

APRON CITY (APPENDIX)

A NEW FORM OF STRUCTURALISM

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APPENDIX A (DEFINITIONS)

A-1.0 Aesthetics principle (applied to user stories)

The subject of aesthetics as in philosophy is old; nevertheless, Immanuel Kant was the first philosopher to define the sense of beauty as a distinct and autonomous engagement of the human mind similar to moral and scientific knowledge.

It is necessary to characterise the philosophy of mind from empirical psychology. Psychology examines facts, while philosophy analyses concepts. To start with the main old system design aim and most important 'Functionalism'. The aspect of functionality has many forms. Its most popular form is the aesthetic theory that true beauty in architecture consists of adapting form to function. Unparallel to the idea of functionality is the sculpturist view of architecture. It involves the idea that one can somehow judge the beauty of a thing in the abstract without knowing what kind of thing it is. Like a presenting piece of art from stone or any sculpture, a box, a fruit or even an animal, expect the viewer/user to judge its beautification before knowing what it is. Beauty is a powerful thing, a product of solving problems correctly. These are no excellent architecture formulated via a general aesthetics system. The Essences of Architecture, according to Scruton, is 5. I believe they are 7, in which technology influence also counts. There are many ways of studying architecture from the engineer, the historian, the critic, and the client. Each method seems to propose its favoured concepts [Scruton, 1979, p. 37].

1- functionalism: most effective form, functionalism purports not to deny the priority of aesthetic values in architecture [Scruton, 1979, p. 38]

2-Space: Spatial relations and the play of interlocking voids are the actual objects of architectural experiences [Scruton, 1979, p. 43].

3- "Kunstgeschichte" or the history of arts [Scruton, 1979, p.52]. This aspect takes place where architecture is considered an expression of its time, and unsuccessful work is nearly inexpressive.

4- "Kunstwollen": is another Teutonic concept - the kunstwollen, the characteristics and boundaries of an epoch's aesthetics, and the intrinsic creative drive [Bangle, 2015].

5- Proportion: Variousness of architectural standards. Some of these aspects are according to the six principles of design in Vitruvius, such as order (ordinatio), arrangement (dispositio), harmony or rhythm(eurythmia), symmetry (symmetria), propriety (decor) and economy (distributio).

5-The aesthetics of sustainability: The capitalist modern architecture reputation aspects from iconographic, technical ability, audacity, and gargantuan representation are shifting towards implementing the sustainable and environmental architecture. Sustainability has aesthetic values that become more realised and connects with the users. The methods to reduce, analyse, and reform consumption adds a new dimension to the aesthetics of architecture.

6-The aesthetics of density: The sense of power generated through belonging to an incomparably large multitude. An individual's awareness that he was one among an uncountable number of others and that he lived together with these in a huge city of gigantic buildings sufficed for the power of the crowd to pass into that individual.

Density is not a condition exclusively associated with a metropolis; it is at the origin of every form of human settlement.

We obtain a sense of fittingness from the connection between mathematics and architecture. In contemplating the relations between numbers and the links of architectural parts, we derive a similar satisfaction and sense of the intrinsic order of things. The analogy between mathematical and architectural harmony enables us to use the former to understand, envisage, and manipulate the latter [Scruton, 1979, 70]. The mathematics introduced many possibilities inspired by nature (Biomimicry) or extensive spatial theories in spatial design studies based on a mathematical approach.

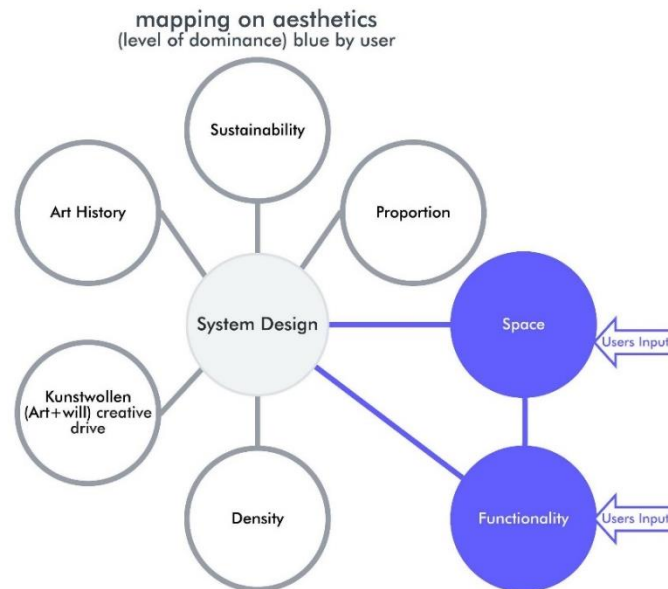


Figure A-1. The graph illustrates the mapping of aesthetics in design; architects except functionality and space dominate all factors. Control does not mean ownership. Levels reveal dominance and dependence. The higher configuration level dominates the lower level (Habraken,2000).

A-2.0 Empirical design method (way to collect the participant's impact on design)

The first port of call is to study some examples as a case study of architects using system design (modularity) architecture configurations (System design concept).

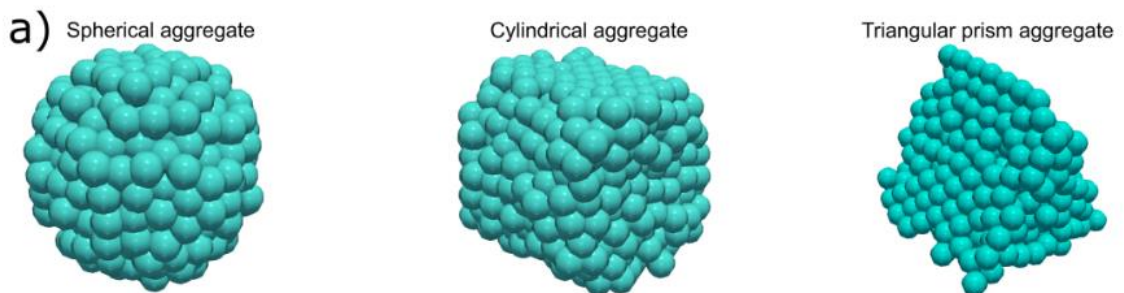
This process in product development is called empiricism which involves making decisions based on experience; it is the opposite of 'rationalism', which uses reasoning and logic to predict and plan what should happen(© Scaled Agile, Inc.). Three examples will be used as case studies. The Centraal Beheer in Apeldoorn by Herman Herzberger, Burgerweeshuis on the “IJsbaanpad” in Amsterdam by Aldo van Eyck and Kijk-Kubus by Pet Bloom in Rotterdam. These are among the most well-known examples in the Netherlands that employ system design through modularity and Structuralism. In Centraal Beheer, as it is a derelict building, the user stories will be collected from previous research conducted in T.U. Delft and the architect's interview is mapping the aesthetic principles. The three cases will be examined by their design aesthetic and will consider the space and functionality of users' input (User stories) to develop a better design approach. Since functionality is an essential part of the aesthetics in housing, it is also important to collect user stories and observe how the essence of architecture aesthetics was addressed in the case studies. This collection process will be used in the Kubus in Rotterdam as it is the only housing with people living in it. The analysis will evaluate the seven aspects and map them to the buildings. The feedback is measurable so that it can be quantified. Two types of metrics are vanity and actionable metrics. Things related to the design case are action and, if not related directly, vanity. The research aims to apply the product development method to answer the questions.

