

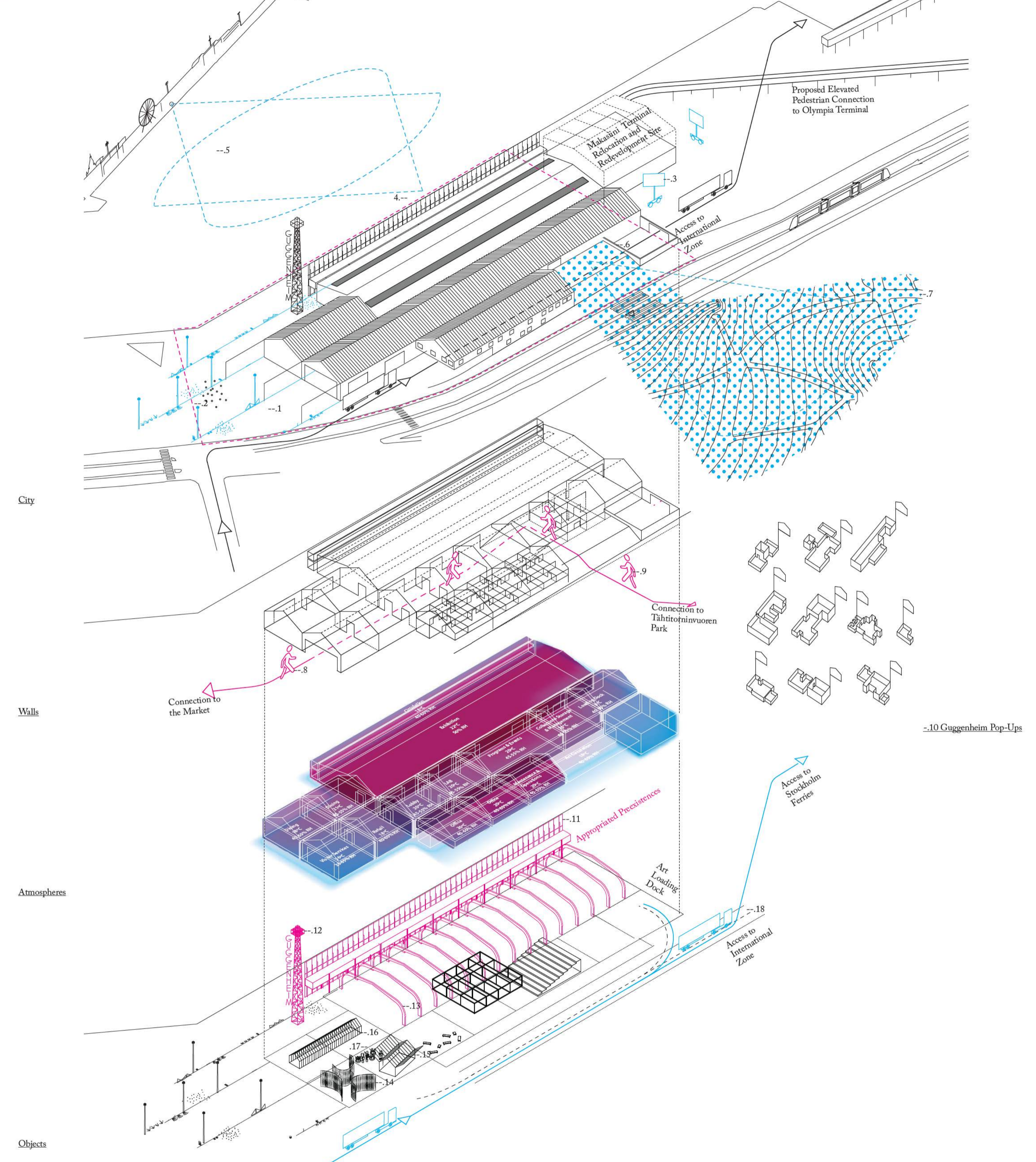


47 Rooms

The city: four facades, four landscapes

Helsinki is a city of interiors. Due to its extreme climatic conditions, Helsinki's civic society blossoms indoors. The Market Hall and the Observatory, Museums and Karaoke's Bars, Cabarets and Art galleries, Hotel lobbies and Beauty Salons, Restaurants and Theatres, Churches and Saunas, Universities and Cinemas, all form a robust network of spaces that host and nurture public life; interior public life. The street, a Mediterranean ideal of public space, works only during a few weeks each year and is often described as the living-room of the city. The rest of the time Helsinki is a city of rooms that empower their political users. Our proposal for the Guggenheim Helsinki, 47 Rooms, extends this network using the architectural technologies that construct Helsinki's interior citizenry: i.e. walls, doors, windows, and the machinery that defines atmospheric conditions.

The Museum spans the site's entire width, from the waterfront to the Laivasillankatu promenade encountering four radically differentiated urban conditions. To the north (1), 47 Rooms opens to a square leading to the Market that preserves the infrastructural logic of the harbor's tarmac. Equipped with equivalent services to the rest of museum interiors (2), it is an open-air exhibition room scaled up to host large works of art, 1:1 architecture pieces, concerts, screenings and events. The south facade (3) is both the first impression for the visitors coming from the Olympia Terminal, and the background to of the international open-air cargo parking lot. The facade responds borrowing a variety of signs to both announce the museum contents and display actual works of art. The East façade of the building (4) appropriates the elevated pedestrian walkway. The expanded glass façade, 120m long and 15m high ready for site-specific interventions, serves as an observatory of Helsinki Peninsula Skyline (5) as much as it mirrors the city and puts the museum on display. To the West (6), 47 Rooms opens directly to Tähtitorninvuoren Park through a new square that becomes the stage of the amphitheater-shaped park (7).



