

## JAVA ISLAND AMSTERDAM

### Harbour renovation project

### 1991-2000

*Java Island is a narrow peninsula in the Eastern Harbour District of Amsterdam that was built in 1900 for the mooring of large ocean-going ships. When the port activities shifted westwards, this harbour became gradually redundant and Amsterdam decided to transform the Eastern Harbour District into a residential area.*

*Java Island is uniquely located right next to the old city centre. The plan by Sjoerd Soeters aims to create an ideal residential environment with the city's historic inner cordon of canals as a model and consists of a series of relatively small apartment buildings, designed by different architects. The buildings along the quays are of a size that relates to the large dimensions of the island and the water yet keeps the human scale in mind. The buildings are 27 meters wide and each is divided into five bays of 5.4 meters. Within this structure, and supervised by Sjoerd Soeters, the different architects produced a variety of dwelling types. The island was partitioned by creating four lateral, relatively narrow, canals at which individual canal houses were built. Behind the canal houses are palazzi: small apartment blocks that address public inner courtyards which each have a different design.*

**Client masterplan**  
DRO Amsterdam (Amsterdam's planning department)

**Developers and housing corporations**  
SFB/BPF-bouw  
Coöperatief Bouwbedrijf Moes  
Woningbouwvereniging Het Oosten  
Woningbouwvereniging ACOB

**Masterplanner**  
Sjoerd Soeters

**Supervision**  
Sjoerd Soeters (masterplanner)  
Ton Schaap (Amsterdam's planning department)  
Jan de Waal (Amsterdam's housing department)

**Architects apartment blocks**  
Cruz & Ortiz  
Kees Christiaanse  
Rudy Uytenhaak  
Sjoerd Soeters  
Karelse en Van der Meer  
Baneke Van der Hoeven  
Cees Nagelkerke  
Jo Crepain  
AWG  
Geurst & Schulze

**Architects canal houses**  
Gerard Kruunenberg  
Marlies Rohmer  
René van Zuuk  
Cobien Heuff  
Jos van Eldonk  
Dana Ponec  
Martine de Maeseneer  
Art Zaaier  
John Bosch







1 Brantasgracht



2 Javakade



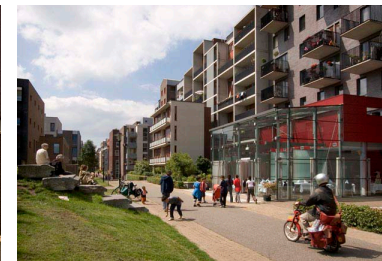
3 Javakade



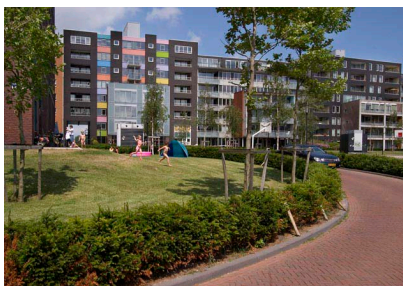
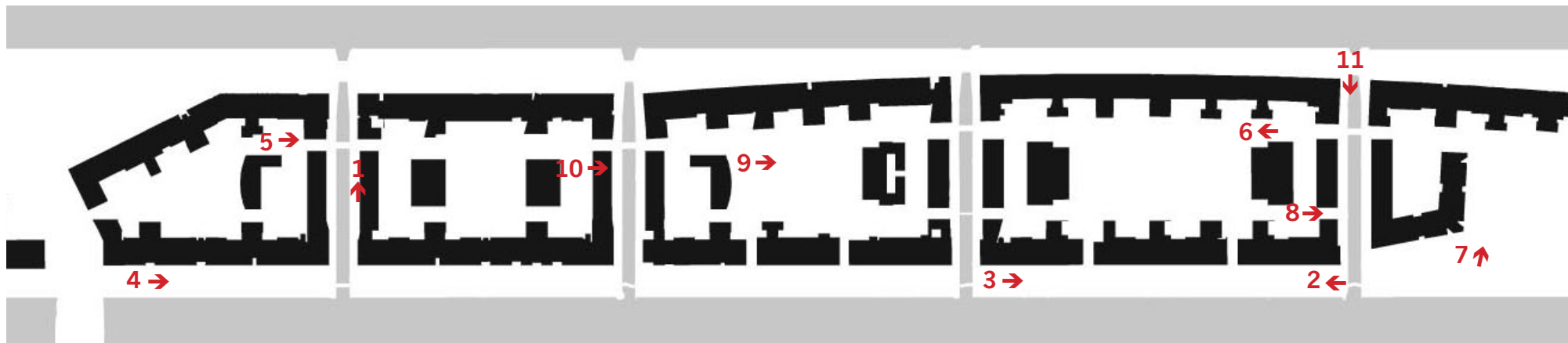
4 Javakade



5 Vanuit Tosarituin  
richting Imogrituin



6 Kratontuin



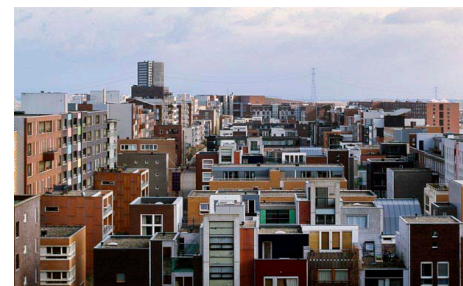
7 Bogortuin



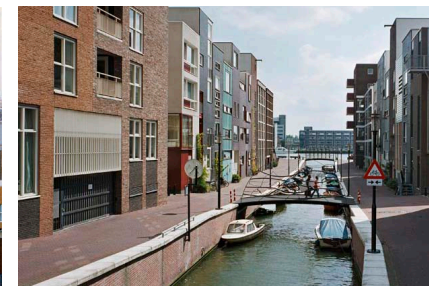
8 Seranggracht



9 Taman Sapituin



10 Java-eiland



11 Java-eiland





























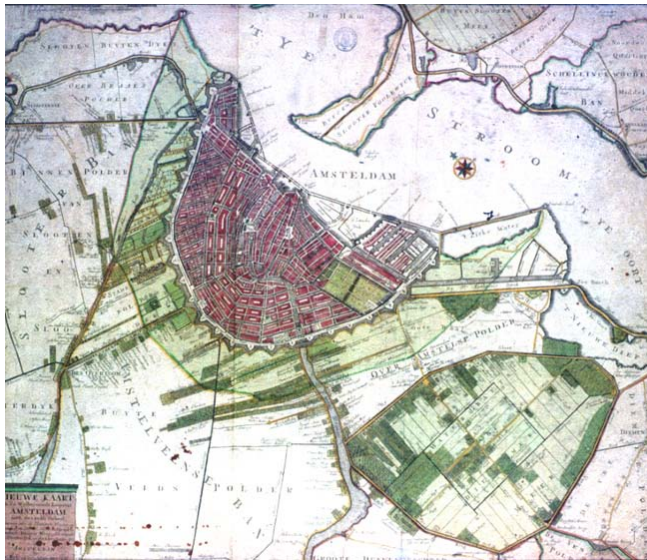


## History

In the seventeenth century, during the Golden Age of Amsterdam, the inner harbour waters called “het IJ” were salt and openly connected with the Zuider Zee (Southern Sea). The peninsula Volenwijck opposite the inner city is almost touching feminine Amsterdam, splitting the IJ waters in two wide bays. The waters were vast; many etches and paintings of that time depict a complete fleet of very large ships sailing on the IJ. These images might be a bit exaggerated, the fleet not only boasting national pride by enormous orange, white and blue republican flags, but also firing their canons as if in battle. By the end of the nineteenth century, the IJ waters were separated from the Zuider Zee to the East and narrowed by adding reclaimed land at the north side. From Amsterdam towards the west coast of Holland, much land on both sides of the IJ was gained upon the water. A narrow canal was dug through the dunes, making a direct access possible from the North Sea



1. Hendrick Conreelisz Vroom *The Harbour of Amsterdam* (1630)



2. Amsterdam 1770



3. Amsterdam late 19th century



4. The harbour in 1900

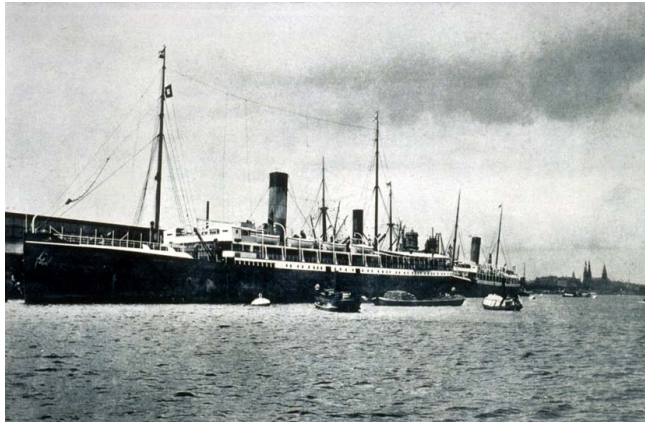


to Amsterdam. To bring the cargo to the international railroad system a new set of docks was built on the east side of the old city: the Eastern Docklands.

