

# **APPENDIX A**\_ THE FRAMEWORK, 2011



### Maputo Studio

Baixa

Revitalising the historic core of the port city

2011

Jacqueline Casson
Catherine Deacon
Paul Devenish
Juliette Hart
Wessel Oosthuysen
Byron Snow

An international design collaboration in which the revitalisation of Maputo's historic Baixa district serves as the active laboratory for learning.









#### June 2010 (Maputo workshop):

Quick scan analysis of the Baixa

#### February 2011 (Maputo workshop):

Delft, Pretoria and Maputo students First impressions Analysis and identification of problems

Flooding Cars Insensitive building practices Poor connection to sea Mapping

#### July 2011 (Maputo workshop):

Pretoria students visit Maputo conduct further site specific research

#### August 2011 (Pretoria workshop):

Delft, Pretoria and Maputo students visit Pretoria Presentation of frameworks Discuss design proposals

### Project Background



experience

Experiencing the city as a architectural coalition on a pedestrian level allowed for the production of impressions sketches and a dialogue facilitating understanding of the various points of reference and opposing opinions.

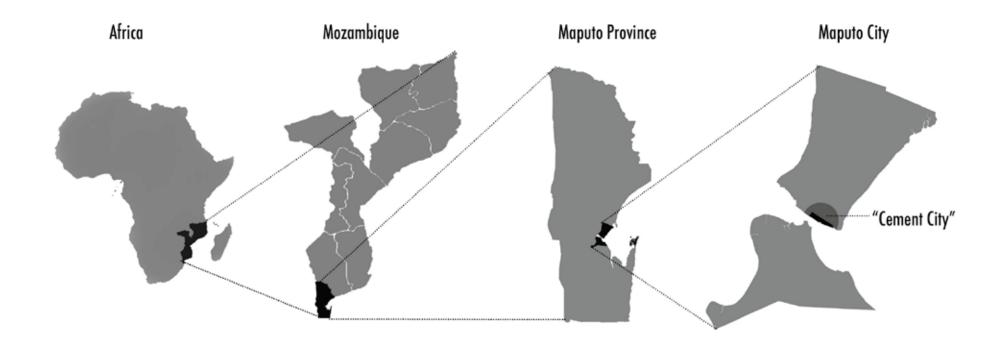


Group discussions as part of a basic framework design involved analysing problem and possible solutions for the Baxa. Separate groups of student proposed varying SWOT analyses as well as maping of different conditions with the existing fabric.

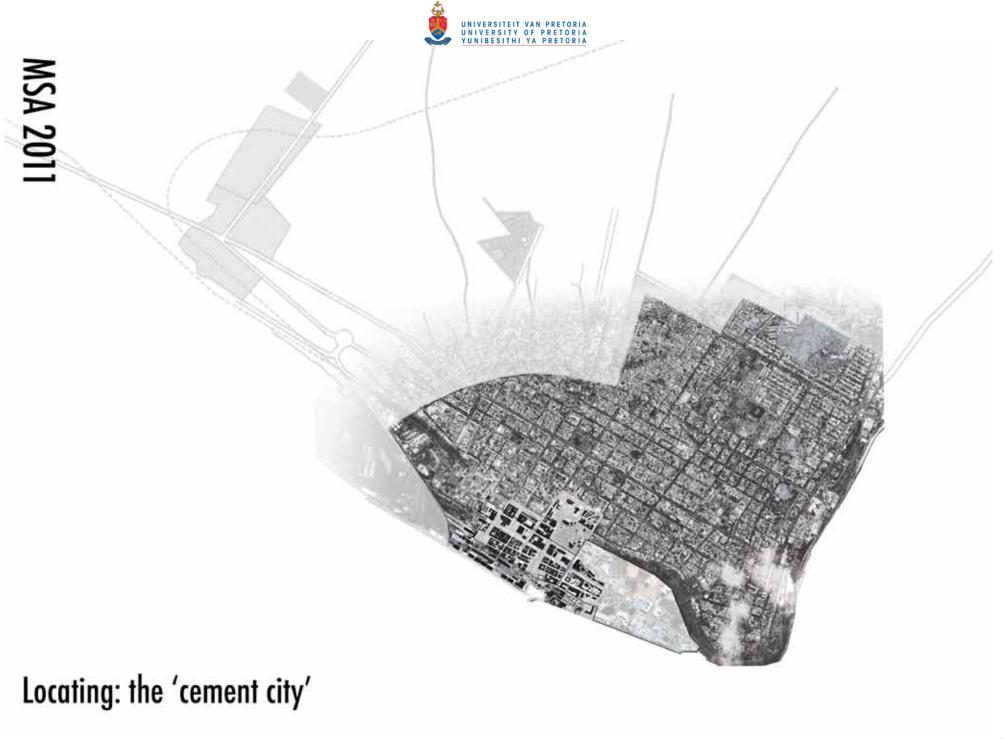


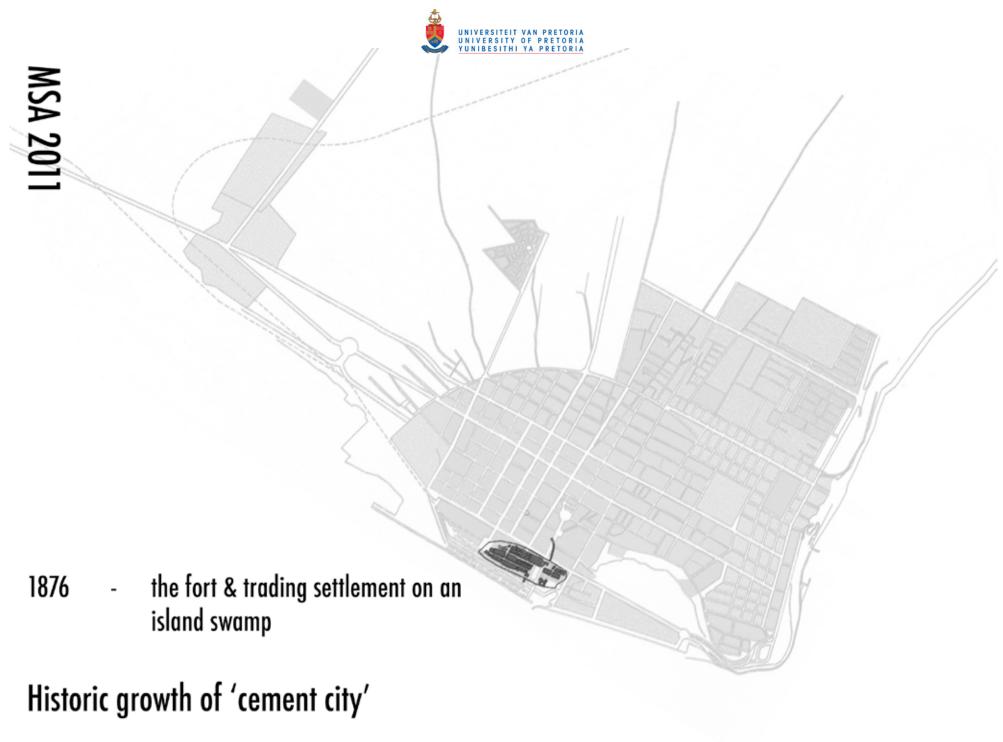
Scenarios for the development of the Baixa are determined through analysis and group work consisting of ideas from various and opposing frames of reference. Scenarios were then combined and presented to lecturers from the various schools and criticized.