Walls: 47 Rooms and two main entry doors

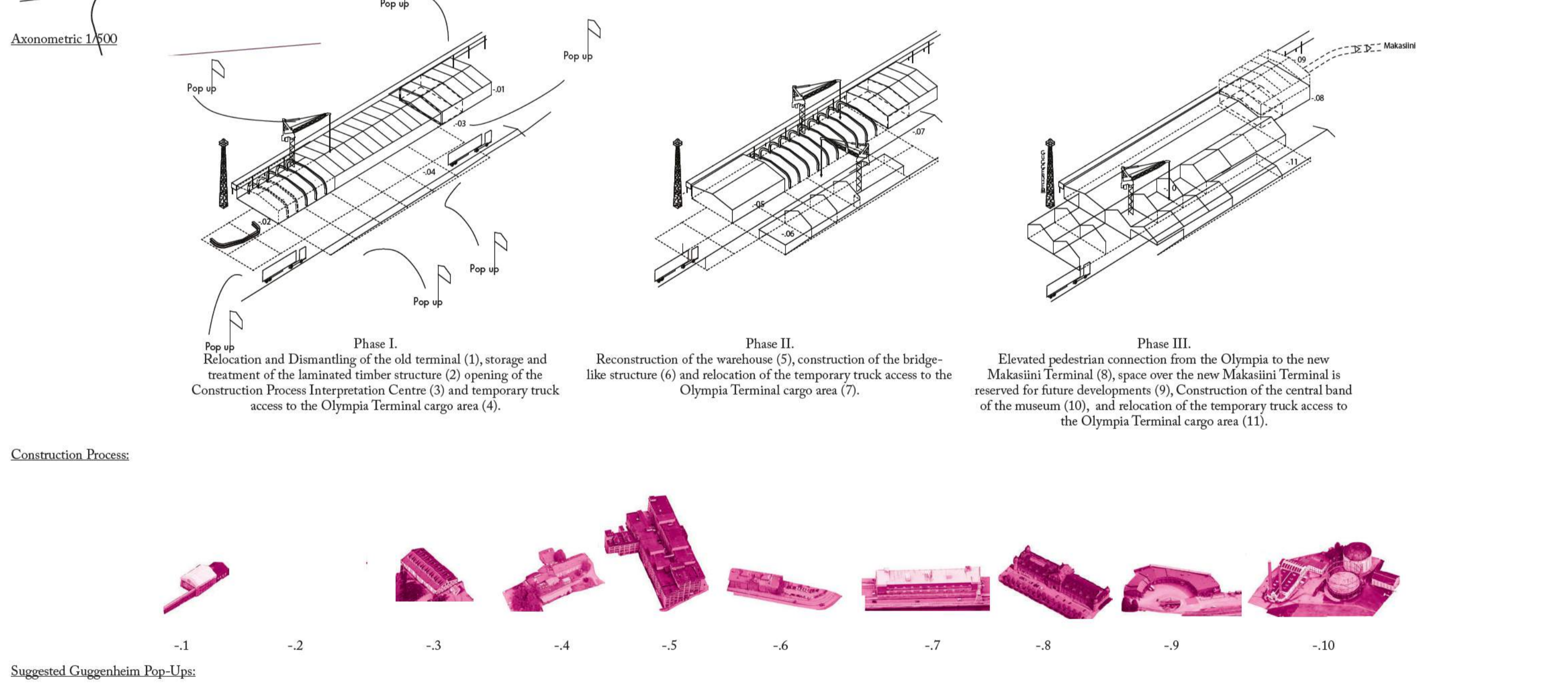
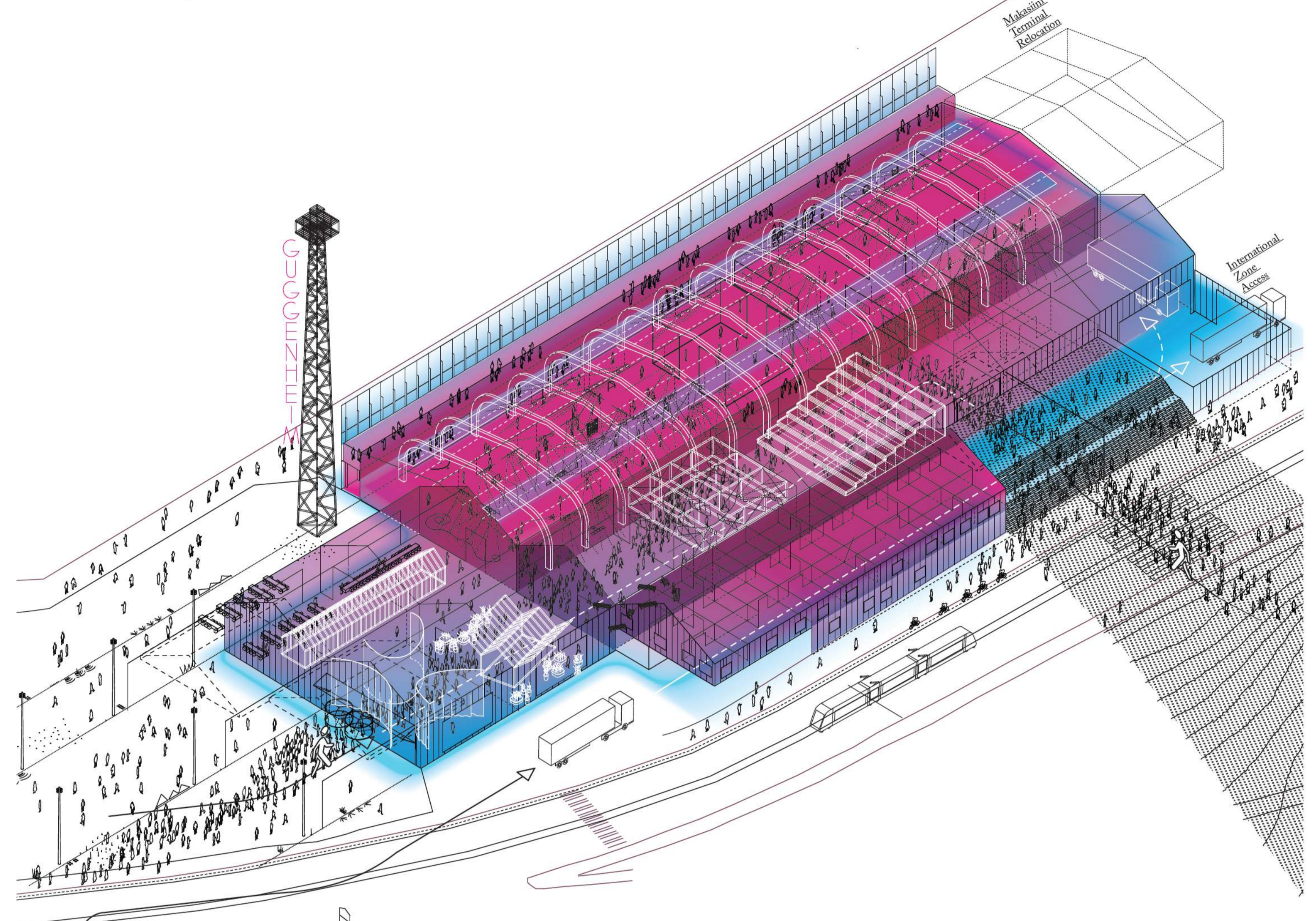
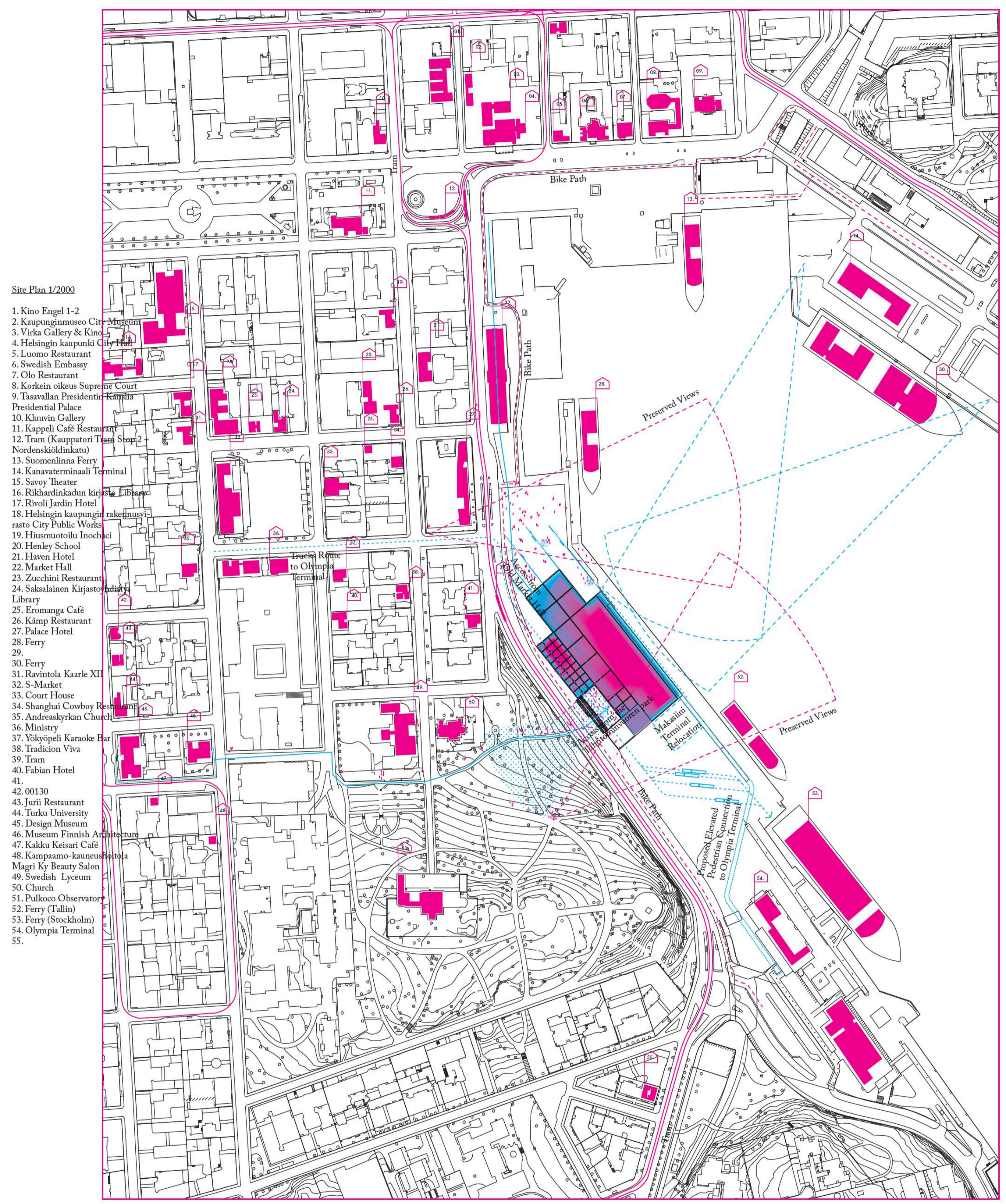
Atmospheres or the rigid flexibility of climatic onions