Table 25.3 MoSCoW priorities

Priority with respect to the timebox*	Description
Must have	Must be satisfied because without it, either the output from the timebox will not work or it is not worth delivering the output
Should have	Should be satisfied because it is highly desirable or very important, but it is not a must have
Could have	Could be satisfied because it is still desirable or important, but not as much as a should have
Won't have for now	Won't be satisfied before the deadline

A-3.0 Mathematical Discrete aggregation (WFC) wave function collapse.

Aggregation is the process of combining several numerical values into a single representative value, and an aggregation function performs this operation. These functions arise wherever aggregating information is essential: applied and pure mathematics (probability, statistics, decision theory, functional equations), operations research, computer science, and many applied fields (economics and finance, pattern recognition and image processing, data fusion, etc.). This is a comprehensive, rigorous and self-contained exposition of aggregation functions [Grabisch, 2009]. Theodora Vardouli from M.I.T. [Vardouli, 2010] believes computer-aided participatory design is similar to the reflections of the Architecture Machine and the idea of a user-oriented method that overtook the Modernist generalisations of the "modular" and produced significant movements. This movement envisioned the city as a sizeable non-defining infrastructure fostering desire and difference, allowing individuals to develop their hypotheses.



Example of research conducted in the standard aggregate shapes in soil [Barbosa, Munkholm, Gerke, Kirill, 2022]

We generate the design models. We do not have to put too much effort into creating precise, detailed models. Today's computational power can significantly improve our design model and propagate the "Voxelised" or "point cloud" we have set in the design based on the rules.

A-4.0 Open Building

According to the Open Building manifesto website, an open building will engage prospective occupants in the preliminary design phase giving a sense of ownership and considering climate design and circularity.

According to Habraken, the infill is changeable. The key objective is the freedom to configure this infill. An open Building extends the lifespan of a building structure, separating the structure from the infill similarly to the structuralist architecture.

A closed life cycle of materials uses renewable materials such as timber and bamboo in a secure system.

In Stewart Brand's book "How Buildings Learn What happens after they built", He talked about Frank Duffy's idea of the unit of analysis in the "The six Elements of Frank Duffy" and the use of the building through the time where time, in his opinion, is the essence of a fundamental design problem (initially 4):

Site: It is the geographical setting, the Urban Location. The site is eternal.

Structure: The foundation and load-bearing elements are difficult and expensive to change, so people do not. These are the building. Structural life ranges from 30 to 300 years (but few buildings make it past 60, for other reasons)

Skin: Exterior surface now changes every 20 years.

Services: Are working guts of the building communication wiring, electrical wiring, plumbing, sprinkler system, HVAC and moving parts like elevators & escalators. They wear out 7 to 15 years. Many buildings are demolished early if their outdated systems are deeply embedded to replace them quickly.

Space Plan: Interior layout- change every three years. Exceptionally at housing, we may wait 30 years.

Stuff: Furniture, appliances, kitchen, lamps, hairbrushes (twice around daily to monthly)

According to [Habraken, 2000, p.6], an adaptive building has to allow slippage between the differently-paced system of site, structure, skin, services, space plan, and stuff. The building growing & changing through the built environment resemble an organism more than an artefact in constant changes. Therefore, the built environment is indeed organic.

APPENDIX B (CASE STUDIES ANALYSIS)

B-1.0 Case Study One: Centraal Beheer

Project Name: Centraal Beheer

Area : 25.000m²

Function: Open Building-Schools Offices & Housing

Architect: Herman Hetzberger

Year of completion: 1972

Location: Apeldoorn, The Netherlands

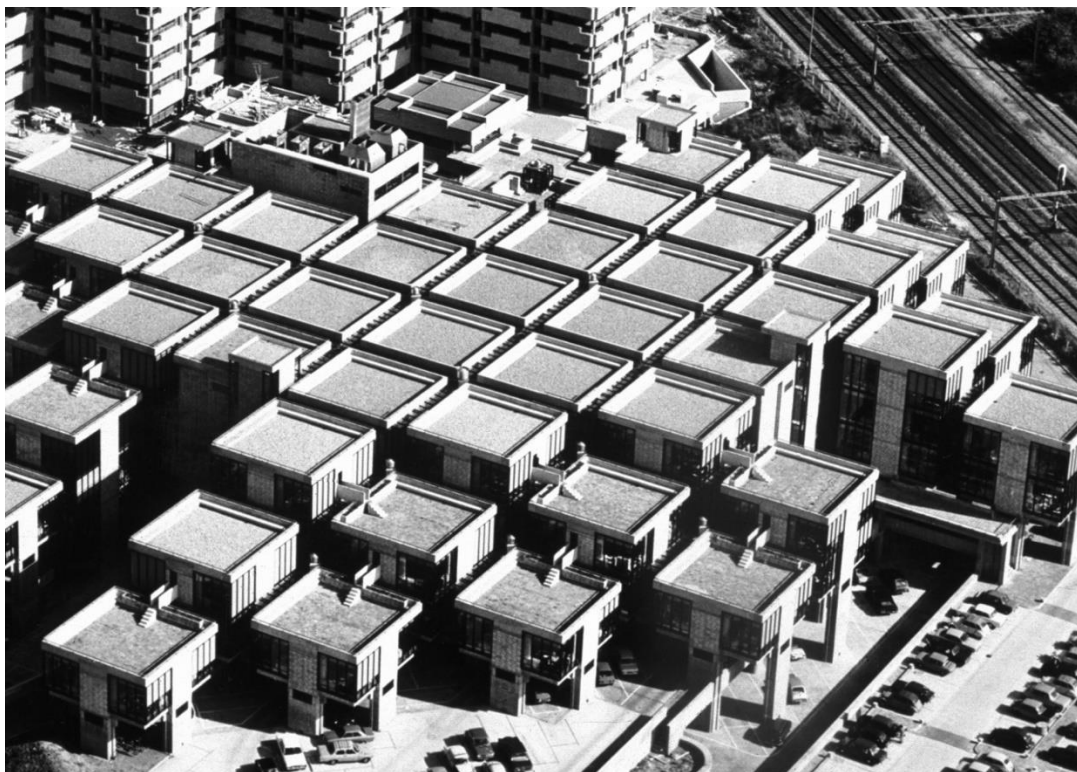
Cost: Unknown

Design Master Plan: Original plan - Move station - Centraal Beheer as the new entrance of the city centre. The Masterplan not realise Building became isolated from its surrounding by the railway, Prins "willem-alexandelaan" and "Koning stadhouderlaan". Vision towards the city blocked by "plakhoed" building.