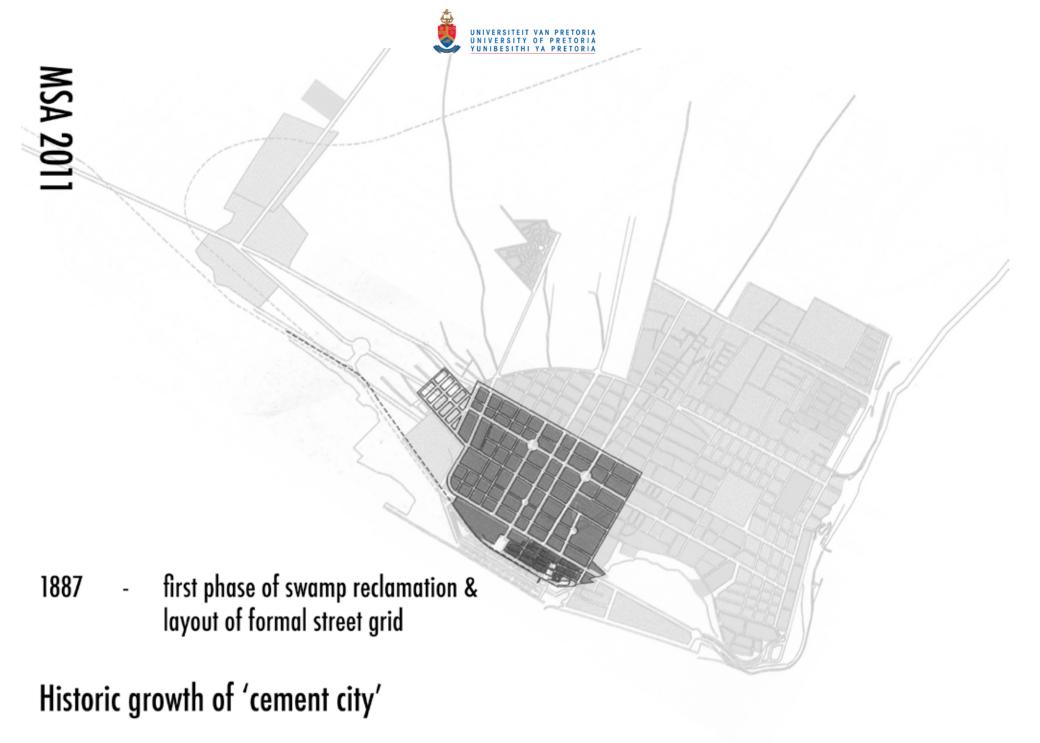


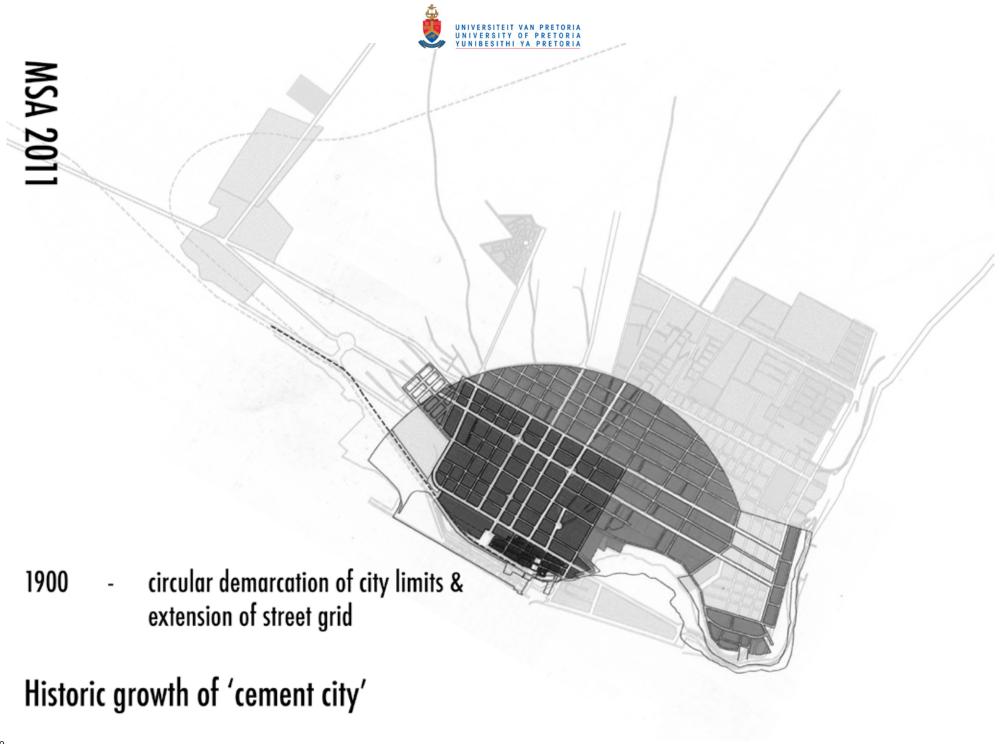


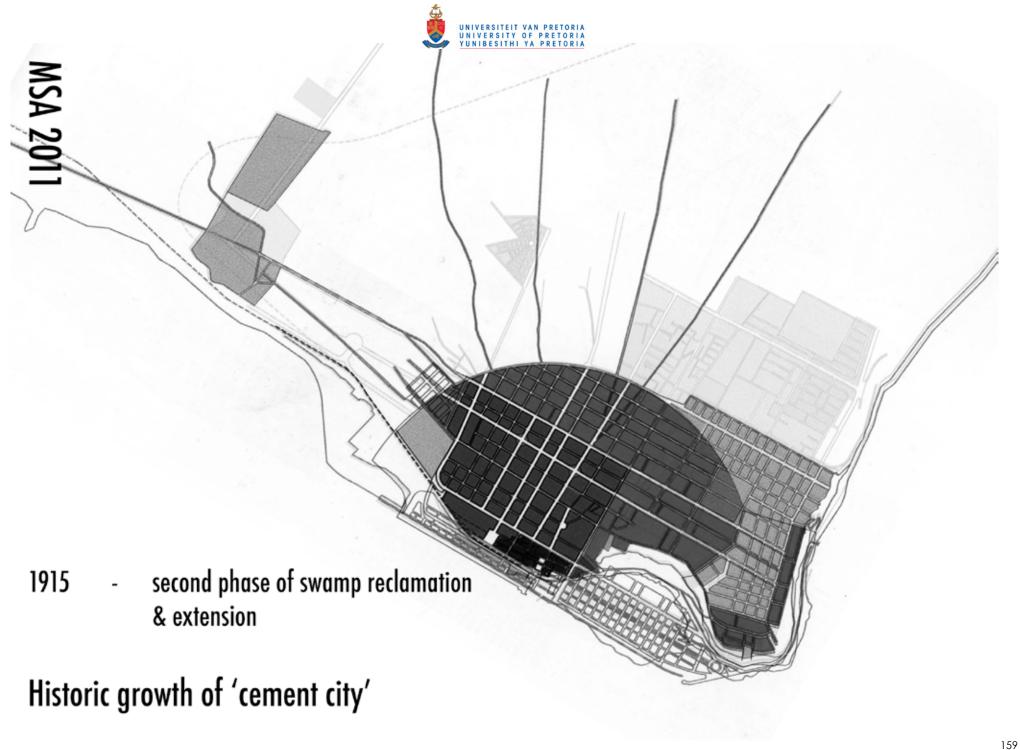
# Locating: Geographical

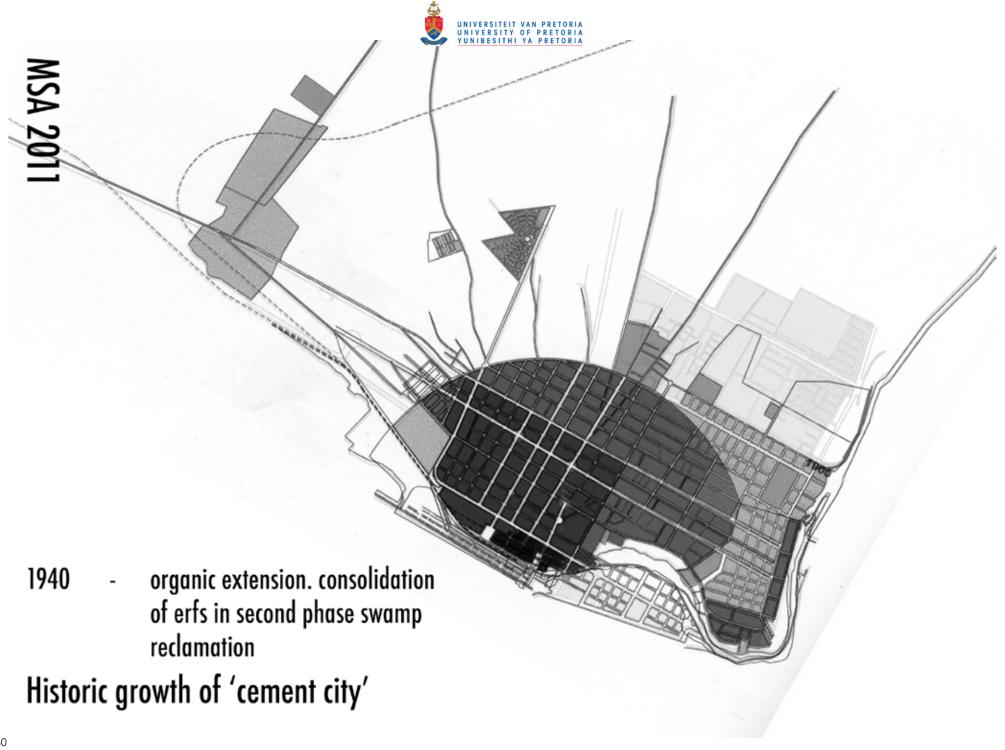


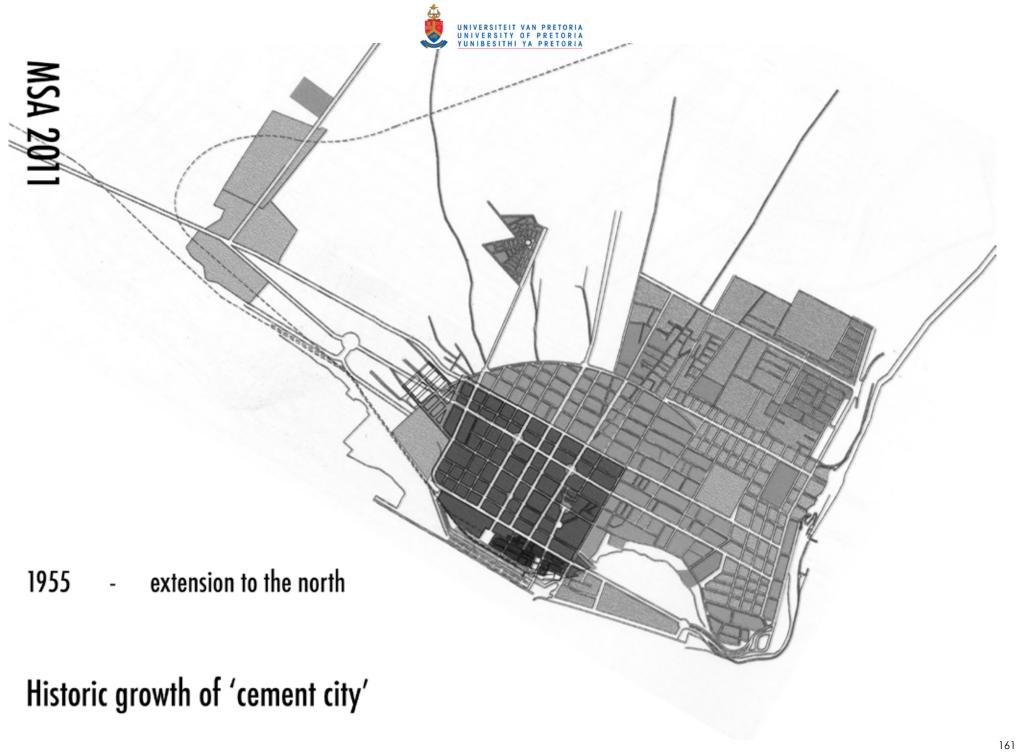




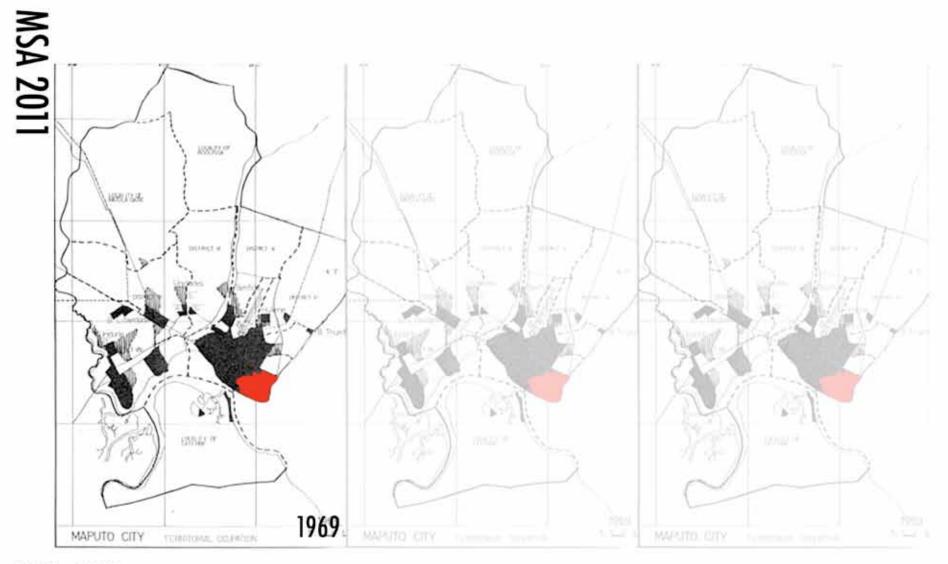








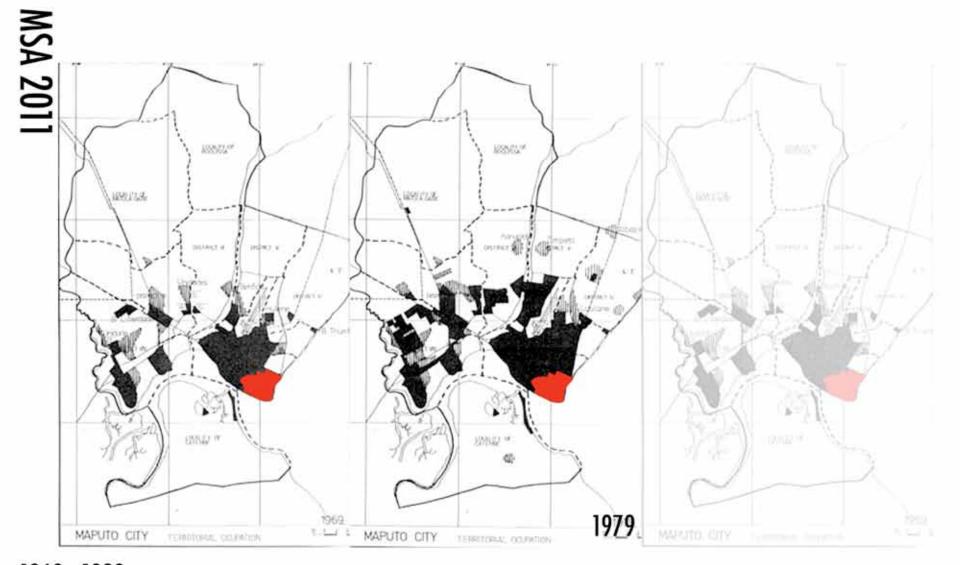




1969 - 1989 post independence: influx of people from rural areas and resultantly an expansion of informal areas of greater maputo

# Historic growth of the 'reed city' (greater Maputo)

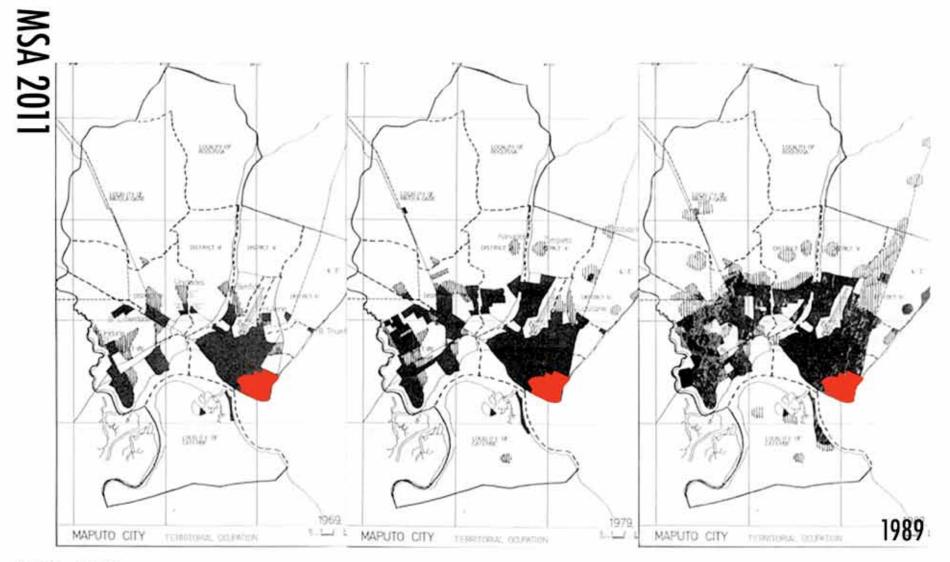




1969 - 1989 post independence: influx of people from rural areas and resultantly an expansion of informal areas of greater maputo

# Historic growth of the 'reed city' (greater Maputo)

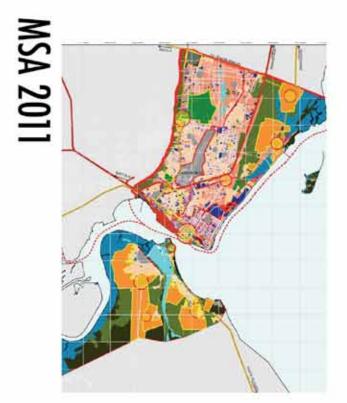




1969 - 1989 post independence: influx of people from rural areas and resultantly an expansion of informal areas of greater maputo

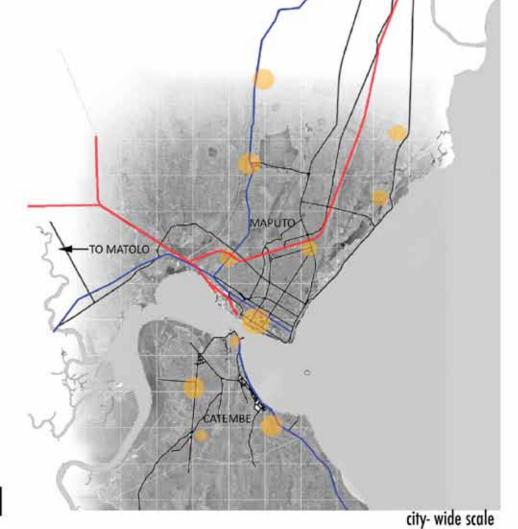
### Historic growth of the 'reed city' (greater Maputo)