47 Rooms of various sizes organized enfilade in a single level define the museum spaces. They connect the two entry doors of the museum, one looking towards the Market (8), the other towards Tähtitorninvuoren Park (9). The absence of circulatory spaces implicit in this typology allows an 18% average increase in the programed spaces. Still a 1500m² surplus remains. They are relocated in a network of Pop Up Guggenheim spaces through Helsinki (10). Disconnected from the financial constraints and construction schedule of the main building, they invite the citizenry into the actual museum and demonstrate its value before it is even built.

The museum's interior climate areas are optimized according to access levels. Each room has different conditions of temperature and humidity. The closer a room is to the main exhibition galleries; the closer its climatic conditions are to the museum's ideal. Since energy loss grows exponentially with temperature difference, it is much more efficient to have several layers of climate control, than to temper a building homogeneously.

Objects: reuse, misuse, participate

A variety of objects populate the museum's rooms. Some, such as the ferries' walkway (11), the lighting tower (12) or the structure of the Makasiini Terminal (13) are appropriated from the existing port infrastructure. Others, such as thermal curtains (14), the interior green houses (15 and 16) or the fields of potted plants (17) are off-the-shelf technologies that partially relinquish climate control to the users of the building. All together define a field that changes the infrastructural nature of the site from harbor to culture while leaving the site undisturbed. 47 Rooms allows all the activities of the port to continue through the construction phase and once the museum is open (18).



Public Helsinki

47 Rooms links its interiors to Helsinki's extended network of indoor public spaces. There are multiple connection points. The Museum's front door opens to a new public square that extends south of the Old Market Hall Plaza in the intersection of Eteläranta and Laivasillankatu. The new square connects to the bike line and is few meters away from the Eteläranta tram stop and the rationalist lobby of the Palace Hotel. A second entrance opens to the pedestrian promenade along Laivasillankatu, which leads to the modernist interiors of Olympia Terminal, but also connects to the historic hilltop Tähtitorninvuoren park and the neoclassical rooms of its observatory, and from there to the exhibition galleries of Design Museum and the Museum of Finnish Architecture.

Domestic Harbour

Ever since the first reclaim-areas were built in 1847, the site has illustrated the evolution of harbour-related activities: It expanded again in 1892 to accommodate larger ships, after a second enlargement in 1950s the Makasiini Terminal replaced an historical warehouse while in the early 1970s trucks substituted cargo trains connecting the Olympia Terminal and the South Port. 47 Rooms appropriates to this ever-changing infrastructural landscape yet leaves its memory undisturbed. It reuses the Makasiini terminal's laminated timber structure of to rebuild a shed that follows the geometry of the original building. The rest of the massing mimics the profile of the old terminal ensuring that the current views from the park and the adjacent buildings are preserved. The museum also absorbs the passengers' elevated walkway transforming it in the largest exhibition wall of the museum (to be seen from the other side of Eteläsatama); and it repurposes the towers that illuminate the site as the Guggenheim's iconic neon signs.

