

A SPACE OF INSPIRATION

REVITALIZING ARCHITECTURE
IN THE NETHERLANDS

Conclusion of Research

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This thesis explores the conditions necessary for creating spaces that revitalize Dutch architecture by providing opportunities for upcoming architectural practices to experiment and exhibit their work. The central research question, “What are the conditions and strategies to create a space for revitalizing architecture in the Netherlands, while providing opportunities for younger architectural practices?” was addressed through a comparative case study analysis. This analysis examined existing models of similar spaces, including international biennales, museum parks, and creative districts, to identify key design considerations.

Sub-questions

The first sub-question, “What examples of such spaces exist?” led to the selection of six diverse case studies: the Venice Biennale Architettura, the Bienal de São Paulo, Insel Hombroich, Parc de la Villette, Hembrug, and Keilekwartier. These cases provided a basis for comparing different approaches to creating spaces for creative expression and public engagement.

The second sub-question, “What can we learn from these spaces, in terms of scale & context, spatial configuration & movement, atmosphere, adaptability & flexibility, user involvement, and threats?” revealed several crucial lessons. Regarding scale and context, the analysis highlighted the importance of responding to the surrounding environment and designing spaces appropriate for their intended program. Concerning spatial configuration and movement, the cases demonstrated the impact of building layout, circulation strategies, and the integration of indoor and outdoor spaces on user experience and interaction. The analysis of atmosphere emphasized the role of daylighting, materiality, color, and the creation of diverse spatial experiences. In terms of adaptability and flexibility, the cases showcased various strategies, including open floor plans, movable partitions, and flexible infrastructure, to accommodate changing needs. The analysis of user involvement highlighted the importance of defining the target audience, developing relevant programming, and creating opportunities for user contribution and community engagement. These diverse strategies offer a valuable toolkit for designing a dynamic and engaging space for architectural innovation. Finally, the threats analysis emphasized the critical need for sustainable and inclusive design strategies that proactively address potential negative impacts like environmental harm, exclusivity, lack of innovation, and gentrification, while ensuring accessibility and engagement for diverse communities.

The third sub-question, “What are the conditions for a suitable urban site for the new design?” led to the selection of a site within Rotterdam’s M4H district. Rotterdam’s diverse architectural background and its reputation as a city open to experimentation make it a fitting location. The

M4H district, currently undergoing redevelopment, offers several key advantages. Its industrial heritage provides opportunities for adaptive reuse and material circulation. The presence of construction material suppliers like Buurman and Milieupark Delfshaven further supports experimentation with materials. Excellent connectivity through public transport, car, bike, and future boat connections ensures accessibility. The Galileipark in Rotterdam’s M4H district, prioritized for manufacturing and innovation in the area’s masterplan, aligns with the vision for a space revitalizing Dutch architecture and younger architectural practices. The presence of currently unused, structurally significant buildings like the Ferro dome (a municipal monument) and the Ferro factory offers a unique opportunity to integrate existing heritage into the new design.

Research question

The research question: “What are the conditions and strategies to create a space for revitalizing architecture in the Netherlands, while providing opportunities for younger architectural practices?” resulted in a list of 16 design conditions among 6 categories. This list is presented below.

SCALE & CONTEXT

SPATIAL CONFIGURATION & MOVEMENT

ATMOSPHERE

DC-1. The area for the design should fit well with the program of experimenting and exhibiting.

DC-2. The site and designed spaces should be appropriately scaled for the intended program, providing sufficient space for experimentation, exhibition, and interaction.

DC-3. The site for the design should be well connected to an urban area

DC-4. The location of the design should be in close proximity to harvest locations (locations that provide reused materials).

DC-5. Visitors experience should be able to experience the exhibition in various ways through different configuration of spaces and scales.

DC-6. The terrain of the design should encourage active interaction as well as quiet contemplation, creating different atmospheres to stimulate the senses of the visitors.

DC-7. The movement of the visitors on the terrain and in the larger pavilion should be subtly managed by the design, creating an explorative feeling, while still managing visitors flow.

DC-8. The project should leverage its surroundings to create a unique atmosphere.

DC-9. The design should offer spaces with optimal conditions for exhibiting work.

DC-10. The design should allow flexible and multipurpose spaces.

DC-11. Demountable exhibition spaces should be integrated that can be relocated.

DC-12. Strategies should be implemented for engaging the target audience (architectural professionals, architecture students, art lovers, etc.) into a new exhibition experience, while also engaging with the local community, ensuring that the project benefits the surrounding area.

DC-13. A bottom-up approach should be implemented to involve users in the decision-making of the terrain.

DC-14. The design should incorporate strategies to lower the carbon footprint of the construction of the terrain as well as the temporary exhibition works.

DC-15. The design should incorporate strategies to counteract the gentrification on its terrain caused by the redevelopment of the area.

DC-16. The terrain should offer a diverse and inclusive environment without being too formulaic and repetitive. Parc de la Villette

With these design conditions, the next list of design strategies is set up:

DS-1. Design in an area that is labelled as urban park, port area, or industrial area.

DS-2. Design on a site comparable with the terrain of the Giardini della Biennale (appr. 6 hectares), but with the possibility to expand or shrink with future developments.