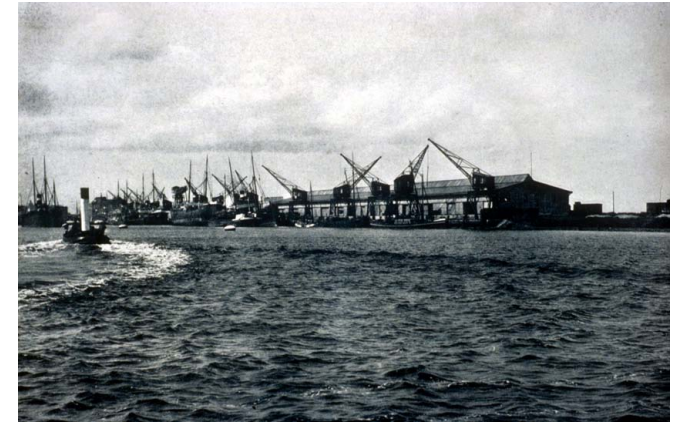
One of those newly built docks was Java Island, a narrow peninsula of 130 meters wide and 1200 meters long. The quays of the island, fourteen meters wide, were platforms, constructed on piling, to carry the load of the cranes. Between the quays the island was filled with the muddy soil of the harbour. Pictures of that period show both steam and sailing cargo boats moored aside the quays. Rows of cranes are ready to hoist the goods into warehouses or directly onto trains.

After the Second World War however, the Eastern Docklands became gradually redundant, when the port activities shifted westwards, where more space was available to receive the ever bigger and bigger freighters and sea-going vessels coming in from the West.

In the 1970's, the docklands were left empty. Buildings were invaded by squatters, houseboats were moored, caravan communities were cooking on open campfires on the quays, artists found atelier spaces in harbour office buildings, a restaurant occupied the prestigious interiors of a building where emigrants used to have their last minutes farewell with family and friends.



5. Java Island in use, early 20th century

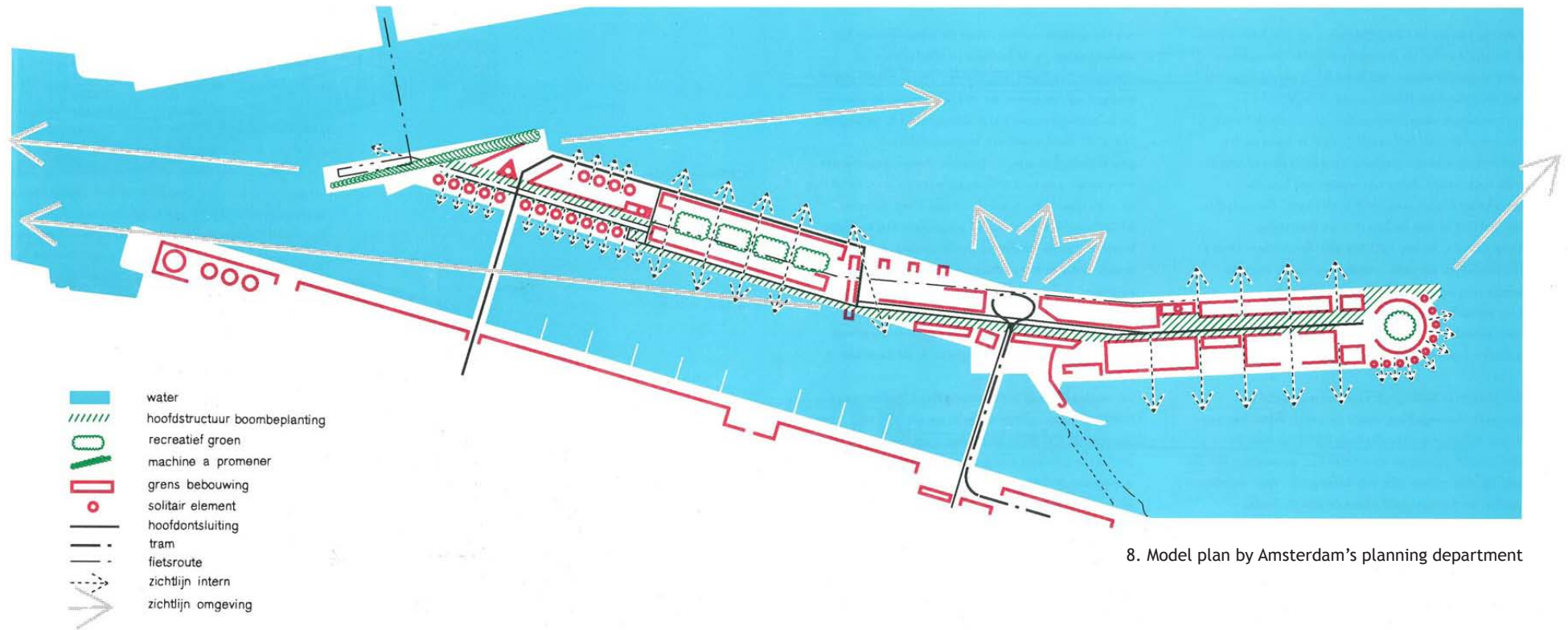


6. Java Island in use, early 20th century



7. Java Island in 1990





8. Model plan by Amsterdam's planning department

## The first plan

The municipality was woken up by a famous professor in social geography, Willem Heinemeijer, who advised them to transform the abandoned docklands into a residential area. At first a big overall plan for the whole IJ region was proposed, but eventually it was decided that smaller plans, each with their proper character might be a better idea. The Eastern Docklands were split up in separate approaches for KNSM Island, Java Island and Borneo

Spoorenburg. For the whole area a target of 100 units per hectare was set. The city's planning department, DRO, drew up a *stedebouwkundig programma van eisen* — a program of urban requirements — and produced a model plan. For Java Island, the map showed thoughts about view lines and building types. The idea was to build two new bridges to the island, so that the island was accessible from two ends, which was important for the emergency services. Over the eastern bridge a tramway gave access to the cen-

tral area between Java Island and KNSM Island; a tramway stop being a signal that you are within the city area of Amsterdam. From the tram roundabout there is a view north over the IJ waters, and also a wish for a long and framed view in the direction of the churches of the old city. Because there was no space on the narrow island for a wide central road, car traffic had to be routed via the north quay. Bicycle traffic was to be routed over a cycle path through the sheltered, less windy central area. In order to exploit the view over the



IJ to the full, long blocks lined the quays, both on the north and the south side. But this might become boring, so there was an urgent need for change of image: a line of towers along both quays was suggested, a linear building between them and then, near the other bridge, a more voluminous triangular pilot tower, dominating the 'Concorde' shaped nose of Java Island. DRO also produced the so called *Woonatlas*, the Atlas of Living, which described concepts of living. Starting point for this atlas was the observation that the combination of building for the housing market and the growing differentiation of locations and life styles needed new concepts of living: different people, different wishes. This resulted in a list of different types of dwellings, in which the focal point was the number of occupants and the degree of collectivity or individuality. At this point, DRO contracted four devel-

opers and housing corporations, who could also take part in the development of the urban plan, under the condition that they would contribute towards the costs. They were also asked to give input from their point of view as developers regarding the feasibility of the whole project. Three architectural offices were then invited to draw up a scheme based on this: Geurst and Schultze, Sjoerd Soeters and Rudy Uytenhaak. The scheme by Sjoerd Soeters was chosen to be executed, with additions from Uytenhaak and the city's planning department.

## The landscape

When we were boating around the island in an attempt to catch the *genius loci*, we came to realise that before thinking about the program of urban requirements, there was a strong need to know where we were. When we hoisted ourselves up onto the edge of the quay, exactly two meters above the always controlled water level of the IJ, we came to realise that from the quay we could see water all around, but that we couldn't relate to it. The water was an abstraction, the feeling of going to feed the ducks, the ultimate criterium for water in a residential environment, was completely lacking. We needed to address the problem of 'landscape' before even thinking of any housing solutions.

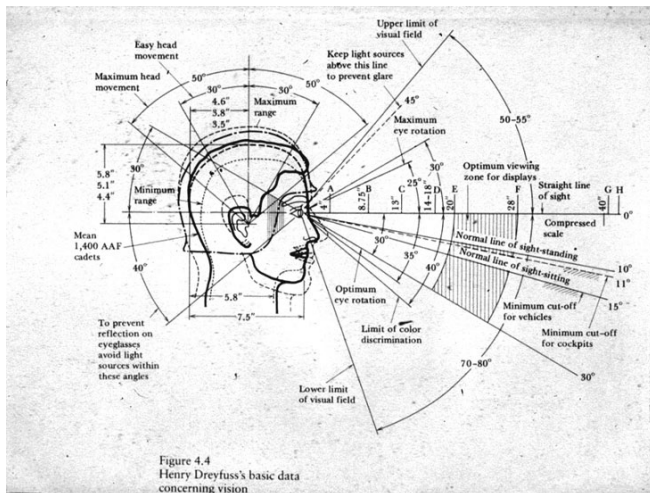


9-11. Java Island in 1991





In my compact hobby library I have a volume that proved to be useful in understanding the enigma of the Java Island landscape. In his book *The Visual and Spatial Structure of Landscapes*, Tadahiko Higuchi starts with pointing out how we experience landscapes from different eye levels. According to Henry Dreyfuss' basic scheme we look in a flat landscape to the horizon and our 'normal line of sight standing' is directed 10 degrees under the horizontal. Higuchi's interpretation of this line, the angle of depression, is that the point where this line touches ground is more or less decisive for our experience of 'here' or 'there', nearby- or faraway-ness. The loss of the horizon in hilly landscapes disturbs our experience and shatters the exactitude of our judgment of distance in landscapes: we seem to be able to pick



12. Henry Dreyfuss' basic scheme

up with our hand that little village that we see down in the valley. When standing on the edge of a cliff, where the edge is 'here' and the water over the edge is 'there', distance becomes an abstraction and is unknown, just the same as we felt on the quayside of Java.

