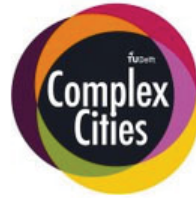




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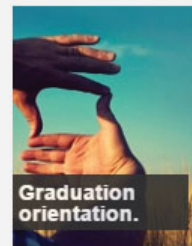
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[Complex Cities
Graduation Studio in
2013](#)

[MSc2 Globalization
Free Choice Studio](#)

[Event](#)

[Archive](#)



**Graduation
orientation.**

On Tuesday, 23 February 2016, from 8.45-10.45 topics at the attention of Complex cities graduations will be introduced and discussed.

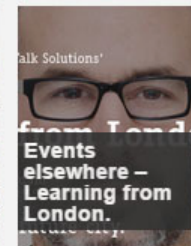
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**First
Shenzhen
Workshop**

On Wednesday, 7 October at 16.00 (this afternoon!) the first Shenzhen workshop will take place at the Urbanism lab. The workshop

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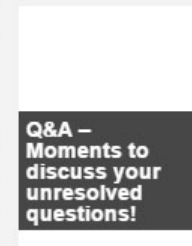


Let's Talk Solutions'

**Events
elsewhere –
Learning from
London.**

The Amsterdam Institute for Advanced Metropolitan Solutions (AMS) organizes a fall public lecture series. The series Let's Talk Solutions is

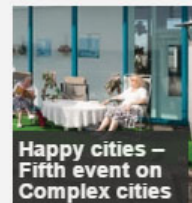
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**Q&A –
Moments to
discuss your
unresolved
questions!**

On the 5th of October students will hand in a first version of their graduation plan and a choice for

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**Happy cities –
Fifth event on
Complex cities**



**Internationalisation
and Planning –
Presentations**



**Coaching:
Complex cities**



**Internationalisation
and Planning –
Fourth event on
Complex cities**

TODAY

- Introduction topics,
- Reflection on topics (from your side),
- Questions and discussion.

LEARNING GOALS/OUR PROFILE

- Internationalisation
- Planning methods and tools
- Institutional criticism/reflection
- Interdisciplinary/integral thinking
- Scales

ABOUT US



Welcome to the SPS BLOG
Spatial planning and strategy is a chair in the Department of Urbanism of the Faculty of Architecture and the Built Environment of the Delft University of Technology. We are concerned with knowledge about the formulation, implementation and evaluation of strategic and urban planning tools - visions, strategies, plans and programmes.

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NEWS

Welcome to the BLOG Spatial Planning and Strategy of the Delft University of Technology

by SPS EDITOR on Sep 24, 2011 • No Comments

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Confronting Informality Symposium : CALL FOR POSTERS

