
THRESHOLD _____ BETWEEN LAND AND SEA _____

New Waterborne Transport Node for the City of Maputo

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*For Mom and Dad,
I could not have done it without you*

Thank you to Jacques, Prof Bakker and Edna

Thank you to my sisters, brothers and friends for all your help, encouragement and support.



And to my God, who makes it all possible

“For I know the plans I have for you,” declares the Lord, “plans to prosper you and not to harm you, plans to give you hope and a future.” -Jeremiah 29:11 (NIV)

CONTENTS

PREFACE	xi
ABSTRACT	xv
SAMEVATTING	xvii

01 DISSERTATION INTENTION

1.1 Introduction	3
1.2 Aim of the Chapter	3
1.3 The Need for Water Transport in the Bay of Maputo	4
1.3.1 Current situation	
1.3.2 Development and its influence on the need for increased water transport	
1.3.3 Conclusions	
1.4 Urban Intention	9
1.4.1 Connection to the wider bay context	
1.4.2 Connection to the Baixa	
1.5 Client	10
1.5.1 Brief	
1.5.2 Program	
1.6 Project Aims and Objectives	12
1.6.1 Maputo's water-borne transport infrastructure	
1.6.2 Linking the bay with the rest of the city	
1.6.3 Contextual design	
1.7 Design Challenges	13
1.8 Design Approach	14
1.9 Research Methodology	14
1.10 Delimitations and Assumptions	16

02 SITE LOCATION AND CONTEXT

2.1 Introduction	21
2.2 Aim of the Chapter	21
2.3 Geographic Context	22
2.4 Historic Context	26
2.4.1 A brief history of Mozambique	
2.4.2 A synopsis of recent history	
2.4.3 Historic context of Maputo	
2.5 Social Context	30
2.6 Precinct Context	32
2.6.1 Site location	
2.6.2 Baixa character	
2.6.3 Transport within the Baixa precinct	
2.7 Site Context	36
2.7.1 Site plan showing immediate context	
2.8 Environmental Context	40
2.8.1 City climate	
2.8.2 Tidal range	
2.9 Architectural Response	42

03 URBAN DESIGN

3.1 Introduction	47
3.2 Aim of the Chapter	47
3.3 Past and Present Planning Frameworks	48
3.4 Proposed Baixa Urban Master Plan Considerations	50
3.5 Objectives of the Proposed Urban Master Plan	52
3.5.1 Connection of open space networks	
3.5.2 Define transport interchanges as connective nodes	
3.5.3 Use streets as connectors	
3.6 Proposed Baixa Urban Master Plan	56
3.7 Objectives of the Proposed Waterfront Precinct Spatial Development Framework	58
3.8 Urban scale precedent study	58
3.8.1 Darling harbour, Sydney	
3.6.2 Victoria and Alfred Waterfront, Cape Town	
3.9 Waterfront Opportunities	62
3.10 Harbour Study	63
3.11 Proposed Waterfront Precinct Spatial Development Framework	64
3.12 Detailed Urban Intention for the Site	66

04_THEORETICAL APPROACH					
4.1 Introduction	71	5.5 Concept refinement	94	5.15 Rainwater Harvesting	120
4.2 Aim of the chapter	71	5.5.1 Transport user		5.16 Material Choice	122
4.3 Order	72	5.5.2 Recreational user		5.16.1 Concrete	
4.4 Place	72	5.5.3 Destination user		5.16.2 Brickwork and Blockwork	
4.4.1 Precedent informing the theoretical approach		5.6 Precedents	98	5.16.3 Timber	
4.5 Orientation	76	5.6.1 Baragwanath Transport Interchange		5.16.4 Stainless Steel	
4.6 Theories as Design Informants	76	5.6.2 Yokohama International Port Terminal		5.16.5 Galvanized Steel	
4.7 Conclusion	77	5.7 Architectural Design Imperatives	102	5.16.6 Cor-ten Steel	
		5.8 Connection	102	5.16.7 Natural Materials	
		5.8.1 Travel Edge		5.16.8 Planting	
		5.8.2 Public Edge		5.16.9 Other	
		5.8.3 Relationship of the building to the square		5.17 Consolidation	123
		5.8.4 Urban square design development opportunities			
05_DESIGN DEVELOPMENT		5.9 Orientation	110	06_DRAWINGS	
5.1 Introduction	81	5.9.1 Orientation for user: ordering system		6.1 Design Development Drawings	127
5.2 Aim and overview of the chapter	81	5.9.2 Movement through the building		6.2 Spatial Impressions	143
5.2.1 Aim		5.9.3 Ticketing		6.3 Graphic depictions	147
5.2.2 Overview		5.10 Mediate	112	6.4 Models	151
5.3 Conceptual Design Intentions	82	5.11 Contextualism	114		
5.4 Spatial exploration of concept	84	5.11.1 Historic		GLOSSARY OF TERMS	159
5.4.1 First iteration model		5.11.2 Social			
5.4.2 Second iteration model		5.11.3 Environmental		SCHEDULE OF FIGURES	160
5.4.3 Third iteration model		5.12 Design Refinement	116		
5.4.4 Fourth iteration model		5.13 Structure and Construction	118	REFERENCES	163
5.4.5 Iterative exploration of concept translated to waterfront precinct		5.14 Building Climate	119		
5.4.6 Conclusion					