Programme: 4 quadrants Offices Street Garage

Building components: Street Offices Garage

9 x 9 Workspaces 3 x 3 Raw finishing



Picture B-1: Cerntraal beheer from above, source AHH.nl.

5.1.1 Design aesthetics analysis (based on the analytical study, Architect Interview, and relevant references)

Proportion

They are designed from the inside out with equal-sized spatial units grouped following the gridiron principle. 9 x 9 Workspaces 3 x 3 Raw finishing. These spatial units, though interlinked by bridges, ' the building has no identification marks on the outside or inside. It results in a disorienting structure. This effect is caused when having no hierarchy in the building. However, the facade has a non-hierarchical and no clear back or front of the building. The primary beams of the construction divide the unit into nine equal parts.

Functionality

The original concept for the Centraal Beheer building involves the consistent application of a single repeated spatial unit of 9 x 9 meters as a basic building block this adaptable. The dimensions were chosen to accommodate all components of the programme. This freedom is summarised in own Herman's words "Freedom is being able to make your own choices from possibilities offered by the rules of play (such as those in Chess)." As Herman named it, "Open-ended architecture" is similar to "Open Building" by Frans van der Werf. However, the equal-size modular space had a downside related to the size of the structure, limiting the functionality and furnishing the space.

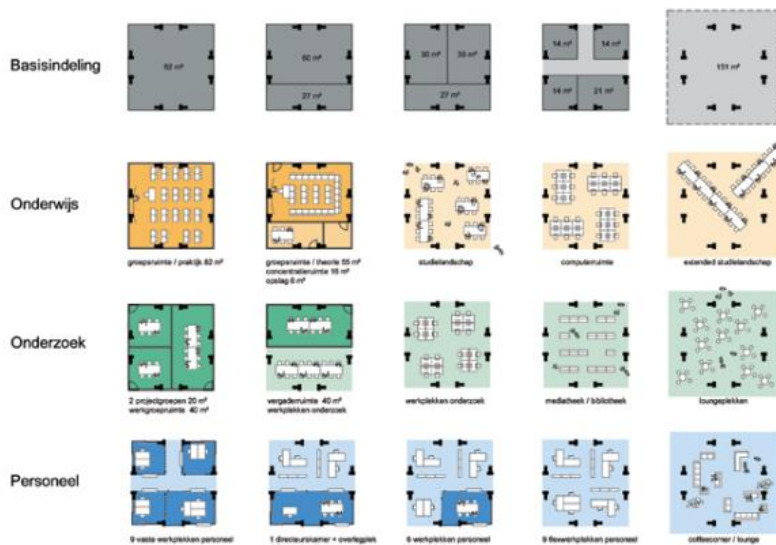


Figure B-2: different functions planned in the same modular elements (open building)

Kunstwollen (creative drive)

Designed from the inside out with the equal-sized spatial units grouped following the gridiron principle. These spatial units, though interlinked by bridges, ' the building has no identification marks on the outside or inside. It results in a disorienting building. This effect is caused when having no hierarchy in the building.

Space

The spatial experience of Centraal Beheer is unique. The design was intended to give freedom to the users to configure their own space and use their furniture. When the building was accomplished in 1972, the employees could have the opportunity to fill in their workspace changed to the domestic environment [Hertzberger, 2015, p.147].



Photo of Centraal Beheer, source A.H.H. website, the freedom of configuring individual space using own-set furniture

One of the limited spatial aspects in the design for the grid is that the structural elements divide the grid alongside the roof to limited modular space. Therefore, the spaces are limited to a square size. The entry to be in-between the structural grid is one of the aspects that limited the idea of open space adaptability to the redesign.

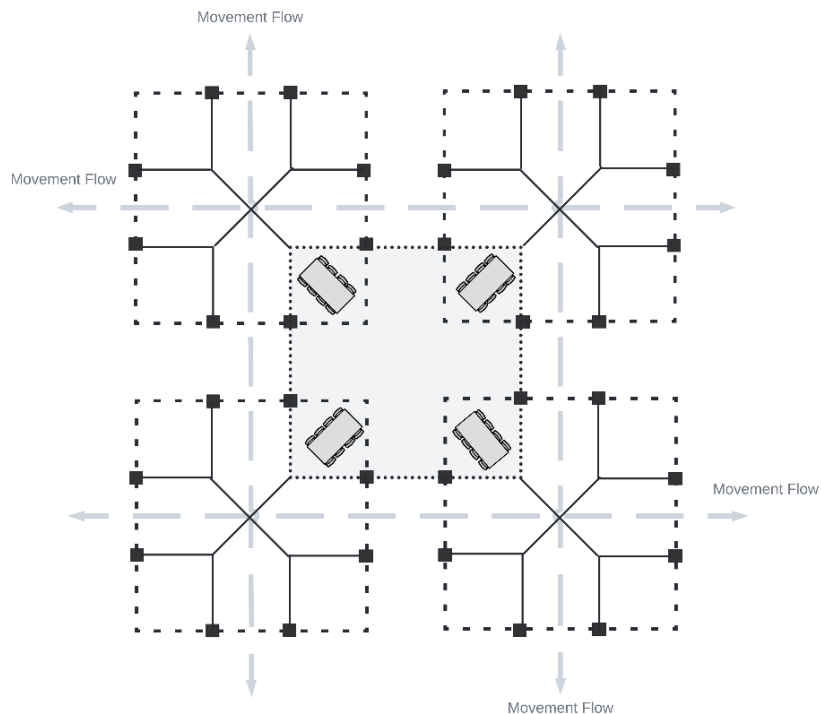


Figure B-3: Grid lines alongside the roof area for Centraal Beheer, source: Author, the freedom of open-ended idea is limited by the structure's flow. Source: author

Art History

Driving the design from modular units has its roots back in history. Herman described organising buildings in patterns in similar spatial units as visual representations as similar methods used in Islamic architectural patterns. The concept has evolved and was introduced simultaneously in the U.S.A. by Louis Kahn and Aldo van Eyck in the Netherlands. Classical Roman architecture drove the social space and roof design concept in meeting spaces in the building (as an interpretation of the impluvium). Following Structuralism, the building reconciled the social individual and created important examples of Dutch structuralist architecture.

