

Bk7210 Urban analysis & design

Minor: Green Blue City 2013

Lecture 1

Introduction

Rotterdam Zuid

Urban plan typology

Evelien Brandes

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2. **Meet Rotterdam Zuid** *slide 8-16*
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1. Introduction course

- **Lectures of the course BK 7210:**
- **Subject: urbanism, urban design and the sustainable neighbourhood**
- **Learning goals**
- **Special skills of an urban designer**
- **Assignment of this course**

Urban Analysis and Design

- Lecture 1: Introduction and urban plans Rotterdam Zuid (by Evelien Brandes, coordinator)
- Lecture 2: Urban analysis and design principles (by Evelien Brandes, coordinator)
- Lecture 3: Urbanism Rotterdam and the Delta (by Han Meijer, professor Urban Compositions)
- Lecture 4: Design principles urbanism, Kop van Zuid (by John Westrik, associate professor)
- Lecture 5: Scenario's for the Rotterdam Delta (by Anne Loes Nillesen, urban designer)
- Lecture 6: Examples and imagination in Rotterdam Zuid (by Els Bet, urban designer)
- Lecture 7: Seminar urban plans students

Learning objectives

Becoming a good urban designer is a process of years, in attitude and practicing.
Good urbanism is contributing to a sustainability city.

- A. Observing and studying the existing urban fabric
creates the right base for:
designing a new neighbourhood or;
intervening in existing urban fabric
- B. Drawing an urban plan by selectively redrawing and imagining
- C. Designing of neighbourhood or urban border

Urbanism now

Urban designers work next to other disciplines. Specific accents, to compare:

- Architects / designers:

higher scale, not only buildings, but public environment ; more social economic aspects

- Landscape architects:

not only the green public space, but the integration of building, traffic-infrastructure, public space, amenities and facilities; higher scale

- Urban planners:

not the program of functions by demand, but more by spatial possibilities

- Real estate / Social housing managers:

not only the process, but the spatial result

So the urbanist does the integration of different disciplines. Large parts of The Netherlands are in good state now. The experience is useful for other countries.

Assignment urban analysis of a self-chosen neighbourhood

week 1: Chose one of the residential milieu types in Rotterdam Zuid. Motivate the choice, Search for the best urban map and print it on the right part and scale. District and neighbourhood with environment Visit your site, make pictures, study the map and the urban form on the real site. Use the maps and satellite images of google earth, heightmaps, historical maps, local and national statistical data.

week 2-7 Make a booklet "Analysis Urban Fabric of your neighbourhood" with:

- main statistics of the district; amount of residents, age-groups, income-groups, household types; compare with Rotterdam or national data.

- **historical analysis:** structure of the former landscape (dikes, old villages, pattern of ditches), plan history, typology of the city ground plan (which typology? dense landscape street patterns, Interbellum design, postwar modernism, functional grid, labyrinthian cluster, post-modern forms), characteristics and underlying goals of the specific city type.

- **district 1:5000 plan** with main streets, water system, public facilities and green. Include explanatory texts ,relevant aspect drawings, traffic systems and parking, housing types and numbers, green and water.

- density in FSI and dwelling/ha.

- the original structure and the intervention by urban renewal.

- **chosen neighbourhood 1:1000 plan** with building blocks, building heights and indication for the typology, entrees and front facades, road structure (car roads, bike lanes, sidewalks, including parking outside and inside), public space (public or private green, trees, waterstructure, pavement, play-, sport-, and meeting places,) public facilities (shops, schools, offices, waste containers; significant elements).

Drawn by hand and/or digital; with legend, scale and north arrow indicator.

- sections 1 : 500 of relevant points and a water and street profile 1:200

- images and choice: of photos, perspective drawings, model etc

- own or residents valuation of the living, created in the neighbourhood

2. Meet Rotterdam Zuid

- **The image of Rotterdam Zuid, SWOT-elements**
- **Position and functions on regional scale**
- **Zuid in the region of the island IJsselmonde**
- **Names of neighbourhoods and harbours in Rotterdam Zuid**
- **Typical elements: outer-dike areas, dikes, riverbanks, bridges, water safety aspects**

Rotterdam Zuid

Treats:

So-called "problem area"

Grim districts / high criminality

Concentration of people without a job and education and immigrants

Opportunities:

Very strategic position

Long riverbank, nice views to north bank

Diverse + colorful, building + inhabitants

250.000 inhabitants, a lot of young people

Redevelopment by Kop van Zuid and environment

Western part of Rotterdam Zuid, study area,
topographic map

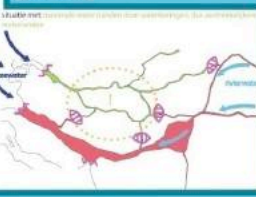
Strategic position of Rotterdam Zuid

Waterpoort

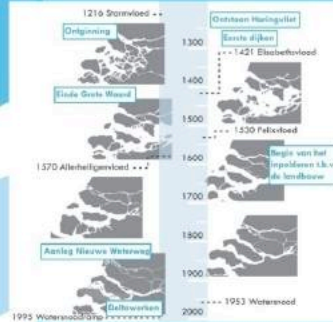
Toenemende fluctuaties bedreigen de Deltapoort



Door plan Deltacommissie blijft het gebied veilig



Deltapoort heeft altijd al met water geleefd



Ook in extreme mate



Het Waterplan

De Deltacommissie heeft een plan gemaakt om de Deltapoort veilig te stellen voor het toenemende water. Ons waterplan gaat verder door de mogelijkheden met water ook recreatief te benutten in de vorm van de Beijerse Plas. Deze versterkt eveneens weer door extra waterberging de veiligheid. De kering en dijken zorgen voor bescherming van het ingesloten gebied. Hierdoor ontstaan locaties om te bouwen in, open aan het water. Ook bestaande plaatsen, zoals de zuidkant van Oud-Beijerland en Spijkenisse komen aan het water te liggen. Het waterplan grijpt terug naar de situatie hoe het gebied in 1600 er heeft uitgezien. Daarnaast biedt het op regionaal niveau een extra kwaliteit impuls voor het zuiden van Rotterdam en voor de Drechtsteden. Ook door de doorgetrokken A4 als entree wordt de Randstad steeds meer stad aan de Delta.



Stadspoort

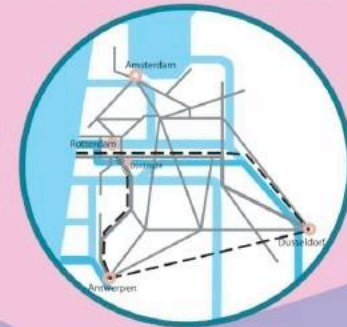
De Deltapoort wordt een waardige entree naar de Randstad



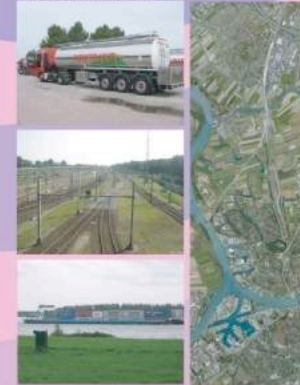
Anderszids komt het buitengebied dichterbij vlakbij de poort



Transport



De economische as



Drie goederenmodaliteiten : schip, spoor en weg
Twee overslagconcentraties: Kijfhoek en havendriehoek Drechtsteden



