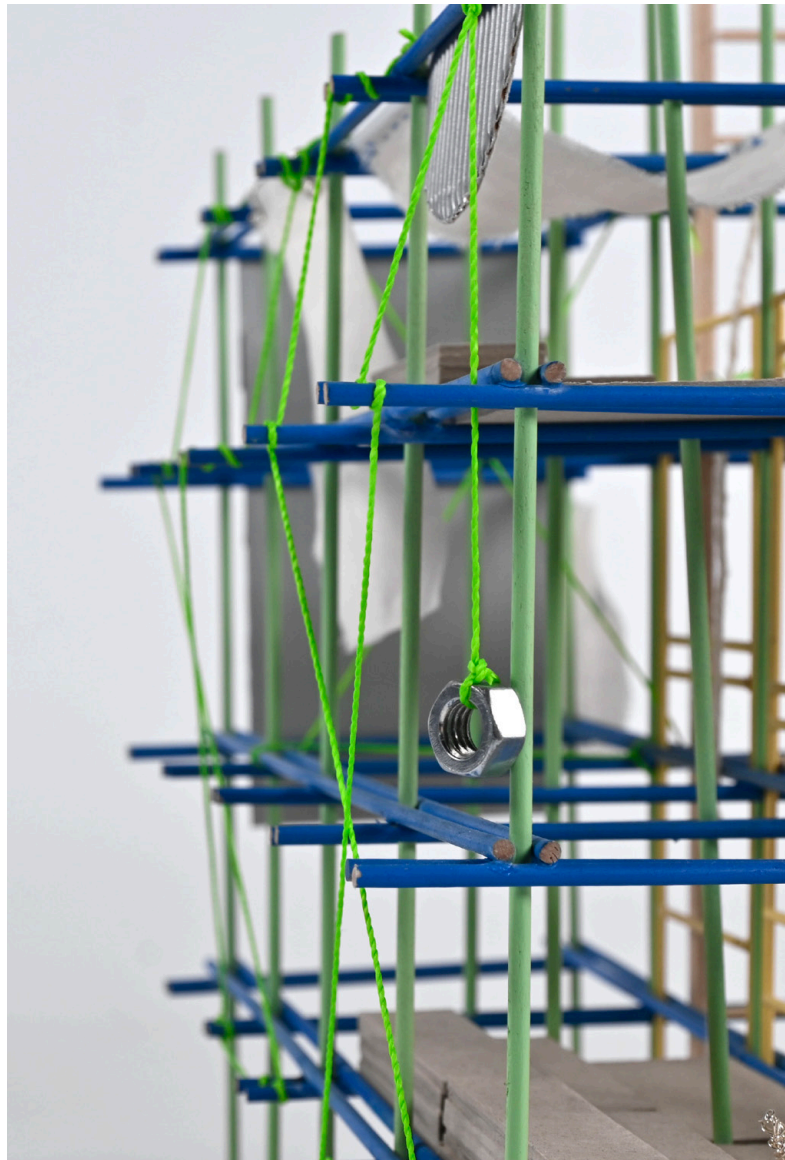
# P5 EXHIBITION





# P3 MODEL

1:50, linden wood, white & green threads, cream white linen fabric, cardboard,  
research booklets part 1 & 2