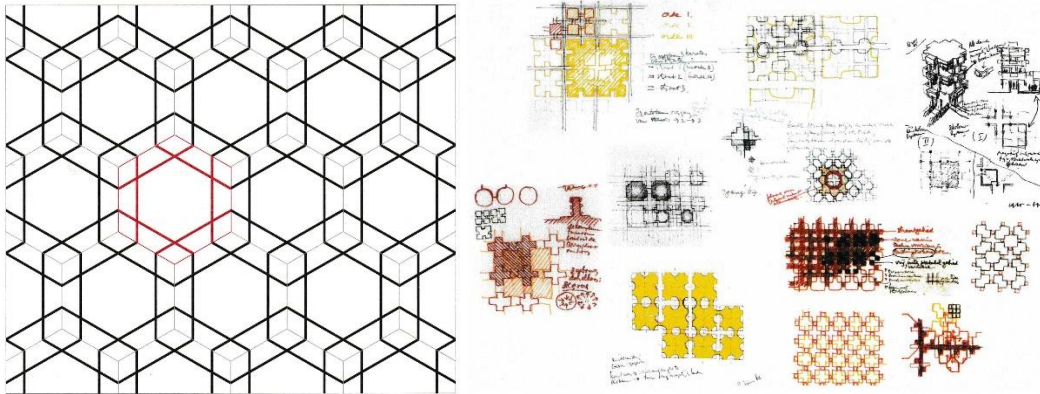


Figure B-4/5: The left drawing shows the pattern of Mustansiriya Madrasa patterns, 1227 AD source: Islamic Geometric Patterns, Eric Broug, Thames and Hudson. The right picture is spatial unit studies by Herman Hertzberger. Source: Structuralism, 2015, Hertzberger.

Sustainability

Open-ended architecture, or what we defined earlier empty building, is a concept of the influence of change in the structure. The structure is open enough to be influenced [Herman, 2000, p.8]. This would expand the lifespan of the building from a technical point of view. However, the building is abundant now, given that the changes needed to adapt new functions could be the reason for the more significant investments required. According to Hertzberger, the plans to turn the building into housing are active, and the development of final drawings is ongoing. The main aesthetic, sustainable idea is that the building approach is the aspect in which people are equal and constant (social sustainability).

B-1.2 Interview with Herman Hertzberger

The interview was conducted on April 28th 2022. He discussed with the architect his personal view about the building to create user stories driven by the experience of the design process followed in Centraal Beheer and the architects' thoughts. The meeting covers the re-use concept, open-ended architecture space, offices and housing changing functionality—specific questions about the building itself and Structuralism as an idea, not style.

https://www.youtube.com/watch?v=qBngI_Vjdw0

What is remarkable we can notice in the interview is that architecture, according to Hertzberger, is never meant to be static and a product of its time. The more the architects have insight into the future, the better the result turns on the design and its programme. Technical issues connected to design changes can always be issues for future adaptation, similar to modular design or using (building kit) as Herman named. The adaptability faced technical issues related to disassembly that were not implemented at the time of the building though it was possible to have such an idea. We can notice from the interview how building construction and design are complicated processes that are not worth losing when we demolish the building after time. The sense of losing energy and effort and repeating the same process is not a choice any society would seek to renew existing buildings.

B-2.0 Case Study two: kubus – The cube houses

Project Name: Cube Houses (Kubuswoningen)

Area : 6,000 m²

gross floor area (total) : 20,000 m²

gross floor area cube house: 100 m²

cube volume: 422 m³

Function: Residential, commercial, shops

Architect: Piet Blom

Year of completion: mid-1984

Location: Rotterdam, The Netherlands

Cost: Unknown

Design Master Plan: The Rotterdam Blaak is located in the city's centre. The area is built around the "oud haven" and connects the old port area with the city centre and has had its history since 1977. The Oude Haven was the mouth of the Rotterdam river and thus the Rotterdam's first natural harbour. The majority of the Blaak area was built (in 1977) by municipality urban plans. The main aim is to create housing over the continuous bridge that was supposed to connect residents and pedestrians from downtown to the Market Square on the city's Old Harbor. If all went according to plan, it would create a long interior street lined with shops and a vibrant new gateway to the water.

Programme: cube houses: 38

business premises (promenade): 7 small (18m²) and 7 larger (70m²)

business space ("super cube"): 1050 m²

school building: 2200 m²

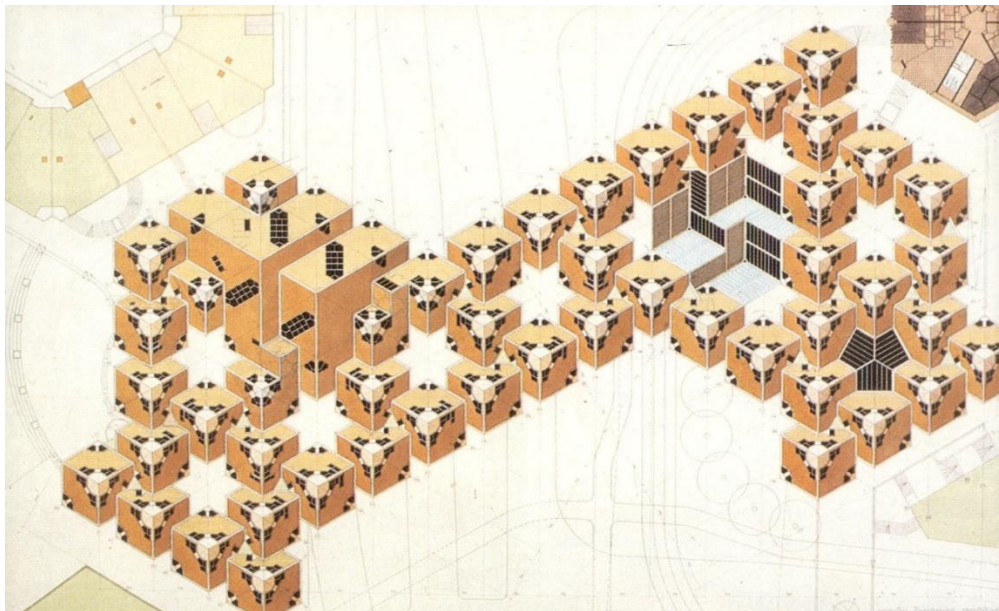


Figure B-6: Cube houses drawings by Piet Blom. Source Piet Blom (Amersfoort, the Netherlands: Jaap Hengeveld Publications, 2007)