Heijplaat

Waalhaven

Charlois

Carnisse

Wielewaal

Zuiderpark

Pendrecht

Zuidwijk

Carnisselande

Barendrecht

Kop van Zuid

Hillesluis

Katendrecht

Maashaven

Afrikaanderwijk

Plan Parkstad

Bloemhof

Tarwewijk

Vreewijk

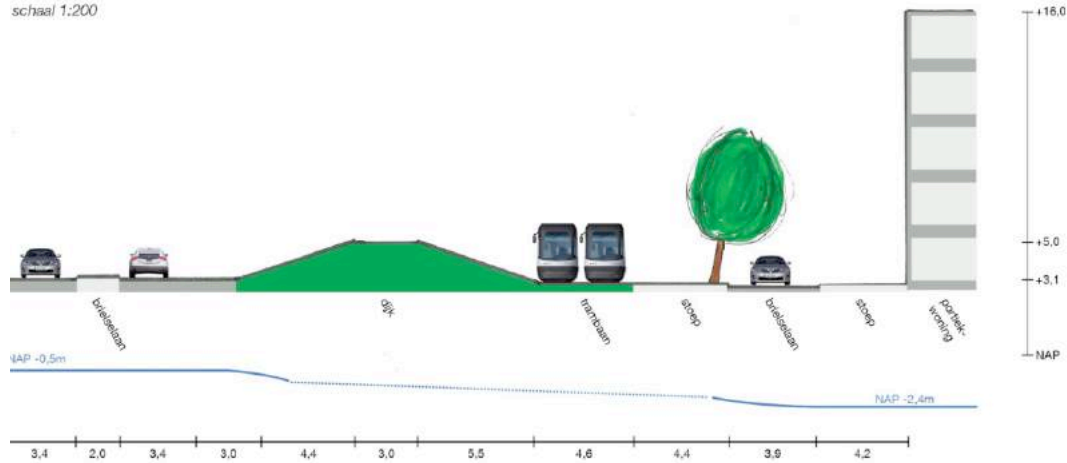
Outer dike areas



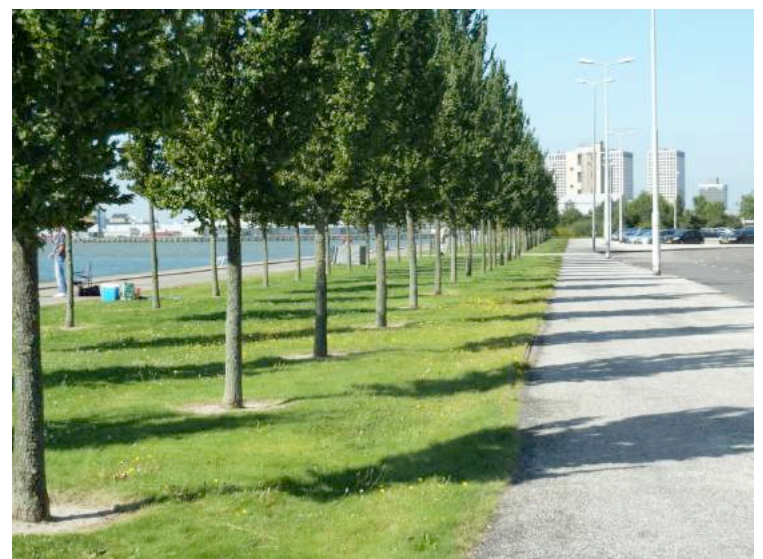
From isolated harbour area to renewed waterfront

Dikes

schaal 1:200



Quays and banks

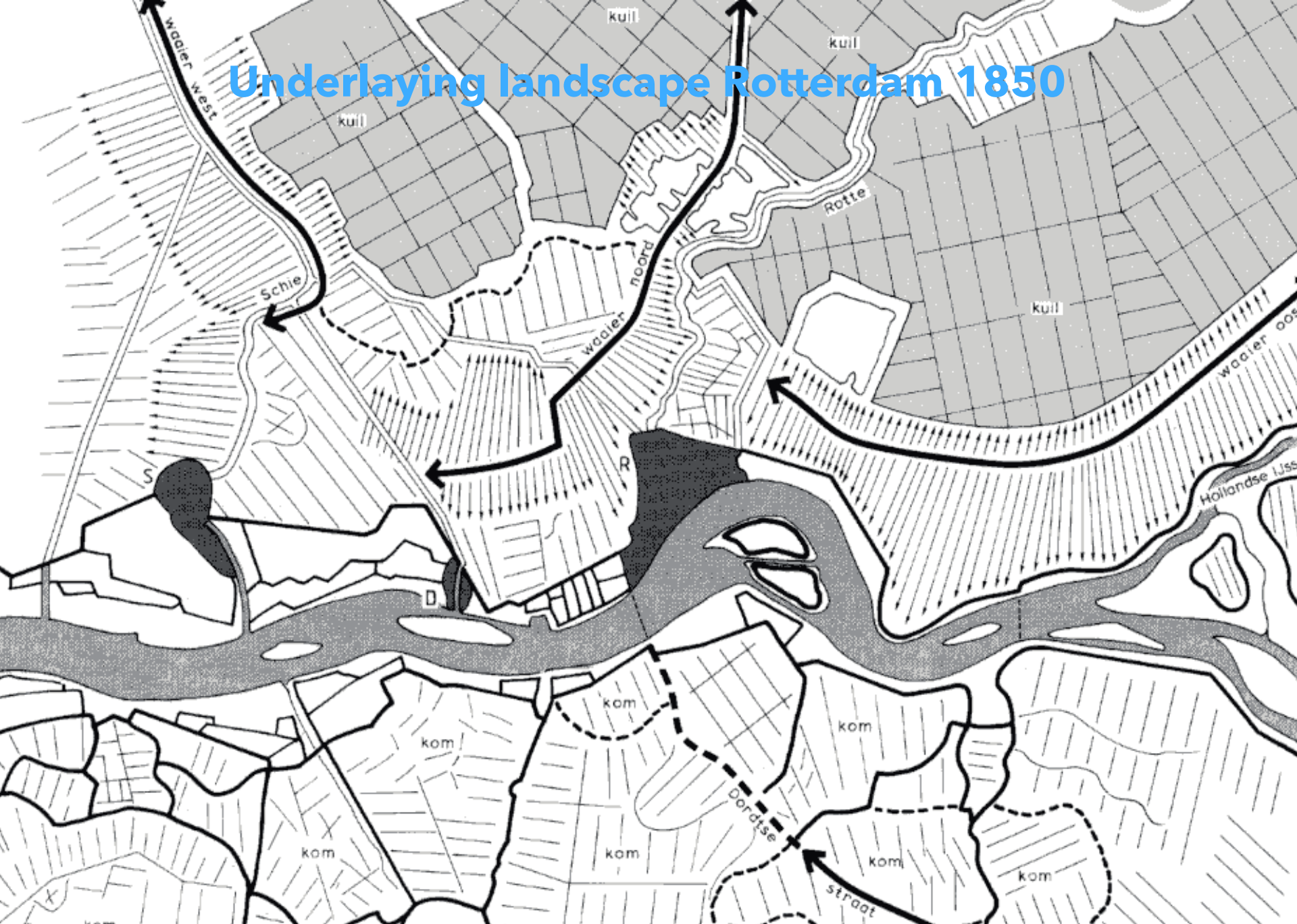




3. History and historical maps

- **Landscape before urbanization**
- **Maps from 1850 until 1980**
- **Different plans for Rotterdam Zuid before and after World War II**
- **Plan Witteveen 1927**
- **Current situation**

