CHAPTER ONE

INTRODUCTION
WATER - BARELY ACCESSIBLE

PROBLEM:
EMPTY STREETS + IGNORED WATER

WATERFRONT FOR PARKING

CLOSED SHOPS - NO PEOPLE

PUBLIC PLACES - NOT WORKING
What are the spatial strategies and multifunctional qualities that can be used and designed in order to regenerate urban spaces (along the Rotter River in the city center of Rotterdam) into attractive public places for citizens and visitors, with special focus on creating accessibility towards the water (Rotte River), and to be well integrated in the current urban pattern of the city center (of Rotterdam)?

First, by term 'Spatial strategies', designed system of different size and type spaces, is meant. Which will be developed based on various studies (spatial site analysis) and theories (literature review) with a focus on designing comfortable, attractive and safe environment for public use.

Secondly, by term 'Multifunctional qualities' a combination of different, mainly public use, facilities is meant. By which operating, a diversity of various functions (recreational, leisure, etc.) and activities (cultural, educational, etc.) in the area can be ensured.

By mentioning 'Accessibility towards the water (Rotte River)', a solution to the problem, of missing links between streets and water, is presented. By creating physical and psychological links to water, it would enrich the quality of the public place, and would make it outstand among other public spaces in the city center of Rotterdam.

By collocation 'Integration of public place in the current urban pattern of city center of Rotterdam' the solution to the existing urban problems, which are that nearby public spaces (shopping streets) are mostly crowded and the project area is empty of people most of the time, is proposed. It is essential to improve edges of the area and urban connections of public place, in order that the area could be reached and recognised from nearby urban spaces.
Conversion of **urban spaces** (along the Rotte River in the city center of Rotterdam) into **public places**.

By term ‘Urban spaces’ a specific location along the Rotter River in the city center of Rotterdam is implied. As mentioned earlier in the section ‘Problem statement’, the chosen area for the project includes many problems. Which causes the area being a set of urban spaces in the city, which are abandoned and not used by citizens. Therefore the main aim is to convert urban spaces into public places.

By term ‘Public place’, a diverse outdoor area, open to public, of different age and cultural backgrounds, to enjoy daily life of the city and to do various activities (recreational, cultural, etc.) is implied.
PROJECT RELEVANCE

Top: crowded Hoogstraat during open hours of nearby shops. Below: the same empty street after shops are closed.
Source of photos: made by the author.
METHODOLOGY

LITERATURE REVIEW
- Development/management history/future plans of Rotte River in Rotterdam.
- Improvement of relation between ground floor and outdoor space on street level.
- Design criteria for pedestrian friendly streets, of river waterfront in public space in the city, of well-used small public places in city center, other.

OBSERVATION
- Registration of human behaviour
- Static snapshots
- Architectural value of buildings
- Unused/vacant spaces

MAPPING
- Spatial qualities
- Historical of urban development of the area
- Architectural value of buildings
- Unused/vacant spaces

MODELING & DRAWING
- Analysis of spatial qualities
- Design proposals in a 3D model
- Sun/shadow study
One of the research questions stands for historical development of Rotte River, next to which area of the project is located. The answer contributes to evaluate and understand the current urban situation of the area and future plans of its development. This chapter views development of Rotter River in three different scales. First to look at bigger scale of water development in Rotterdam, the relationship between city and river mass in historical development of Rotterdam is overviewed. Second, the way how Rotter River changed its way during time is illustrated and commented. Then the chapter is completed with analysis of area around St. Laurenskerk Church and its relation to river Rotte.
HISTORICAL DEVELOPMENT OF ROTTE RIVER + WATER IN R’DAM TODAY
ORIGINAL ROTTE RIVERBED
CONCEPT: HISTORICAL WATER EXTENSION
Design of Public Place

Protection

Protection Against Traffic & Accidents
(Feeling Safe):
- Protection for pedestrians
- Eliminating fear of traffic

