Learning from Rotterdam
and refreshing the urban block

Niek Slijkerman | 4060091
Lennart Krijger | 4102355
Loet Smeets | 1212036

MSc 3 Architecture, Public Building, Public Realm Rotterdam
Faculty of Architecture, Delft University of Technology
2012

Teachers | Nicola Marzot & Susanne Komossa
External examiner | Arie Romein
History and morphology of the Cool district, Rotterdam

1886
After the old city wall (that was on the Cool Vest) was torn down, the city grew westwards. This map clearly shows the distinction between the older part and newer part of the city. West to the Cool Vest the blocks are divided more in straight lines and the buildings are not as small as on the east side. There is also a difference in open spaces within the blocks.

1935-40
The Cool Vest has been closed and became Cool Singel. On its west side not much changed, only that some open spaces were filled up and the Luxor was built. On the east side though a lot has changed. New buildings with specific functions were built, as the stadhuis (1920), the post office (1923) and the stock exchange building (1940), to support the growing population and business.

1941
These are the remaining buildings after the bombing and subsequent fire. Rotterdam would have been a completely different city, if the old structure would still be intact. The plan for the Rotterdamse Bank (ABN) is already drawn.

2011
In the eighties an iconic tower was added to the stock exchange building of Staal. The Koopgoot is a phenomenon in retail design. It connects the shopping areas on the east and west side of the Cool Singel. Here and the city is densified through the years, which will be the trend for coming decades.

1976
The city government of Rotterdam decided to make a selection of buildings that should stay, other buildings that did survive the bombing were demolished. On the west side of the Cool Singel (except for the Luxor theatre) a complete new range of buildings was erected, with the new Lijnbaan as main axis.

In the seventies new high rises were added to the existing blocks. The ABN tower is an example. In recent plans most of the buildings from the seventies (like the ABN tower) will be demolished, which is notable, because earlier buildings are incorporated in the new plans. So are the seventies buildings not flexible enough?

Morphological history of Cool district
from 1886 till now
Researching the urban blocks

-organization
-history - morphology
-plan & section
-ambiance by photographs

12. Karel Doornmanhof

Karel Doornmanhof shows a glimpse of pre war Rotterdam, an historical image that has been lost while it still exists. Typical Dutch curtain facades present houses each with their own character while old and new fluctuate in the block.

This pre war image is only visible in the facades of the block, as the morphology of the block changed drastically in comparison to the 19th century morphology. A snake like row of buildings following the edges of the block, creating an very public inner world inside the block.
Categorized urban blocks

### Urban Analysis: Learning from Rotterdam

**Categorized urban blocks**

<table>
<thead>
<tr>
<th>Block</th>
<th>Urban Analysis</th>
<th>Learning from Rotterdam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. De Hofdame</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Kruiskadehof</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Hilton - Oude Luxor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ABN-AMRO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. De Lijnbaan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Joost banckertsplaats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Rotterdam building - SKVR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Jan Evertsenplaats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Bijenkorf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. ABN building</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Karel Doormanhof</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Klerk en Zn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Linea Nova</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. M.A. van den Broek en Bakema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Linea Nova block</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

- The urban blocks are categorized based on their architectural and functional characteristics.
- Each block contains various functions such as retail, office, and residential spaces.
- The blocks are designed by prominent architects like M.A. van den Broek en Bakema.

**Additional Points:**

- The blocks are designed in a creative manner to use the qualities of densification.
- The inner world of the block composition of prewar and new buildings, almost enjoying the peace, art, greenery, and architecture of the City-hall has been introduced.
- The City-hall has a public courtyard, allowing visitors to enjoy the moonlit entity it dominates the block.
- The Linea Nova block holds the extension of the Lijnbaan designed by Klerk en Zn, will introduce an extra square to the public realm.
- The Hofdame creates an inner courtyard with a collective garden, which is a vital atmosphere.
- Following the blocks boarders, the logies and routings from public to private create an atmosphere.
- The monumental bank, a building with a solid concrete structure and a brick facade.
- The monumental bank has been cut off from the public sphere, creating a 1958 school building by L. De Jonge.
- The ABN building is situated on the west side as a lowrise Lijnbaan building.
- The service roads between the public and private realms have diverse functions, containing the Bijenkorf, a hotel, a parking garage, and a concert hall.