B-2.1 Design aesthetics analysis site residence questioner (functionality, proportion, space) and relevant references

5.2.1.1 Proportion, Functionality, Space

Case Study Cube Houses (Building rating system) Space, function:



Nederland



English

The Site questionnaire was based on four categories: Context, Interface, Massing, and Pathways. Please refer to appendix A. The score of each type matched the needs so far. This shows that the project aesthetics level related to users is not in balance with the other aesthetic elements such as creative drive and art history. It started as a bold approach to urban housing development at that time. This high-density residential model is cubic and packed in a cluster pixelated concrete compound and was meant to provide affordable housing alongside shops to serve the pedestrian coming in/out of the market hall, which shows that it was not a success. The questioner shows the level of pathway lay at the low-mid expectation of the users.

Participants Number	Age Group	Country lived the most	Type of visit	years of living in the building	Context	Massing	Interface	Pathway
1	25 to 34	Germany	Only visitor	NA	42	26	18	29
2	25 to 34	Switzerland	Only visitor	NA	41	30	30	24
3	25 to 34	Switzerland	Only visitor	NA	40	25	31	18
4	25 to 34	Slovakia	Only visitor	NA	36	24	31	26
5	35 to 44	Switzerland	Only visitor	NA	46	22	37	35
6	25 to 34	Saudi Arabia	Only visitor		33	16	30	21
7					0	0	0	0
8					0	0	0	0
9					0	0	0	0
10					0	0	0	0
11					0	0	0	0
12					0	0	0	0
13					0	0	0	0
14					0	0	0	0
15					238	143	177	153
Total AVG					40	24	30	26
%					71%	57%	53%	52%
Total Score in All four categories					119			
% of the score average					58%			

Table 1-B: Mapping the questionnaire Data in details analysis (ongoing expected to reach 25 participants)

Highest Score in Context	Highest Score in Massing	Highest Score in Interface	Highest Score in Pathway	Highest Score in Total of all four categories
56	42	56	49	203

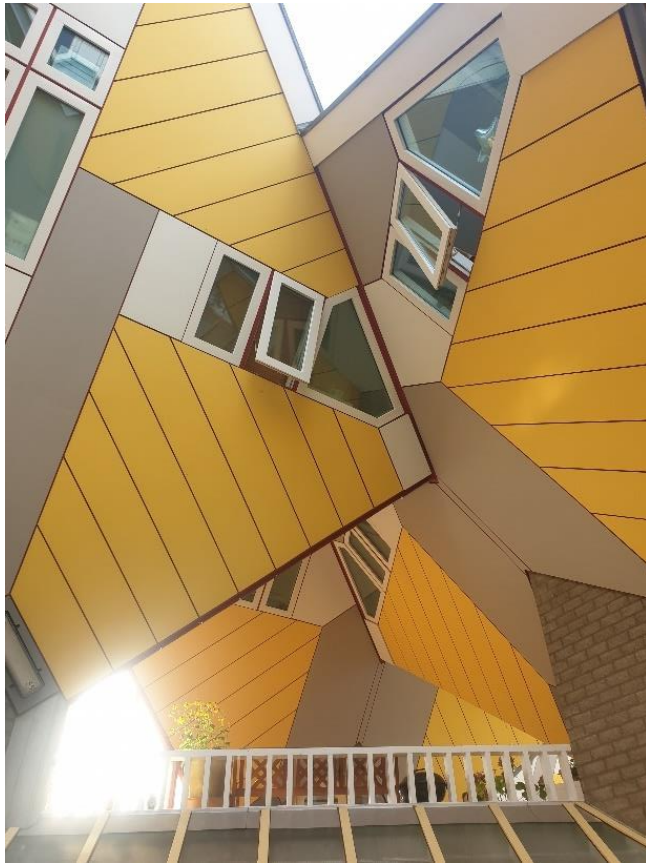
Needs Improve	0-40
Meet The needs	41-70
Exceeds the needs	71-90

Table 2-B: (results and findings), Mapping the outcomes

The results show a lack of connection between the subdivided parts of the building that appear to have a specific function, and the process of each element is easy to identify. The visitors could not identify what each function and where to go.

B-2.1.2 Kunstwollen (creative drive)

Piet Blom, who trained initially as a carpenter, aimed to design a new housing typology in Rotterdam. The design is driven by modular cubic shapes that give a unique identity to the project—his unusual-looking structures. Together with Aldo van Eyck and Herman Hertzberger, it makes him one of the most important representatives of Dutch Structuralism. The Structuralism art drive comes from two aspects; the "*aesthetics of numbers*" is also called "*configurative architecture*" or "*architecture of configurations*". As we did earlier, the idea is that architecture revolves about improving people's habitats can be questioned by the users.



Close photo of Cube houses in Rotterdam: the wave structure of housing affects the face and spaces, creating a different level of observation for the users in the structure. Source: Author



B-2.1.4 Sustainability

Internal photos of Cubes House in Rotterdam show that the daylight level coming from the openings in the house was not appropriate enough and needed additional artificial lighting. Photo Source: By Author 2022.

The social connection between the inner and outer spaces (public) was influential in improving people's social relationships with their surroundings. However, the connection did not work as expected.

One of the most critical elements of the building was the façade that resulted from the design. In 1998 a renovation of roof and window parts changed zinc work glazing and windows.

The light was not effectively reaching the interior as the sun would not direct the elevation due to the façade orientation to the ground. This was also a significant issue. A recent renovation in the Super cubes aimed to change the discontinuity between floors, the tedious vertical progress and the darkness caused by the "inconvenient middle floor". The new proposal inserted the atrium to bring natural light through the house and rationalise the circulation; this eventually reduced the gross floor area of the structure.