collage of spatial encounters, by the author

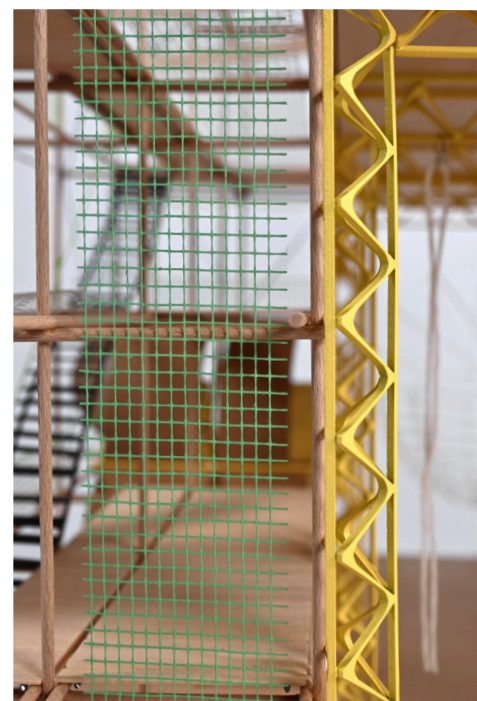


sequential pathway drawing by the author,  
ink-roller on paper



# P5 MODEL

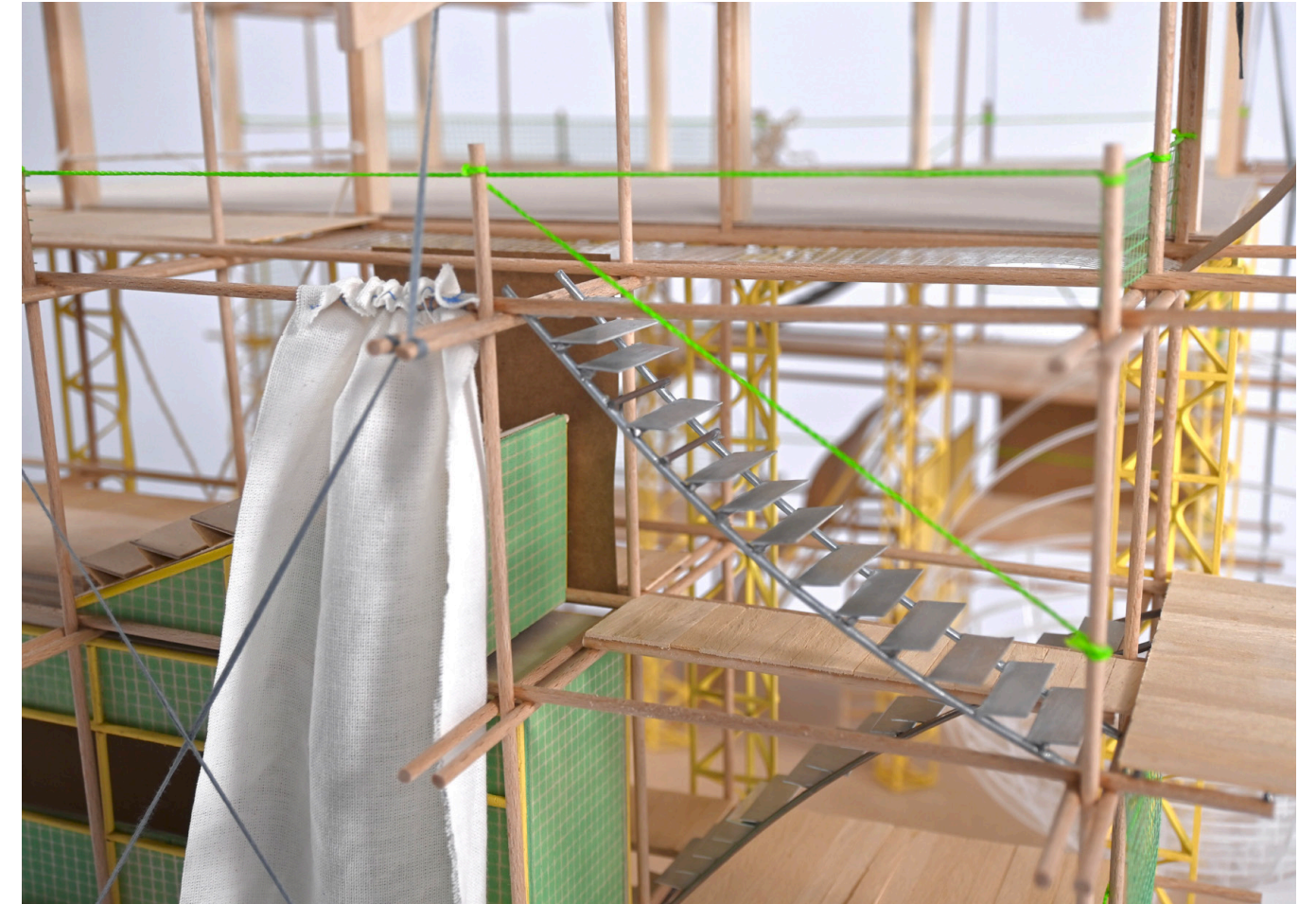
scale 1:33, wood (linden), grey & green threads, white linen fabric, cardboard, research, spray painted nets, laser cut 3D spatial trusses, woven roof with metal hooks for weaving, bent metal stairs