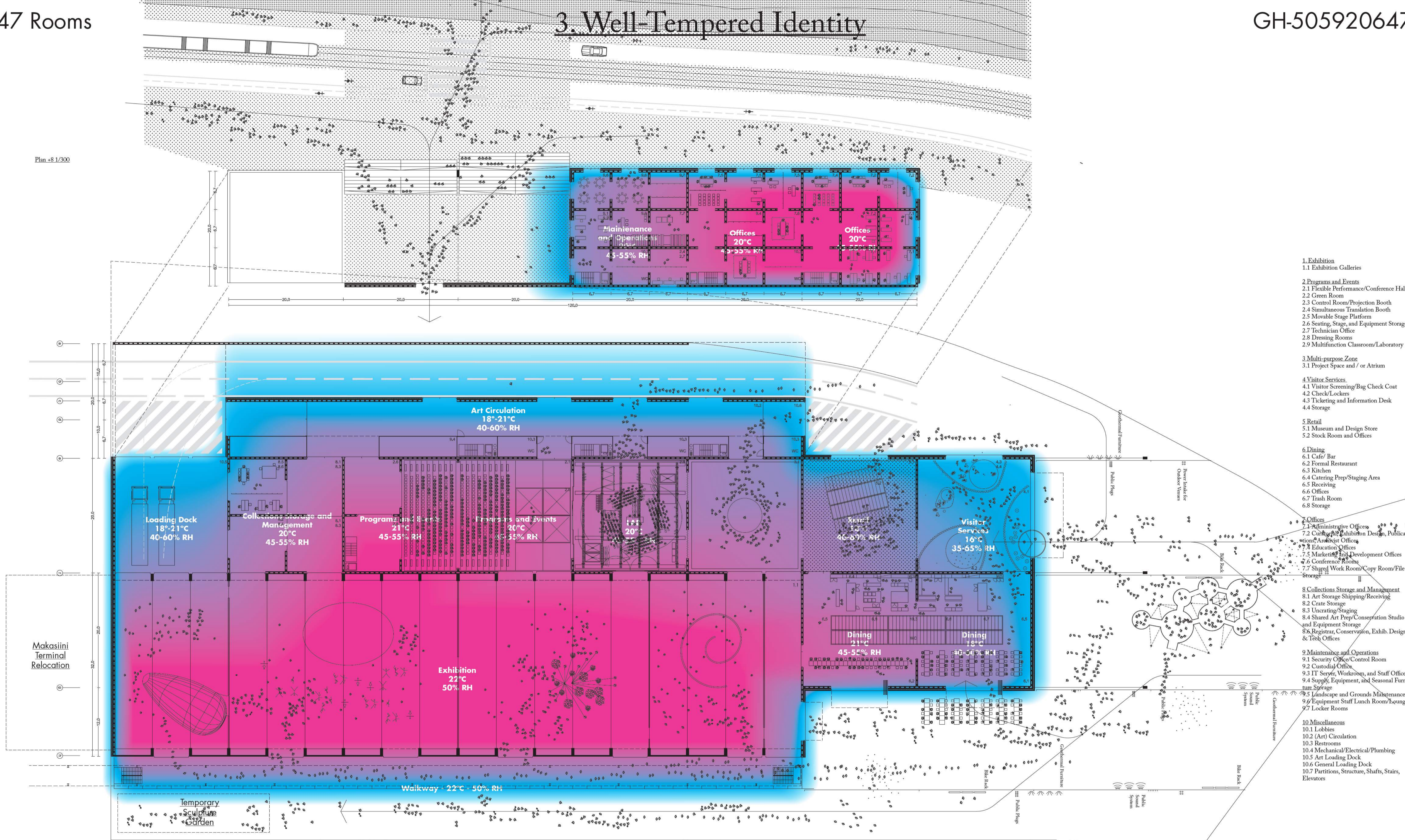
Reusing

Besides reducing the project's carbon footprint, reusing the existing structures allows for easy relocation of the Makasiini terminal in the section of the existing building outside of the competition site, keeping the Tallinn Ferries functional during construction. The Makasiini Terminal new location extends the publicly accessible section of the port further south. Future developments south of the museum (hotel, terminal extensions) will link to Makasiini and potentially connect to the Olympia Terminal. During construction, the terminal shed will also house an interpretation centre to make the construction process more transparent to the citizens using participatory BIM technology. The building's infrastructural scale facilitates the use of industrialized construction solutions which reduce cost between 10-12%, and construction schedules between 32-35%, while ensuring that the vehicular traffic to the Olympia Terminal will be neither disturbed during its construction nor once the museum opens.

Guggenheim Pop-Ups

More importantly, 47 Rooms reserves 30% of its unassigned areas (1.500m2) to open a series of micro galleries through the city in locations such as Vr Makasiini (1), Teurastamo (2), Korjaamo (3), Uunisaari (4), Kaapelitehdas (5), Galleria Huuto (6) Katajanokan Tulli- Ja Pakkahuoneen (7), Kruununmakasiini (8), Veturitallit (9), Suvilahti (10): we call them Guggenheim Pop-Ups. Located in available spaces throughout Helsinki, the Guggenheim Pop-Ups not only intensify the symbiosis between museum and city; they are the forums that host the discussions surrounding the Guggenheim Helsinki's controversy; i.e. they invite the citizenry into the actual museum and demonstrate its value before it is even built.

Plan +8 1/300



Makasiini Terminal Relocation

Plan +3 1/300

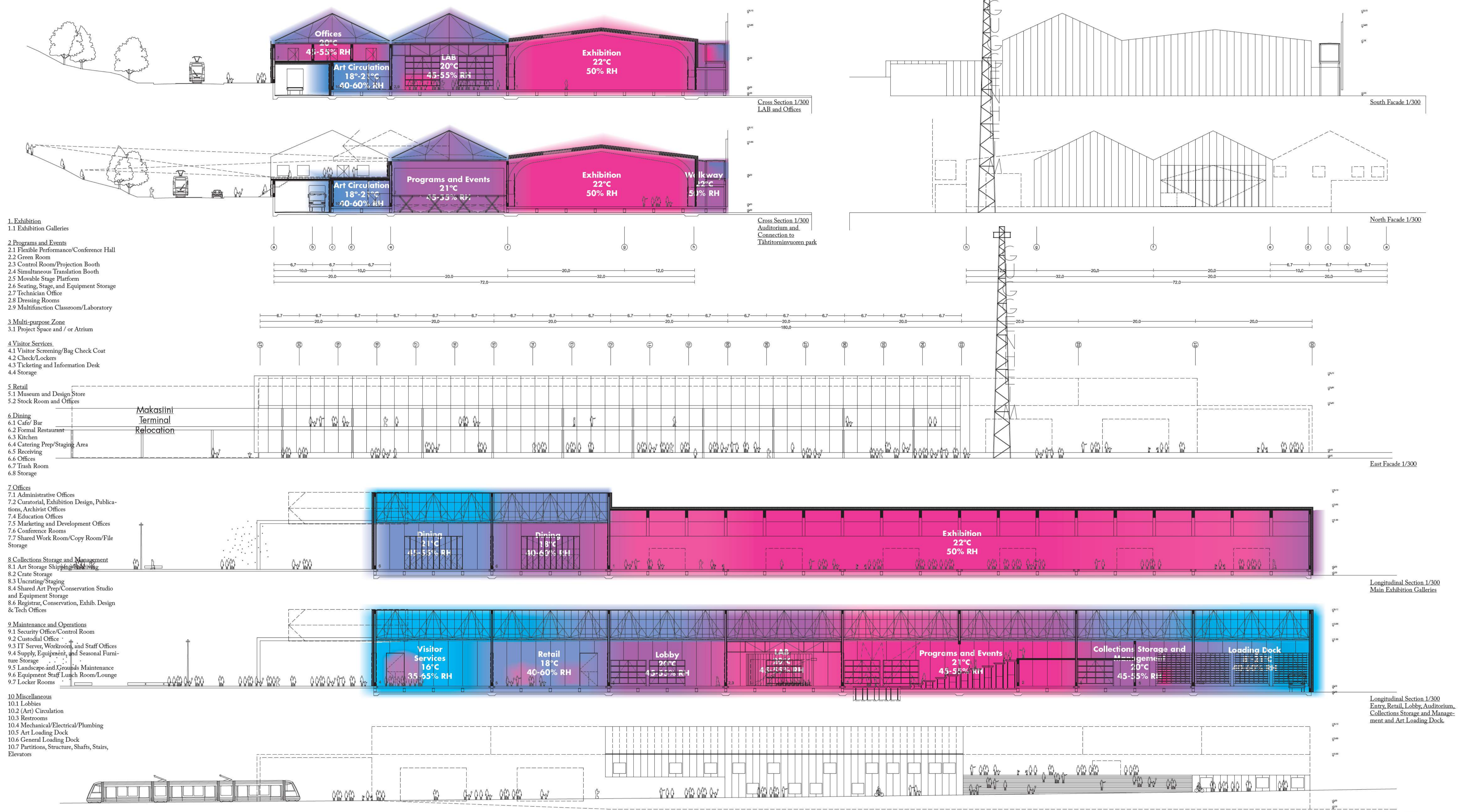
Historically, Guggenheim museums—with the exception of the Peggy Guggenheim Collection palazzo in Venice—have leaned on strong iconic features to define their identity. New York's vertical urbanity, Bilbao's post-industrial landscape and Abu Dhabi's eclectic skyline required it. Strong formal features were the strategy to both fit in, and differentiate from the museum. Helsinki is an opportunity to continue this tradition of radical contextualism while shifting away from objecthood in favour of atmospheric conditions. 47 Rooms proposes a strategic shift, already successfully tested in the BMW Guggenheim Lab: to embrace the urban conditions of Helsinki by focusing on its interior climates rather than its external morphology. The goal is to create different kind of Guggenheim identity, one defined by its internal weather.

All major art museums around the world share identical interior weather conditions, 22°C ±2.5°C, with relative humidity of 51% ±5%. The benchmark dates back to the late 1970s and has been severely questioned in recent scholarship due to conditioning costs, energy concerns and scientific evidence that preservation is connected with stability rather than a specific combination of temperature and humidity. The standard however still prevails, burdening museums located in cold climates with brutal acclimation costs. 47 Rooms respects the standard yet includes a bioclimatic strategy that eases its load on the building life-cycle: the thermal onion. The building's climate areas are optimized according to access levels. Each room has different conditions of temperature and humidity. The closer a room is to the main exhibition galleries, the closer its climatic conditions are to the museum's ideal. The temperature of the perimeter rooms is not as high as the core of the building (16°C, +/- 4°C, in the entry lobby), reaching comfort temperature gradually as you reach the larger exhibition space, which is maintained at a temperature of 22°C ±2.5°C, with relative humidity of 51% ±5%. Since energy loss grows exponentially with temperature difference, it is much more efficient to have several layers of climate control, than to temper a building homogeneously.