#### 2008 PEUMM greater Maputo framework

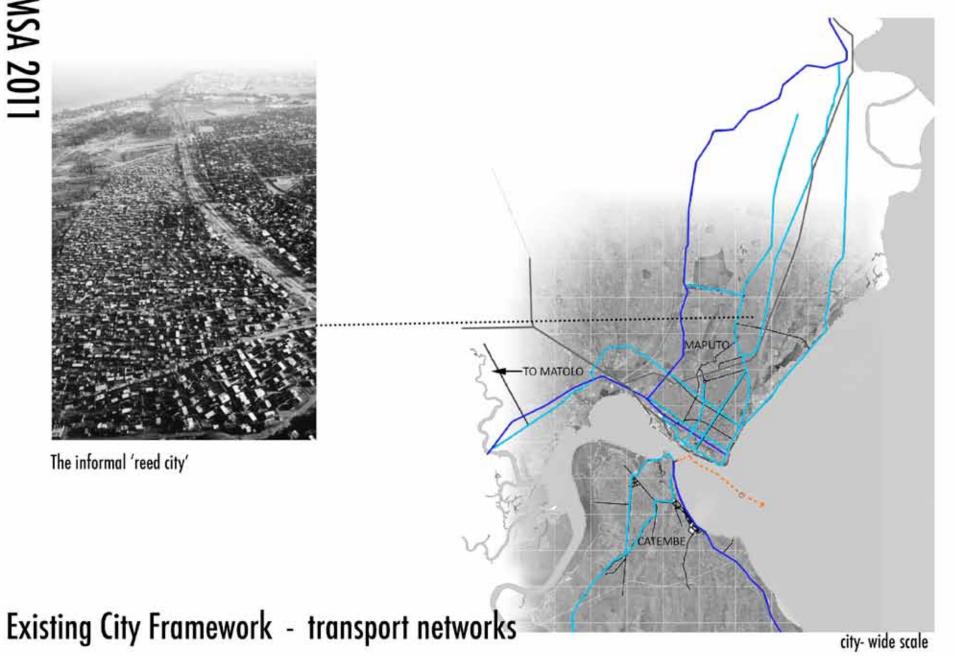
- · the right to the city
- · the right to urbanized land
- · the right to decent housing
- · the right to sanitation
- · the right to safe transit and urban mobility

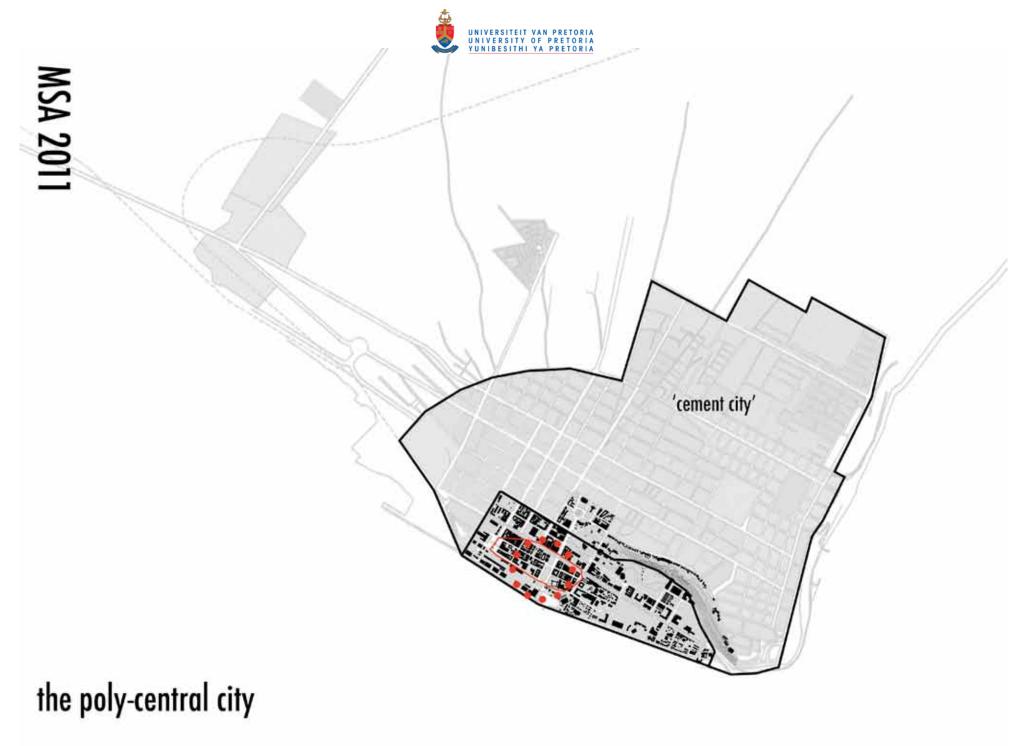


### Existing City Framework - Poly-central



The informal 'reed city'