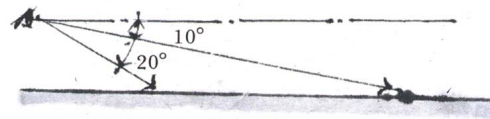


Figure 4.11  
Visual composition when eye looks down on view

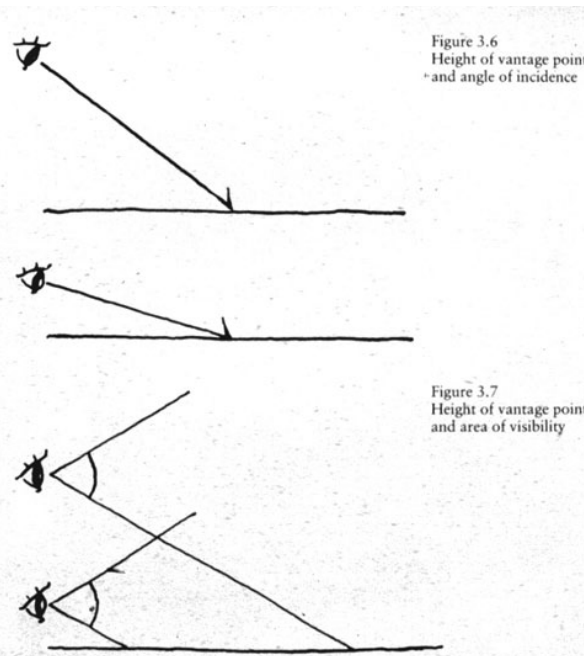


Figure 3.6  
Height of vantage point  
and angle of incidence

Figure 3.7  
Height of vantage point  
and area of visibility

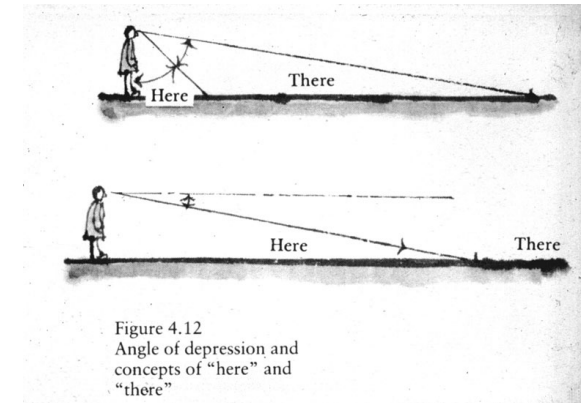


Figure 4.12  
Angle of depression and  
concepts of "here" and  
"there"

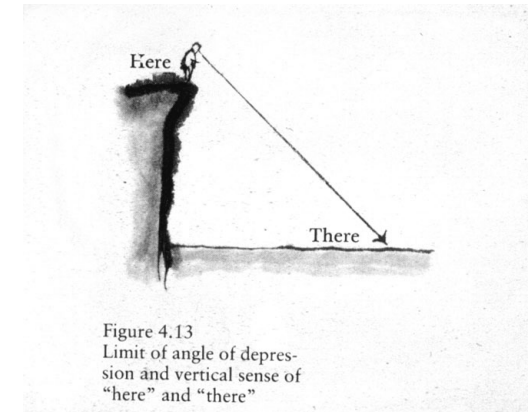


Figure 4.13  
Limit of angle of depression  
and vertical sense of  
"here" and "there"

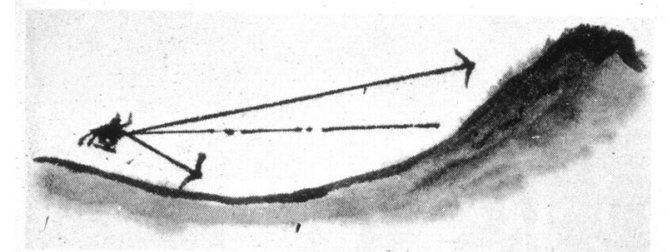
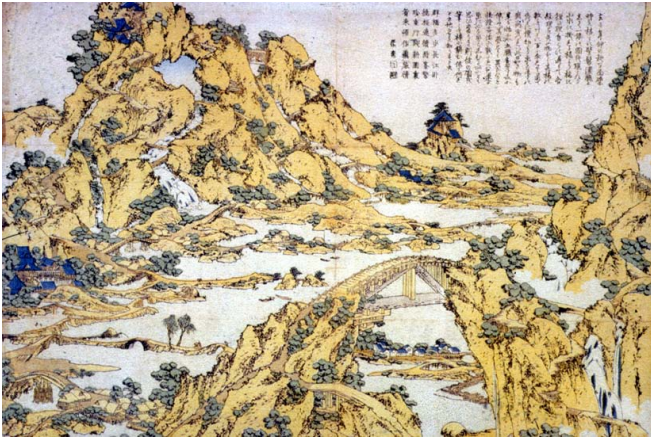


Figure 5.16  
Concave terrain

13-17. Our experience of 'here' and 'there' by Tadahiko Higuchi





18. Katsushika Hokusai, *Landscape with a Hundred Bridges*, 1832



19. Canaletto, *Entrance to the Grand Canal from the Molo, Venice*, 1742/1744

An elevated eye level position is the main condition for seeing deep into and over the landscape. Higuchi's observations about the experience of space from a higher point in concave landscapes from

different eye levels can also be found in illustrations of landscapes by another Japanese, Katsushika Hokusai, most famous for his big wave. In *The landscape with a hundred bridges*, the eye is led over mountainous paths, over and under all these hundred bridges. There is a hallucinating play with distances in which a village, seen under the biggest bridge, seems to be further away than the construction on the small peak over the bridge at the far end of the landscape.

European painters as well were very much aware of the importance of a lifted position to see more and deeper into the urban landscape. The Italian painter Canaletto for instance seems to be painting from a position on the first floor gallery of the Doge's Palace to show the beginning of the Canal Grande and the Canale della Giudecca behind the Punta della Dogana. Similarly, the Dutch painter Gerrit Berckheyde took position on a high ladder on the Leidsestraat bridge in Amsterdam to show us the full glory of the Golden Bend in the Herengracht. From a normal and fixed position the water would soon be hidden from the eye. Only by moving through the city landscape we experience the wonders that eye level differences bring to us.

The old center of Amsterdam is characterised by water and quays. The houses lining these quays still show a rhythm of the



20. Gerrit Berckheyde, *Golden Bend in the Herengracht*, 1685

widths of the plots of land given out by the government in the seventeenth century, even if then already, and also later, owners did build on double or triple plots. The main rhythm is shown in the difference in colour of the neighbouring brick of stone facades, the difference in the treatment of the foot of the building, mostly in natural blue stone, the individual outdoor access staircase or *stoep*, the articulation of the main entrance in white frame and ornamentation, and the gables ending in the shape of a neck or clock-gable or of a cornice styled, according to the preferences of renaissance, rococo or classical architecture. Within the band of the individual elevations a smaller rhythm can be observed: the breadth of the brickwork



between windows, the widths of the windows, the depth of their setting in the brickwork, the proportions and size of the window frames and their depth, the position of the sliding window panels in those frames, and the position in depth of the glass panes. The combination of all these different dimensions produces a different 'bar code' for every house front, and the ongoing sequence of these bar codes makes the entire canal front come alive as a happy family of somewhat different personalities.

With the help of Tadahiko Higuchi, the experience of walking along all these family faces reveals the real wonder of the inner city landscape. The arched bridges over the canals cause eye level differences. Between these bridges we find ourselves in a provisionally enclosed space. On top of the bridge we see the next valley, including the water that we followed and which continues in the same direction while we



21. 'Bar codes'

cross it. Similarly, the straight quays along the river Amstel, which runs perpendicular to the canals over a length of a thousand meters, are broken into an undulating landscape with eye level differences of more than three and a half meters wherever another canal meets it. The Amsterdam landscape is a hilly one!