A thermal onion presupposes a system of stable spatial conditions that keep the climate independent and constant. 47 Rooms contains nine rooms of 20x20m, twenty-seven of 6.5x6.5m six of 10x10m, two of 120x4m and one of 32x120m that do so. The public square north of the site is room 46, Eteläsatama no. 47. The 32x120m room hosts the exhibition spaces that can be combined or divided as needed. The rest offer an alternative notion of flexibility based on a rigid set of spatial conditions rather than temporal partitions. Over time, the rooms' dimensions won't change, though the way they are used will, opening to new functions not prescribed in the design.

The thermal onion also presupposes a system of opening and closing that both isolates the rooms and makes them penetrable. They seem to be pure and simple openings, but operate like a system of levees and floodgates that control the transfer of humidity and temperature. 47 Rooms's 89 doors, appropriated from industrial architecture specialized in atmospheric control and high levels of circulation (refrigerated logistic canters, wholesale food markets, industrial laboratories, chemical production, etc) keep the different climates in place.

- 1. Exhibition
 - 1.1 Exhibition Galleries
- 2. Programs and Events
 - 2.1 Flexible Performance/Conference Hall
 - 2.2 Green Room
 - 2.3 Control Room/Projection Booth
 - 2.4 Simultaneous Translation Booth
 - 2.5 Movable Stage Platform
 - 2.6 Seating, Stage, and Equipment Storage
 - 2.7 Technician Office
 - 2.8 Dressing Rooms
 - 2.9 Multifunction Classroom/Laboratory
- 3. Multi-purpose Zone
 - 3.1 Project Space and / or Atrium
- 4. Visitor Services
 - 4.1 Visitor Screening/Bag Check Coat
 - 4.2 Check/Lockers
 - 4.3 Ticketing and Information Desk
 - 4.4 Storage
- 5. Retail
 - 5.1 Museum and Design Store
 - 5.2 Stock Room and Offices
- 6. Dining
 - 6.1 Cafe/ Bar
 - 6.2 Formal Restaurant
 - 6.3 Kitchen
 - 6.4 Catering Prep/Staging Area
 - 6.5 Receiving
 - 6.6 Offices
 - 6.7 Trash Room
 - 6.8 Storage
- 7. Offices
 - 7.1 Administrative Offices
 - 7.2 Curatorial/Exhibition Design, Publication, Archivist Offices
 - 7.3 Education Offices
 - 7.4 Marketing and Development Offices
 - 7.5 Conference Rooms
 - 7.6 Shared Work Room/Copy Room/File Storage
 - 7.7 Shared Work Room/Copy Room/File Storage
- 8. Collections Storage and Management
 - 8.1 Art Storage Shipping/Receiving
 - 8.2 Crate Storage
 - 8.3 Unpacking/Staging
 - 8.4 Shared Art Prep/Conservation Studio and Equipment Storage
 - 8.5 Registrar, Conservation, Exhib. Design & Tech Offices
- 9. Maintenance and Operations
 - 9.1 Security Office/Control Room
 - 9.2 Custodial Offices
 - 9.3 IT Server, Workroom, and Staff Offices
 - 9.4 Supply, Equipment, and Seasonal Furniture Storage
 - 9.5 Landscape and Grounds Maintenance
 - 9.6 Equipment Staff Lunch Room/Lounge
 - 9.7 Locker Rooms
- 10. Miscellaneous
 - 10.1 Lobbies
 - 10.2 (Art) Circulation
 - 10.3 Restrooms
 - 10.4 Mechanical/Electrical/Plumbing
 - 10.5 Art Loading Dock
 - 10.6 General Loading Dock
 - 10.7 Partitions, Structure, Shafts, Stairs, Elevators



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Climatic Disagreements

Finnish saunas are one of the most advanced models of public interior spaces. Conceived as meeting places for naked bodies, their users assume extraordinary levels of intimacy that question accepted notions of public sociability. But more importantly, saunas use participation to define weather conditions. Pouring water over the rocks in the stove, a group of people, not necessarily familiar to each other, negotiate collective levels of comfort that range from 70°C to 90°C and from 5% to 20% humidity. 47 Rooms appropriates this logic to define the climatic conditions of its interiors. The HVAC defines the Guggenheim Helsinki identity, yet not as top-down imposition. Rather, the interior climate is negotiated by a civil society trained and habituated to define its public arenas this way. Thus, according to its function, each room accepts different degrees of climatic negotiation. They range from the lobby, which allows for constellation of microclimates in constant flux while, to the larger exhibition space, that maintains a temperature of 22°C ±2.5°C, with relative humidity of 51% ±5% and leaves no space for interaction. The museum includes atmospheric conditions that are non-negotiable; they define 47 Rooms material decisions. It also admits different degrees of participation in the management of the interior weather which require technologies that invite users to take atmospheric responsibility.

Weather Concatenation

Inside 47 Rooms, the double and triple doors found in Helsinki's commercial galleries expand to become entire chambers. The transition through multiple climatic conditions, rather than a first step to enter the building, becomes the museum identity. Rooms follow a pragmatic enfilade sequence: Entry, gift shop, main lobby, exhibition spaces, education areas and auditorium, also accessible from Laivasillankatu, which allows a reversal of sequence. The restaurant is accessible from the lobby and the street, and has independent access to the exhibition galleries. The offices, located in a second level overlook Laivasillankatu.

Micro-Participatory Climates

Using ordinary off-the-shelf architectural technologies, 47 Rooms extends the logic through which Helsinki's population already tempers their more intimate public spaces, and by extension construct their interior citizenry. Imitating the logic of the Sauna, each room's final climatic conditions include certain degree of negotiation between the institution and its visitors. The mechanisms to invite the visitor to engage with the interior weather include: furniture heated using the district heating system; potted plants that change the humidity levels of a room according to its proximity to AC vents; solar/thermal curtains to create micro climates within a room, Green houses with its own independent heat/cooling source that allow the micromanagement of a climatic bubble within a room; Individually managed environmental ethnologies' hanging from the ceiling substructure, Swimming-pool-like retractable rooftops that can open three rooms to the weather outside; and the software SPACES which, integrated in the BIM model and connected the HVAC, gathers information of the visitors environmental preferences and adjusts the weather conditions accordingly.



Cultural Production

The North façade is a piece of cultural infrastructure. Combined with the square, it functions as machine to display large scale works, whether coming from visual arts, architecture or design. The façade does not work as a backdrop but rather as a theatre fly tower. Its blank industrial frontage hides technologies required to physically manipulate the mise en scène. Weather permitting, two 20m square rooftop modules move out and hover over the square, the main wall of the entry room folds up to open the lobby to the street. The pavement, equipped with the same museum technologies as the rest of the indoor galleries, is ready to host open-air exhibitions, performances, screenings, and events. It redefines public space getting museum-quality infrastructure out in the street.

Porto Franco – Industrial Vernacular

The South façade takes advantage of its paradoxical nature. It fluctuates between two seemingly incompatible realities; it is both the first impression of the Guggenheim Helsinki for the visitors coming from Stockholm through the Olympia Terminal, and a background to an international open-air cargo parking lot. It responds, therefore, to the vehicles that obfuscate it, as much as to the pedestrian traffic Laivasillankatu. It borrows a variety of signs to both announce the museum contents and display actual works of art.