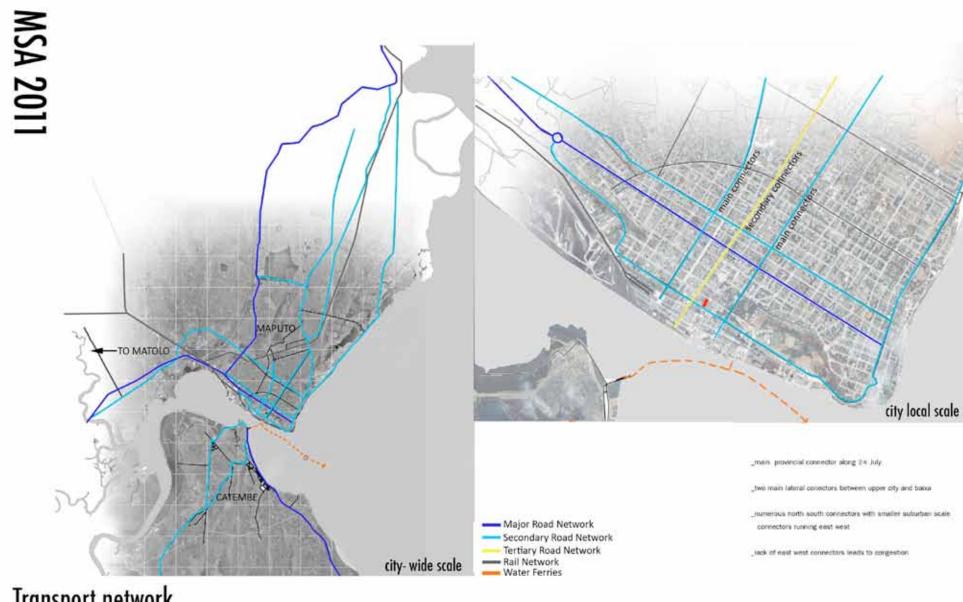






the poly-central city

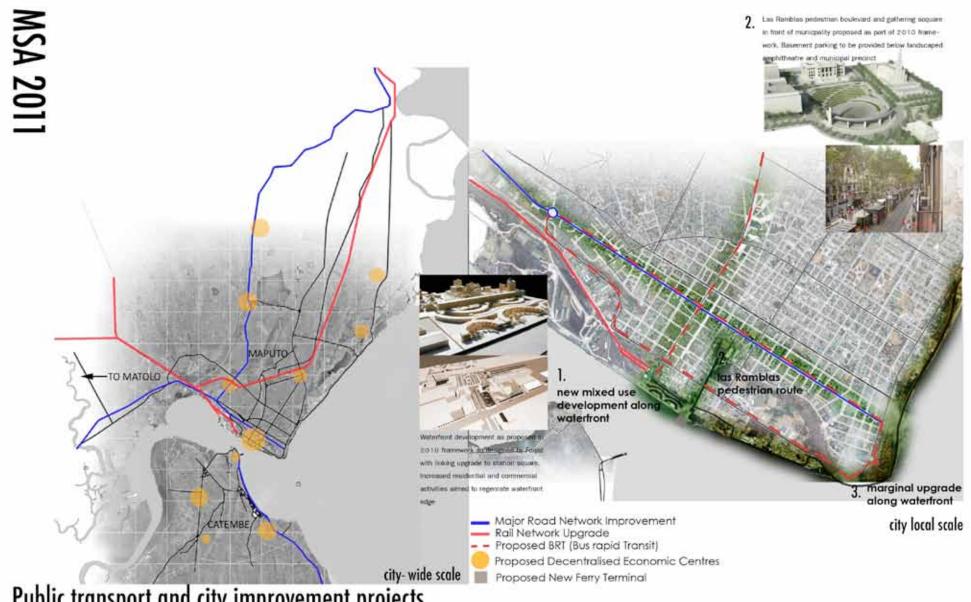




Transport network

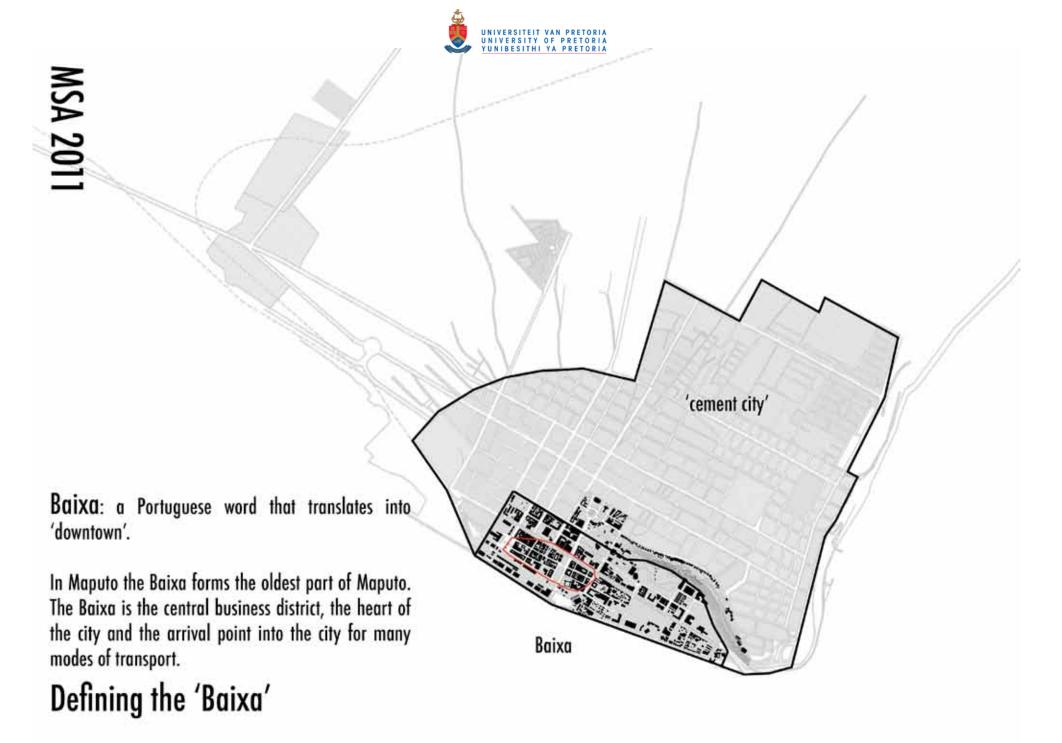
**Existing City Framework** 



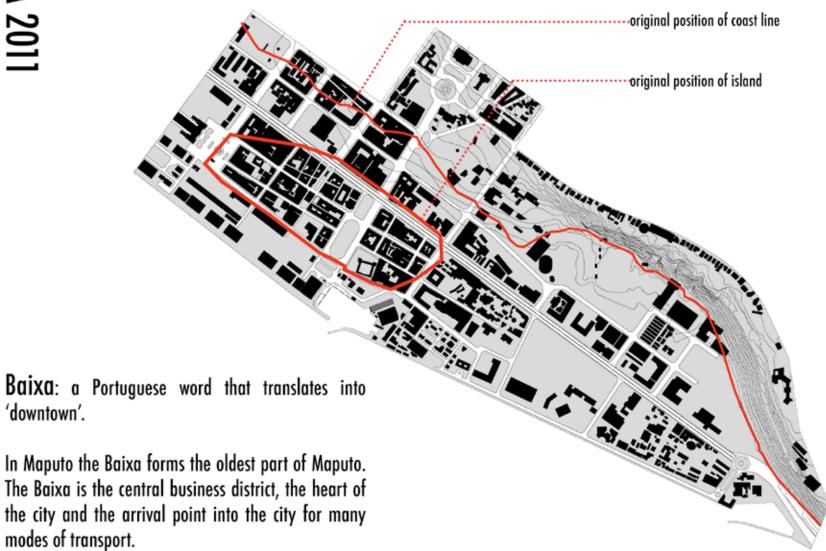


Public transport and city improvement projects

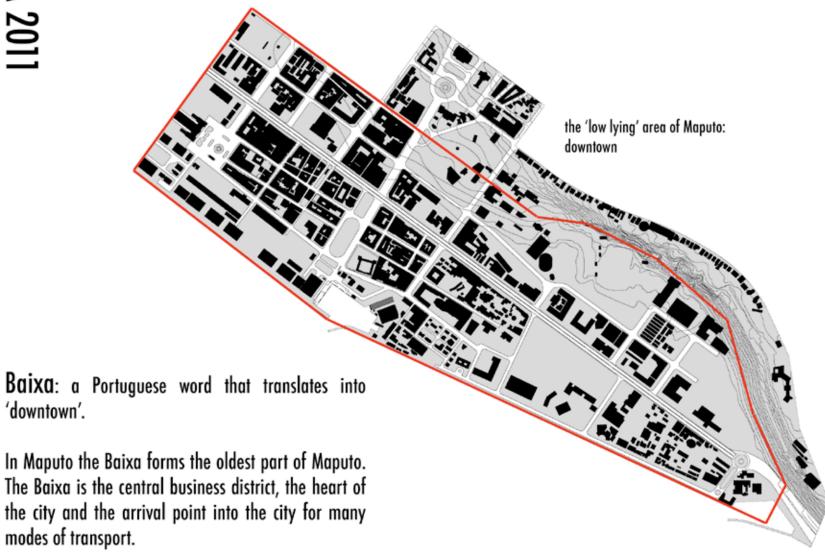
**Existing City Framework** 





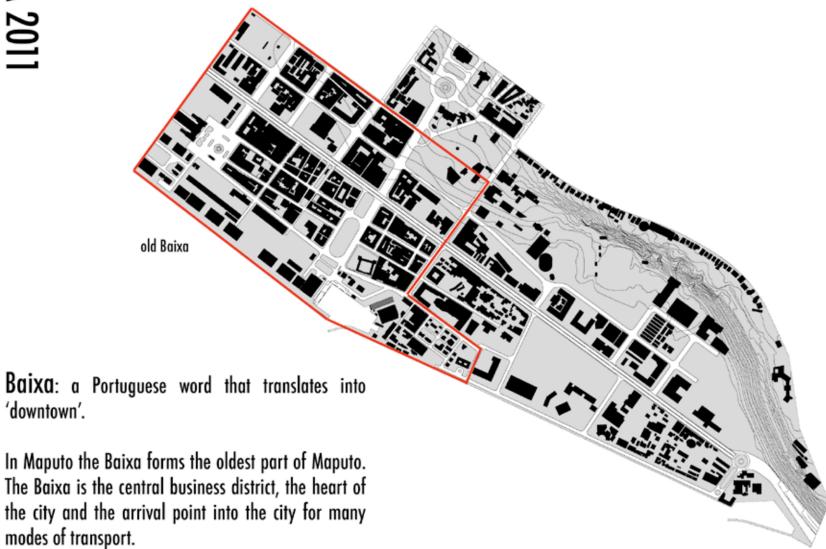




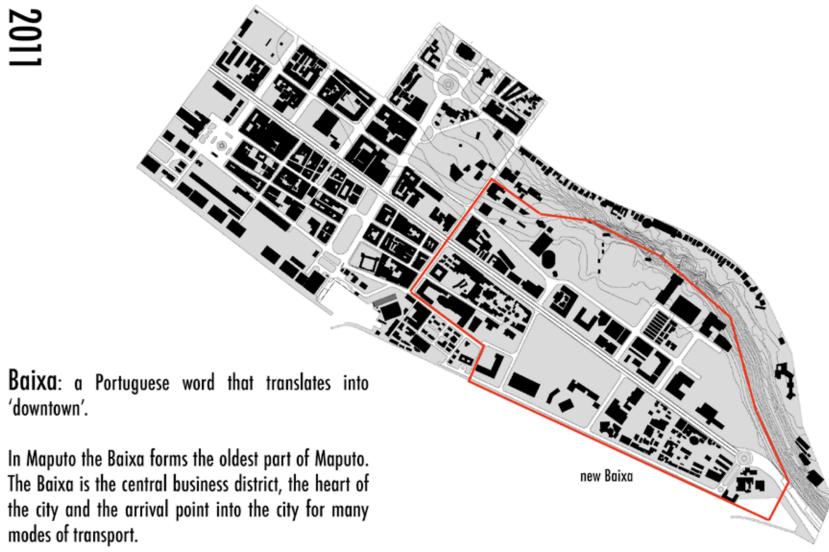


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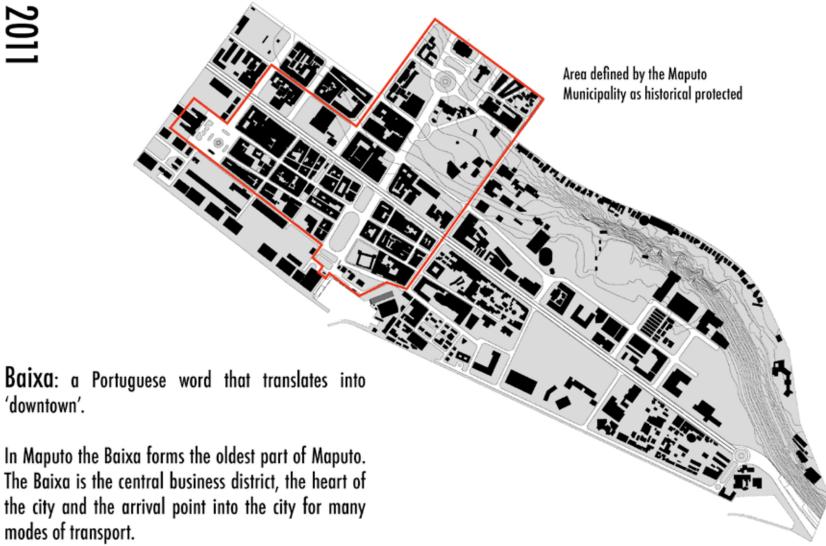