by SPS EDITOR on Feb 20, 2016 • No Comments

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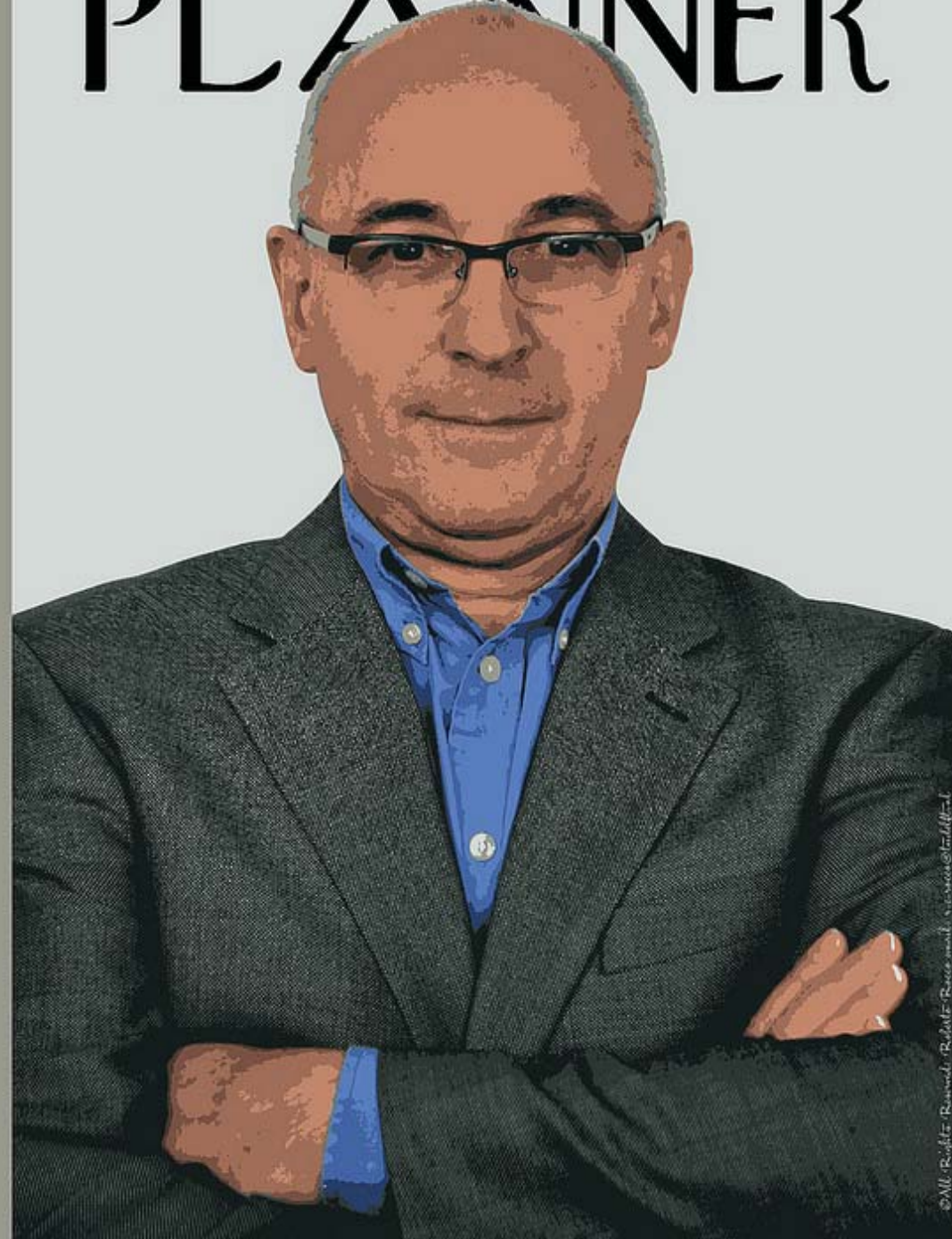
7FP aps book China co-housing
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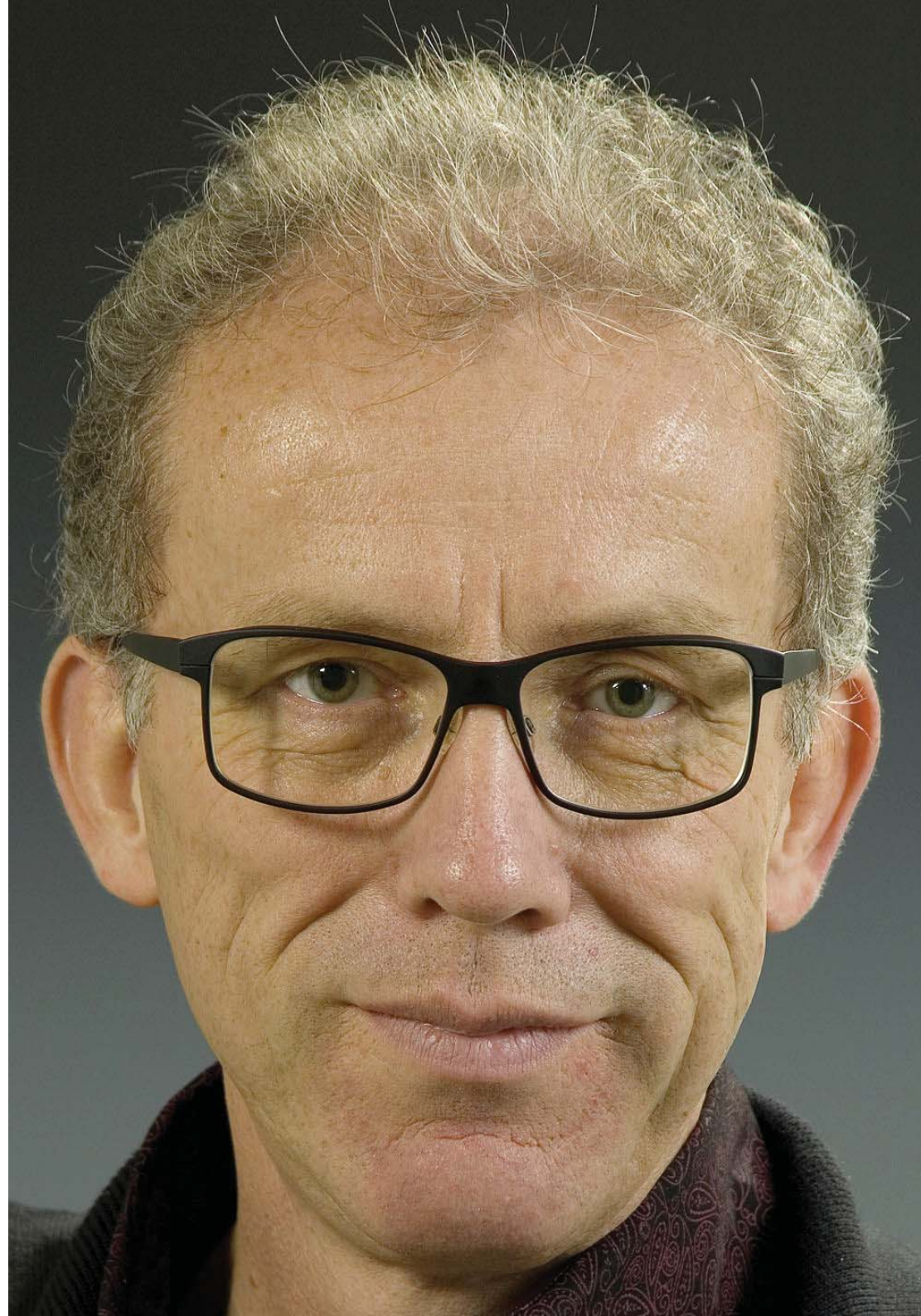
THE