B-2.1.5 (CUBE HOUSE EVALUATION FORM, SPACE FUNCTIONALITY, PROPORTION)

Liner logic of online evaluation questionnaire (see below) on of Housing Cubes in Rotterdam



**Case Studies Evolution
Form**

Address _____ Date _____

Number of households _____ Age _____ Years of living in building _____

Scoring _____

EXCEEDS 71-90	MEETS 41-70	NEEDS IMPROVEMENT 0-40
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Context	highly inappropriate	highly appropriate	Point scored
1. How well does the building suit the pattern of the surrounding streets?	0	7	-
2. How well does the scale of the building suit the site it sits on?	0	7	-
3. How well does the scale of the building suit the scale of the surrounding buildings?	0	7	-
4. How well does the scale suit the character of the neighborhood?	0	7	-
5. Do the public and private areas relate well to one another?	0	7	-
6. Do the land uses adjacent to the building seem to fit harmoniously with the building?	0	7	-
7. Does the type of building and its intended use fit well with the type and uses of adjacent buildings?	0	7	-
8. Does the appearance of the building fit in well with the type of buildings surrounding	0	7	-

Average Score (total/8)

Massing	highly inappropriate	highly appropriate	Point scored
1. Concentrate on the subdivision of the building's parts as viewed from the outside, Do the parts integrate well with each other and form an effective and pleasing appearance?	0	7	-
2. Do the subdivided parts of the building appear to have a specific function? Is the function of each part easy to identify?	0	7	-
3. Is it clear as to what various subdivisions of the building might mean to visitors? Would a visitor know where to go on entering the building?	0	7	-
4. Are the various parts of the building planned carefully in relation to one another and to the characteristics of the site?	0	7	-
5. Is there sufficient relationship between the parts of the building for it to appear as one unified structure?	0	7	-
6. Is there enough variation in the structural parts and massing to provide interest and variety?	0	7	-

Total Average Score (total/6)

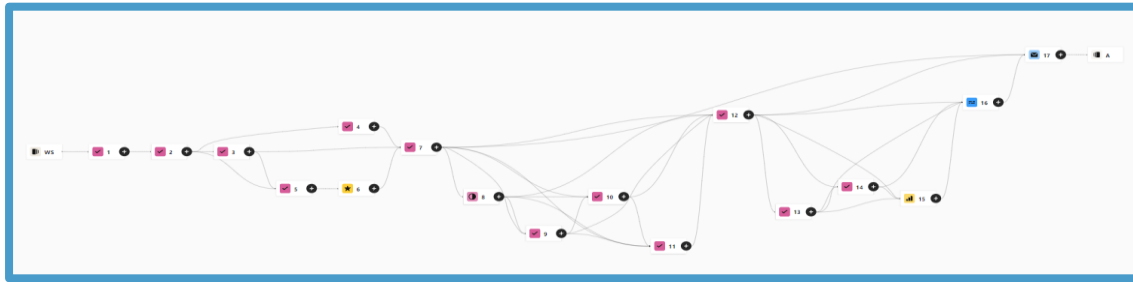
Interface	highly inappropriate	highly appropriate	Point scored
1. How clearly or effectively does the exterior of the building indicate its interior function(s)?	0	7	-
2. How effectively does the inside of the building connect with the outside of the building? Are the connections appropriate and functional?	0	7	-
3. Are the exits and entrances easily accessible?	0	7	-
4. Are the various openings related to thoughtful planning of the interior? (Consider entry of light, view, privacy, noise, heat, glare, atmosphere, etc.)	0	7	-
5. Are the exits appropriate in regard to safety?	0	7	-
6. When you move from the exterior of the building to the interior by means of the main entrance, is the experience pleasant, interesting, or special in any way?	0	7	-
7. Are the clues to what is public and what is private space clear for the visitors?	0	7	-
8. Have the designers, in your opinion, handled the problem of interface well in In their design of this building	0	7	-
Average Score (total/8)	<input type="text"/>		

pathways	highly inappropriate	highly appropriate	Point scored
1. Are sufficient routes, pathways, streets, and passageways provided to and around the building?	0	7	-
2. How effectively do the routes link the building to the surrounding buildings or structures?	0	7	-
3. What are the flow patterns of traffic or people? Are there busy periods, quiet periods, one-way flows, regular movement patterns, traffic jams? Are the routes arranged to consider these factors?	0	7	-
4. How effective are the nodes (meeting points) for traffic around the building, and what happens there? 5. Do all the routes make sense? Are they understandable and convenient?	0	7	-
6. Are all the circulation rules within the building easily understood by newcomers, visitors, service people?	0	7	-
7. How well are the interior circulation routes marked? Are the markings clear and easily understood?	0	7	-
Average Score (total/7)	<input type="text"/>		

Special Notes (user stories) :

APPENDIX C (THE FUTURE OF MARINETERREIN AMSTERDAM)

the logic of the online User story collection questionnaire (see below).

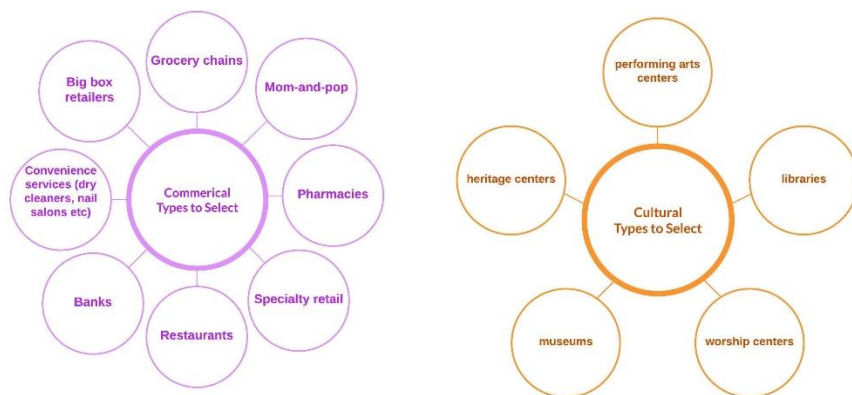


SCAN ME

User stories are collected by creating interactive questions that reveal certain groups of questions to different groups. The primary segmentation is based on the users as follows:

- Living in an area
- Working only
- Living and working
- Only visit

The prioritisation of the users' stories and their influence later on in the design (which will be combined in the set of rules in the computational workflow) will be based on the time of use for the area. The visit frequency and the use of the site functions.



Graph C-1: shows the program selection of cultural and commercial types that may be subject to change every three years.

As earlier mentioned, two types of user stories were applied. The first type was concluded from case studies where the other essential user stories data collection were from the context (resembling the Q-rater concept). The survey was done for the random sampling collection unit about the site programme and focal points. The form will collect people's needs and views about the site geography up to 50 people and does not show design rather than involving the current people connected to Marineterrein, as shown in the steps illustrated in the PSD below.

An Example of the impact on the program is the user selection of the type of function needed in the area, as shown in the following questions:

This will result in an open space program change and allow the users to select the program they would like to have in the future.