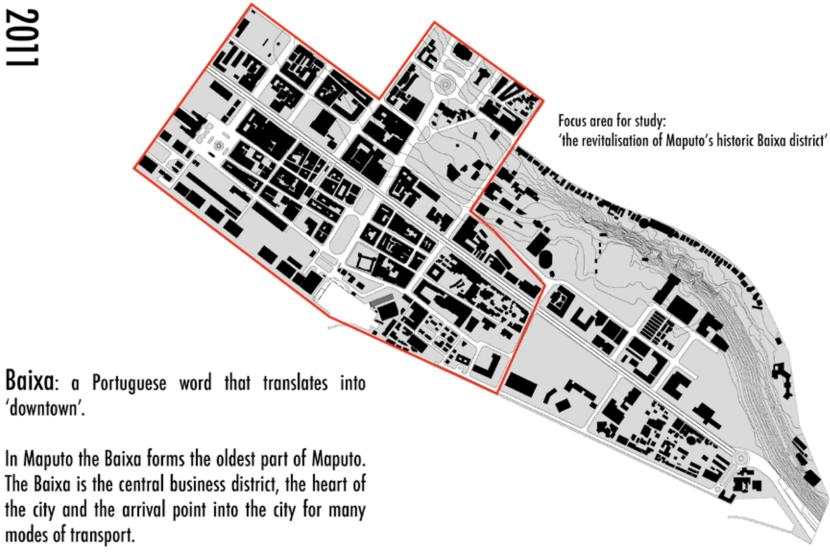










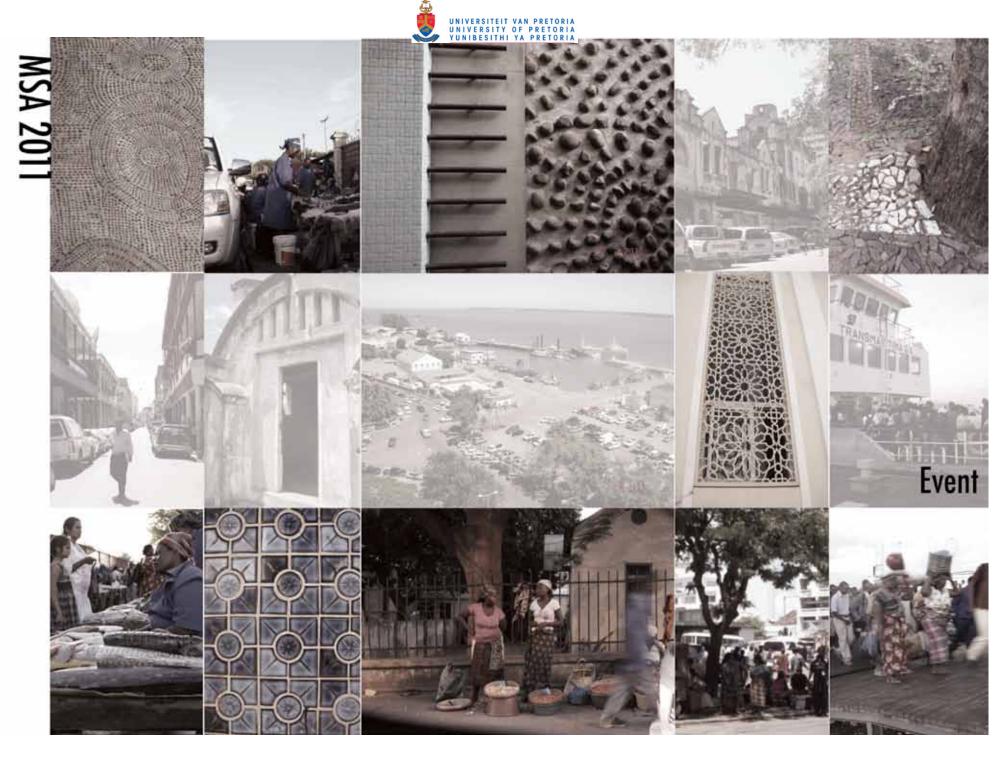




# Mapping the 'Baixa'

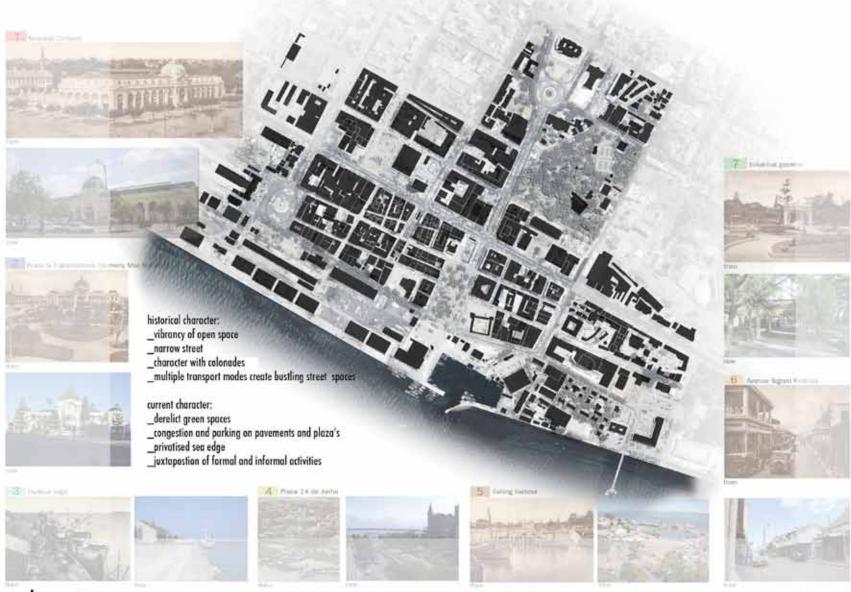
MSA 2011



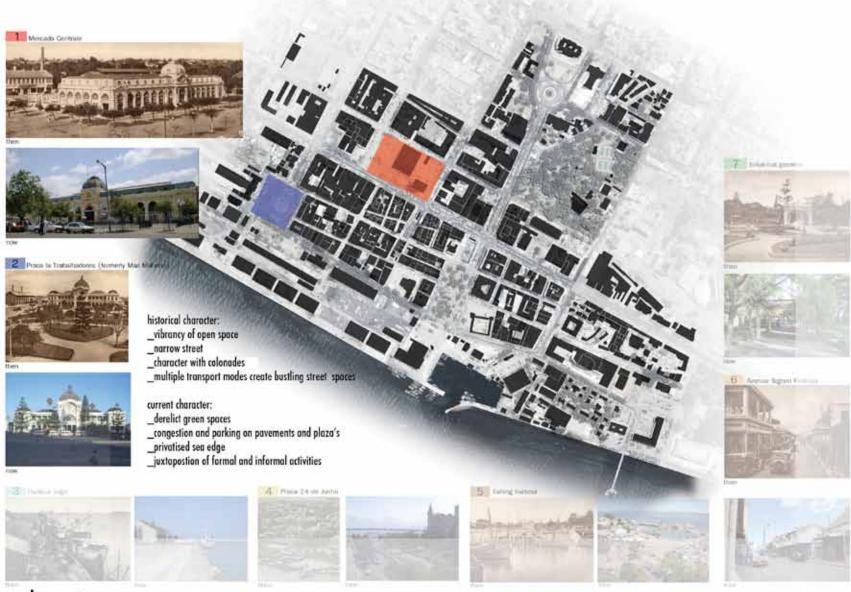


UNIVERSITEIT VAN PRETORIA UNIVERSITY OF PRETORIA YUNIBESITHI YA PRETORIA MSA 2011

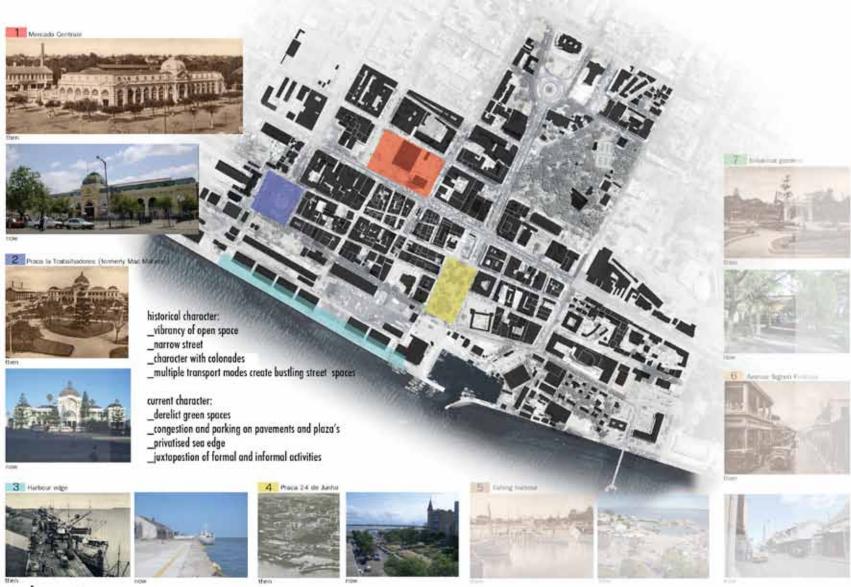




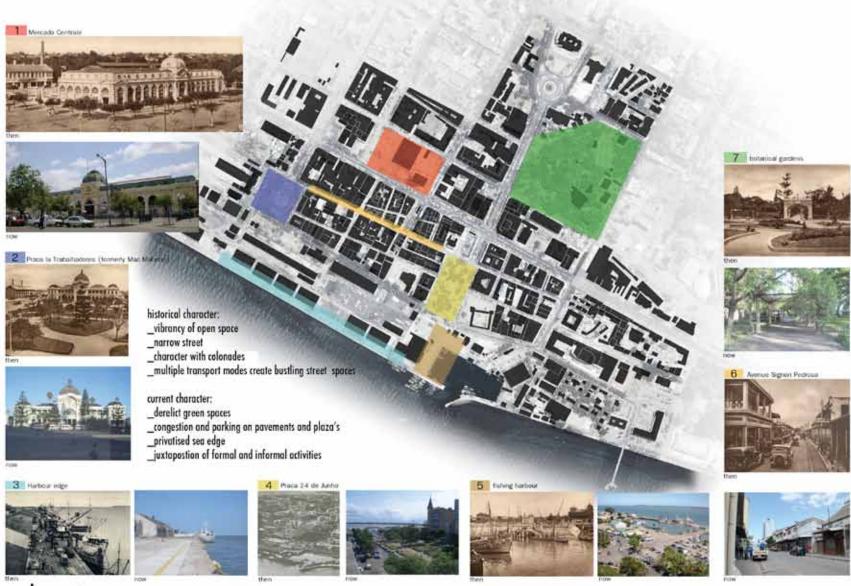




















Mapping: green spaces city local scale









\_large amount of green space within the area but poorly maintained

\_linkages of green networks should be strengthened

\_large section of hard open space at waterfront which is inaccessible to public

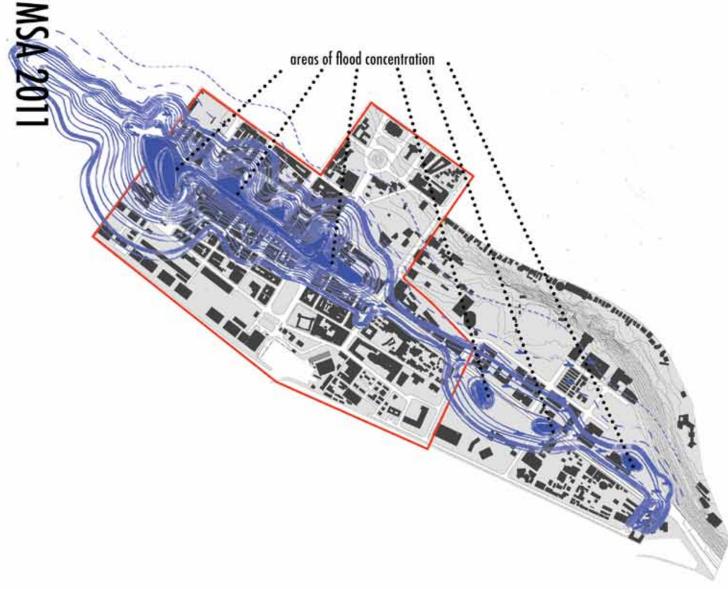
\_numerous vacant buildings and business premises in area

\_derelict sites become areas for informal housing and waste disposal

\_vacant land parcels form inconsistent urban fabric

Mapping: open spaces green spaces, brownfield sites, ruins and vacant buildings









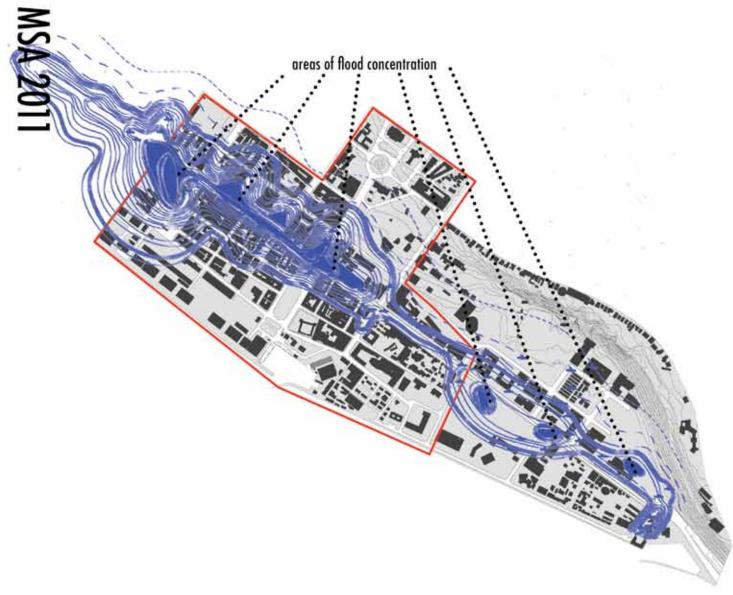


\_flooding primarily takes place along Avenida 25 de Setembro.

- \_causes range from the following:
- a topographical dip due to infill
- hard urtban landscape
- flatness of the biaxa
- insufficient/unmaintained infrastructure
- rising ocean tides

occures during rainstorms and lasts for a fewn hours untill filtrated.











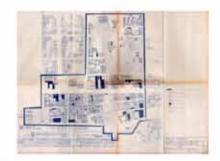
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\_historic baixa core forms part of historical protection zone

\_17 buildings of historical merit

\_buildings built before 1920 given protection under law.

\_heritage fabric adds to sense of place within the area

\_rich diversity between historical and new urban fabric allows for a uniquie identity for the area





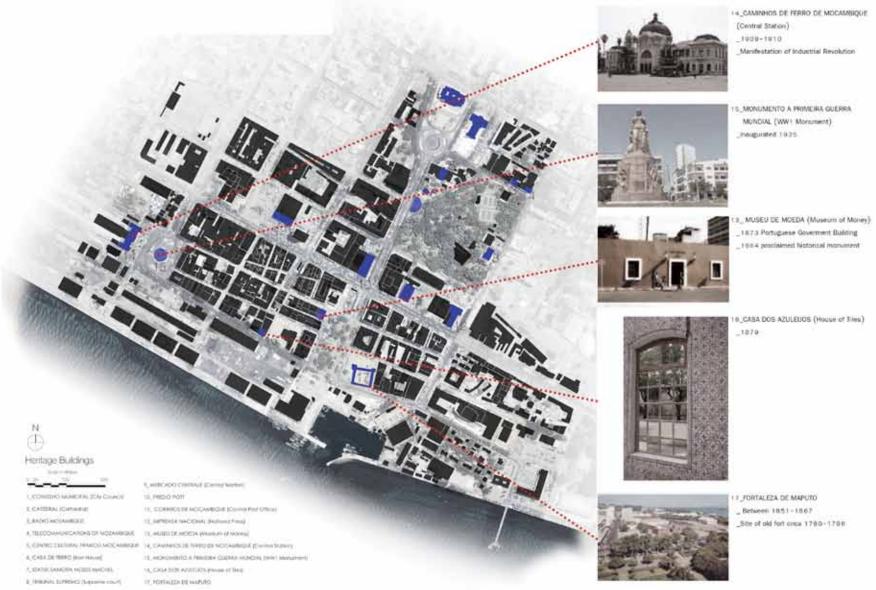
Mapping: heritage buildings as identified by municipal authorities





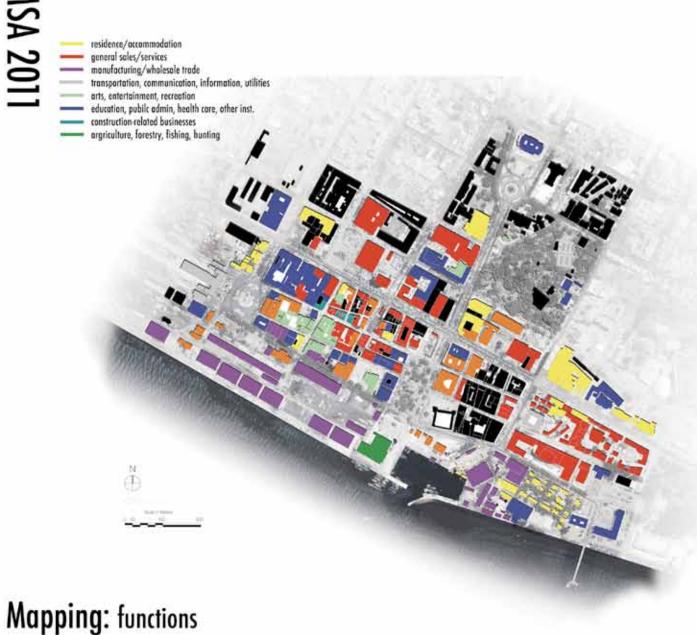
Mapping: heritage buildings as identified by municipal authorities





Mapping: heritage buildings as identified by municipal authorities









\_functions in the Biaxa range on the different uses.

\_functions in the south is allocated to private warehouses and trade.

\_the northern part in essence, is resedential and general trade.

\_the core inbetween is mixed use.









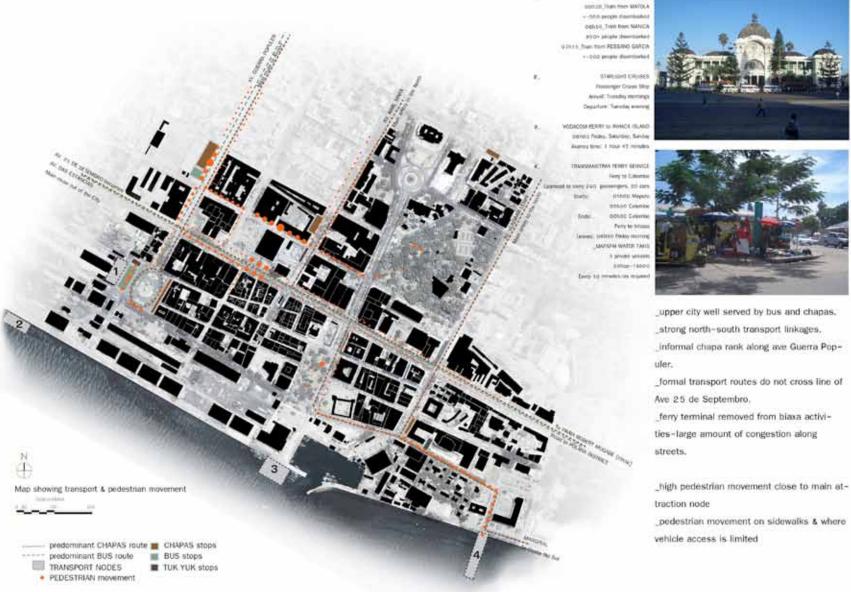
\_informal sales on pavement linked to internal formal sales. Often vendors are employed by formal retail sector

\_informal trade largely mobile within the area

informal sales largely associated with high pedestrian density such as places of interest and public transport