Because we realised how much the landscape of the inner city contributes to the experiential value of the living environment—and therefore also to its economic value —, we proposed to make bridges that introduce eye level differences on Java Island. And to get bridges we had to make canals. By doing so, we could break the 1000 meters long island in five unequal sub islands. Was that too much to ask for? All the directors of the municipality related to building affairs thought so. Planning, housing, harbour, all departments were fiercely against it, but fortunately the developers, investors and housing corporations that took part in the debate about how to make the island a good place to live, were offering to pay for the extra costs of this: twelve million guilders. It required a complex operation and, formally specified, it looked a bit silly too: to cut through the quay constructions eight times and make concrete, U-shaped canal bottoms and sidewalls, standing on piling and connected to the quay construction. All this work just to have four canals cut-

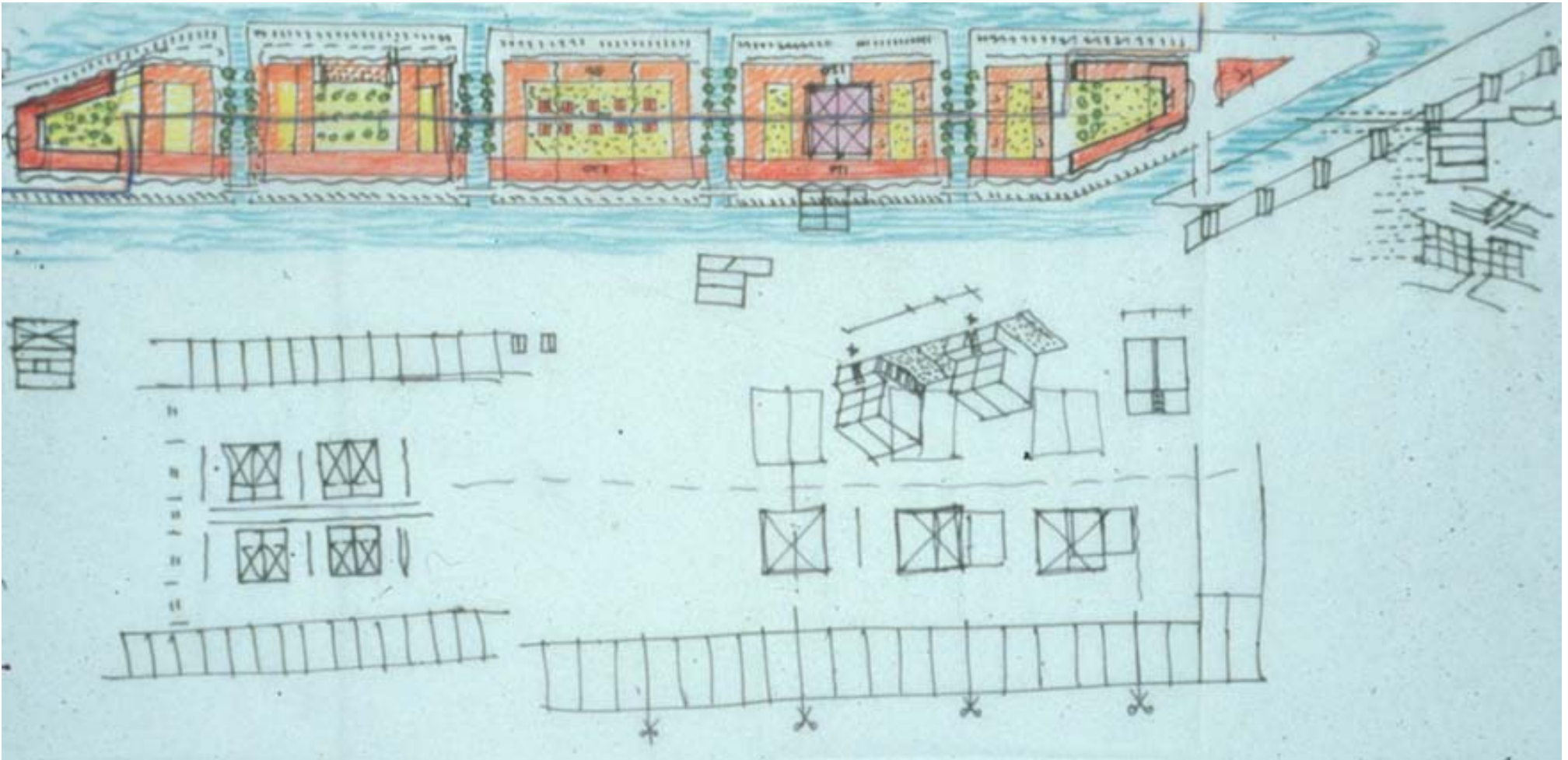


22-24. The hilly landscape of Amsterdam



ting through the island. But in reality it would give us a quay at the IJ water side broken by slowly bending bridges, and close-to-the-water access at the perpen-

dicular canals, with eye level differences of 2.8 meters in relation to these bridges. And one could feed the ducks: we had our landscape!



25. First sketch of Java Island by Sjoerd Soeters

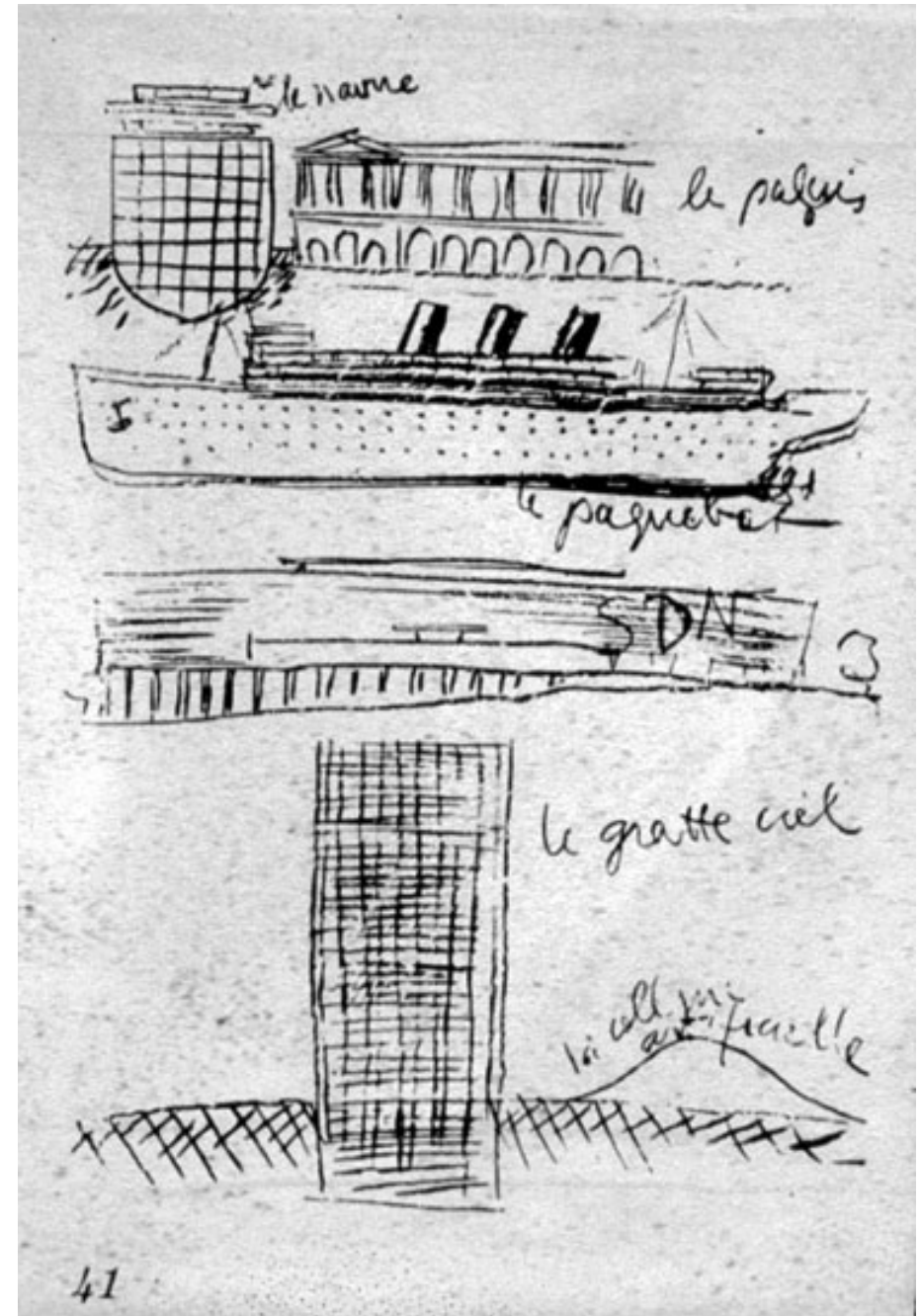


## The urban lay out

Now we had to think about the program of urban requirements, the urban lay out, the morphology and the ultimate grain of the buildings. The statement of the city's planning department was rather provoking: 'Formerly there were big ships lining the quays, so why don't you make big horizontal structures for our dense housing program?' The metaphor of the ocean liner as a housing solution was original, but not entirely new. Le Corbusier had used the scheme of *le paquetbot* 'Flandre' to show the possibilities of a big linear building type to solve France's housing problem. The design of his *Unité d'Habitation* is based on this idea: the French landscape is the ocean in which you can position the ocean liner at will. It has a lower, middle and upper deck; it has all amenities on board, like a school, a cinema, shopping, a pool and a sunny deck. The model was also aiming at destroying the existing 'unhealthy' French capital, leaving only Notre-Dame, the city hall and the great monuments by Napoleon, wiping out the rest. Recent publications reveal the purely fascist thinking behind these ideas. In the 1960's, Amsterdam had built its own version based on Le Corbusier's town planning ideas: the Bijlmermeer urban extension. Its disastrously failing residential quarters had existed little more than twenty five years before the courageous

decision was made to tear them down and replace them by a more humane living environment.