Underlying landscape Rotterdam 1850

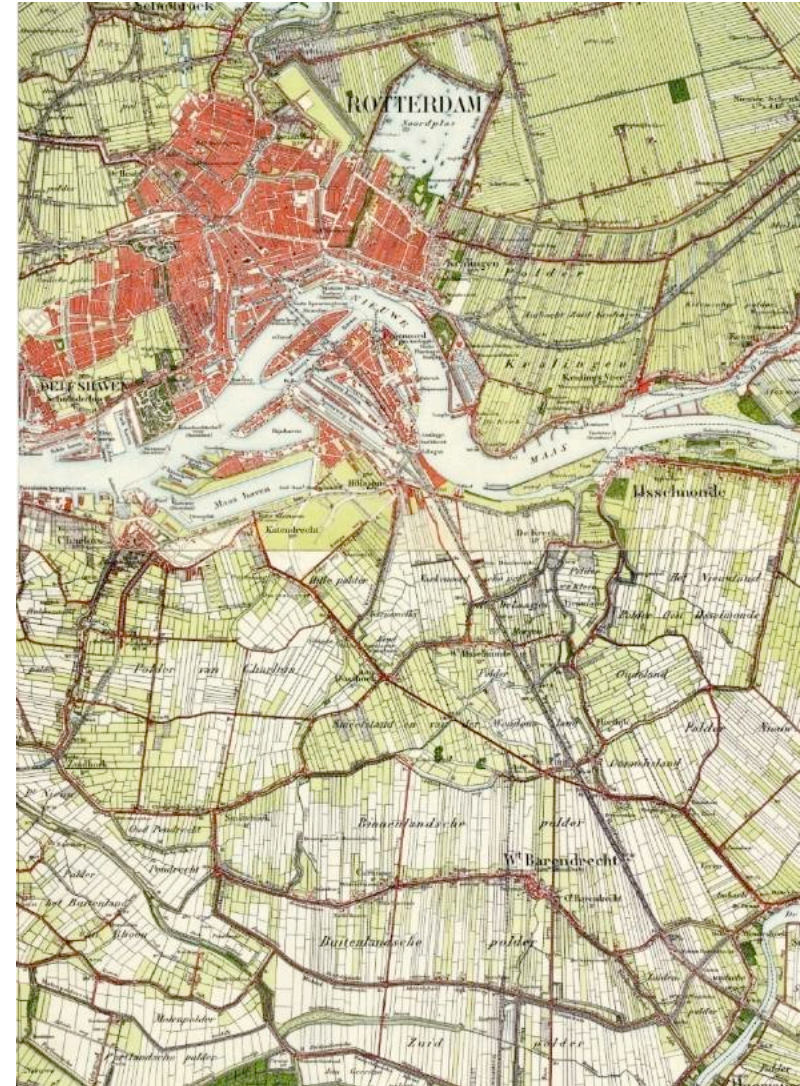


Landscape of the Southern Maas around Katendrecht



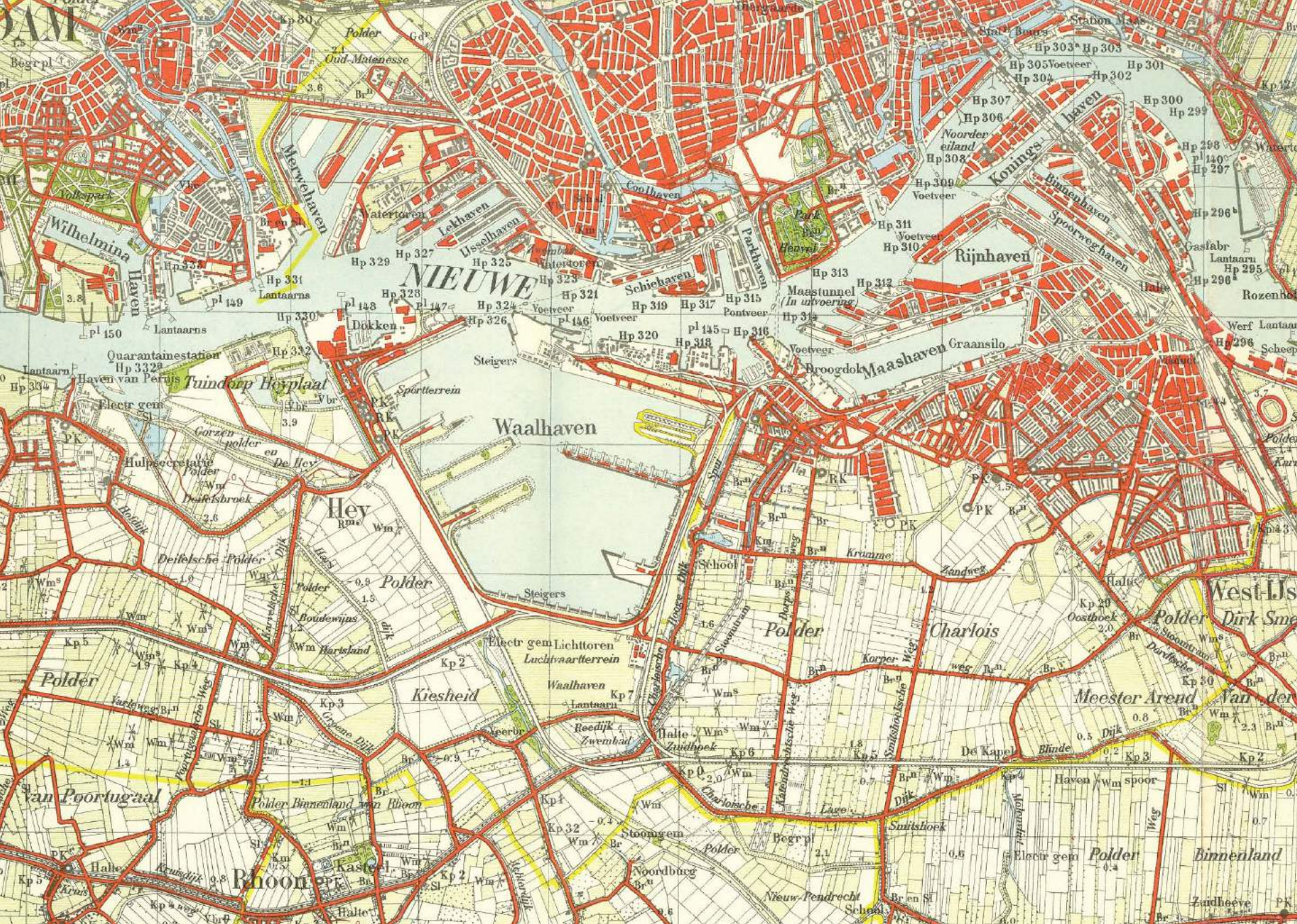
The landscape of Zuid before digging the Maashaven

Military topographic map ca.1800



Zuid after digging the Maashaven

Bonne map 1915





ENTEWERKEN VAN ROTTERDAM 'UITBREIDINGSPLAN LINKERMAASOEF

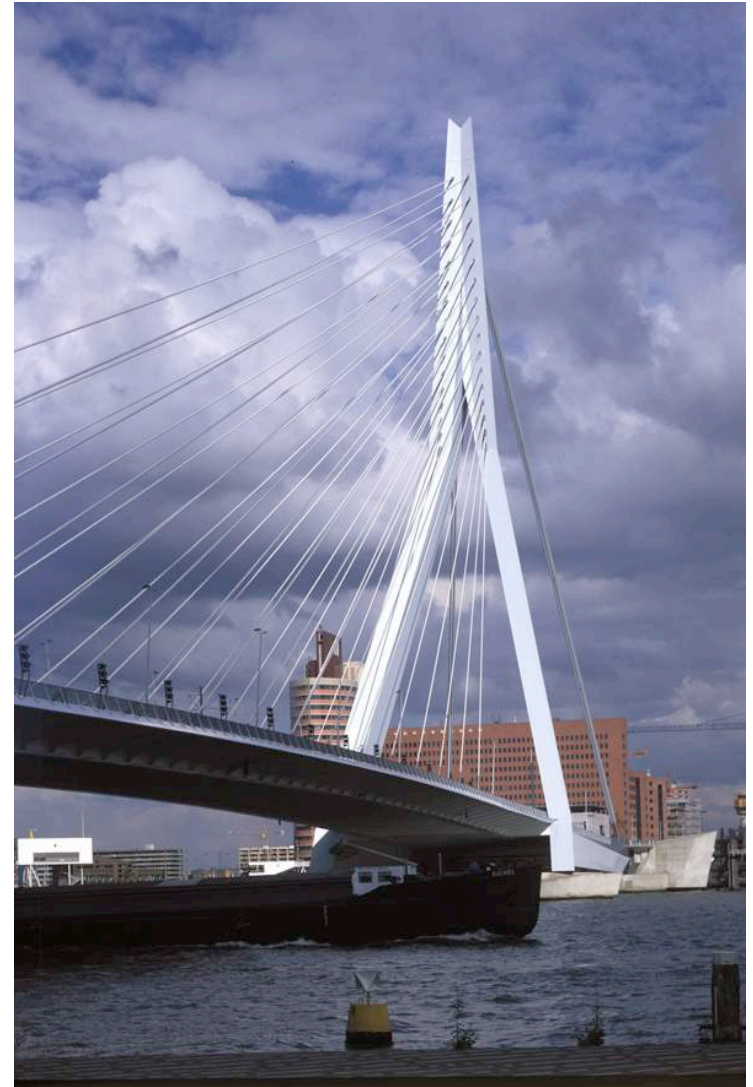
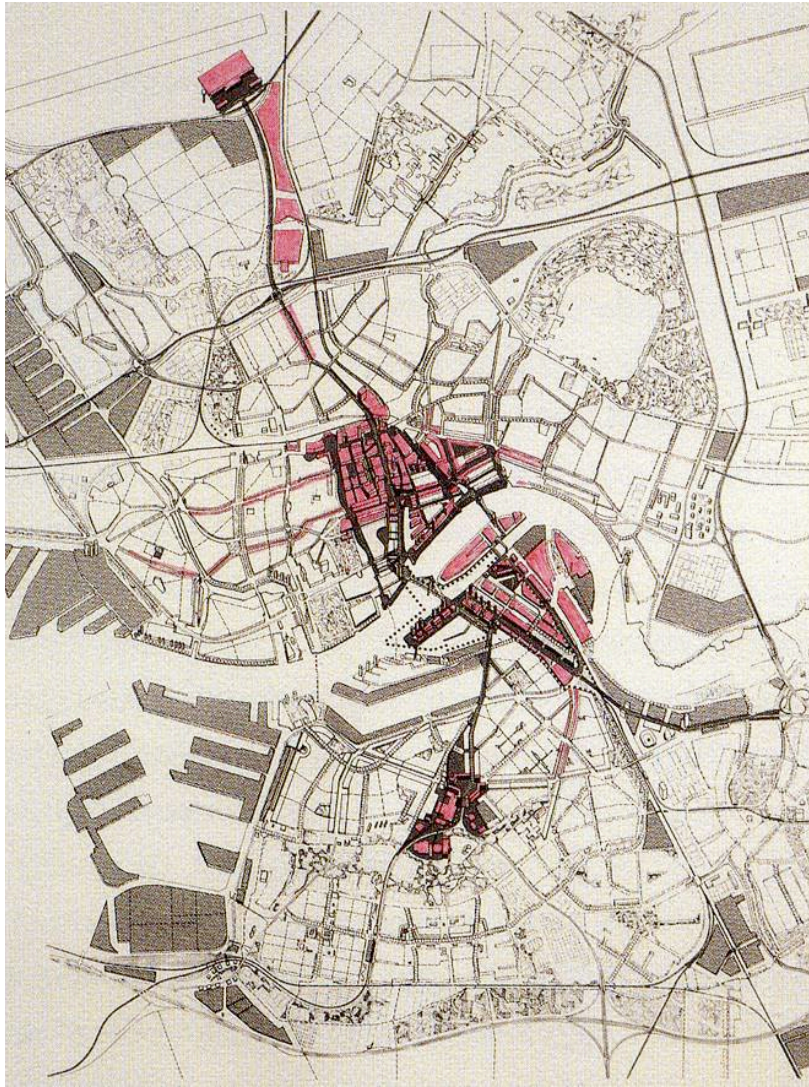




4. Recent developments Rotterdam Zuid

- **Connecting city centre with Zuid: city axes and Erasmusbrug 1992**
- **New activities in former harbours and new public spaces and profiles in the surrounding area**
- **Kop van Zuid: a new centre with offices, hotel and catering, culture and housing at the waterfront**
- **The river is no longer a barrier between two totally different worlds**
- **Connections along the southern bank, by public spaces and a new bridge Wilheminaapier-Katendrecht**

City axis Rotterdam and opposite side



Renewed Entrepothaven







The waterfront of Noordereiland seen from the Northern bank, behind it Kop van Zuid





New buildings around the Rijnhaven. What should be planned on the water now?