Double Exposure – As Found Decorated Shed

The East façade of the building appropriates the elevated pedestrian walkway as scopic technology, a mechanism of vision. As a lookout for the visitors, it offers unique views of Eteläsatama. As an exhibition wall—extended upwards to make it visible—it encloses the largest exhibition space, a room the size of the bay, to be seen from the other side of the South Port. The extreme dimensions of the walkway, 120 m long and 4 m wide, and its radical exposure to the city made it a perfect site for site-specific interventions. The expanded glass façade, 120m long and 15m high, serves as an observatory of Helsinki Peninsula Skyline as much as it mirrors the city and puts the museum on display.

Picturesque Bucolism – Urban Artifact

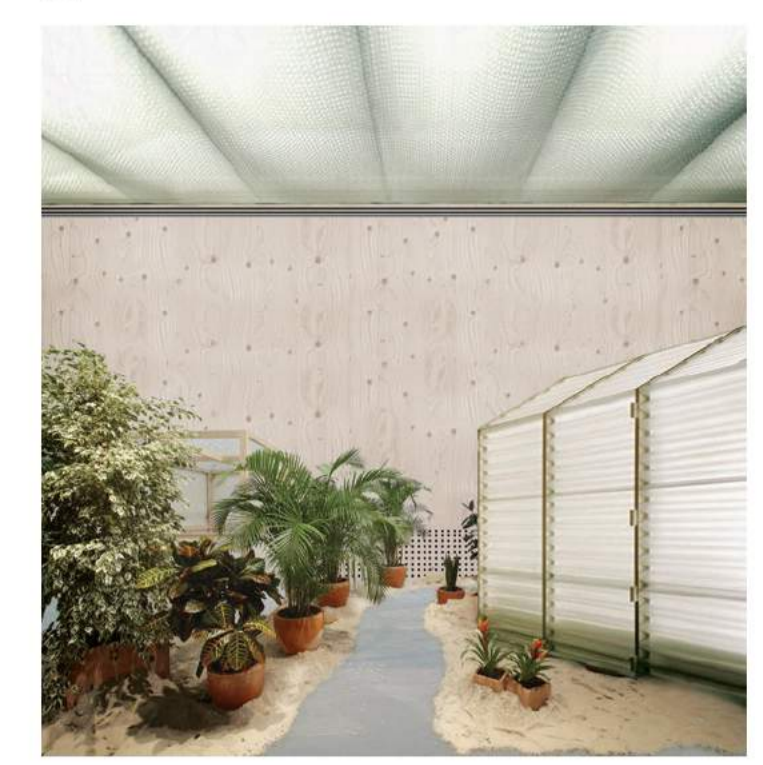
The West façade of the building completes the Tähtitorninvuoren Park. It opens directly to the park and it includes a new square designed as a stage for the amphitheatre-like geometry of the park already identified in Knut Forsberg's original design from 1868. Thus, the façade, that provides an urban elevation to Laivasillankatu, also doubles as a second entrance to the museum, sculpture garden and stage for the park, making the suggested bridge unnecessary.



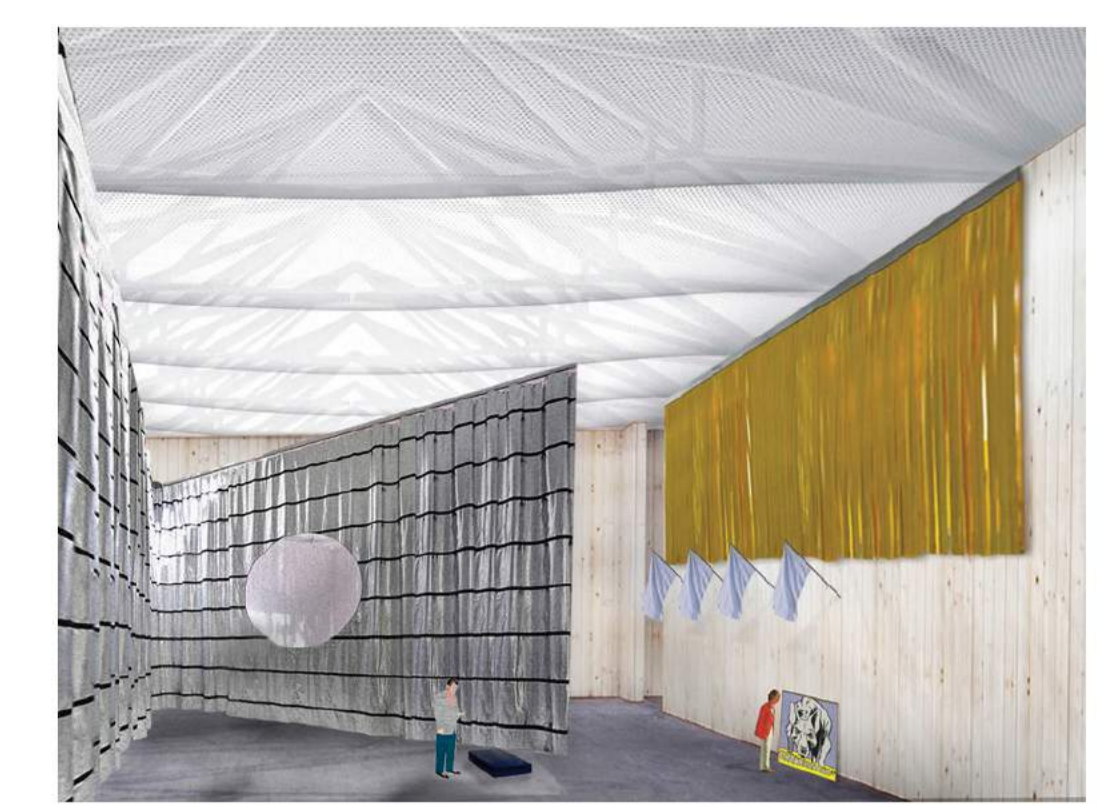
1. Behind the Curtain (Visitor Services)



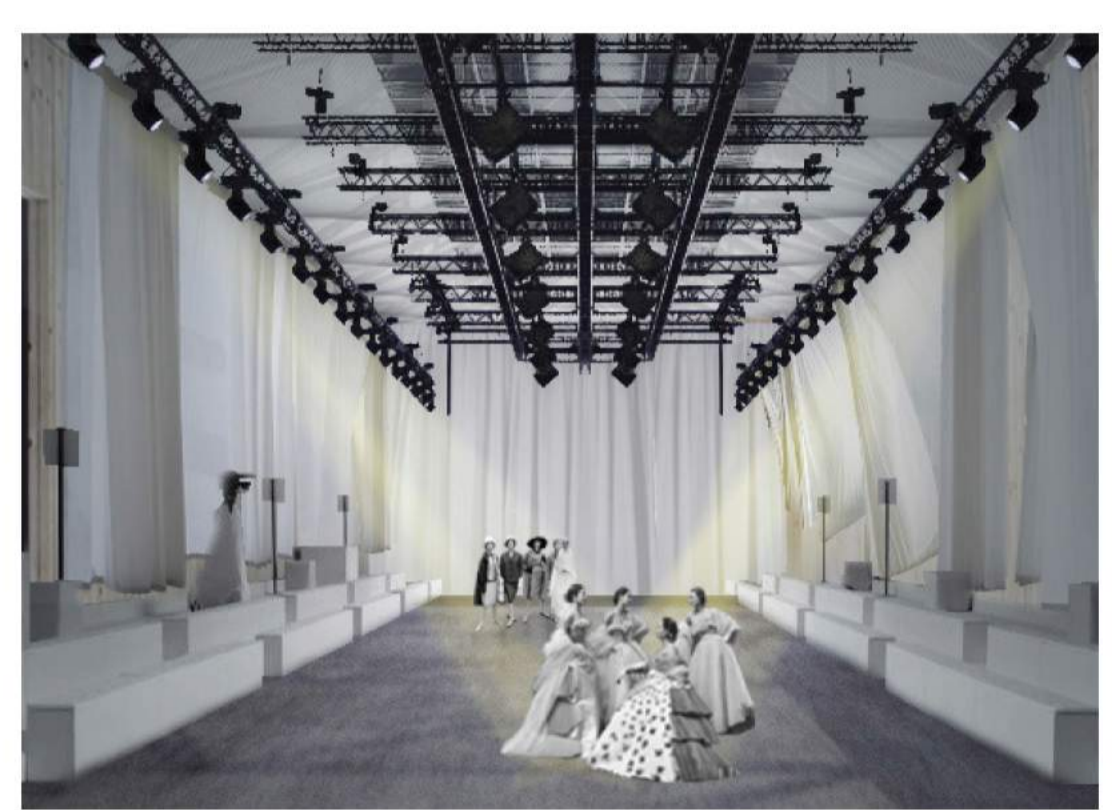
2. Cooking with a View (Dinning)