One of the problems of these big horizontal gallery access housing projects is that there's too little social control. The endlessly long galleries are open to everybody, thus producing an anonymous living area. When an apartment building contains ten or eleven of such galleries, the elevator is the only place for people to meet, but the number of people living there is too high to get to know each other. The whole thing soon can be out of control. When you want to regain control by changing the program, the inhabitants, the ways of access, or whatever, you'll face the enormous task to reorganise the whole structure, hundreds of meters long, which is impossible.



26. The ocean liner as metaphor as a housing solution by Le Corbusier



But also with housing with a different type of access, organised by way of staircase and elevator, with two or three flats per level, problems occur. The widows living in the posh area of Amsterdam Zuid had kept up, cleaned and polished their staircases and landings all their lives long, when suddenly vacant flats were occupied by the upcoming class of young urban professionals. These new arrivals were not helping with vacuum cleaning, were leaving their garbage in front of their doors and gave night long parties leaving the front door open for the latest possible visitors. A clash of life styles or life patterns emerged: the tranquil happiness of clean carpets and fresh flowers on each landing

came to an abrupt halt. It had become very clear to us that we should aim for vertical instead of horizontal arrangement of units, and that it would be wise to make different types of houses, with a limited number of flats per floor and thus a limited number of people sharing the means of vertical transportation, and with a specific lifestyle in each house. This means elderly ladies who rise at 8:00 AM, go to sleep at 10:30 PM and keep clean their access area meticulously in one house; young students who sleep till 11:00 AM and party from 11:00 PM, leaving bottles and garbage on every landing, in the house next door; young couples with children, a pile of tricycles and hobbyhorses

in the hallway, in their own house, and so on. All these different life styles will meet in the public areas like the quays in front of the houses, or in the enclosed courtyards where the wind is less dominant and children can safely play and celebrate their birthday. The overall feeling will be that they're not living in a housing complex, but in a new and lively part of the city.

Exactly the way seventeenth century Amsterdam had organised the grain of buildings by the width of the plots of land, we decided that the apartment blocks along the quays should be 27 meters wide, divided in five naves of 5.4 meters. Along the



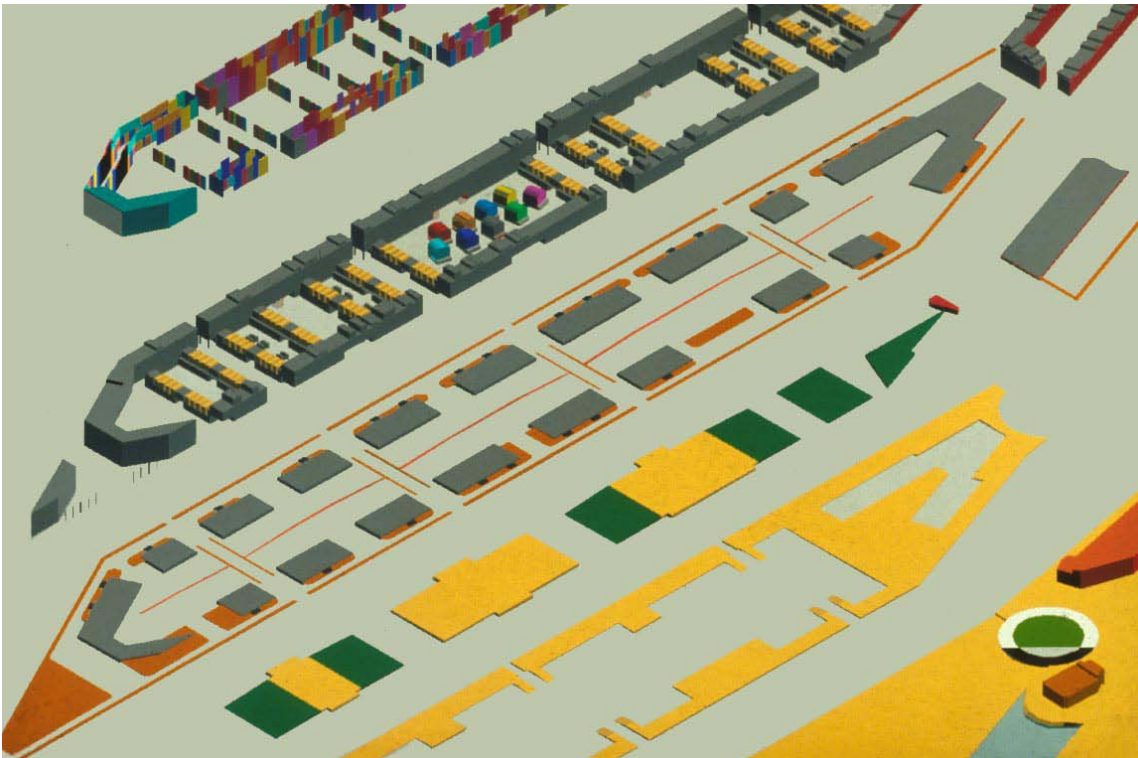


canals a smaller type of single houses in four floors was possible. All housing would have a view of the water (the IJ waters or the canals), except for the housing in the courtyards. These apartments would overlook the public area of the courtyard and make it more alive.

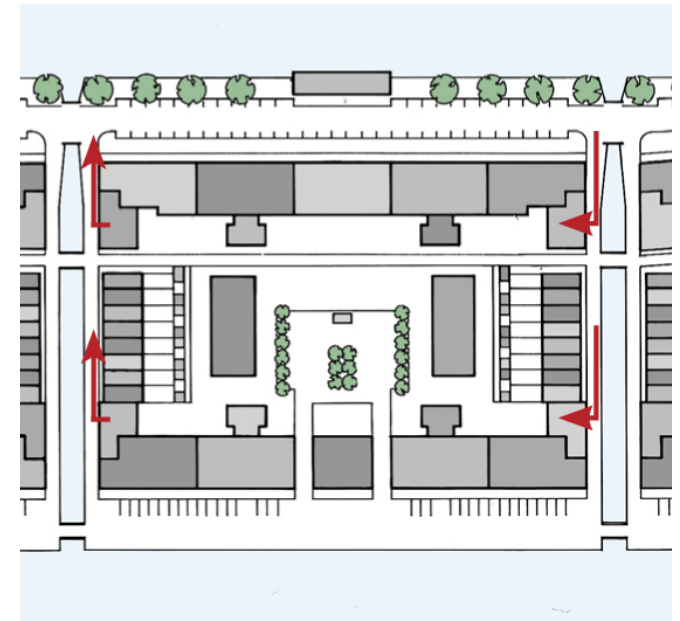
The consistent repetition of bays of 5.4 meter, bundled per 27 meters, offered efficient spatial capacity both for parking in the basement and for making apartments on the floors above. Each 27 meters there is a different floor layout for a specific life

style and each 27 meters there will be a different exterior architecture in colour, foot and top of the building, so that the game of barcodes that we admired so much in the historic centre of Amsterdam emerges here as well.

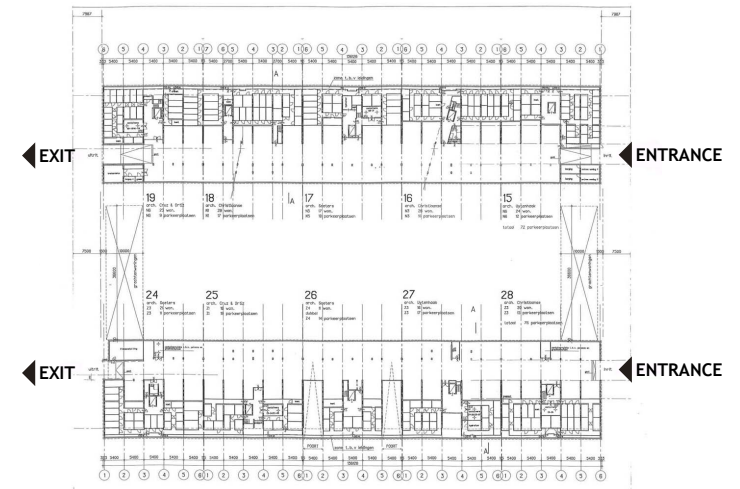
A part of the parking is found in semi-underground basements beneath the apartment buildings. The entrances and exits are located on the lateral canals, see figure 29 & 30. The remaining parking spaces are located outside on the north and south quay.