Protection Against Crime & Violence
(Feeling Secure):
- Lively public realm
- Eyes on the street
- Overlapping functions
- Day & night
- Good lighting

Protection Against Unpleasant Sensory Experiences:
- Wind
- Rain/snow
- Cold/heat
- Pollution
- Dust, noise, glare

Opportunities to Walk:
- Room for walking
- No obstacles
- Good surfaces
- Accessibility for everyone
- Interesting facades

Opportunities to Stand/Stay:
- Edge effect/attractive zones for standing/staying
- Supports for standing

Opportunities to Sit:
- Zones for sitting
- Utilizing advantages: view, sun, people
- Good places to sit
- Benches for resting

Opportunities to See:
- Reasonable viewing distances
- Unhindered sightlines
- Interesting views
- Accessibility for everyone
- Lighting (when dark)

Opportunities to Talk and Listen:
- Low noise levels
- Street furniture that provides ‘talkscapes’

Opportunities for Play & Exercise:
- Invitations for creativity, physical activity, exercise and play
- By day and night
- In summer and winter

Scale:
- Buildings & spaces designed to human scale

Opportunities to Enjoy the Positive Aspects of Climate:
- Sun/shade
- Heat/coolness
- Breeze

Positive Sensory Experiences:
- Good design & detailing
- Good materials
- Fine views
- Trees, plants, water

The 17 ‘Street-for-Life’ Design Features:
(Ranked from Most to Least Important)

01. A mix of uses, including plenty of services and facilities and open space
02. Wide, smooth, non-slip footways (without cycle lanes)
03. Frequent roads crossings with audible and visual cues suitable for older people
04. Clear signs throughout
05. Frequent wooden seating, with arm & back rests
06. Small blocks laid out on an irregular grid (with minimal crossroads)
07. Clearly market level changes, with handrails
08. Grade-level toilets
09. Enclosed bus shelters, with seating
10. Varied urban form & architecture
11. Buffer zones between busy roads & footways (e.g. trees & grass verge)
12. Landmark, distinctive structures & places of activity
13. A hierarchy of streets from main to side
14. Spatial/distinctive features at junctions
15. Buildings with evidents (i.e. prominent) entrances
16. Buildings designed to reflect uses
17. Gently winding streets


Scheme of street design quality for people to be able to stay and recreate in urban space, which is necessary for a lively urban environment. Source of the scheme: made by the author, based on (Gehl 2010, cited in Wolters 2013).
# Design of Public Place

<table>
<thead>
<tr>
<th>Conditions for Quality in Streets as Public Places</th>
<th>01. Feeling of being safe and welcome</th>
<th>02. Opportunity to socialize</th>
<th>03. Possibilities for main outdoor activities: walking, standing, sitting</th>
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<tr>
<td>04. Protection from intensive traffic</td>
<td>05. Possibilities to move without barriers</td>
<td>06. Multifunctional facilities in surrounded buildings</td>
<td>07. Attractive street destinations</td>
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Inference scheme based on literature review paper. Source: made by the author.
DESIGN OF PUBLIC PLACE
DESIGN OF WATERFRONT
HISTORICAL RIVER ROTTE
URBAN PATTERN
HISTORICAL WATER LAYER
INFRASTRUCTURE AXES
MODERNISTIC DEVELOPMENT
PEDESTRIAN (SHOPPERS) FLOWS
PARKING ALONG THE WATER
INTERFERENCES TO MOVE
INTERFERENCES TO MOVE
CONCEPT: IMPROVEMENT OF WALKABILITY
CONCEPT: MULTIFUNCTIONALITY
CONCEPT: OPEN & TRANSPARENT FACADES
EXISTING SITUATION
CONCEPT
LINKS BETWEEN PUBLIC PLACES