The view from the southern bank, Hotel New York towards the Veerhaven in the North



New pedestrian bridge between Wilhelminapier and Katendrecht

5. Developments in surrounding neighbourhoods

- **Views on the Rijn- and Maashaven**
- **Renewed old shopping streets Beijerlandse Laan**
- **Multifunctional connections from Kop van Zuid to surrounding neighbourhoods**
- **Recent developments on Katendrecht**
- **Growing social activity in Rotterdam Zuid**

Viewlines on Rijnhaven



Metroline is elevated

New buildings are freestanding

Creating an open and diverse view

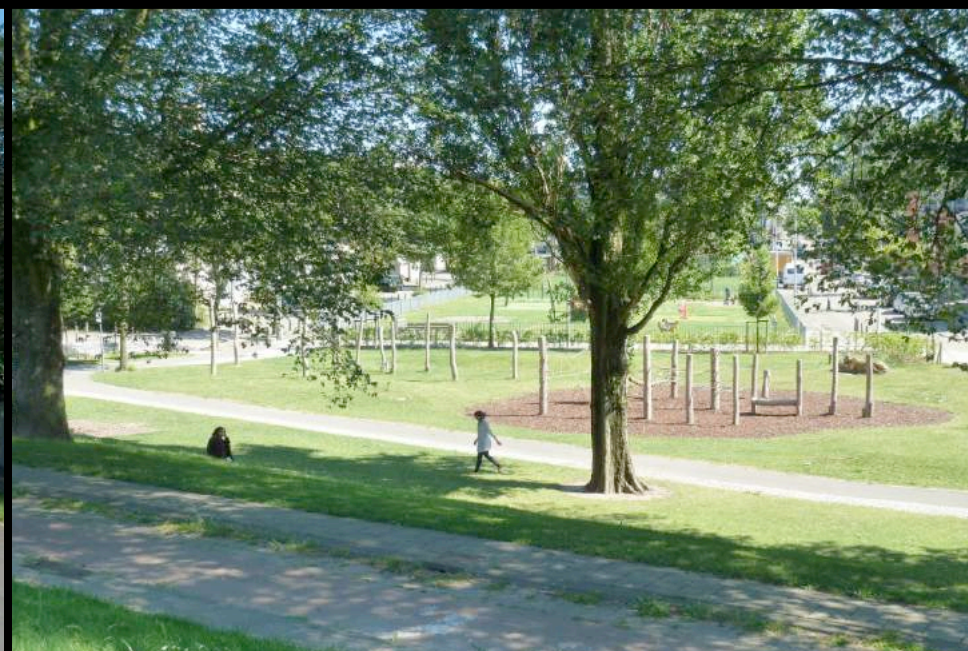




**Social housing build in 1984
integrated in the new environment**



New east-west axis in Kop van Zuid



New axis between Kop van Zuid and Hillesluis









Katendrecht: new individual housing with in the back the ss Rotterdam ship



Individual housing project was main impuls for Nieuw-Katendrecht



Katendrecht: new building and public green at the waterfront



Katendrecht: inhabitants maintain their own green, improving the public space



New activities in Katendrecht, story telling in theatre-restaurant Bellevue





6. Typology of city plans

A catalogue of city plan types

- **Medieval or historic building**
- **Dense housing areas following street plans around 1900**
- **Interbellum plans 1920 - 1940**
- **Postwar modernism: the open building block**
- **Cauliflower period 1970-1980**
- **New geometrical trends 1980-2000**
- **Vinex typology: eclectic urban design of the attractive**

Urban plan typology

On this scale level the urban pattern is able to recognize and design. Various typologies are specified, like the rational, monumental, functional, composite, contextual, coincidental or medieval plan. These urban plan typologies often correspond to certain periods where the specific pattern was the standard.

Typology	Characteristics	Archtype/example	Image
Medieval	<ul style="list-style-type: none"> - enclosed squares - crisscross patern - sponteneous composition of different buildings - coincidental measures 	<ul style="list-style-type: none"> - Italian historic centres - village centres 	
1200-1500			
Contextual	<ul style="list-style-type: none"> - cultral/geographic lines - for example rivercourse or agerian parcelling - random dimentionis - curved or lightly kniked walls - closed building blocks 	<ul style="list-style-type: none"> - old city districts - De Pijp, Amsterdam - Oude Westen, Rotterdam - Oude Noorden, Rotterdam - Romerstad, Frankfurt - Zijlweg area Haarlem 	
1880-1920			
Rational	<ul style="list-style-type: none"> - grid - fixed dimentionis - closed building blocks - flexible programs 	<ul style="list-style-type: none"> - Cerda-grid, Barcelona - Manhattan, New York - Quatieri Spagnoli, Napels - various France bastids 	
19th century			
Romantic	<ul style="list-style-type: none"> - flowing, curved lines - routes - serendipities - a lot of green - free-standing houses 	<ul style="list-style-type: none"> - The Crescent, Bath - v.Stolkkwartier, The Hague - Haarlemmer Hout - Professorenbuurt, Zeist 	
19th century			

Typology	Characteristics	Archtype/example	Image
Monumental	<ul style="list-style-type: none"> - symmetry with building in the middle - axes, long sightlines - star geometry 	<ul style="list-style-type: none"> - Haussmannian streets, Paris - Plan Zuid, Amsterdam - Oud West, Amsterdam - Spangen, Rotterdam - Garden towns, Oostzaan 	
1920-1940			
Functional	<ul style="list-style-type: none"> - open building block - orthogonal - repetition, stamping - "in ranks", strict 	<ul style="list-style-type: none"> - Corbusian plans - Western Garden towns, Amsterdam - Pendrecht, Rotterdam - Zuidwijk, Rotterdam 	
1950-1975			
Labyrinthian	<ul style="list-style-type: none"> - hexa- and octagonal - bayonet - dead-end streets - capricious forms - y-crossings - a lot of green 	<ul style="list-style-type: none"> - Bijlmermeer, Amsterdam - Buytenwegh de Leyens, Zoetermeer - Capelle Schollevaar - Waldeck, The Hegae 	
1970-1980			
Experimental/ Postmodern	<ul style="list-style-type: none"> - Geometry - Circular building - Grid with curved line(s) 	<ul style="list-style-type: none"> - Kattenbroek, Amersfoort - Emerald, Delfgauw 	
1980-1990			
Urbanised Landscape/ Composed	<ul style="list-style-type: none"> - A lot of water and green - Originated from existing landscape - Segments with diverse patterns 	<ul style="list-style-type: none"> - Prinsenland, Rotterdam - Ypenburg, Nootdorp - Leidsche Rijn, Utrecht 	
1900-now			

Medival and 17th century inner city patterns 1500-1880

Characteristics:

- Public open space is formed by the buildings
- Curved or natural street lines
- High density, closed building blocks, private inner courts
- Water and dikes form the basic structure
- Often restored in last century
- Often pedestrian (or boating) areas, low moterised traffic
- Many monuments, touristic and cultural function







Few historic neighbourhoods in Rotterdam



Witte Huis and reconstructed houses, Northern bank



BK 7210 urban plan typology Rotterdam Zuid - ir. Evelien Brandes



Historic village centre and dike in Rotterdam Zuid

Building closed blocks on the former landscape 1880-1920

Characteristics:

- Narrow streets, long rows of 3-4 storey houses
- High densities
- Closed building blocks, private innercourts
- Former ditch pattern forms the basis
- Often renovated in period 1970-1990