SEPT. 11, 2006

PLANNER



**Professor Vincent Nadin (UK), Prof.
Spatial Planning and Strategy.**



**Professor Wil Zonneveld (NL), Prof.
Urban and Regional Development.**





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Staff

by SPS EDITOR on Sep 21, 2011 • 8:51 pm

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Mentors in cities

	Inclusive cities		Global cities			Happy cities
site	Sao Paulo	Shenzhen	London	Randstad	Shenzhen	Rotterdam
Akkelies van Nes	●	●				●
Ana Maria Fernandez Maldonado	●					
Arie Romein	●				●	●
Azadeh Mashayekhi			●			
Diego Andres Sepulveda Carmon	●				●	
Evert Meijers				●		●
Francisco Colombo			●	●	●	
Lei Qu		●			●	●
Lidewij Tummers						●
Marcin Dabrowski	●			●	●	
Marta Relats						●
Roberto Rocco	●	●				●
Stephen Read			●		●	
Verena Balz			●	●		
Vincent Nadin		●	●	●	●	
Wil Zonneveld				●		

COMPLEX CITIES GRADUATIONS

- Inclusive cities
- Global cities
- Happy cities

INCLUSIVE CITIES:

**DEMOCRATISATION, GOVERNANCE AND INFORMAL
SPATIAL PRACTICES IN (DEVELOPING) COUNTRIES.**

INCLUSIVE CITIES

Students

- develop a critical understanding of **governance issues** related to urban development in the Global South.
- understand the linkages between **formal and informal urbanisation**.
- understand **spatial planning** challenges in urban contexts characterised by poverty, corruption and lack of technical skills.
- understand **networks of stakeholders** in which there is a deficit of **democratic rights**, uneven power distribution and are able to propose strategies for integrating less powerful stakeholders into decision-making processes.
- understand spatial planning within the realm of politics and collective action.
- can **plan and design** for informal settlements with a comprehensive understanding of the **complex urban contexts** in which these settlements exist.



Ooze architects, 2015, Rio de Janeiro, **Brazil**



Unknown, Beijing, **China**



Hans Wilschut, 2013, Masquerade, **China**



Warren Richardson, 2015, Hope for a New Life. **Serbia-Hungary border**

EXAMPLES

- BERG, H. v. d. (2012). Integrating the informal: Developing an integrative strategy for slum upgrading in Buenos Aires. Graduation Report Master Thesis in Urbanism. Delft, Delft University of Technology.
- POCORNIE, W. 2013. Identity in Post-Disaster Re-Development: Example of integration of planning measures into relief efforts in informal urbanization in Haiti. Graduation Report Master Thesis in Urbanism. Delft, Delft University of Technology.