*“Buildings, in their simplest form, are made of **vectors** and **envelopes**. How one enters a building and moves through it constitutes the vectors. What keeps out the rain, cold, heat, noise and burglars constitutes the envelope. **Vectors activate; envelopes define**.*

*Vectors typically are related to **program**. Envelopes usually respond to **context**, whether social, cultural, political or geographic. Together, **vectors, envelopes, programs** and **contexts** are the basic terms of the **architectural equation** - a simple proposition that centuries of art and architectural history somehow have obscured. **Materials**, of course, are another important factor: architecture is the materialisation of ideas or concepts. But materials can also be understood as part of the sociocultural, political or geographic context.”*

- Bernard Tschumi (2003:64)

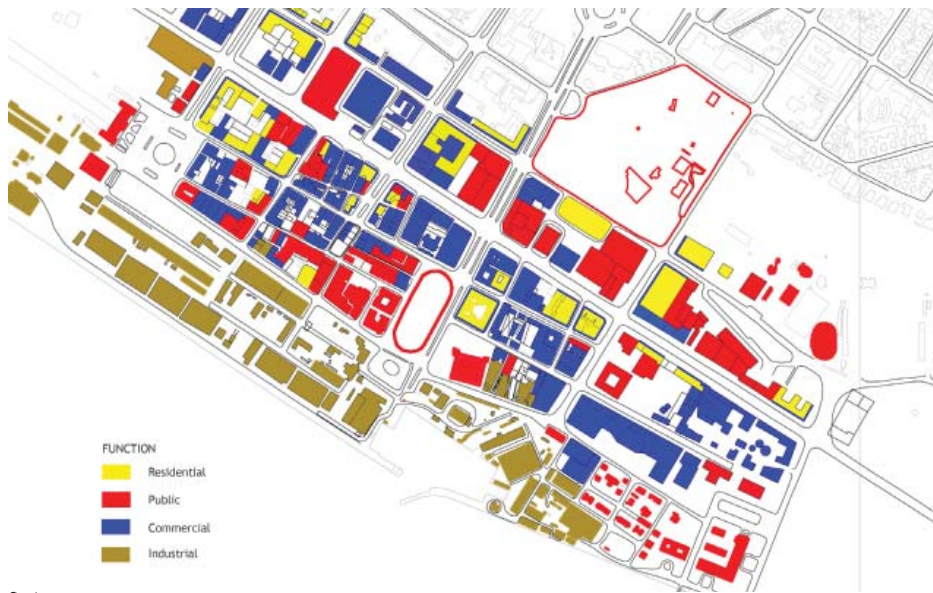


fig i

PREFACE

The Maputo Masters studio originated from an international co-operation involving the University of Pretoria, Eduardo Mondlane University in Maputo, and Technical University Delft in the Netherlands. The studio focus was on contextual design, with the revitalisation of Maputo's historic Baixa being the topic of study.

Initial Fieldwork

Initial fieldwork began during the June recess in 2010, when a group of Pretoria Honours students participated in a workshop in Maputo with students from Eduardo Mondlane University. The focus of the fieldwork was a Quickscan of Maputo's downtown Baixa district, under the guidance of Dr Jean Paul Corten of The Netherlands Cultural



fig ii



fig iii

fig i.
Quickscan mapping showing Functions of buildings in the Baixa, categorized as Residential, Public, Commercial and Industrial, revealing opportunities for intervention.

fig ii.
Quickscan mapping showing Historical Identity of buildings in the Baixa, categorized as Contributing, Neutral, or Distracting to the overall precinct character, revealing opportunities for intervention.

fig iii.
Quickscan mapping showing Technical Condition of buildings in the Baixa, categorized as Good, Moderate, or Bad condition, revealing opportunities for intervention.

Heritage Agency. The Quicksan method involves analyzing a defined area according to certain criteria, based on the analyzing team's first impression. The findings are not intended to be scientific, but are used as a tool to gain an understanding of the context.

The goal of the Quicksan was to get a foundational impression of the state of the Baixa, based on three criteria; firstly Historical Identity of each building, secondly the State of Maintenance and finally the Current Program. The resultant data became the first indicator of the Baixa's development potential.

The results of the Quicksan revealed the Baixa's core to be a legible precinct within a vibrant

African metropolis that distinguishes itself from the latter by its modesty, particularly in urban fabric, architecture and infrastructure. (Corten, 2010:4)

The scan further showed that vehicular borders separate the fine grain Baixa from large-scale Maputo. The Baixa is nevertheless well connected to the expanding city through vehicular connectors from the north, and the precinct's two main squares serve to extend the historical Baixa into the surrounding city.