28. Structure of Java Island



29. Entrances and exits of the parking garages

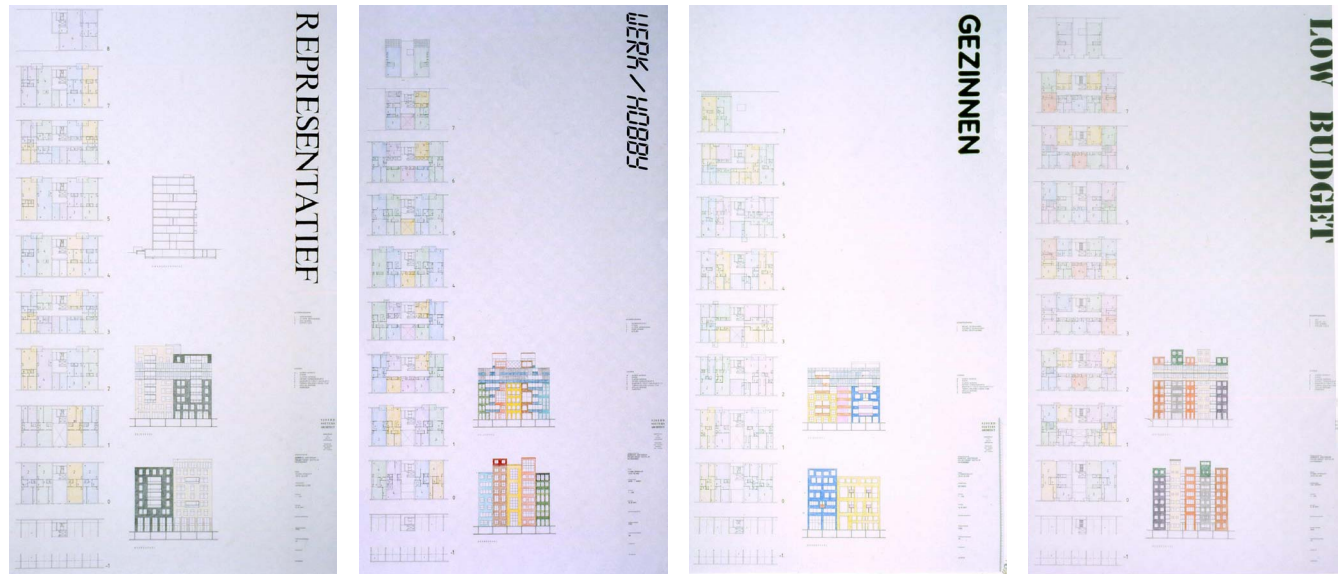


30. Parking garages in the basement of the apartment buildings

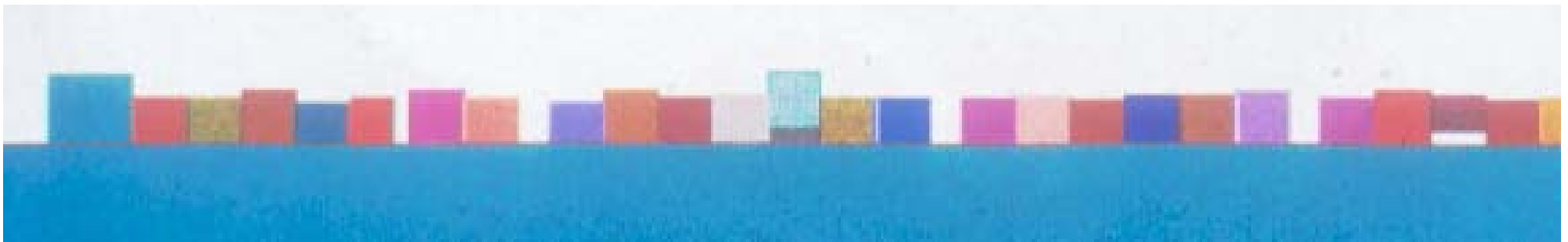


In figure 31, you can see how we illustrated with the primitive computer rendering techniques of the time, the play of the grain of 27 meter wide buildings with the openings of the canals in between, as seen from the north.

To demonstrate the possibility of filling a 27 meter building with a lot of very small apartments as well as with luxurious big ones, we illustrated various lay-out and architectural possibilities. Based on the *Woonatlas*, we identified four different target groups: Work/Hobby, Families, Low-Budget and Representative. Each life style group has its own program of functions, access and design. Housing for young families in ladies-magazine-colours, for the elderly well off in sophisticated tones of grey and white. All these different buildings were to be randomly divided over the island.

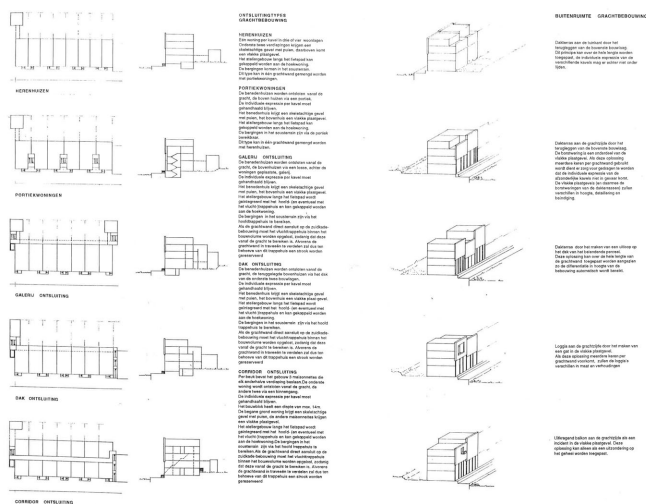


32-35. Four different target groups



31. The grain of the blocks

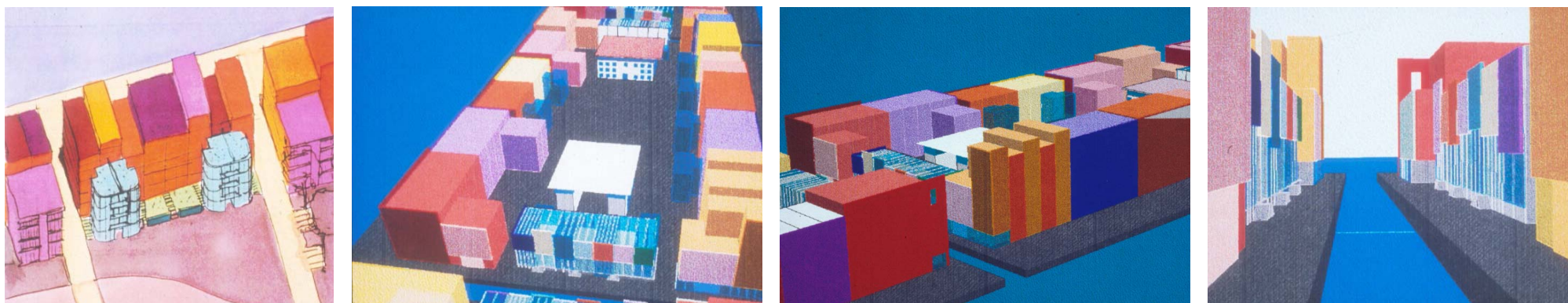




For the canal houses, we came up with different possibilities of typology: as a separate individual house, platform access, gallery access, duplex with access for the top houses over the roof and finally corridor access. In the end, the canal houses were mainly developed as row houses that were structurally interdependent: between two concrete ladder frames that provide strength and stability a more freely developed house may hang its floors freely without heavy structural worries.

Volume studies showed the possible solutions for the difference in scale and height between the bigger buildings on the south and north quays and the smaller houses lining up along the small canals. To give the courtyards enough sunlight, the decision was made to make the southern quay buildings not higher than five to six stories, the northern quay buildings could be seven, eight or nine stories high. Because

all the primary living areas in the buildings could be expected to direct themselves to the view of the water, the courtyards risk to be without 'eyes on the street', a priority dictated by the beloved Jane Jacobs. To compensate this, so called backhouses of two bays of 5.40 meters wide were added centrally behind the position of the elevator en staircase of each 27 meters building. In the backhouses two living rooms per floor are oriented towards the courtyard. For the same reason and to give backing to the backyards of the small canal houses, the already mentioned palazzi were positioned parallel to the row of canal houses, with their living rooms overlooking the courtyards. These additional two housing types helped to increase density to the aimed 100 units per hectare, and, together with a bicycle route that connects all sub-islands, they helped making the courtyards a safe place for playing outside.





## Designing the buildings

According to an almost national rule, 30% of the apartments to be built should be in the category of social housing; three housing corporations were acting as the clients for that part. Half of the total number were developed by the pension fund of the building industry, BPF, leaving 20% to be developed for sale. The total number of units was approximately 1300 apartments and houses.

A team of supervisors was set up: Sjoerd Soeters, master-planner, Ton Schaap, for the city's planning department, and Jan de Waal, for the city's housing department. In dialogue with the five different clients that were to build the 1300 apartments and houses, a selection of ten architectural companies for the apartment buildings was made. Twenty just established,

fresh and young architects were invited to design the smaller canal houses.