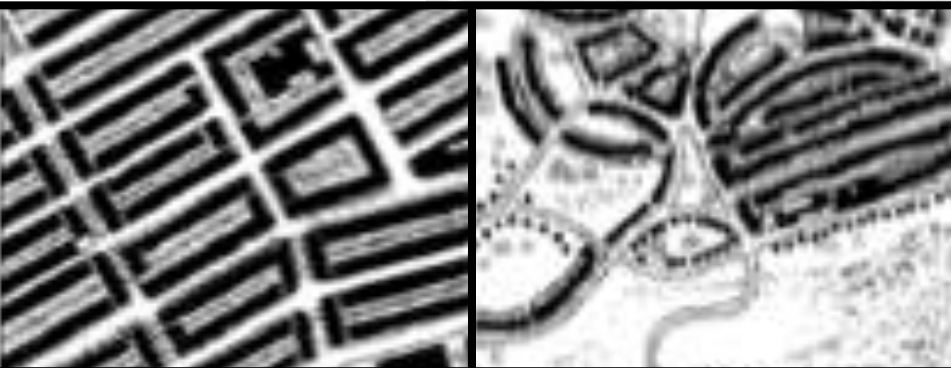


Aligned houses in long rows with retail functions in the plinth



Long dense residential streets in different class of quality

More exclusive neighbourhoods 1880-1920



Fusion between Contextual and Romantic typology





Vreewijk



Urban plan garden town 1920-1940

Characteristics:

- Symmetrical streets and buildings
- Axes with marker, hierarchy
- Front- and corner gardens
- Green collective courtyards
- Low-rise with traditional housing
- Public green: girth with banks
- Enclosed squares
- Collectivity, organized peaceful setting
- Social control



Kiefhoek



Heijplaat



Bloemhof

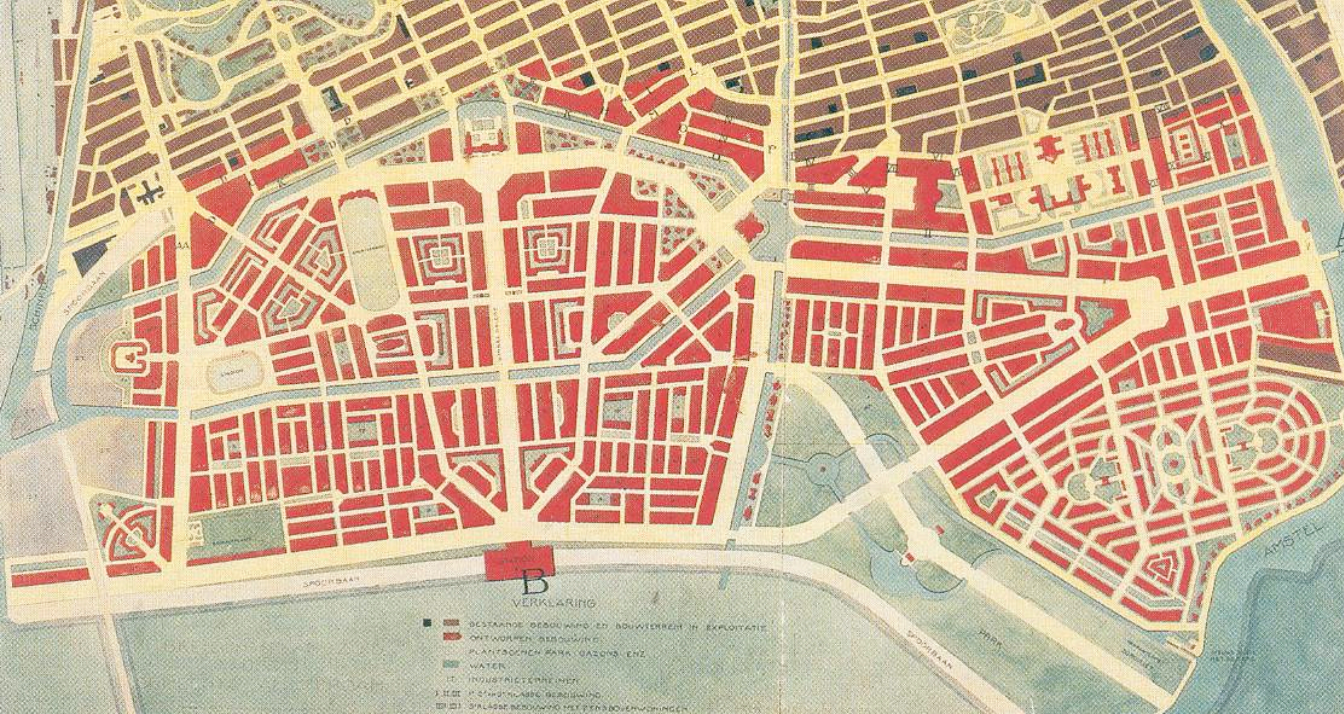


Garden village Bloemhof 1920-1940

Recently renewed by means of
restoring and new buildings



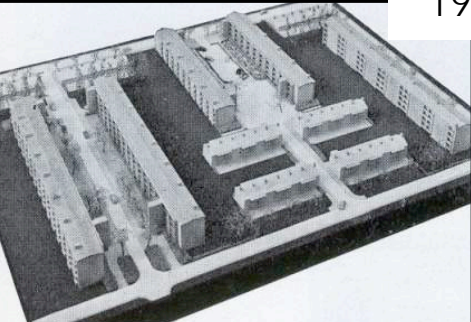
Urban form of 1920-1940 typology



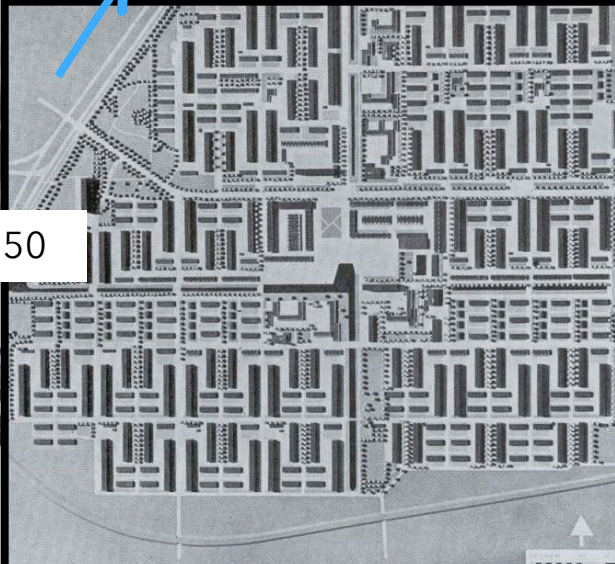
Post-war "stamp" construction rise and fall



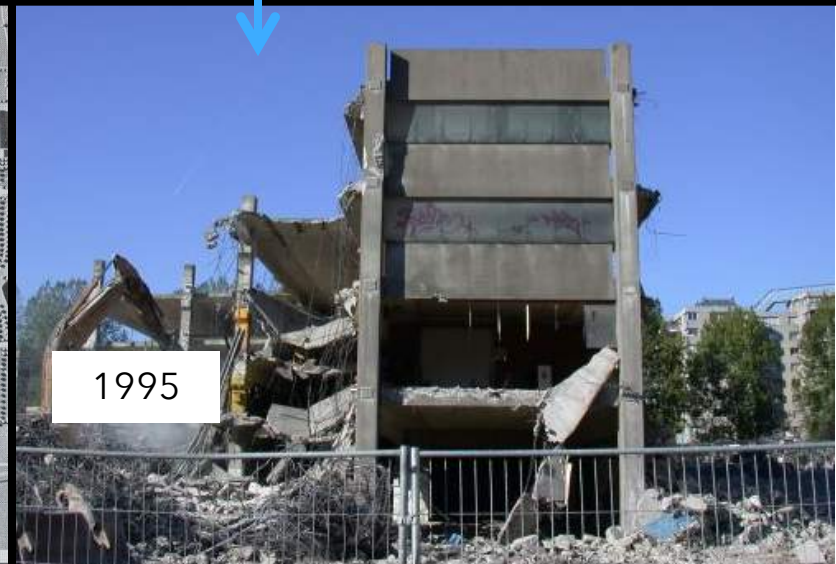
1950



1968

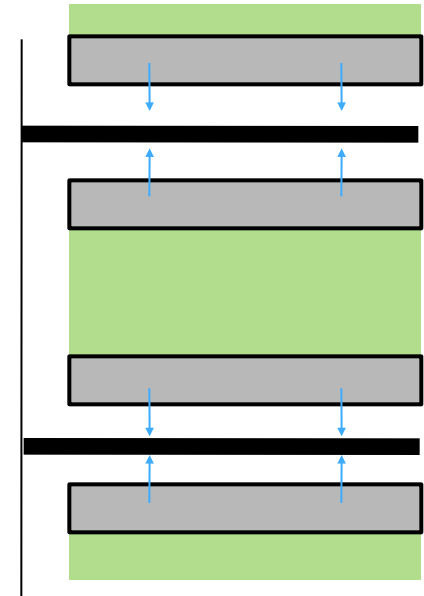
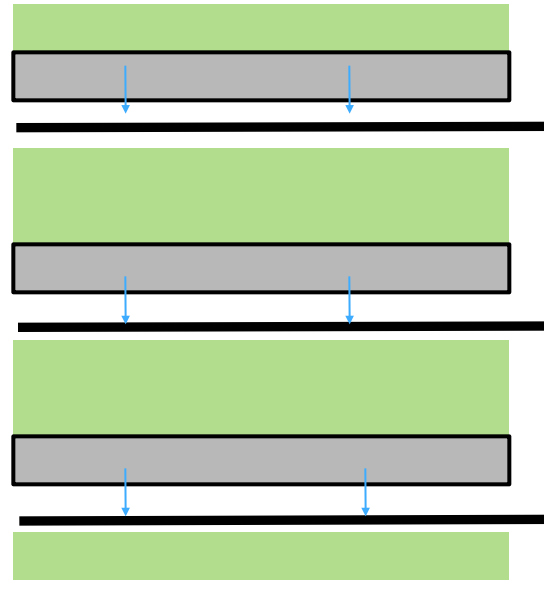


1985



1995

Postwar open strip parceling



Characteristics:

Short sides towards the access road

Introduced in Charlois and Carnisse

Basic principle in post-war neighbourhoods:
Pendrecht, Zuidwijk, etc.