3. Potted Plants (Retail)



4. Occupied Lobby (Multi-Purpose Zone)



5. Fashion in the LAB (Multifunction Classroom/Laboratory)



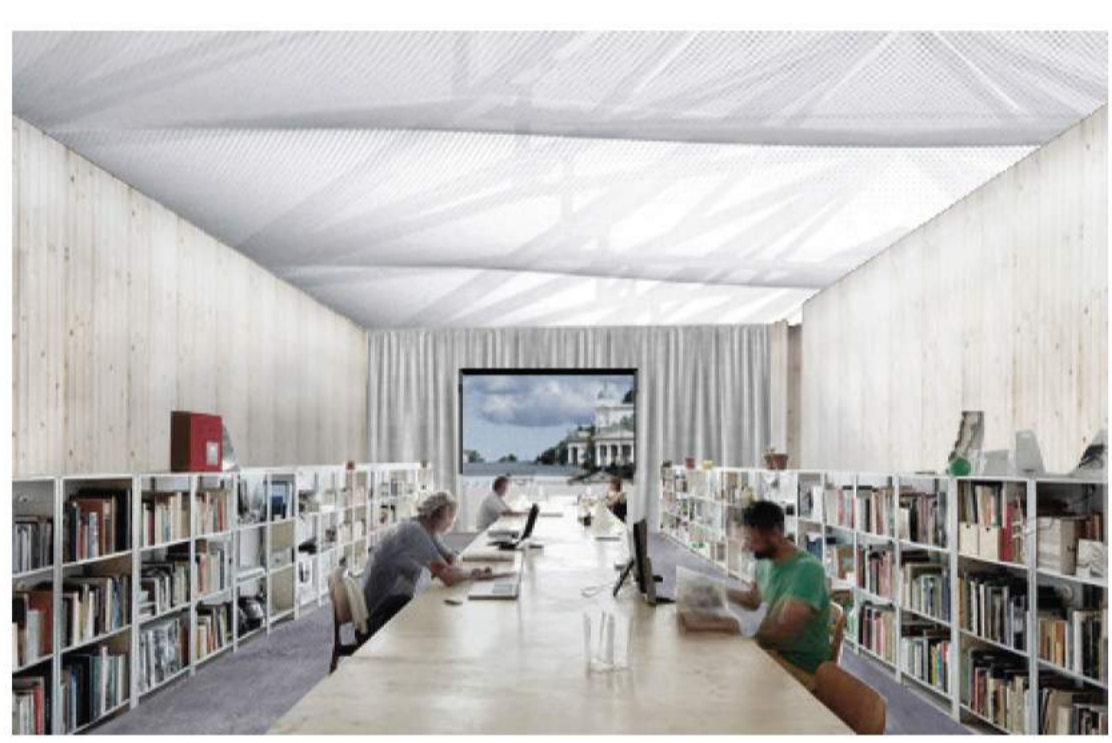
6. The Auditorium as Grand Stair (Programs and Events)



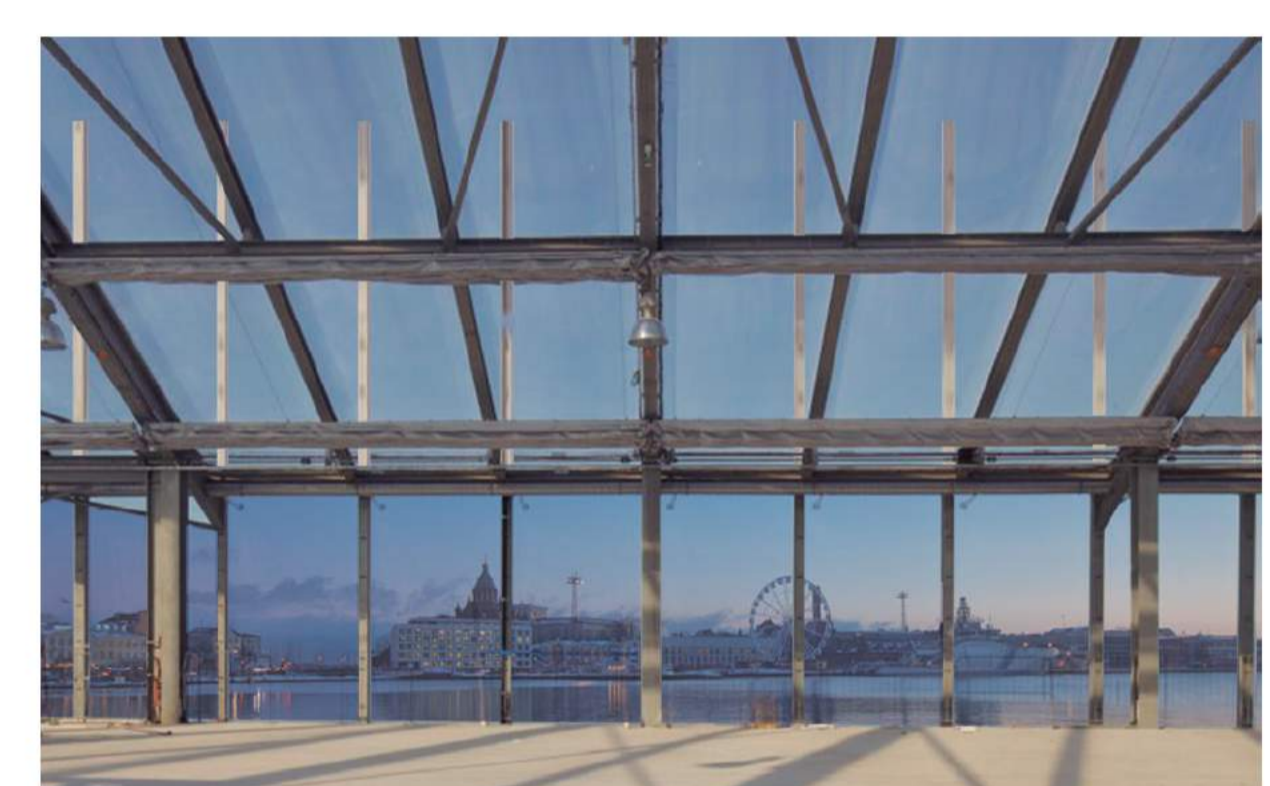
7. Art Loading Dock (Collections and Storage Management)