# P5 MODEL

scale 1:33, wood (linden), grey & green threads, white linen fabric, cardboard, research, spray painted nets, laser cut 3D spatial trusses, woven roof with metal hooks for weaving, bent metal stairs



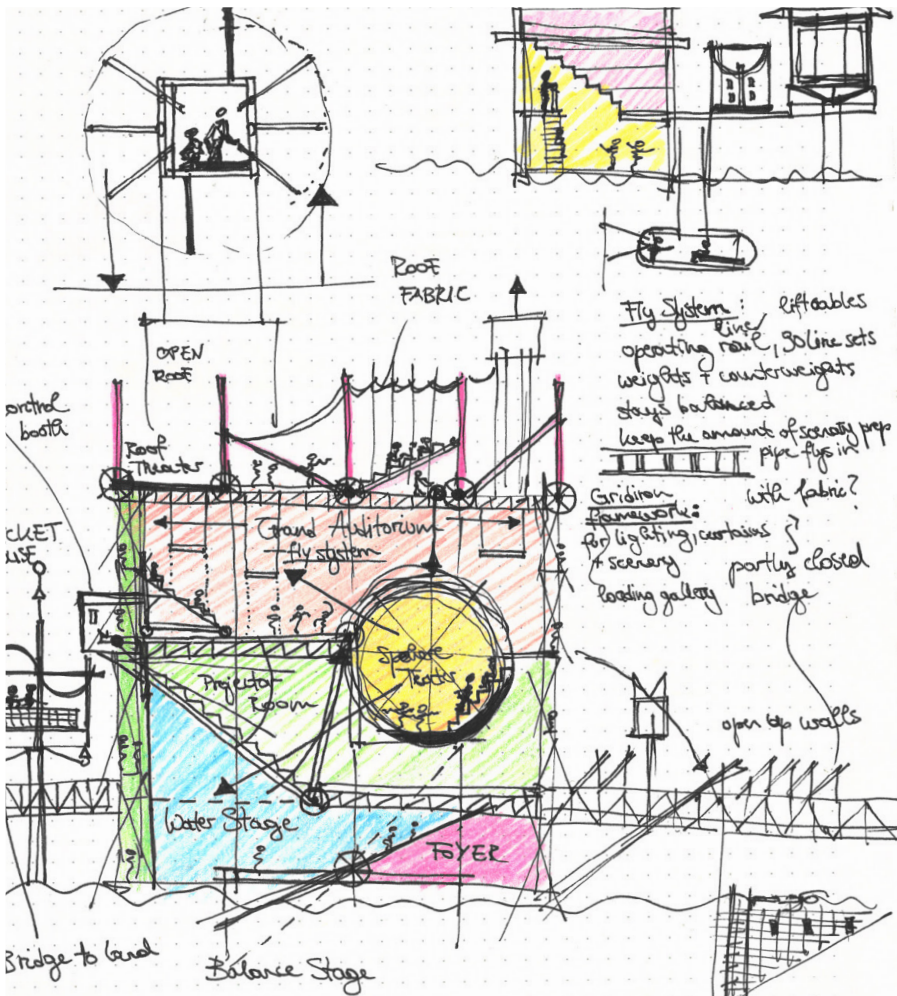


# P5 MODEL

scale 1:33, wood (linden), grey & green threads, white linen fabric, cardboard, research, spray painted nets, laser cut 3D spatial trusses, woven roof with metal hooks for weaving, bent metal stairs







We all have our shapes,  
our bodies,  
and dreams.  
Let them align  
with planets  
of mine.  
(@yours/them/theirs...!)

Open the door,  
tremble and fall,  
embody the space  
of no-one  
and all.  
(@yours/them/theirs...!)

Imagine a future,  
of anyone's room,  
dreaming of shapes  
for bodies  
of all.  
(Bodies of all...!)

Zita Leutgeb, 26.10.2023

Anna Zita Leutgeb  
(5862965)

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Georg Vrachliotis  
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Delft University of Technology  
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