In reconstruction sometimes abandoned



oriented behind each other



oriented towards each other

Cauliflower quarters 1970-1980

Characteristics:

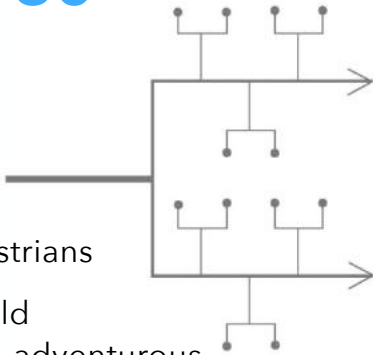
traffic system:

cul de sac

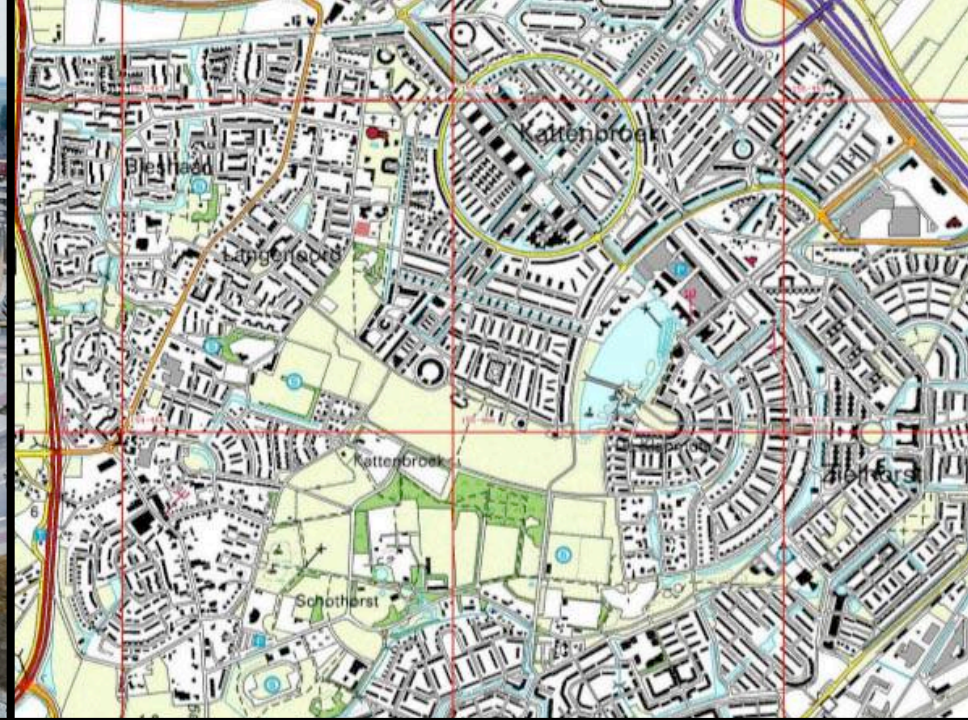
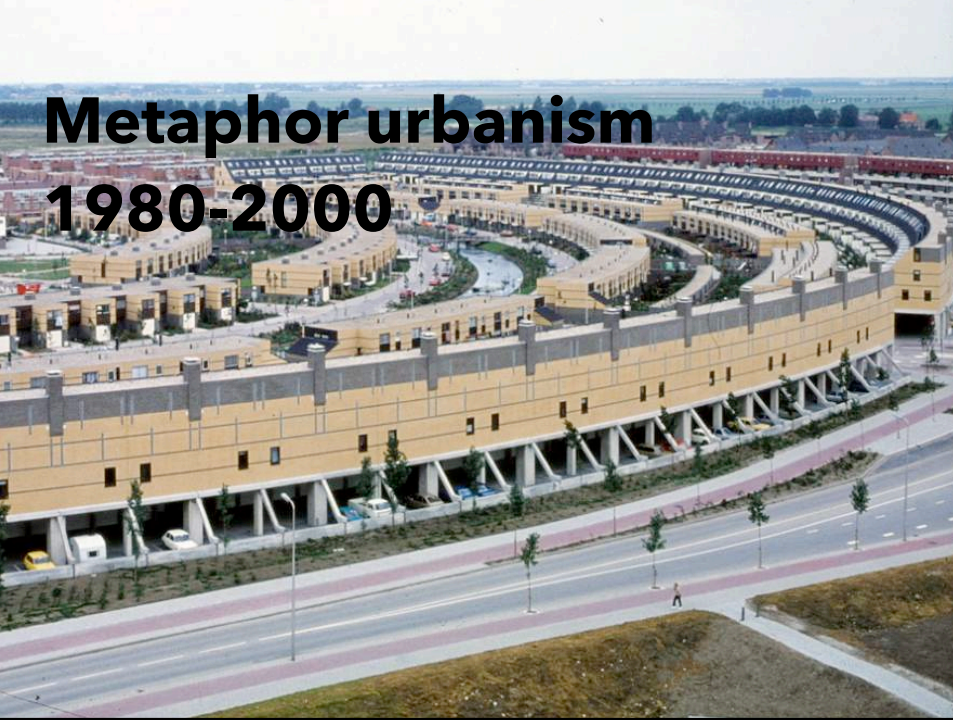
priority for pedestrians