Additionally, the question about the favourite area to have a place to sit or have a picnic or swim will influence the design selection of the location of the creational activity and parks. For example, according to the map, the questioner shows that the current favourite area is located in B. The survey is ongoing, and a new Q rater, as Thijs Meijer mentioned, needs to be introduced to the method of development, which will be continued in the life span of project development and (never stop after).

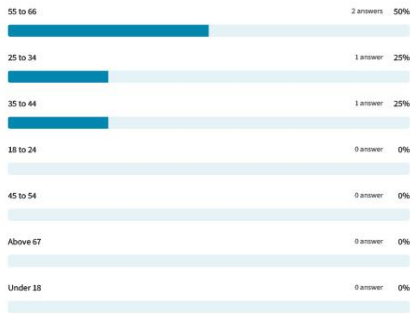


Future of the Marineterrein Amsterdam

4 replies

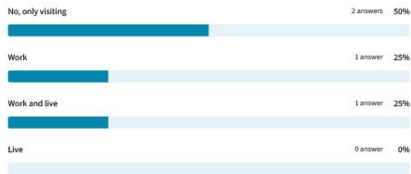
What is your age group?

4 of 4 people have answered this question



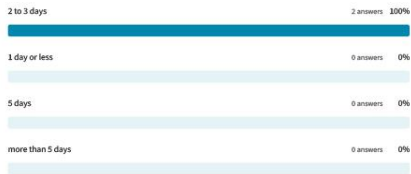
Do you work or live on the Marineterrein?

4 of 4 people have answered this question



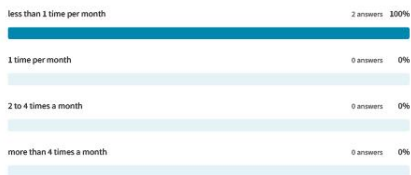
How many days of the week do you work nearby?

2 of 4 people have answered this question



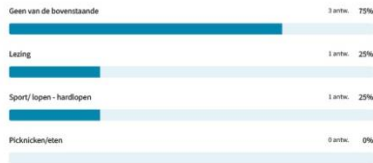
How often do you visit the Marineterrein?

2 of 4 people have answered this question



Wat doet u meestal in het park?

4 van 4 mensen hebben deze vraag beantwoord



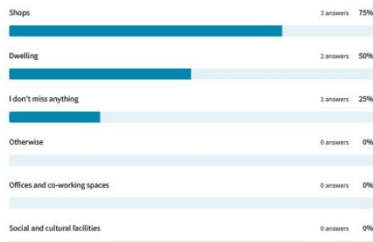
What do you do along the river?

1 of 4 people have answered this question



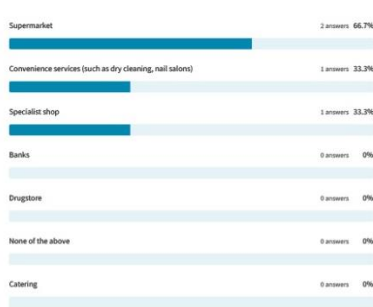
What are you missing at the Marineterrein?

4 of 4 people have answered this question



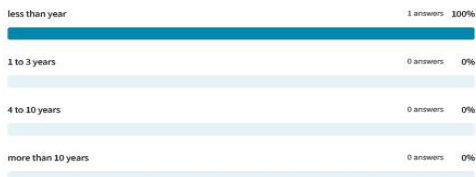
What kind of stores/commercial features are you missing?

3 of 4 people have answered this question



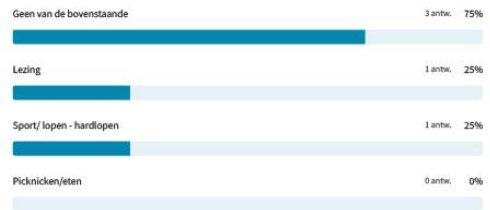
How long have you lived at the Marineterrein?

1 of 4 people have answered this question



Wat doet u meestal in het park?

4 van 4 mensen hebben deze vraag beantwoord



How many people, including yourself, live in your home?

1 of 4 people have answered this question

2.0 Average rating



What is/are your favourite place(s) on the Marineterrein?

4 of 4 people have answered this question



Do you swim or do you like water activities?

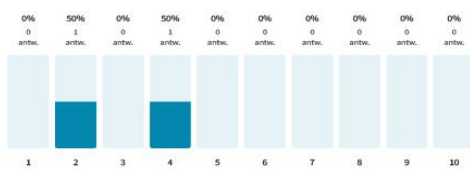
3 of 4 people have answered this question



Hoeveel kamers wilt u in uw nieuwe huis?

2 van 4 mensen hebben deze vraag beantwoord

3.0 Gemiddelde beoordeling



+Meer

APPENDIX D (MARINETERREIN HISTORY)

D-1.0 Site Analysis, Marineterrein Amsterdam History

Between 1655 - 1790 Amsterdam is the largest port in the world. Trading and commodities are filled in the harbour; Ships were discovering lands and conquering uncharted waters. The Eastern Islands were created around 1650 (Oosterdok, which became an industrial area later in the 19th century). This is where the city's new shipyards come into being. In 1655, Kattenburg Island was founded by the Admiralty to construct warships.

The wall in the Kattenburgerstraat has its origins in 1642 when the first row of piles for the construction of the island of Kattenburg was driven into the south see part. The name came from the island name derived maybe from the architectural term for describing the hill with heavy artillery on it, so the relation of the name and function was meant for. [Jerzy Gawronski podcast with <https://www.marineterrein.nl/geschiedenis>]

Period 1790 – 1868: Around 1800 there was much unrest in the country. With the help of the French, the patriots overthrew the stadtholder's regime and established the Batavian Republic. There are wars, the work on the shipyard stalls, and poverty. In 1813, The Netherlands was liberated from French rule. King William I did a lot for shipping and improving the waterways. The 19th century Modern Naval Forces in Marineterrein arrived with armoured gunboats and fast, light cruisers, and the Dutch war fleet quickly became one of the most modern naval forces globally. In addition, the newest type of warship is appearing: the ram tower ship, or an iron steamship, equipped with a ram stern, armour and guns, set up in revolving turrets.



Amsterdam 1600

Amsterdam 1800

Amsterdam 1940

Figure D-1: Amsterdam maps through the history from 1600 to 1940. Sources google-History map.

In the mid-nineteenth century, it became clear: that armoured ships were the new future of maritime warfare. Once again, the yard's layout changes radically—this time through the switch from wood construction to iron processing. Carpenters make way for stokers and blacksmiths. Workshops with furnaces, rolling mills and foundries will be built.

The city got a different face in 1885 with the central station built in Amsterdam. The train wins over water transport. The Central Station is being made, and a railway embankment cuts off the Lands wharf from the open water. There are fewer and fewer ships bobbing in the Oosterdok.