The supervising team followed the development of the individual plans very closely. In each phase of design there were several moments of presentation that gave the time and possibility to reflect, interact and steer.

In order to realise a large degree of unity and a great deal of variation and alternation within the continuity of the quay buildings, a number of architectural rules were set, in order to prevent a 'design war'. Only two pages in the booklet that explained the urban plan were used for these guidelines (see Appendix 1). Unity of materials (everything brick) and colour (all window frames white) was prescribed, variety in the heights of the buildings and window sills and a different treatment of both plinth and top were required. The

windows had to be designed in series and rhythms, the façades not frontal but in perspective. Expression of the individual building within the context of the row should be the game. 'Unity in multitude' as Berlage put it, or more eloquently in the words of Raymond Unwin: 'The variety of each is dominated by the harmony of the whole'.

The development was phased per sub-island. The architects of every building on such an island were attending and presenting their design proposals to the supervising team and their clients. During these meetings there was a lively process of 'peer teaching' happening. Together, the clients, architects and supervisors learned how all different architectural ideas could be brought together, following Unwin's earlier mentioned motto.



41. Final plan



However, there were architects who proposed designs that in no way were following the architectural guidelines, the structure or the planning rules, stating that their project was to be the outstanding exception. For instance, there was a design with the elevations completely in translucent glass.... There was also an idea to have one structure in four bays, ignoring the prescribed structure of five bays of 5.40 meters per unit of 27 meters. As a consequence, the neighbouring structure would have six bays. This exception was eventually admitted by the supervising team, but one can still wonder what purpose it served.

The young architects who were commissioned to design the narrow canalhouses and their fronts were of course sometimes aiming at avant-garde solutions. For instance, if you, as an upcoming famous-to-



42. Model of Java Island

be young architect, have to design a house at the canal, you may consider it too bourgeois or too obvious to have a front full of windows looking out on this picturesque view. For that reason, one of the canal houses is almost without a window on the canal side. Sometimes, and within certain limits, you have to loosen the reigns for 'young heroes'.

When designs have been developed far enough to be shown in models, architects do so and make them presentable. In those days, the early 1990's, the tradition in modern architecture demanded that architectural models were to be presented at their most abstract: preferably in grey cardboard or in wood. At first instance, the model makers who were to build the big model on which the individual designs were to be positioned, refused to make the model figuratively: water blue, grass green, quays red, tarmac roads dark grey. They thought it was far beneath their professional dignity to make any model other than out of one single material and colour: in wood. Finally, however, after a lot of discussion, all models, urban landscape and houses were made in colour and they gave a perfect preview of the harmonious variety of images that was intended for Java Island.



43. Model of Java Island



# Appendix 1 The architectural guidelines

## ARCHITECTONISCHE SPELREGELS

### Kades

#### verschijningsvorm

De wand is belangrijker dan het dak. De wand wordt als een vlakke plaat opgevat, plastic buiten het gevelvlak, als middel voor expressie is uit den boze. In de beperkte diepte van de gevelplaat moeten de middelen van expressie gezocht worden.

Ontwerpen gebeurt dan ook kijkend langs de kade, dus letten op:

- basis van de ritmering in aftrappende maat: eenheden van 27 meter; traveeën van (5.40), raamvlakken, raamindelingen (vertikalen).

- het contrast in kleur tussen gevelmateriaal, kozijnen en glas
- de hoeveelheid oplichtende lijnen in het gevelvlak
- het aantal schaduw vlakken en daarmee kleuruanceringen in de overgang tussen het gevelmateriaal, het kozijn en het glasvlak.

Er zijn legio mogelijkheden om hiermee te werken, om echter te veel contrast te vermijden, zou de basis een plaat-achtige gevel moeten zijn waarin het ritme van de gaten de belangrijkste rol speelt.

Het meest klassieke voorbeeld is: donker baksteen, witte kozijnen, insnijdingen in de gevelplaat hebben diepte, kozijnen hebben diepte, verticale opbouw.

Hoewel het uitdrukkelijk niet de bedoeling is dit voorbeeld te imiteren (er zou ontwerpend vanuit het perspectief, gezocht moeten worden naar gevelritmeringen die met eventueel andere taalmiddelen eenzelfde beeldrijkdom van eenheid in de veelheid geven) moet er in elk geval van worden uitgegaan dat er een stevig gekleurde baksteen wordt gebruikt en de kozijnen licht van kleur zijn.

#### bouwhoogtes en differentiatie:

Tussen de grachten moeten minimaal drie verschillende stempels gebruikt worden.

Deze stempels zijn elk toegespitst op een bepaalde categorie bewoners en ontleen daaraan een daarbij behorende ruimtelijke indeling en sfeer.

Het is niet de bedoeling dat per kade-deel tussen twee grachten twee exact dezelfde stempels zondermeer voorkomen.

Afhankelijk van het aantal bewonerscategorieën dat per kadedeel wordt gehuisvest kan er daardoor behoefte ontstaan aan een aantal per stempel verschillende uitwerkingen, die verschillen in bijvoorbeeld:

- de kleur van de gevel
- de verhouding van de openingen in de gevel
- de breedte en het materiaal van de kozijnen
- de lijst
- de plint.

Er dient genuanceerd met de differentiatie van deze aspecten om te gaan, omdat anders de samenhang, de eenheid in de veelheid, verloren gaat.

Tussen twee grachten wordt een differentiatie in bouwhoogte van de verschillende stempels nagestreefd. Daartoe zal op de noordkade minimaal 20% van de bebouwing 9 lagen hoog

zijn, 20% 7 lagen hoog; de overige bebouwing is 8 lagen hoog. Op de zuidkade geldt dan: 40% 6 lagen, overige bebouwing 5 lagen hoog. Bij voorkeur hebben naast elkaar gelegen stempels verschillende hoogten; hetzij doordat zij in aantal lagen verschillen, hetzij doordat zij aan de bovenzijde een verschillende detaillering en maatvoering hebben.

#### Hoekoplossingen kade/grachten

Voor de hoeken tussen kade en grachtbebouwing kunnen verschillende oplossingen voorkomen. Uitgangspunt is het plaatachtige karakter van de kadegevel, waarin per stempel de ritmeringen van ramen, stijlen enz. zijn aangebracht. Het is onwenselijk de voorgevelplaat over de volle diepte van de bebouwing door te zetten in materiaal en kleur; deze gevel hoort bij de kade.

De gevelplaat kan theoretisch op de hoek worden beëindigd door haar dikte te tonen en erachter, in het vlak van de grachtbebouwing ter plaatse op ander materiaal of andere kleur over te gaan. Op deze hoek moet echter meer worden opgelost: er wordt op de noordkade-hoeken een overgang gerealiseerd van gemiddeld 8 lagen naar 4 of 5 lagen. De noodzaak om het stempel tot de hoek als gevel af te maken leidt ertoe dat de hoogtesprong zich ergens in de zijgevel bevindt. Om een te grote dominantie van de zeer hoge kopgevel in het profiel van de grachten te voorkomen is het noodzakelijk deze kopgevel over een beperkte breedte de volledige hoogte te geven, en hem in hoogte, materiaal en kleur te laten verspringen op maximaal 7500 mm van de hoek. Het overige deel van de kopgevel heeft maximaal 5 lagen. Terwijl er enerzijds naar gestreefd wordt om de kadegevels op de hoek met de grachten scherp te beëindigen, is het anderzijds de bedoeling om de grachtwand zo lang mogelijk door te zetten, en daarmee de ruimte van de gracht te definiëren. Om deze reden zal de bedrijfsruimte op de begane grond, die in elk hoekstempel op de noordkade is opgenomen, de geveltypologie van de grachtwand aannemen. Dat wil zeggen: op straatniveau een skelet-achtige gevel met puin. De inrit van de parkeergarage kan in deze gevel worden meegenomen.

In de plannen is er stelselmatig een sprong van 1500 mm tussen de voorgevels van de grachtbebouwing en de (lage)zijgevel van de kadebebouwing. Deze sprong kan eventueel worden vereffend door bijvoorbeeld het zijgevelblok schuin te zetten. Ook kan de overgang gezocht worden in het ontwerpen van de puin op de begane grond.



## Grachten

### Verschijningsvorm grachtbebouwing

Zoals ook bij de kade bebouwing is aan de grachten de wand belangrijker dan het dak. Ook hier wordt van uit het perspectief ontworpen en gelden dezelfde punten van aandacht als bij de kadebebouwing. We gaan er hier echter vanuit dat de onderste één of twee verdiepingen een skeletachtige gevel met puien zullen hebben. Daarboven begint dan een vlakke, plaatachtige gevel.

De basis wordt gevormd door individuele kavels met een traveebreedte van max. 6,60m. Ook hier geldt weer dat er per gracht niet twee identieke gebouwen mogen voorkomen. Een maximale variatie in materiaal, kleur en verhoudingen wordt hier nagestreefd, bij de constante van een vlakke gevel, met skeletachtige onderbouw.