INTEGRATING THE INFORMAL

Developing an integrative strategy
for slum upgrading in Buenos Aires

P5 Presentation

28 June 2011

Hanne van den Berg

Delft University of Technology
Complex Cities Studio | MSc Urbanism

MENTOR TEAM:

Dr. D.A. Sepulveda

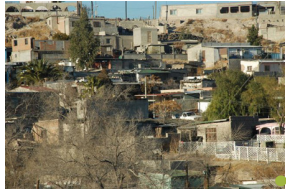
Prof. Ir. H.C. Bekkering

Dr. T. Kaminer



INFORMAL SETTLEMENTS WORLDWIDE

CIUDAD JUAREZ



source: www.perkinsfirm.com/Mexico_2009_1.htm

RIO DE JANEIRO



source: www.digitaljournal.com/image/49082

NAIROBI



source: www.skyscrapercity.com/showthread.php?t=879834

KOLKATA



source: www.fotservis.typepad.com/photos/mother_india_calcutta_var

BANGKOK

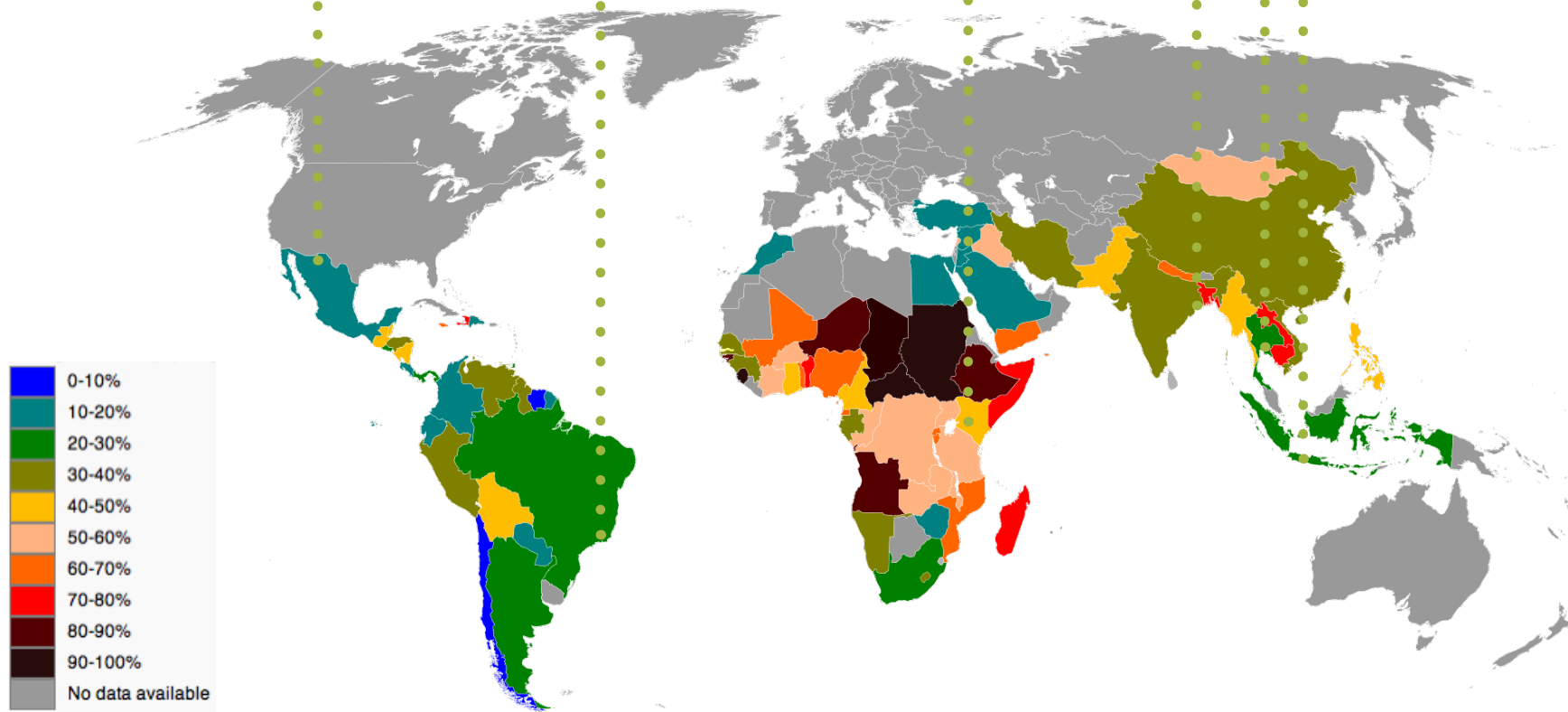


source: author's own photograph

JAKARTA



source: Enny Nuraheni (Reuters)