\_vending largely linked to necessities such as food, clothing and airtime



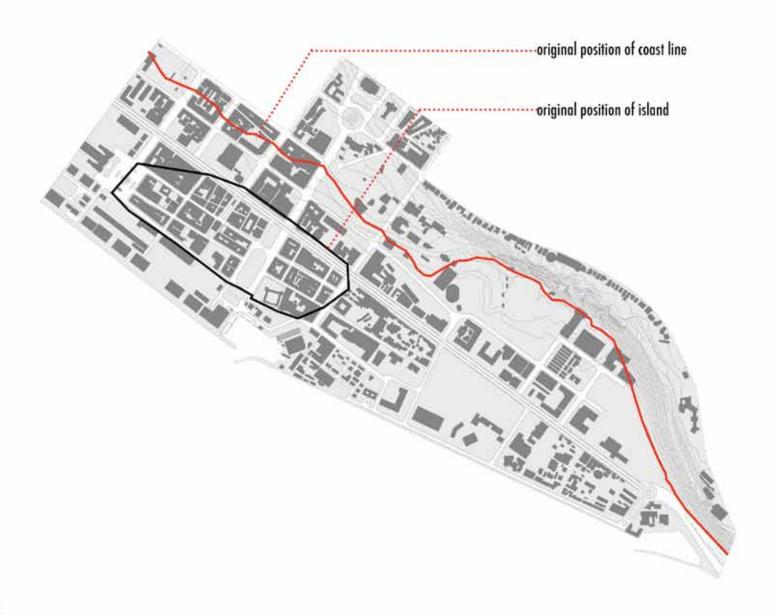


Mapping: public transport and pedestrian concentration



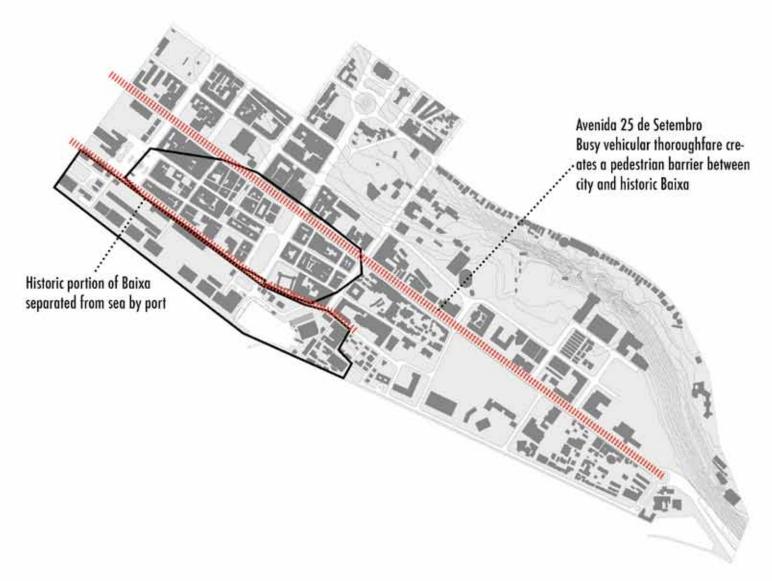
# **Observations and Strategies**





### **Barriers**





### **Barriers**



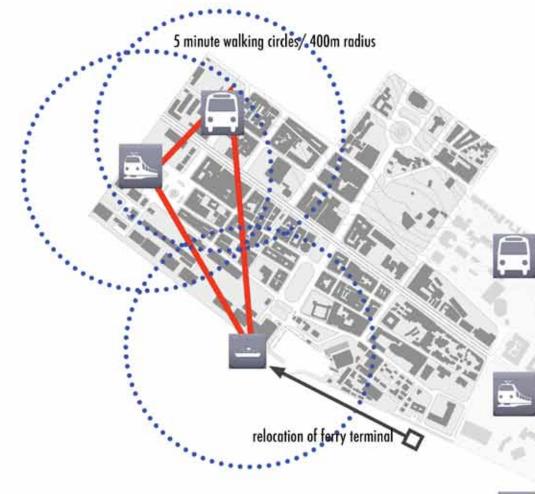


# 1. Creating links





1. Creating links transverse pedestrian links between open spaces



### CHAPAS & BUSES (Chapas: A minibus taxi)

The intention within the framework is to formalise and expand the existing chapas stop. Currently the service causes traffic congestion along Avenida Guerra Popular.

The upgrade of the facility would include increased area to the east of the current site to be demarcated for a larger transport node, facilitating an improved chapas service: Provision for the BRT (Bus Rapid Transit) service will also beconsidered. Additionally, a parkade will be provided in the vicinity to eater for a change from private car to public transport.





Maputo Central Train Station is a landmark building facing Praca de Trabahldores. The building and square function as an intermodal exchange, with busses and chapas frequenting the area infront of the station building.

The framework intention for this transport node is to retain its landmark quality. Chapas and bus stops are to be formalised, with infrastructural upgrade of waiting space. and provision for informal trade.

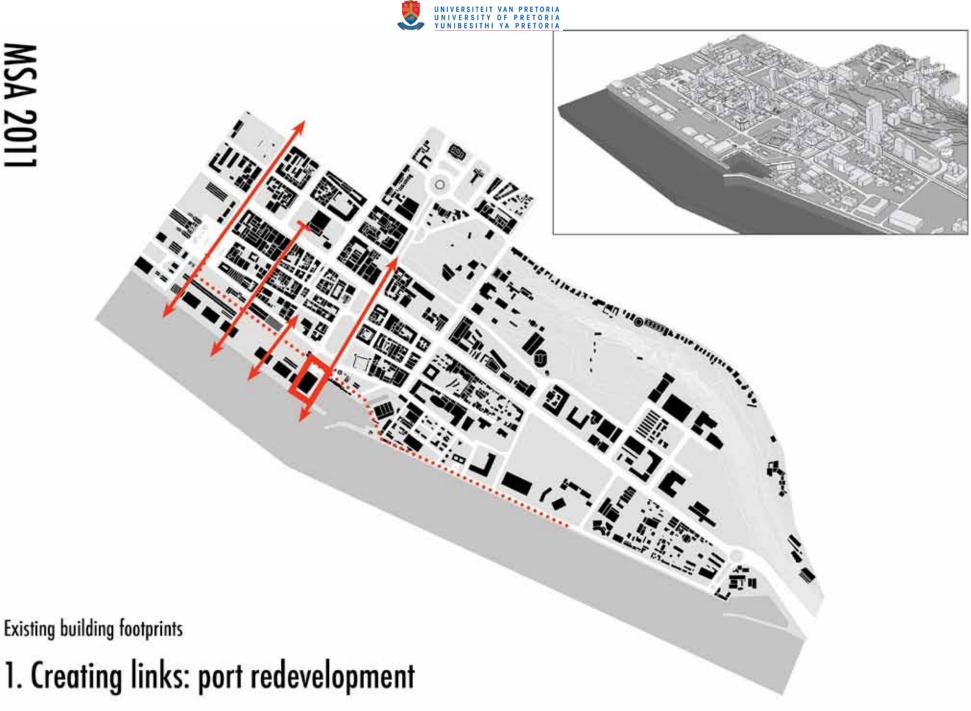


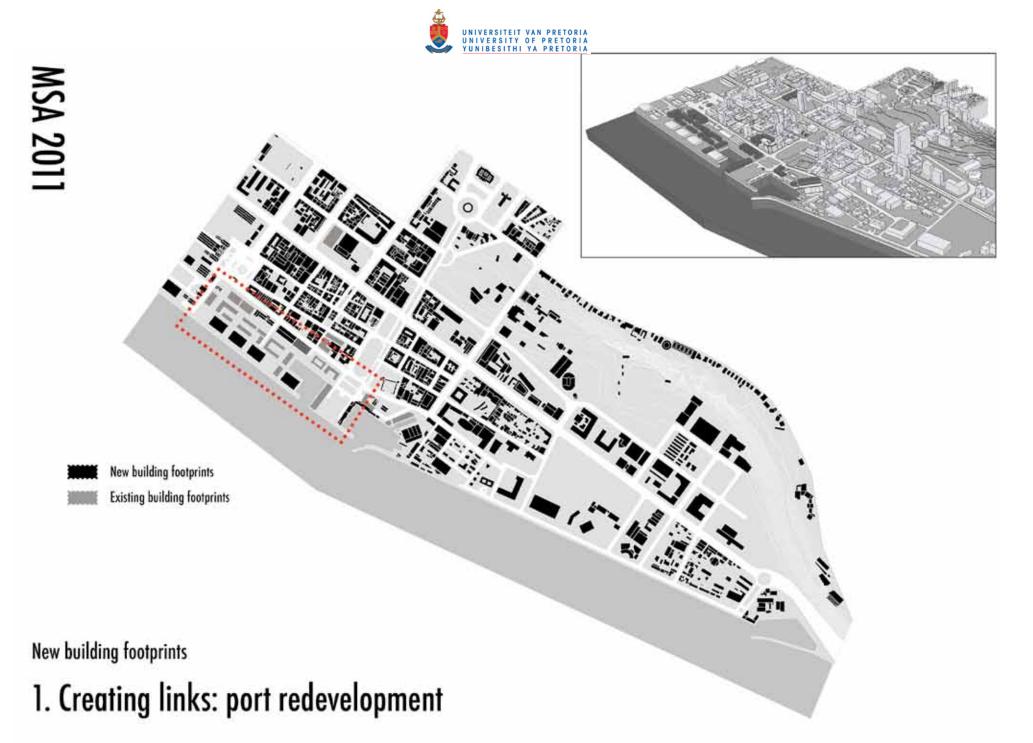


The framework proposes moving the ferry terminal from its current location to a new site at the culmination of Avenida Samara Machel. The proposed new site will consolidate all water-borne transport for the city to a central location. This is in line with the existing city framework of 2010.

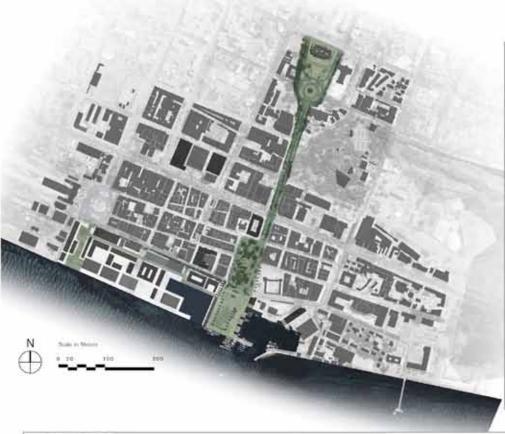
By moving the terminal building, interconnection between the three defined transport focal points is greatly improved, ensuring ease of movement between nodes for the user.

# 1. Creating links: walkable city









#### CURRENT CHARACTER OF STREET

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#### PROPOSED CHARACTER OF THE STREET:

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#### Procedure \_ La Rambéas le Central Barcelona

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and pisceal centrally. \_Put make points of attraction at the two ends, to keep a complant

movement up and down. (Abezantie et al. 1977;173)

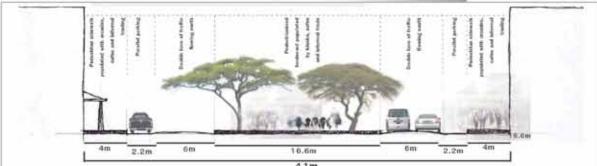


Aerial view , Avenida Samora Machel





Precedent \_ La Remblas in Central Barcelons



1. Creating links: Avenida Samora Machel





### 1. Creating links: summary of north-south and east-west links

### LINK \_ HEIRARCHY OF STREETS

Roger Transis in this book fanding Liver Season describes linkage through a nutwork of storets are one of the key impredictally of place—making, Streets, their largest and commerchanics are promit within a greater urban design vision. This is in line with the views of Kover Lynch's theoretical approach to rather design, whereby picthy are one of the five arous of averagation.

Maguto streets are characterised by their high degree of pedestrian activity and informatity. Add to that the enamous presence of the car, and the result is a non-foundation for public urban space. The mantion within the francework is to define the proposed character of each street within the study laboratory, and to their formulation is strategy to much the classed opposits.

Bolow is a table showing poweric street types and humachies, we defined by the restricte of Highways and Transportation. These are compared to should types are suggested by Liewithn-Corres in this book Other Design Compensions. Streets within the Bose are then identified as having the current or potential characteristics as stated.