8. Exhibition Galleries



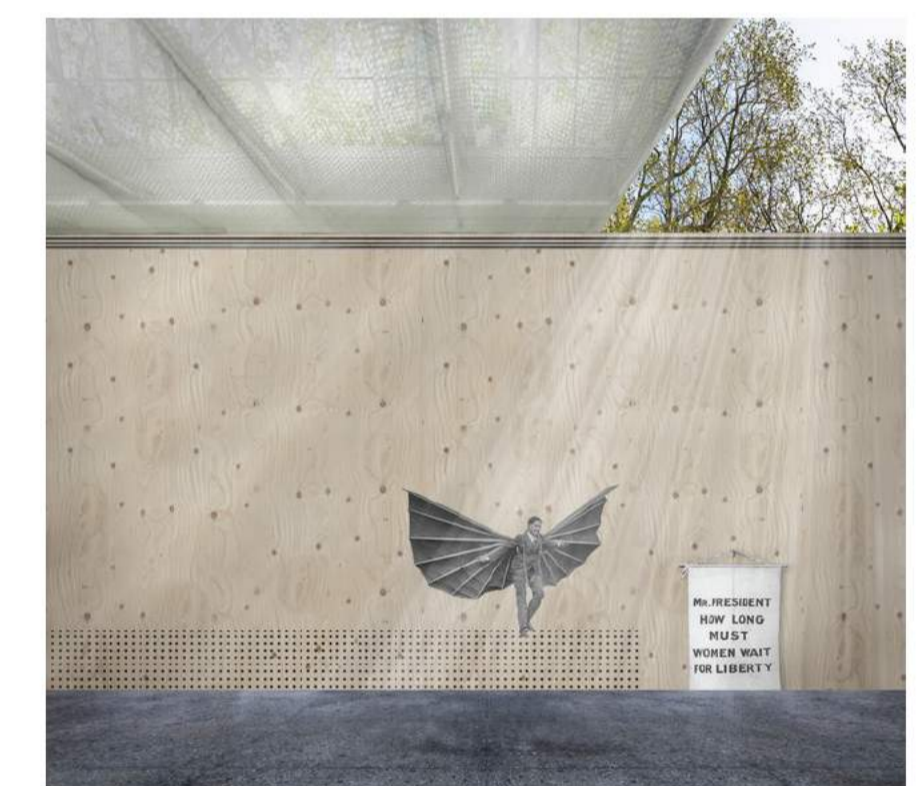
9. Office



10. Appropriated Walkway



11. Landscape of Art Works (Exhibition Galleries)



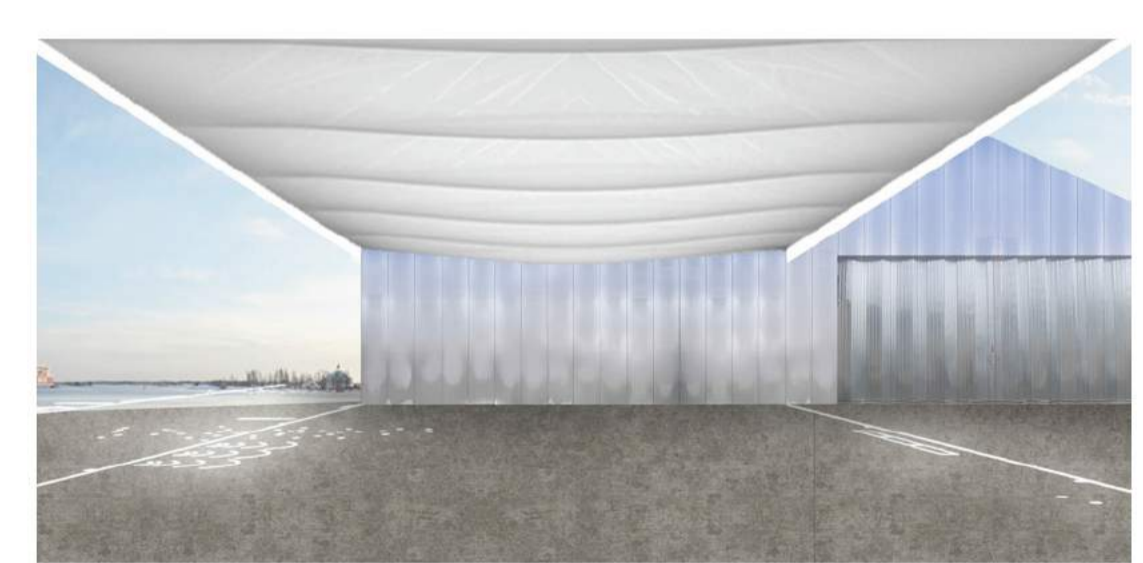
12. The ceiling Opens (Visitor Services)



13. Concatenation



14. Event in the open-air rooms seen Tähtitorninvuoren Park



15. Roof over the Square



16. Eteläsatama Double Exposed

Learning from Guggenheims

The Guggenheim Foundation exhibits its collection in three types of atmospheres. The reference collection's 20th Century avant-garde masterpieces require highly controlled atmospheres of 22°C ±2.5°C, with relative humidity of 51% ±5% and no natural light, conditions achieved in the Annex Galleries in the Solomon R. Guggenheim Museum and the classical galleries in the second floor of the Guggenheim Bilbao, and similar to the domestic rooms of the Peggy Guggenheim Collection in Venice. The atrium of Wright's Building, the Serra Gallery in Bilbao or the former Guggenheim Las Vegas main gallery regularly host site specific installations, performances and large scale (usually post-1960s) pieces that accept more relaxed atmospheric conditions, interaction with the public and less controlled natural light. Finally, the recent BMW Guggenheim Lab, has engaged natural atmospheres in New York, Berlin and Mumbai exploring collective events, participatory processes and relational art. *47 Rooms* expands these three conditions adding a range of interior climates.

Programmatic Weather Report

The Visitor Services are located in the first room. Three translucent curtains divide its 400m² in thermally differentiated areas. Warmer than the 16° ± 4°C overall temperature, they host the coat check, the security control and the ticketing and information desk. The entry room opens into a wintergarden-like chamber populated potted plants to control the humidity levels that define comfort in a 18° ± 4°C environment. It includes a tempered greenhouse that doubles as a retail space. The restaurants are accessible from the entry room and, retail area and directly from the square overlooking Eteläsatama bay. Its interior weather fluctuates between 18° and 20° ± 4°C and share a secondary but direct connection to the exhibition galleries for special events and catering. The multi-purpose room follows the retail area and functions as the main lobby leading to the main galleries, the auditorium and the LAB. Its 20° ± 4°C and 20x20x8m dimensions make it perfect for site specific installations similar to those on the Atriums of other Guggenheim Museums. Following the LAB inflates the area surface assigned to the Multifunctional Classroom/Laboratory to 400m² to function as extension of the main lobby or back stage of the Auditorium stage. When operating as a separate room, it replicates the technical section configuration of the Guggenheim LAB, and it can be reconfigured using curtains and the media infrastructure located in the floating sub-structure.

The Auditorium connects the sequence of rooms with the second level and Tähtitorninvuoren Park entry door. When not in use it functions as a grand stair whose roof could be opened during the warm season. The main Galleries, with constant conditions of 22°C ±2.5°C, and relative humidity of 51% ±5% are accessible from the lobby, the LAB, the auditorium, and exceptionally from the restaurant. They are a column-free 120 by 32m space 12m high in its centre that follows the profile of the existing Makasiini Terminal increasing its floor-to ceiling space. On the other side of the galleries, the appropriated walkway that served the Saint Petersburg Ferries becomes a two-level gallery. Besides an exceptional exhibition galleries, the lower level function as circulation when the main galleries are subdivided in independent exhibitions, while the top level becomes an outstanding observatory to Helsinki's skyline and the Eteläsatama bay. Three outdoor rooms complete the building: the square that opens to the Tähtitorninvuoren Park that function as a stage for the natural amphitheatre and gets covered when the roof of the Auditorium opens; the square North of the site designed to host 1:1 architectural pieces, host open-air exhibitions, performances, screenings, and events; and the vastest of all, the Eteläsatama bay that thanks to the glass façade of the appropriated walkway becomes a city-sized exhibition room.