DS-3. Chose a site for the design that is accessible by various types of transport like car, bike and public transport (tram/bus/watertaxi)

DS-4. Provide on-site amenities such as parking or bike storage.

DS-5. Chose an area for the design that is in redevelopment, so vacant buildings or construction parts from this area can be used for experimentation and be integrated in the design.

DS-6. Chose a location for the design that is closely located near companies that involve construction materials, like material banks and recycling centres.

DS-7. Integrate smaller pavilions as well as a larger (central) pavilion with multiple spaces in the design.

DS-8. Integrate a park within the configuration of pavilions to create a natural setting for the architects and visitors to wander through.

DS-9. Implement multiple 'focal points', by integrating functions as a cafe, playground or bookstore, to regulate visitor flow and allowing preferred areas to be quieter than others.

DS-10. Create seamless transitions between indoor and outdoor spaces by integrating open facades and canopies to encourage interaction

DS-11. Create multiple routes within the larger pavilion by the placement of staircases, ramps, and elevators.

DS-12. Hide pavilions behind natural elements only revealing parts when visitors move through the park subtly guiding them over the terrain.

DS-13. Integrate alignment strategies and clear entrances to guide visitors to the entrance of the pavilions.

DS-14. Integrate possibilities to arrive by boat or via bridges to add an extra layer to the experience of entering the terrain.

DS-15. Integrate skylights, louvres, and shading devices to controlling the incoming daylight, creating comfortable and well-lit spaces while avoiding glare and unwanted heat gain.

DS-16. Use white and light-grey coloured materials in the exhibition spaces to create an atmosphere that enhances the presentation of architectural work.

DS-17. Design a combination of open floor plans and easily divisible spaces using movable partitions, like curtains and panels.

DS-18. Integrate adaptable workspaces that can be customized to individual needs, involving modular furniture, movable partitions, and flexible service connections.

DS-19. Implement 'loose fit' principles by creating large, open spaces with minimal fixed obstacles allowing change of program in future developments.

DS-20. Design oversized circulation spaces that can serve multiple functions, such as informal meeting areas or exhibition spaces.

DS-21. Cluster fixed service spaces (cores) to maximize flexibility in other areas.

DS-22. Design with dry joints and modular systems.

DS-23. Design with reused materials.

DS-24. Integrate functions on the terrain that engage with the local community, like a cafe, playground, skatepark, greenhouse, etc.

DS-25. Allow architectural practices on the terrain to contribute to the site's development and

programming by open calls for proposals, community workshops, and collaborative design projects.

DS-26. Give the architectural practices collective ownership, allowing them to set rules regarding the increasement of rent prices.

DS-27. All projects exhibited are constructed on location to avoid transport emissions.

DS-28. Most of the materials used for the experimentation and for the construction of the projects for the exhibition are harvested in the local area to minimize transport emissions.

DS-29. Make the terrain a collective ownership in which agreements ensure the rent prices to not rise with the development of the area.

DS-30. Create the possibility to invite projects from external architectural practices at the biennial by having 'artist-in-residences'.

DS-31. Create possibilities to engage local residents in the development of the terrain, like open brainstorm sessions and practical workshops.

Design question

This thesis has examined various case studies to identify key design conditions and strategies for what kind of creative space can help to revitalise Dutch architecture, in relation to scale & context, spatial configuration & movement, atmosphere, adaptability & flexibility, user involvement, and threats. The resulting design envisions a dynamic park landscape featuring a central pavilion encircled by smaller, adaptable pavilions. This park will encompass the majority of the Galileipark, integrating with some existing industrial elements. Only essential infrastructure (such as the high-voltage substation and heating station) and prominent landmarks (like the chimney and water tanks) will be retained, preserving traces of the site's industrial past.

Given the soil contamination prevalent throughout the M4H district, including the Galileipark, conventional, energy-intensive soil remediation will be replaced with phytoremediation. Specific plants, chosen for their ability to absorb and neutralize contaminants, will be strategically planted across the site, naturally creating a park-like environment over time.

The park's size will evolve dynamically. While portions of the land will be gradually allocated for new construction projects over the decades, the park will simultaneously expand by

incorporating newly demolished industrial sites. During this interim period, the park will serve as an active experimentation ground for architectural practices. Their 1:1 scale experimental models will become the small, flexible pavilions, each fulfilling a public function such as a café, study space, playground, sports field, or greenhouse. These structures will be designed for easy relocation, allowing them to adapt to the changing boundaries of the park.

The construction materials for these experimental pavilions will be sourced through reuse and harvesting from demolition projects or temporary installations. The Ferro factory will be repurposed as the central "material pavilion," providing both storage for these reclaimed materials and an indoor workshop environment for the architectural practices to develop their projects. A bridge will connect the material pavilion directly to the waterway, facilitating efficient material transportation via water.

The Ferro dome will be transformed into the central pavilion, housing the offices of the architectural practices. These offices will be designed with adaptability in mind, offering flexible layouts to suit the evolving needs of the practices. The central pavilion will also contain various flexible spaces, including presentation rooms, meeting rooms, study areas, and exhibition spaces.

Every two years, the architectural practices will host a biennial event within this dynamic setting. This event will serve as a platform to present their innovative projects and ideas to a global audience, fostering inspiration and promoting their work.