#### STREET TYPE AND HEIRARCHY

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## 1. Creating links: summary of north-south and east-west links

### LINK \_ HEIRARCHY OF STREETS

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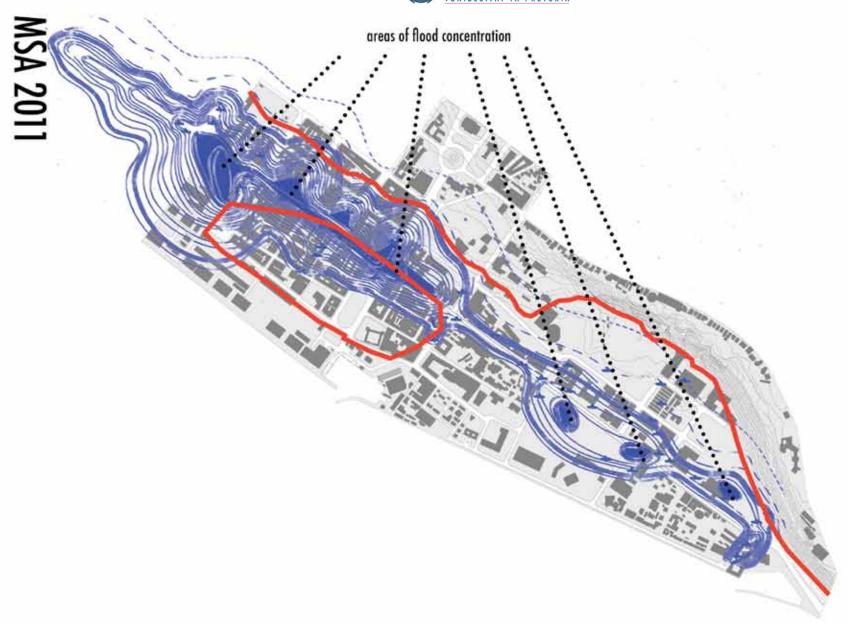
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#### STREET TYPE AND HEIRARCHY

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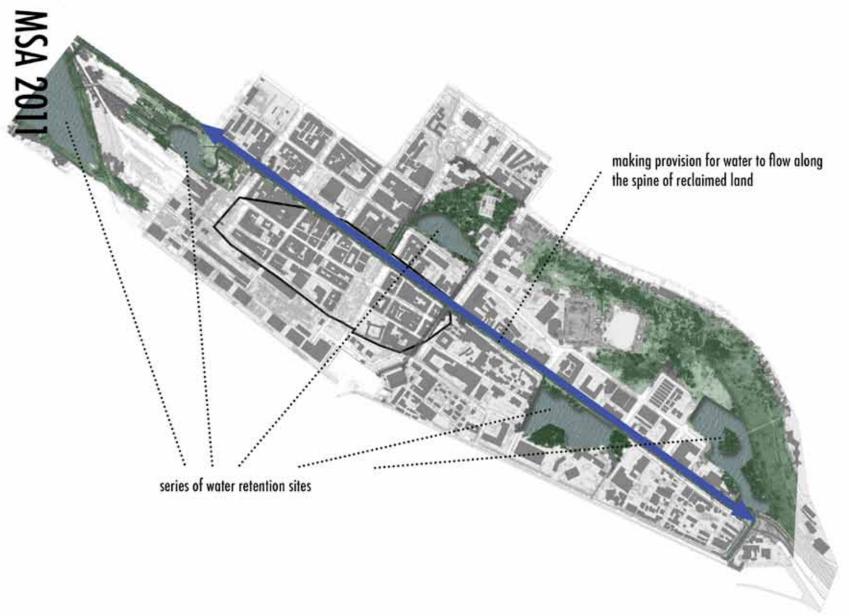
# 2. Managing flooding