green contra-mold
safe green strips, adventurous

small-scale, inwardly faced
neighbourhoods

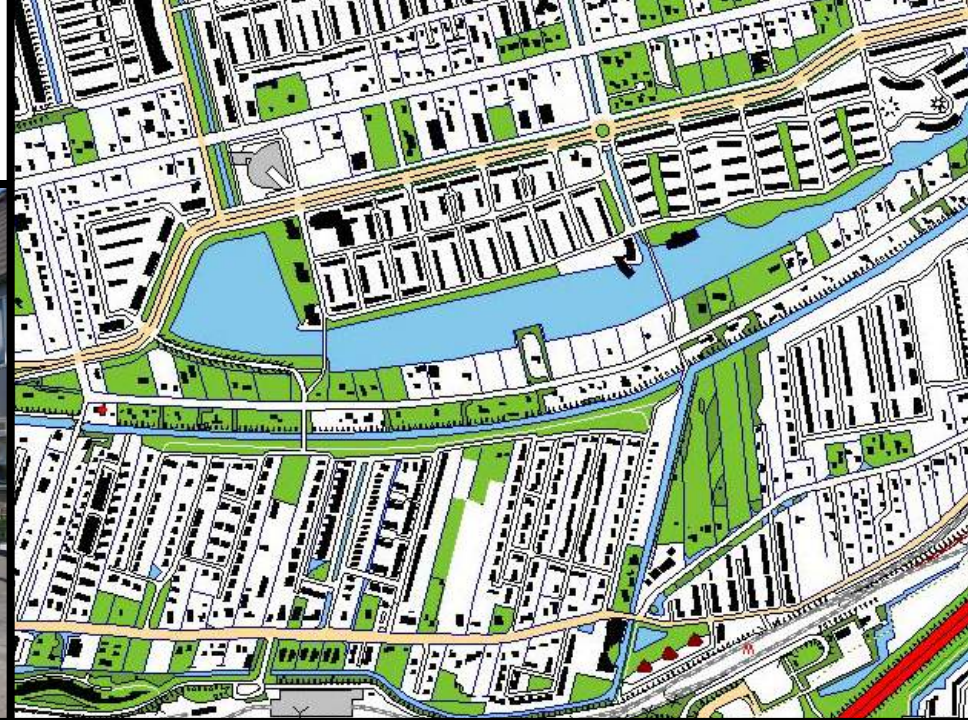


Metaphor urbanism 1980-2000



Kattenbroek, Amerfoort

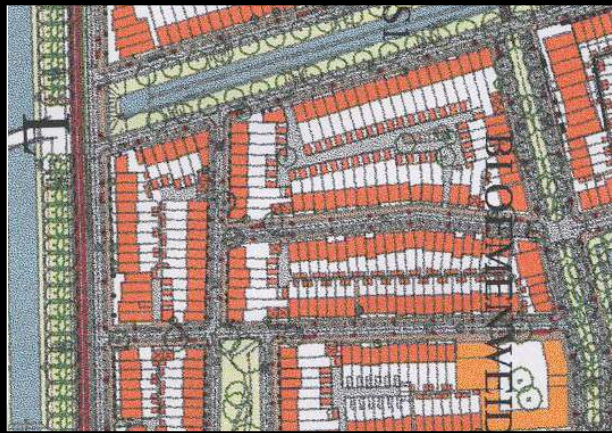
Urbanized landscape 1990





Vinex district 1995- 2010

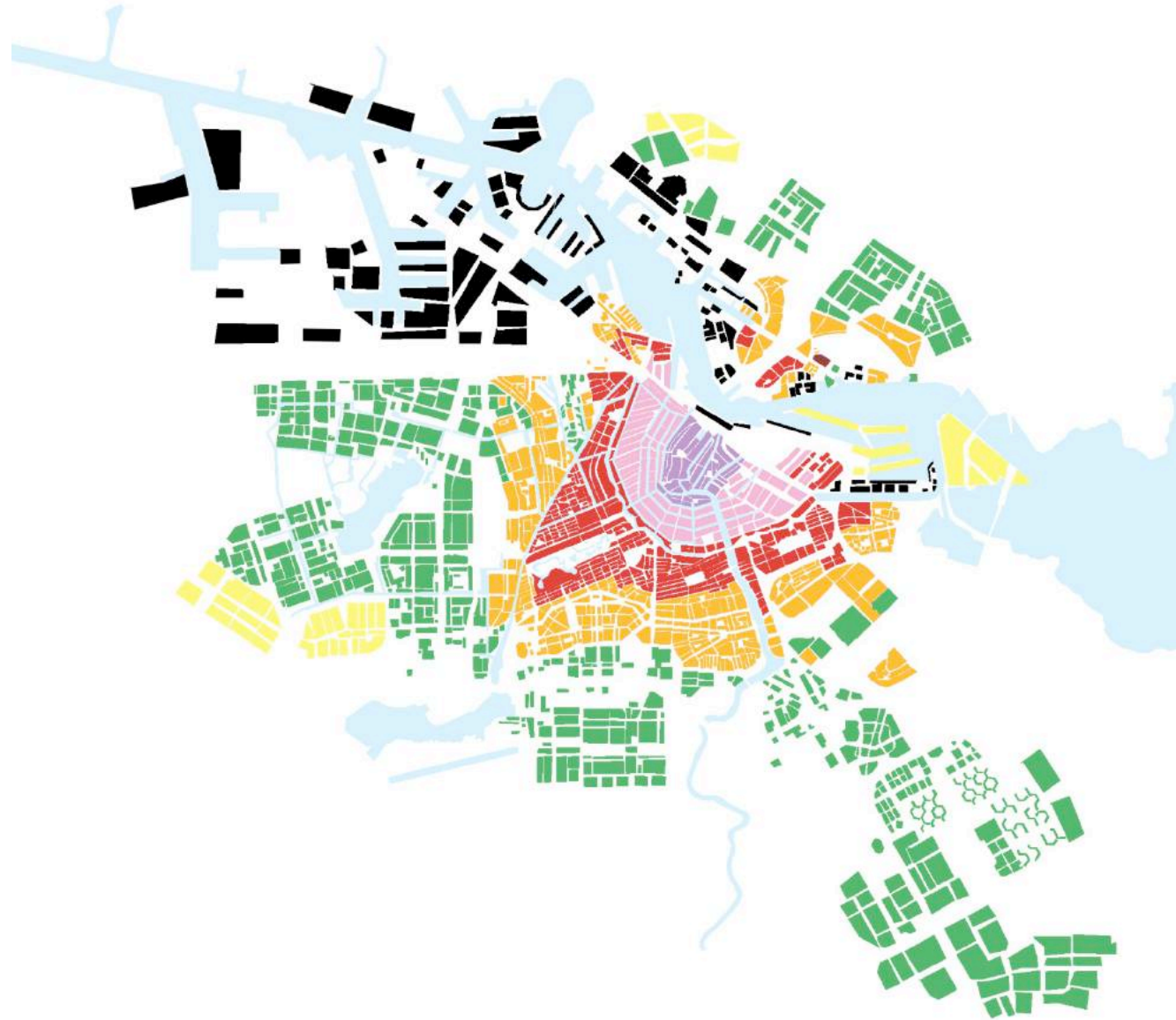


Vinex diversity: waterfront dwelling and diverse parcelling since 2000 onwards

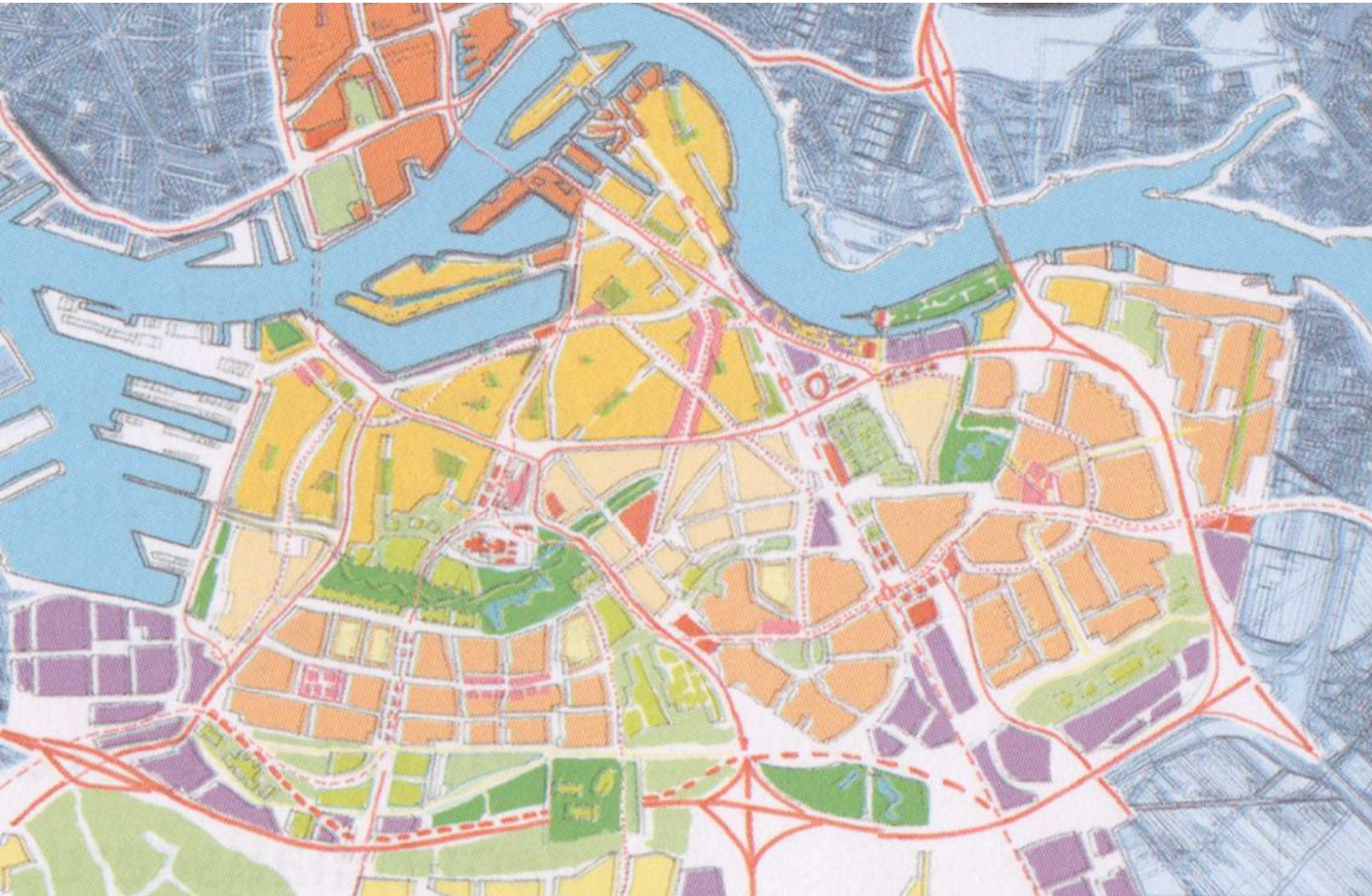


Urban typologies in Amsterdam

-  Historic inner city
-  Canal belt
-  First extentions
-  Belt '20-'40
-  Postwar stamp construction
-  Experimental
-  Harbour and industry