Het is mogelijk om de buitenruimte van de bovenwoning aan de grachtenkant op te lossen door incidenteel : de bovenste laag terug te leggen (de voorgevel dient als borstwering), het dak van het belendende lagere perceel te gebruiken, loggia's als gaten in de gevelwand te maken, een klein balkon uit de vlakke voorgevel te laten steken.

De grachtenhuizen staan op een plint op de kade, de bergingen zijn in deze plint opgelost.

Aan de achterzijde van de grachtenhuizen, en eventueel aan (een deel van) hun kopgevels lichte en heldere gevelmaterialen toe te passen.

### Hoekoplossingen grachten- binnenterrein

Bij de gracht bebouwing kunnen de voorgevelplaten op de koppen in hun dikte getoond worden. Het is mogelijk om daarmee meteen na het passeren van de grachtenwand de sfeer van het binnenterrein herkenbaar te maken, maar ook om vorm te geven aan een intermediair gebied door de voorgevel over een beperkte diepte om de hoek te laten lopen.

Indien de rij grachtenhuizen bestaat uit boven- en benedenhuizen zullen het gewone trappenhuis en het vluchttrappenhuis in combinatie met het , aan het fietspad gelegen, atelierachtige gebouwtje, op de koppen worden opgelost.

Dit atelier gebouw is ongeveer twee lagen hoog. Het vormt een begeleiding van het fietspad en is transparant van karakter. Het kan gekoppeld worden aan de hoekwoning of het kan individueel gebruikt worden.

## Binnen gebied

### Verschijningsvorm kadebebouwing

Ook in de binnengebieden zijn de stempels als eenheid herkenbaar. De ook hier plaatachtige gevels zijn van een lichte helder gekleurde baksteen, zodanig dat de gevelwanden vanuit de binnenruimte tegelijkertijd als één wand, en als een reeks van verschillend gekleurde stempels ervaren kunnen worden. De bij de stempels behorende achterhuizen zijn bekleed met puien, en voor het grootste deel transparant. De kleur van de puien is neutraal, wit of naturel aluminium. Binnen deze omschrijving zijn kleine variaties in maatvoering van puirasters, profieltypen, enz. mogelijk en ook toegestaan. De achterhuizen vormen immers een belangrijke begeleiding van fiets en wandelpaden en zij moeten daartoe als reeks ervaarbaar zijn.

### Verschijningsvorm Pallazzi

We stellen ons gebouwen voor die in de eerste plaats front maken naar het plein, en in de tweede plaats de langzaam-verkeerroute begeleiden. Zij contrasteren door hun ligging en als type met de kade- en grachtbebouwing. Zij moeten in de verschillende binnenterreinen kunnen worden herkend als een reeks. De architectonische uitwerking van het palazzo is erop gericht het als één gebouw herkenbaar te maken. Dit kan bijvoorbeeld door het dak als kader of accolade in te zetten, door de gevelopbouw rondom de centrale entree te dramatiseren, enz. De begeleiding van de fietsroute kan geschieden door een lager bouwdeel dat aan het palazzo vastzit. Dit lager bouwdeel dient langs de route in elk geval voorzien te zijn van ramen, eventueel van toegangsdeuren.

Het palazzo is licht van kleur (lichtreflectie minimaal 80%).



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## The architectural guidelines

### Quays

#### Appearance

The façade is more important than the roof. It is to be considered a flat surface. Plasticity outside the façade surface is out of the question. Means of expression must be sought in the limited depth of the façade panel.

While designing, imagine you're looking along the quay. So pay attention to the following:

- the base rules of the rhythm of the facades, scaling down: units of 27 meters, bays of 5.40 meters, window surfaces, and arrangement of the windows (verticals);
- the contrast in colour of the façade material, window frames and glass surface;
- the amount of lines highlighted on the façade;
- the amount of shadows and shading in the change from the façade material to the window frames and the glass surface.

There are endless possibilities to work with. However, to avoid too much contrast, the basic idea should be a plate-like façade in which the rhythm of the holes plays the most important role.

The most classical example is: dark bricks, white window frames, incisions in the facade panel have depth, the frames have depth and a vertical composition. Nonetheless it is expressly not the intention to copy this example. You should take its perspective as the starting point for your design and try to find, with any other possible means, a facade rhythm that provides the desired richness of unity in multitude. However, in any case, a strong coloured brick should be used and the frames should be light in colour.

#### Building heights and differentiation

Between the canals a minimum of three different functional building types must be used. Each type is to be focused on a particular category of residents from which it takes its corresponding spatial layout and atmosphere.

Per quayside part between two canals, there can't be two exactly the same buildings.

Therefore, depending on the number of resident categories which are found in each quayside part, there can be a need for different designs for the same building type. These designs can, for example, differ in

- the colour of the façade;
- the proportions of the openings in the façade;
- the width and the material of the window frames;
- the cornice;
- the plinth.

To maintain the coherence, the unity in multitude, you should handle the differentiation of these aspects with care.

Between two canals, we look for a differentiation in building heights for the different building types. On the north quay, a minimum of 20% of the buildings should be 9 floors high, 20% of the buildings should be 7 floors high, the remaining buildings should be 8 floors high.

On the south quay, a minimum of 40% of the buildings should be 6 floors high, the remaining buildings 5 floors high.

Preferably, adjacent building types should vary in height; or by a different number of floors, or by different detailing and dimensioning at the top.

#### Corner solutions quay/canals

For the buildings on the corners between a quay and a canal, different solutions can occur. Starting point is the plate-like façade at the quay side, where each building has its own rhythm in windows, etcetera. It is undesirable to continue the quayside façade in colour and material around the corner to the full depth of the building: this façade belongs to the quay.

Theoretically, the quay façade of a building can be ended at the corner by showing its thickness and, behind it, the canal side façade can continue in a different colour or material. But this is not all that needs to be solved. At the corners of the north quay, a transition needs to be made from approx. 8 floors high to 4 or 5 floors. The façade of the north quay needs to be completed to the corner. This means that the transition in height will be somewhere around the corner, in the side wall. However, this can lead to too much emphasis on this very high facade in the contour of the canal. To prevent this, the front just around the corner should continue at the full quayside height to a limited extent and change in height, colour and material at maximal 7500 mm from the corner. The remaining part of this front façade should have maximal 5 floors.

While a sharp ending of the quayside facades is sought for, at the same time it is the intention to continue the canal façade as much as possible, in order to define the space of the canal.

For this reason, the commercial space on the ground floor, situated in every corner block of the north quay, will embrace the typology of the canal façade. This means: at street level a skeletal façade with windows. The entrance to the parking garage can be situated in this façade.



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## Canals

### Appearance canal buildings

Just as the quay buildings, the façade of the canal buildings is more important than the roof. Also here you should take the perspective as the starting point for your design and you should pay attention to the same points of focus as mentioned earlier regarding the quay buildings.

The main difference however is that the ground floor and possibly the first floor will have a skeletal façade with windows. Above will start a flat, plate-like façade.

The canal buildings are characterised by individual lots with a maximum bay width of 6.60m. For each canal there can't be two identical buildings. While keeping the constant in mind of a flat, plate-like façade with a skeletal base, we're striving for maximal variation in material, colours and proportions.

Occasionally, there is the possibility to create an outdoor area for the upstairs apartment on the canal side:

- by pulling back the top floor (the façade will serve as a parapet);
- by using the roof of the adjacent, lower situated plot;
- by making holes in wall as loggias;
- by letting a small balcony sticking out the flat façade.

The canal houses are standing on a plinth, rooms for storages are situated in the plinth.

Light and bright materials should be used for the back of the canal houses, and occasionally for (a part of) their front facades.

### Corner solutions canals- courtyard

The façades of the canal houses at the corners can show their thickness. You can use this to make the atmosphere of the courtyard recognisable immediately after coming round the corner, or to create a transition area by letting the façade go on for a bit around the corner.

If the canal houses consist of a row of upper and lower houses, the main staircase and the emergency staircase will be located at the ends of a row and combined with a studio-like building.

The studio is approximately two floors high. It accompanies the cycle path and has a transparent character. It can be used individually, or can be attached to an end house.

## Courtyards

### Appearance quay buildings

In the courtyards the different building types should be recognisable as units. The facades are plate-like and light, clear coloured bricks are to be used. The effect should be that, from the courtyards, the facades can be experienced as a single wall, as well as a series of differently coloured types.

The back houses have fronts which are mostly transparent. Their colour is to be neutral, white or natural aluminum. Small variations in details are possible and allowed. The back houses are accompanying the cycling and walking paths, they therefore must be experienced as a series.

### Appearance Palazzi

The Palazzi buildings should first of all face the courtyard and secondly, they should accompany the cycling and walking paths. Because of their location and typology, they are in contrast with the quay buildings and canal houses. Throughout the different courtyards, they should be recognised as a series. The architectural design should make the palazzo recognisable as one single building. This can be achieved by, for example, letting the roof embrace the building, or by dramatising the façade round the main entrance, etcetera. The cycling path can be accompanied by a lower building part attached to the palazzo. This lower building part should have windows facing the path, or perhaps even entrance doors. The palazzo's colour should be light. (minimal light reflection of 80%).