The Quicksan exercise concluded that the Baixa is both the historic and geographic centre of the city. It is well served by rail, road and water transport, but

is in need of revitalisation. The strategic geographic position is a positive and strong driver for future development, with the historic legibility a valuable asset to revitalisation.

Further Research

In February of 2011 a second workshop and on-site research took place in Maputo. This time it included students from all three universities participating in the contextual studio. This workshop focused on creating a vision for the revitalisation of the Baixa as a primary goal from which to work further.

Experiencing the city as a pedestrian led to the formation of responses and impressions of the city.

A profound initial impression was the immense influence the sea has on Maputo as a city, while the proximity of the sea is barely perceived in the Baixa. A second impression was that the commercial port, fishing harbour, water transport and leisure did not translate into the language of the city core. These impressions exist mainly because the sea is not accessible to the public from the Baixa. The ocean, the lifeblood of Maputo, is completely disconnected from the downtown.

A strong and consistent view from all workshop groups was thus that the revitalisation of the waterfront and the reconnection of the bay with the city would have a positive effect on the revitalisation of the Baixa.



fig iv_
Initial impression
sketch of
Maputo City from
Catembe across
the Bay, noting
the impact of
the city skyline
on the Bay. The
influence of the
Bay on the City
however seems
lacking.
Sketch by author

ABSTRACT

The chosen project stems from the broader context of Maputo as waterfront city. Increased industrial privatisation of the harbour strip adjacent to the city's historic Baixa district led to the relocation of public functions, away from the downtown water's edge and so disconnecting city life from the water. The potential of the city reconnecting to the water is thus latent.

The dissertation responds to this potential by reintroducing a public program to the waterfront site. The building integrates with a greater urban vision for the precinct, whereby the industrial waterfront strip is reprogrammed with a layer of mixed use functions.

A water-borne public transport node is the architectural typology to be explored. The

architectural study aims to investigate the consolidation of currently fragmented water transport modes in one facility and so promote integration between different users and the public.

Exploration also includes investigation of dualities and contrasts. Interaction between formal and informal trade, water and land transport, and international trends versus local influences are explored.

The projected growth of the city further necessitates the expansion and improvement of water transport infrastructure. The proposed interchange connects all public water-borne modes of transport in Maputo, additionally establishing the link between the city and the water, and subsequently the downtown area with satellite suburbs around Maputo Bay.

The design acknowledges the historic nature of the site and context, and adds an additional layer whilst responding to the richness of the existing in an environmentally sensitive manner.

The social context of Maputo as a capital city in a developing country is another important consideration. The informal, public, transient nature of the context informs the design, juxtaposed against a first world, international business and tourism centre.

The facility will aid in the reintegration of the waterfront with the city, effectively connecting it to other modes of transport.

SAMEVATTING

Die gekose projek spruit voort uit die breë konteks van Maputo as 'n waterkant stad. Toenemende industriële privatisering van die hawe strook aangrensend aan die stad se historiese Baixa distrik het daar toe gelei dat publiekefunksies weg van die middestad waterkant hervestig is en so doende die stads lewe van die water geskei het. Die potensiaal om die stad weer by die water aan te sluij is dus latent.

Die verhandeling reageer op hierdie moontlikheid deur die herinvoering van 'n openbare program in die waterkant buurt. Die gebou integreer met 'n groter stedelike visie vir die buurt waar die industriële waterkant herprogrammeer word met 'n laag van gemengde gebruikers funksies.

'n Openbare watervervoer knooppunt is die argitektoniese tipologie wat ondersoek word. Die

argitektoniese studie het ten doel om die huidige gefragmenteerde maniere van watervervoer te ondersoek en hulle in een fasiliteit te konsolideer en sodoende die integrasie van die verskillende watervervoer gebruikers en die publiek te bevorder.

Navorsing sluit ook die ondersoek van dualiteite en kontraste in. Interaksie tussen formele en informele handel dryf, water en land vervoer en internasionale tendense teenoor plaaslike invloede word ondersoek.

Die geprojekteerde groei van die stad noodsaak die uitbreiding en verbetering van die watervervoer infrastruktuur. Die voorgestelde reelings verbind alle openbare vorme van vervoer in Maputo, as ook verbindteniss tussen die stad en die water, en daarna die middestad gebied met satelliet voorstede rondom Maputobaai.

Die ontwerp erken die konteks en historiese aard van die terrein en voeg 'n ekstra laag by, terwyl dit op die rykdom van die bestaande in 'n omgewingsensitiewe wyse reageer.

Die sosiale konteks van Maputo as die hoofstad van 'n ontwikkelende land is nog 'n belangrike oorweging. Die uiteenlopende informele, publieke end verbygaande aard van die konteks teenoor 'n eerste wêreld internasionale sake-en toerisme-sentrum beïnvloed die ontwerp.

Die fasiliteit sal die herintegrasie van die waterkant en die stad steun en die verbind van die ander vorme van vervoer daar stel.