**Further Reading:**

- Niek Slijkerman
- Lennart Krijger
- Loet Smeets
- Studio Rotterdam Learning from Rotterdam

**Diagram Notes:**

- The diagram shows the urban layout, with icons representing different functions and materials.
- The blocks are color-coded for easy identification.
- The diagram also includes images and drawings of the block designs and features.
Three typologies of urban blocks in Rotterdam

Karel Doormanhof

Lijnbaanhof

Hofdame
**diversity**
- random
courtyard: collective space
many small units
variety of materials
many different entrances

**hybrid**
diversity in functions
planned
courtyard: collective space
building curtain clearly defined
unity
one large unit
unity in materials
central entrances

**modernist**
planned
courtyard: public space
building curtain clearly defined
unity
few large units
unity in materials
Open spaces in the public realm of the Cool district

unilateral public spaces

enclosed collective spaces

service roads
Cool district - schematic overview

Cool district - footprint without service roads

Cool district - block borders
Lijnbaan; corners and borders
Unilateral domain of the Lijnbaan

By comparing the Lijnbaan with the Karel Doormanstraat and Coolsingel, we found differences between these streets. The most important difference is the level of diversity. The Lijnbaan has a unilateral character, it has a monofunctional system. Functions are separated as well as infrastructure. The Karel Doormanstraat has much more diversity in its organization, as well as the Coolsingel. We call this urban structure with diversity, complexity and density the urban fabric.
What the Cool district needs: urban fabric

Urban fabric:

‘An apparently chaotic, but dynamic system of interaction, idea and tolerance.’

Jos Gadets explanation of ‘urban fabric’, a term introduced by M. Sorkin

Haarlemmerdijk, Amsterdam

Greenwich Village, New York

Karel Doormanhof:
Existing urban fabric in Rotterdam
Creative and knowledge industry:
The information society is built up on knowledge, which is derived from creative business and innovation. One could say that knowledge is rather a product of smaller companies, self-employed people and freelancers.

Urban fabric is necessary for the growth of the creative and knowledge industry, which is the driving force behind the current urbanization. The economy of Rotterdam is mostly built up on the products ‘labour’ and ‘capital’, which are generated by the harbour. This huge harbour and the favorable location give the city an international character. But with the bombing in WWII, the city center was destroyed and replaced by a modernist, monofunctional structure. This is the main reason why Rotterdam misses a core for the urban fabric. We want to implement a program with diversity and complexity, which provides the creative and knowledge class. The hybrid building is an excellent form, also because density is an important condition for urban fabric.
Missing core for urban fabric in Rotterdam
Three zones in the center of Rotterdam

Oude Westen  Cool district

Binnenrotte
Urban setting - public transport

Central station Rotterdam
7 min.

Delfshaven Rotterdam
8 min.

Station Blaak Rotterdam
4 min.
Inward public space, has a collective character rather than a public sphere.

No connection between public space outside urban block and inside urban block.

Connection between public space outside urban block and inside urban block.
How to deal with the ANB AMRO building
routing and entrances

main entrances - transitions via steps

vertical routing

horizontal and vertical accessibility
various functions in the first layers

uniform outside skin, diversity in inside skin
## Program

<table>
<thead>
<tr>
<th>Category</th>
<th>Area (m²)</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education (25%)</strong></td>
<td>15000</td>
<td>- Instruction rooms&lt;br&gt;- Workspaces&lt;br&gt;- College rooms&lt;br&gt;- Canteen&lt;br&gt;- Secretary&lt;br&gt;- Offices&lt;br&gt;- Teacher rooms&lt;br&gt;- Specific program&lt;br&gt;- Pantry’s&lt;br&gt;- “student organization”&lt;br&gt;- ICT department&lt;br&gt;- Lounge areas&lt;br&gt;- Entrance&lt;br&gt;- Coffee corner</td>
</tr>
<tr>
<td><strong>Cultural (30%)</strong></td>
<td>18000</td>
<td>- Museum&lt;br&gt;- Restaurant&lt;br&gt;- Atelier&lt;br&gt;- Event stage&lt;br&gt;- Exhibition space&lt;br&gt;- Atelier&lt;br&gt;- Auditorium&lt;br&gt;- Pantry&lt;br&gt;- Toilets&lt;br&gt;- Office space</td>
</tr>
<tr>
<td><strong>Dwelling (20%)</strong></td>
<td>12000</td>
<td>- Work-living combined&lt;br&gt;- Short-stay&lt;br&gt;- Starters&lt;br&gt;- Sport&lt;br&gt;- Fitness&lt;br&gt;- Sauna&lt;br&gt;- Swimming pool</td>
</tr>
<tr>
<td><strong>Research institutes (10%)</strong></td>
<td>6000</td>
<td>- Lab&lt;br&gt;- Offices&lt;br&gt;- Toilets&lt;br&gt;- Pantry&lt;br&gt;- Pantry&lt;br&gt;- Toilets&lt;br&gt;- Office space</td>
</tr>
<tr>
<td><strong>Office (10%)</strong></td>
<td>6000</td>
<td>- Workspaces&lt;br&gt;- Meeting room&lt;br&gt;- Office space (type of appropriation)&lt;br&gt;- Fablab&lt;br&gt;- ICT-office&lt;br&gt;- Pantry&lt;br&gt;- Toilets</td>
</tr>
<tr>
<td><strong>Retail (5%)</strong></td>
<td>3000</td>
<td>- Retail&lt;br&gt;- Specialized shops&lt;br&gt;- Food &amp; drinks&lt;br&gt;- Bar&lt;br&gt;- Restaurant</td>
</tr>
</tbody>
</table>