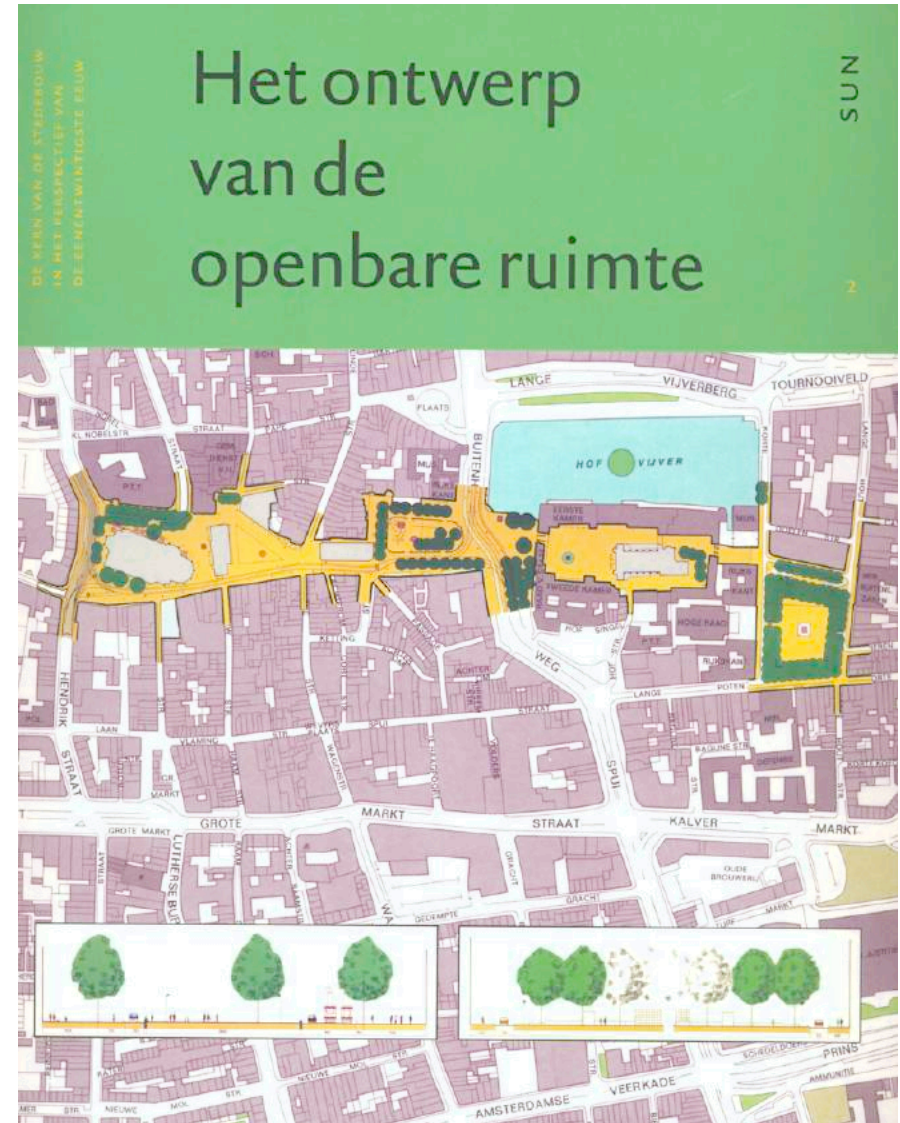
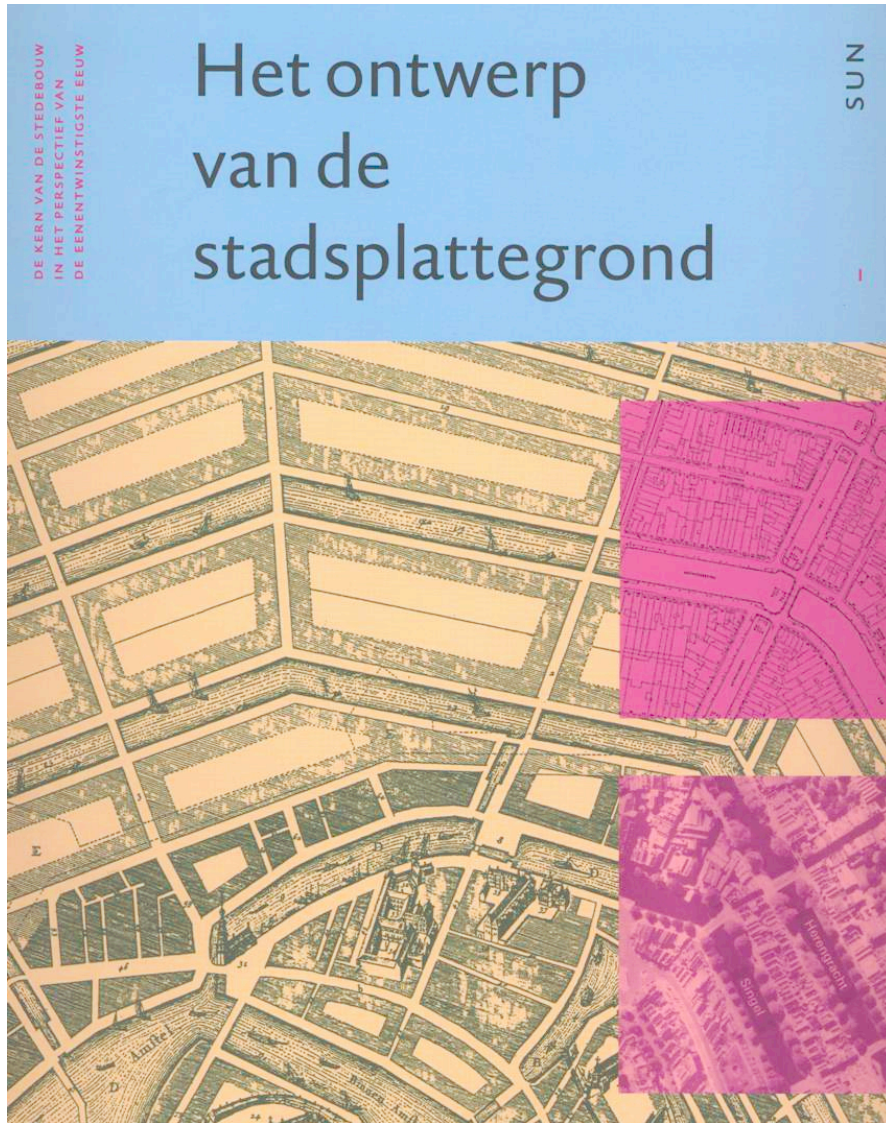
Urban typologies in Rotterdam Zuid



- centre
- city districts
- garden towns
- garden cities
- offices
- large greencores
- locale facilities
- main access route
- rail infrastructures



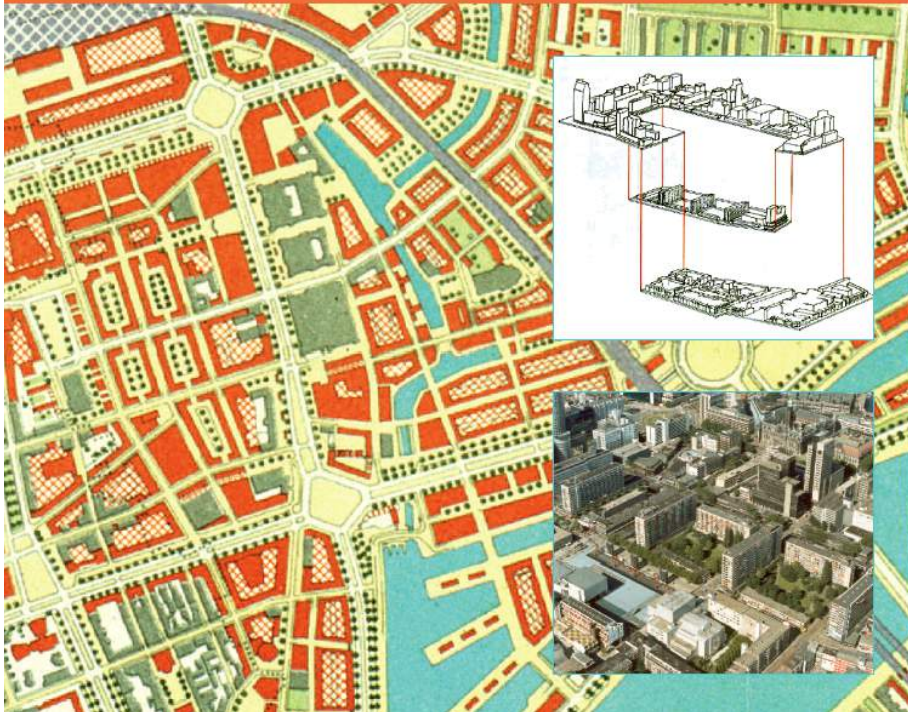
Four essential books to study urbanism



Stedebouwkundige regels voor het bouwen

SUN

3



De ruimtelijk- functionele organisatie van de stad

SUN

4



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