The yard will soon close, and a completely different activity will occur in the buildings. 1915 the function of Marineterrein was established as logistic and technical defence ships to build more

administrative offices. At the end of the 19th century, the wireless telegraph was discovered and started rapidly changing the world. New techniques are devised, tested and improved for use in military shipping. A station will be built on the Marineterrein to allow contact with ships worldwide. With the arrival of wireless telegraphy, signaller (telegraph operator) training is introduced at the Marine Establishment Amsterdam. Shortly afterwards, the training courses for radio officers and non-commissioned officers follow. The telegraph operators practised at the Connection School, which would later become the Radio Service of the Navy in Amsterdam. These changes in function have changed the topology of the area. However, there was nothing stands still from this period. Some buildings were part of the area, such as the "De Olifant" tower crane and "Het Paleis" housing, which no longer exists.

Early 20th-century, large naval vessels had difficulty passing the locks and bridges toward the sea. The new Oosterdoksdiijk railway bridge (1915) has a narrow opening. The port becomes unreachable for large ships, and no more large ships can be built. The premises, therefore, closed in 1915. A different function came to Marineterrein: training courses, storage areas and barracks were built, turning the area's name into a new Establishment.

In 1917 the city was hit by famine. The people around the area robbed the potatoes from the army's supply ships while the police looked the other way. This riot resulted in 9 people killed and 114 injured and will go down in history as the Potato Riot. Later in 1940, the Second World War and the German army invaded Amsterdam. The Marineterrein Etablissement Amsterdam will become the German's centre of operation. In the 60s, Marineterrein beach along Prins Hendrikkade faced Oosterdoks, an industrial area with many junk floating in the water, and people could not swim there. The bridge "Mariniersbrug" connects the site in the southern part, created in 1935.

Period 1968-2015, The western part of the complex will be demolished in 1968 to construct the I.J. tunnel. The Royal Netherlands Navy is energetically building the Marineterrein Etablissement Amsterdam, becoming a training centre, recruitment and selection for the entire armed forces.



In 2014 Marineterrein's "The Land within the Walls" became accessible. This was the following step since the Defence gradually decided to leave the site In 2011. The defence recruitment and selection service will no longer remain. A new development plan for Marineterrein aims to increase the value of the area socially and economically.

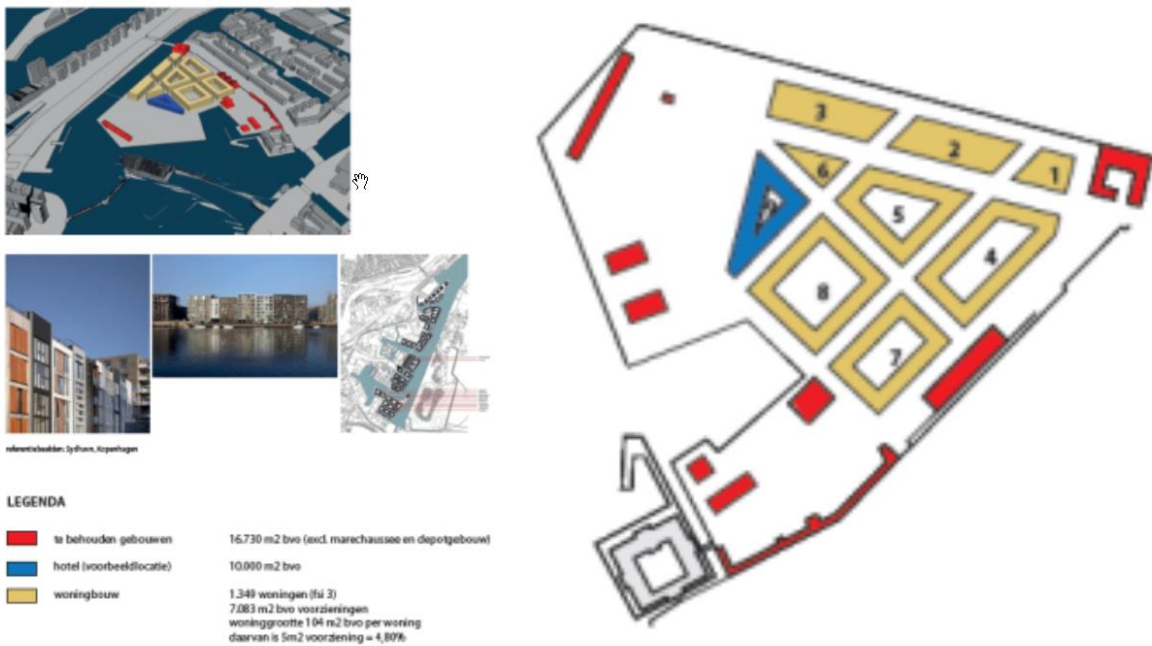
A new bridge, "Commandantsbrug", connects the north part of the area to Dijkgracht, used as a cycling and walking route, ending at Amsterdam Central station. Strengthen the connection between Marineterrein and the other city parts.



Panoramic Photo from A.M.S. institute side towards Maritime Museum and Nemo Museum. The centralisation of the area in the city is unique and provides excellent insight into the cityscape.

D-2.0 Proposed Master Plan by Amsterdam Municipality (2012):

The proposed master plan by the municipality of Amsterdam offers approximately 50% of the site to be used for events. A western half with a park and existing buildings makes room for different urban-oriented commercial and social functions (17,000m), and the eastern half has mainly a residential block. There is also a hotel with (10,000m²) included. The western quay wall side will be completely replaced and renovated to adapt to the new programme. The average height of the buildings in the residential areas will be six storeys—the number of homes is 1,350. In addition, 10,000 m² of the hotel is included in the development.



Amsterdam municipality master plan, red blocks are old buildings preserved, blue is a hotel, yellow are housing blocks. Source Amsterdam municipality website 2022.

**D-3.0 Meeting Thijs Meijer the Deputy / Process Manager of Bureau Marineterrein Amsterdam
June 2022:**

Video link to the interview: <https://youtu.be/cv6PPx98PkU>

According to Thijs, the past of Marineterrein that would influence the plans is summarised in 3 aspects:

- The area was, ever since the 17th century, been an innovation district, and many inventions made on this site
- Rich history (heavily loaded) but with few historic buildings and monuments.
- The use of the site for military education, training and schooling.

The wishes of the area to be with no/few cars in the area. The stage of development needs to be dynamic, and no "Fixed master plan". The method to create the needs to be organic transformation and stimulate the idea that there is no "End" master plan, which marks there is no finish and will never finish.