# 2. Managing flooding





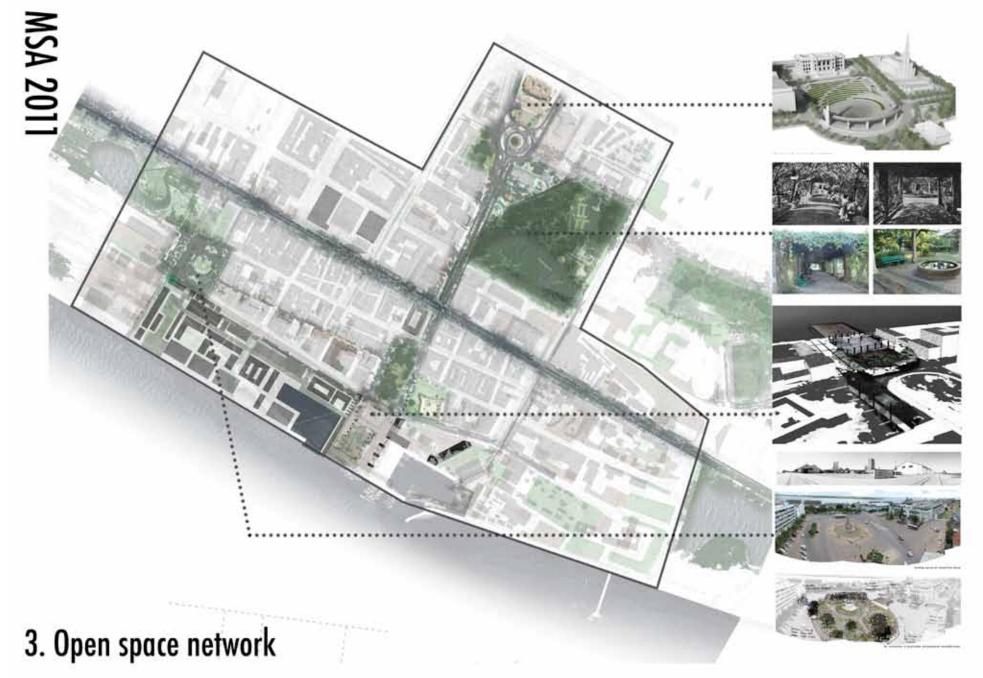
# 2. Managing flooding



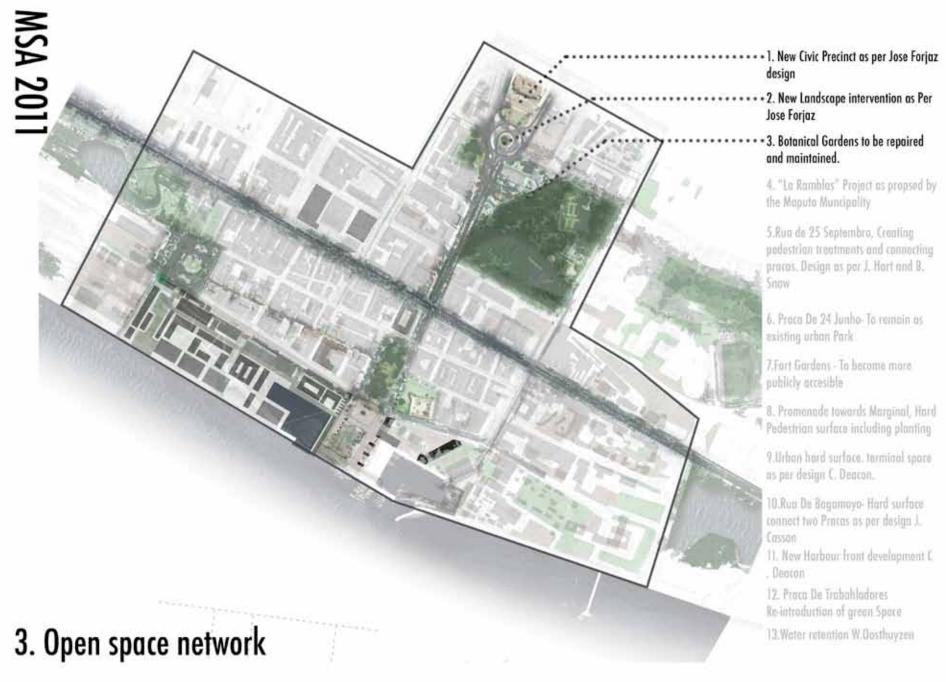


# 3. Open space network

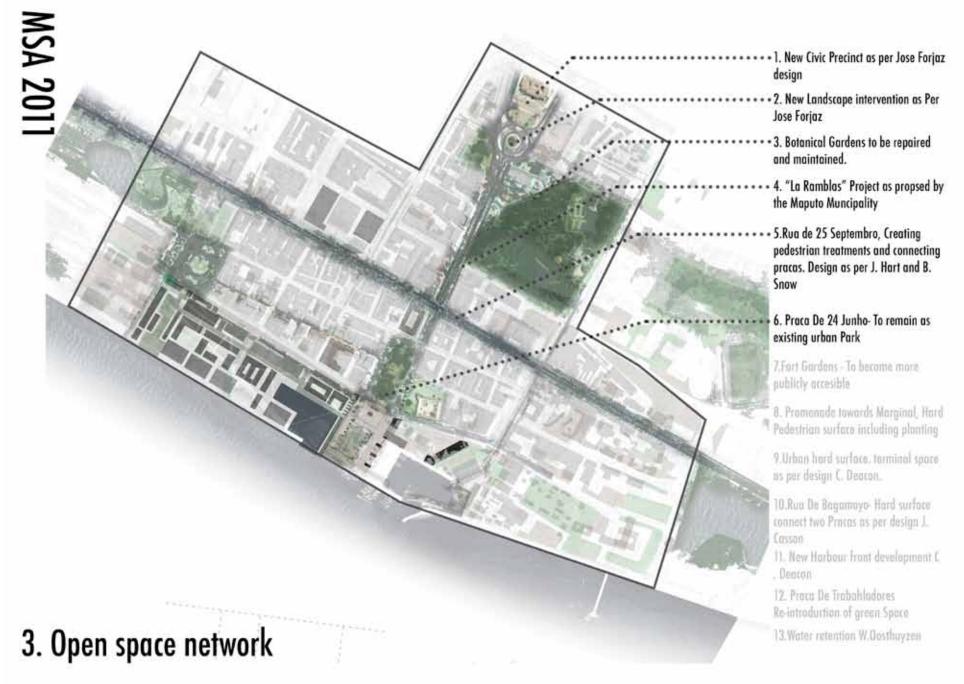




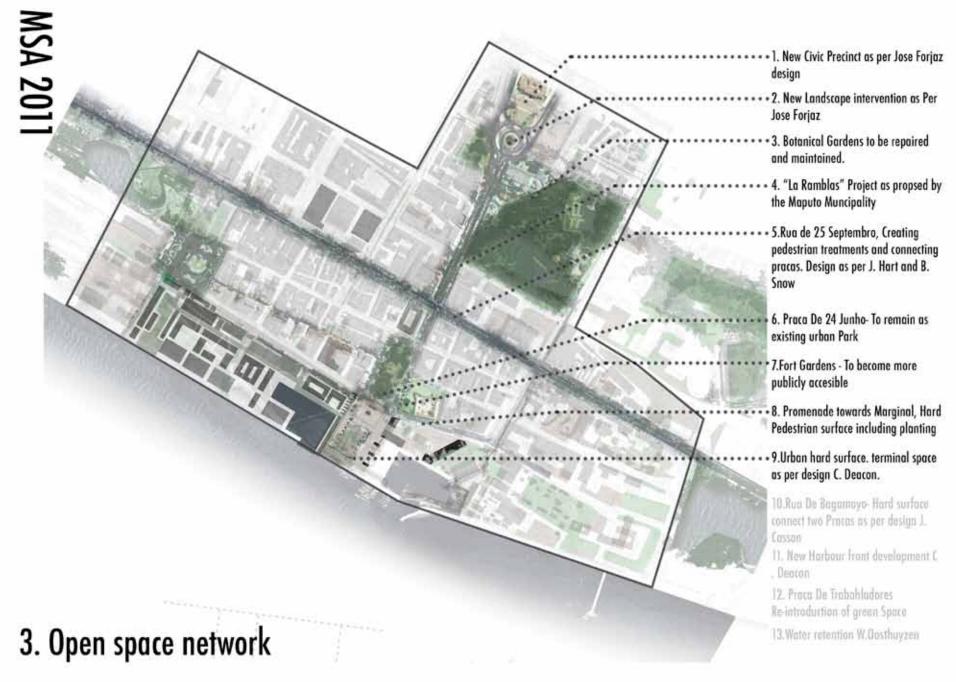




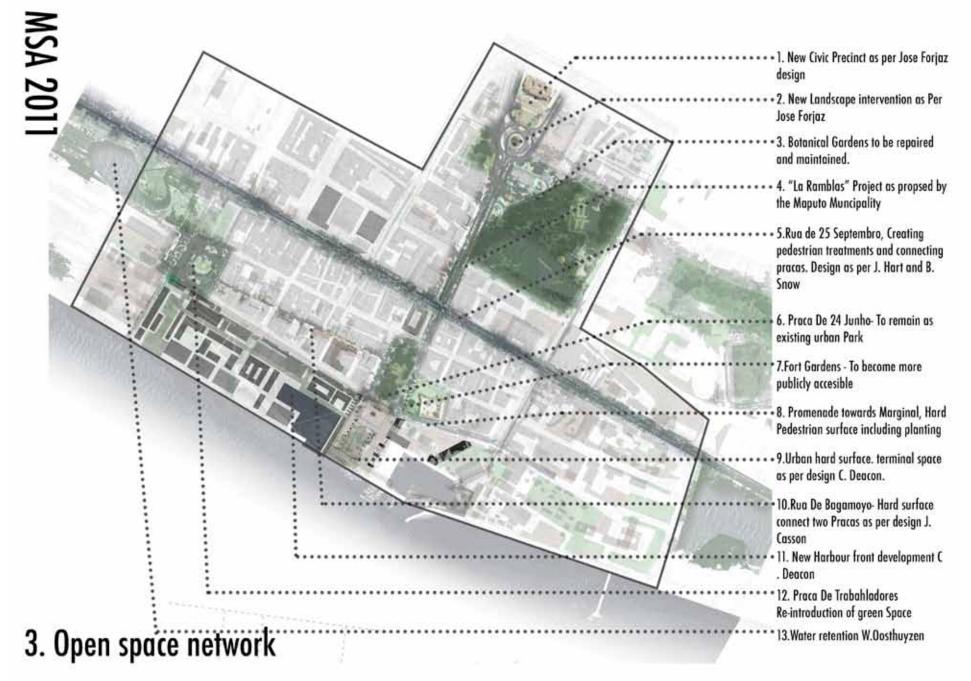




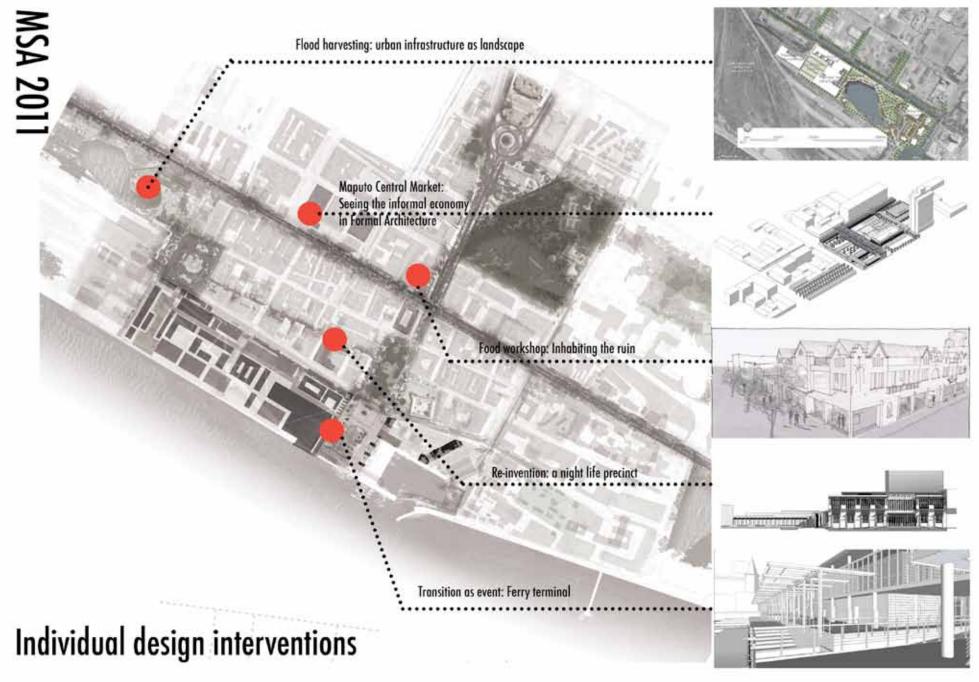














APPENDIX B\_
INITIAL SITE INVESTIGATION JUNE 2010

### QUICK SCAN - MAPUTO. JULY 2010 A description of results by drs. Jean Paul Corten, **Quick Scan Project Leader**

During the Maputo Field Study a quick scan was executed by students formthe Universities of Eduardo Mondlane, Maputo and Pretoria, South Africa. This project was lead by drs. Jena Paul Corten, supported by Edna Peres and Nicholas Clarke. The goal of this quick scan is to gain insight in the future perspectives of the Baixa's historical features. For that reason the Baixa's historical identity, state of maintenance and present use have been investigated. The aathered data were used to determine the Baixa's development potentials and restoration need. A quick scan is not a thorough research but meant to be a first step towards a revitalization policy.

### Historical identity

During the quick scan concerning the historical identity, all built structures within the boundaries of the defined area were validated according to the features of their urban surrounding. Architectural appearance is not the only relevant aspect in this respect. Scale, volume and position are equally important. Three categories are distinguished: the first category contains those structures that determine -or contribute to- the historical identity of the precinct. They are marked red on the map. The second category contains structures that are

neutral to -and 111 within- the historical identity of the precinct, and are marked yellow on the map. The third category, marked blue on the map, contains structures that are disturbing -and do not fit within- the historical features of the precinct. This auick scan is not meant to be an identification of to be listed monuments, but aims at providing an idea of the coherence of the urban precinct.

Map 1. shows the results of the quick scan concerning the historical identity. From this map we may conclude that the Baixa is a relatively coherent urban precinct. The abundance of red and yellow dots on the map indicates a strong historical identity. The Baixia's features are nevertheless incidentally disturbed by structures that do not fit well into this identity. Most of these disturbing structures do fit into the urban pattern but differ mainly in height, appearance or architecture. Some of them dominate their surrounding.

### **Technical Condition:**

During the quick scan concerning the technical condition, the state of maintenance of the existing building stock was mapped and also presented in three categories. Buildings that are in a bad state of maintenance are marked red. Buildings in a moderate state of maintenance are marked areen and buildings in a good state of maintenance yellow. The general condition of Maputo's historical core turns out to be moderate, as we may conclude from map 2. A relatively big amount of structures is in no direct need of repair. Only a few structures are in really bad condition. They do however have a rather big impact on the appearance of their surrounding. Maintenance of its building stock thus seems not to be the Baixa's main concern.

### Present use:

The quick scan concerning the functions consists of mapping present use of the buildings within the boundaries of the defined area. Public services (schools, museums, theatres, religious buildings, police stations etc.) are marked red. Commercial activities like office buildings and retail trade are marked blue. Residential buildings are coloured yellow. Workshops and industrial activities are marked brown. Vacant plots and idle buildings are left unmarked

Map 3. shows the Baixa's unbalanced use. The lack of yellow dots on the map indicates that the Baixa is not a favourable residential area and explains the deserted streets after working hours. It also largely explains the general feeling of insecurity and neglect. the Baixa is surrounded by industrialised zones at the harbour and around the railway station. They may discourage residential use of the Baixa. Commercial activities are dominating the area. They mainly exist of marginal retail

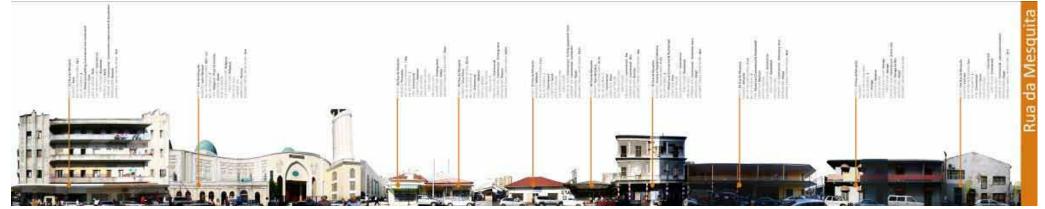


Fig. 1 Rue de Mesquita, Maputo. A typical street in the Baixa of Maputo



trade. the Baixa contains a relatively large amount of public functions, which should be considered a positive feature, supporting its function as city centre, and maybe a base for future development. The Baixa's mal-functioning seems to be its main problem and revitalization thus its main challenge.

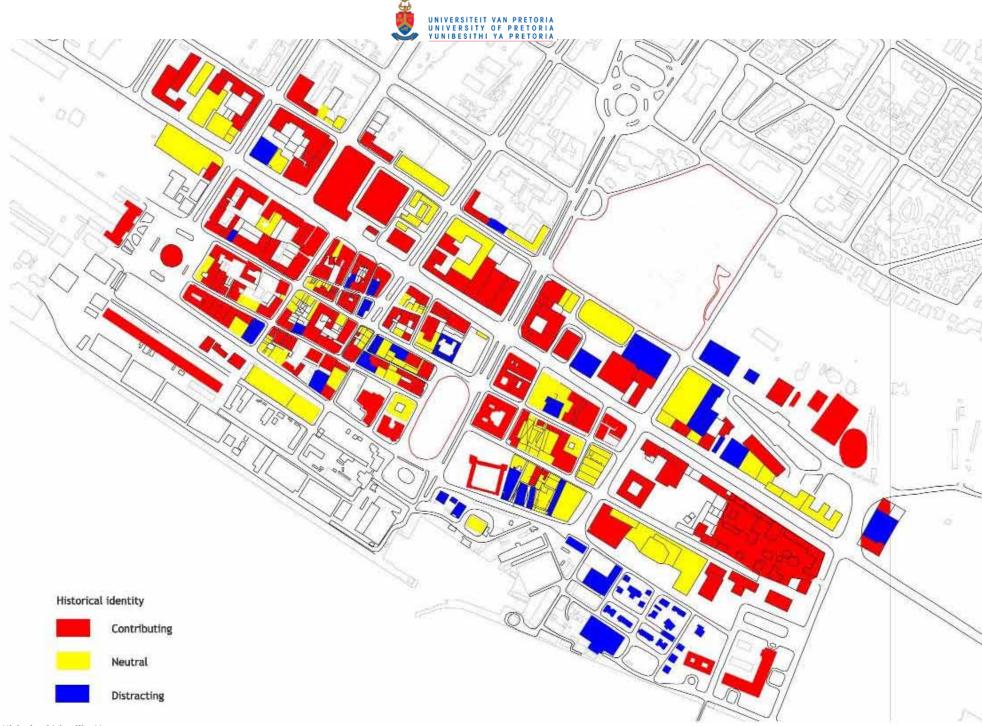
### Conclusion

the Baixa, largely dating back to the second half of the 19th century, forms an enclosed and quiet enclave amidst a vibrant 20th century metropolis. Maputo's historical core distinguishes itself from the rest of the metropolis by its modesty; in urban fabric, architecture and infrastructure. The precinct is separated from the metropolis by rather harsh borders. Southwest the Baixa is separated from the harbour area by huge fences. Northwest the precinct is closed off from the city by the Railway Station and its surroundings. Northeast and Southeast, Av. 25 de Setembro and Av. V.I. Lenin separate small scale the Baixa from large scale Maputo. Notwithstanding this conflict in scale, the Baixa has considerately been connected to the expanding city by the main axes, all penetrating the precinct from Northeast. The Baixa's three main squares also function to connect Maputo's extravagancy to the Baixa's modesty, the Baixa is not only the historical centre of Maputo, but -due to this- also its aeographical centre, the Baixa is connected to its surroundings by waterway, railway and motorway. This favourable position may be

the Baixa's main potential for future development.

From the guick scan we may conclude that the Baixa is badly in need of revitalization. Its strong historical identity should be considered as an important asset to this goal. Restoration of the historical structures will be supportive in this respect. First challenge is to convince the local authority of the development potentials the Baixa's historical features offer. The role of the Municipal Government is not so much to provide funding, but in the first place to create favourable conditions for a vital future of the Baixa's historical identity. A spatial policy-preferably legally secured in a master plan or land use plan-should be supportive to residential housing, since this seems to be one of the main issues in the Baixa. Besides this policy should favour the public services, one of its main strenaths. In addition retail trade should become more specialized, so it can serve the whole city and will be complementary to the retail trade presently located on the borders of the Baixa. Also the Baixa's tourist potentials and leisure and night life possibilities could be exploited. Although they should be balanced with a desired residential use.

Combining the historical Identity Map (map 1) and the Technical Condition Map (map 2), shows which contributing and neutral structures are in need of fully or partly repair. The so called Synthesis Map (map 4) thus shows the extend of the restoration need. On base if this map a rough estimation of the Baixa's recovery costs can be made. A full restoration of an average structure is estimated to cost USD 180.000,- and a party restoration is estimated to cost half that prize. For recovery of public space 25% of the total restoration costs should be added, and for overhead 5% of the total restoration costs. Thus a full recovery of the Baixa can be estimated to cost a total amount of some 20,- million USD. When put into an 10 year renovation programme, this means investors (public, private and owners) should be tempted to invest about 2,- million USD a year.

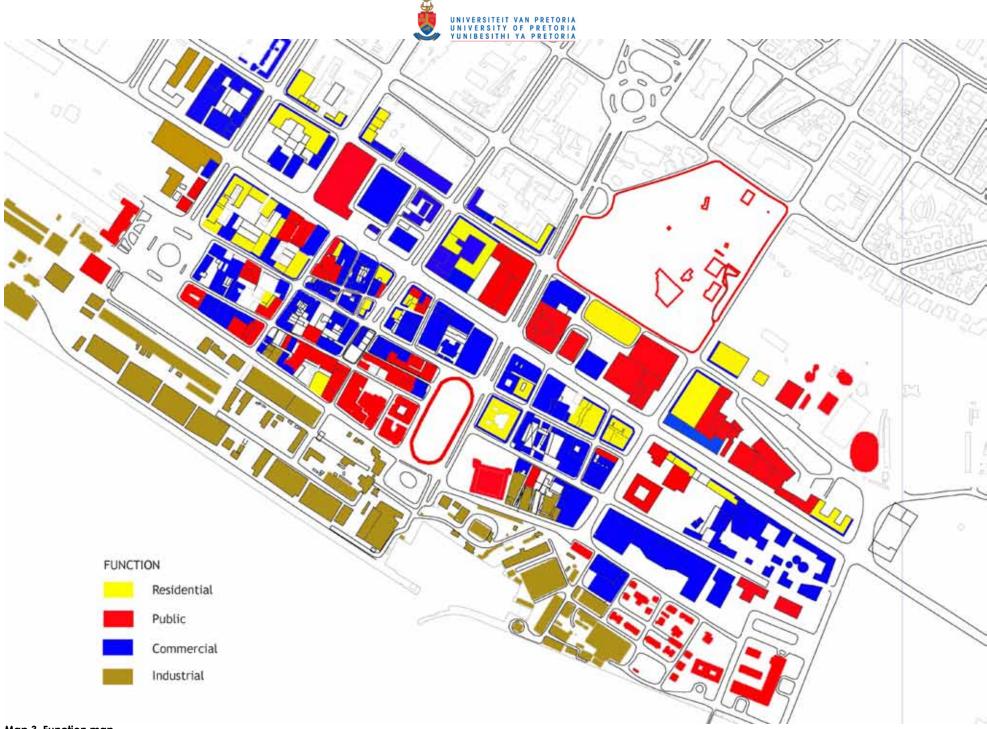


Map 1. Historical Identity Map 224





Map 2. Conditions Map



Map 3. Function map





Map 4. Synthesis map and key



# APPENDIX C\_ TECHNICAL DEVELOPMENT