- MONUMENTAL ELECTRIC POWER HOUSE
- SHOPPING STREET LEADING TO MARKET SQUARE
- HISTORICAL ST. LAURENSKERK CHURCH
- MONUMENT FOR ERASMUS
- ST. DOMINICUS CHURCH
- SECONDARY SCHOOL
- PENCIL HOUSE
- CUBIC HOUSE
- MARKET SQUARE 1940
- MARITIME MUSEUM
- GREEN POCKET PARK
- DAM OF R'dam
- WATERFRONT
- ONE MAN PARK
- CHINESE FOOD RESTAURANT
- FAST FOOD RESTAURANT
- TEA HOUSE
- COFFEE HOUSE
- BAR / LOUNGE / CLUB
- MUSIC CLUB
- CULTURAL/HISTORICAL WALKING ROUTE
- WALKING ROUTE ALONG RESTAURANTS
- WALKING ROUTE ALONG COMMERCIAL FACILITIES
- CULTURAL OBJECTS
- RESTAURANTS
- MAIN COMMERCIAL AXES
- DESIGNED WATERFRONT + EMPTY OUTDOOR SPACE FOR EXTENSION OF RESTAURANTS INDOOR SPACE
- DESIGNED PUBLIC PLACES
- ACCESSIBILITY TOWARDS THE WATER
- TREES
- WATER
- SQUARE 1940 MARITIME MUSEUM
- MARKET HALL
- SECONDARY SCHOOL
DESIGN OF PUBLIC PLACE #01
ANALYSIS OF SPATIAL POSSIBILITIES #04
ANALYSIS OF SPATIAL POSSIBILITIES #05
ANALYSIS OF SPATIAL POSSIBILITIES #06
IMPRESSION OF PUBLIC PLACE DESIGN
CARS’ STREET CONVERT TO PEDESTRIAN ROUTE
AVAILABLE SPACE FOR WATERFRONT REDESIGN
NEW TREES
PEDESTRIAN BRIDGE TO ‘DAM’ PUBLIC PLACE
DESIGN OF PUBLIC PLACE #03

ONE MAN PARK
+
CHURCH SQUARE
MOVE OBSTACLES TOWARDS THE WATER
AVAILABLE SPACE FOR WATERFRONT REDESIGN
EXISTING TREES + GREEN GROUND = ONE MAN PARK
SAVE TREES ON THE SAME LEVEL
SAVE TREES ON THE SAME LEVEL + GREEN PARK
STEPPED TRANSITION TOWARDS THE WATER
STEPPED TRANSITION TOWARDS THE WATER + RAMPS
IMPRESSION OF PUBLIC PLACE DESIGN
SUMMARY

What is the problem of the project area?

- Streets are empty
- Nearby water is ignored

Why?

- Nearby shopping streets are crowded during very hours, but empty when closed?

GOAL:
Urban Spaces converted into Public Places

Result of postwar urban redevelopment of city center of Eilam

SYSTEM OF DIFFERENT WALKING ROUTES + PUBLIC PLACES ALONG THE WATER

- Walking without shopping
- Airing the water
- What will people do there?

DESIGN

3 DESIGNS: 3 PUBLIC PLACES

- Design of system of walking routes & public places

VISION OF THE WHOLE PROJECT AREA

Walkability
- Improved
- Integrated

Accessibility
- Improved
- Improved of public places

Extension of Little River
- Creation of historical value of the area

New pedestrian bridges
- Design integration in existing urban pattern

Accessible waterfront
The present section overviews the time planning of the project. The diagram below illustrates what was delivered and introduced at each presentation during graduation process. The image also shows what parts of the project were worked during five stages of the master thesis.

Roughly summarized the first half of the project was focused on creating theoretical and analytical frameworks parallel to proposing vision of the whole area and concept of design. The second part of the thesis, heading towards P4 (GO/NO GO) presentation was intended for clarifying design proposal for the fragment of the project area and creating detailed design for the three chosen public places.

Final outcomes of the project – master thesis present booklet and public presentation are planned at the end of graduation year.