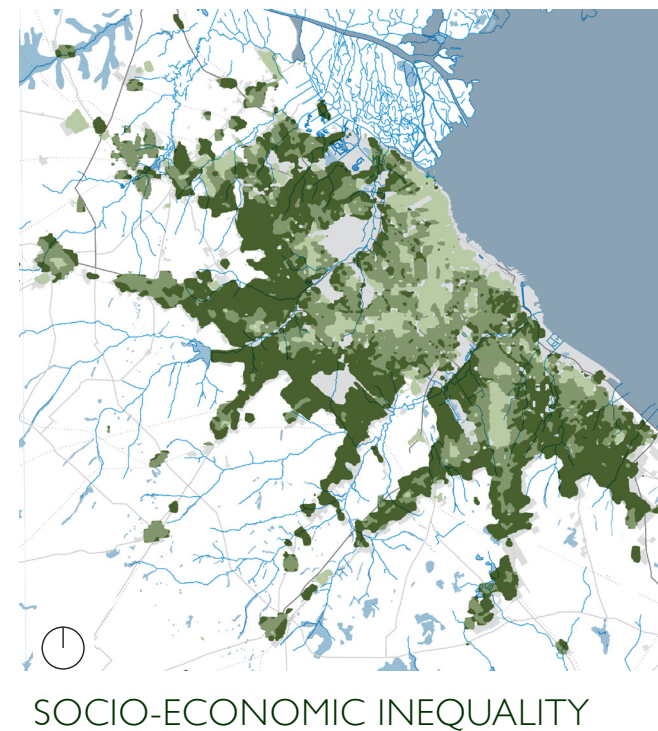
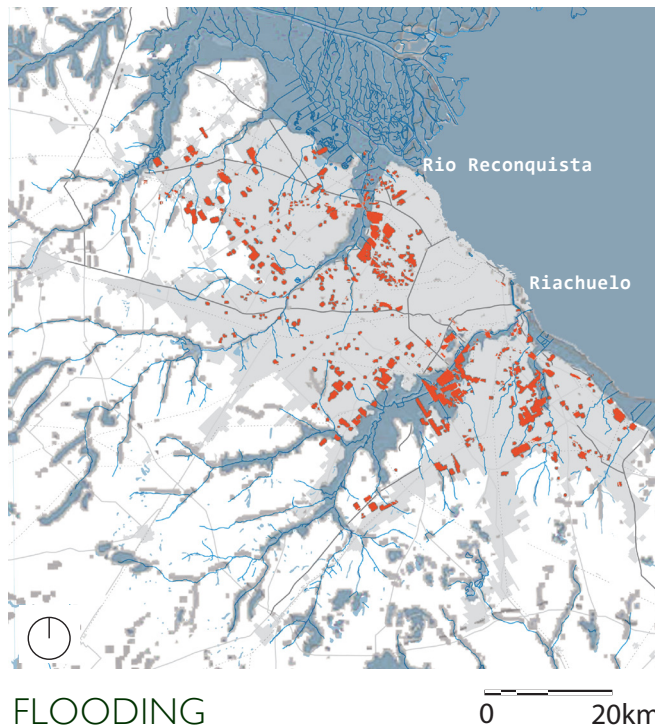
source: UN-HABITAT 2005 - <http://www.unhabitat.org/stats/Default.aspx>

Percentage of urban population living in slums worldwide

INFORMAL SETTLEMENTS IN BUENOS AIRES

Vulnerability of informal residents aggravated by:

- marginality of sites (flood plains, pollution) (Soldano, 2008)
- social and spatial isolation from the formal city (Soldano, 2008)
- high socio-economic inequality (Pirez, 2002)
- exclusion from urban decision-making process; local needs not considered in planning (Janches and Sepulveda, 2009)



source: diagrams by author based on Lineamientos Estrategicos, 2010

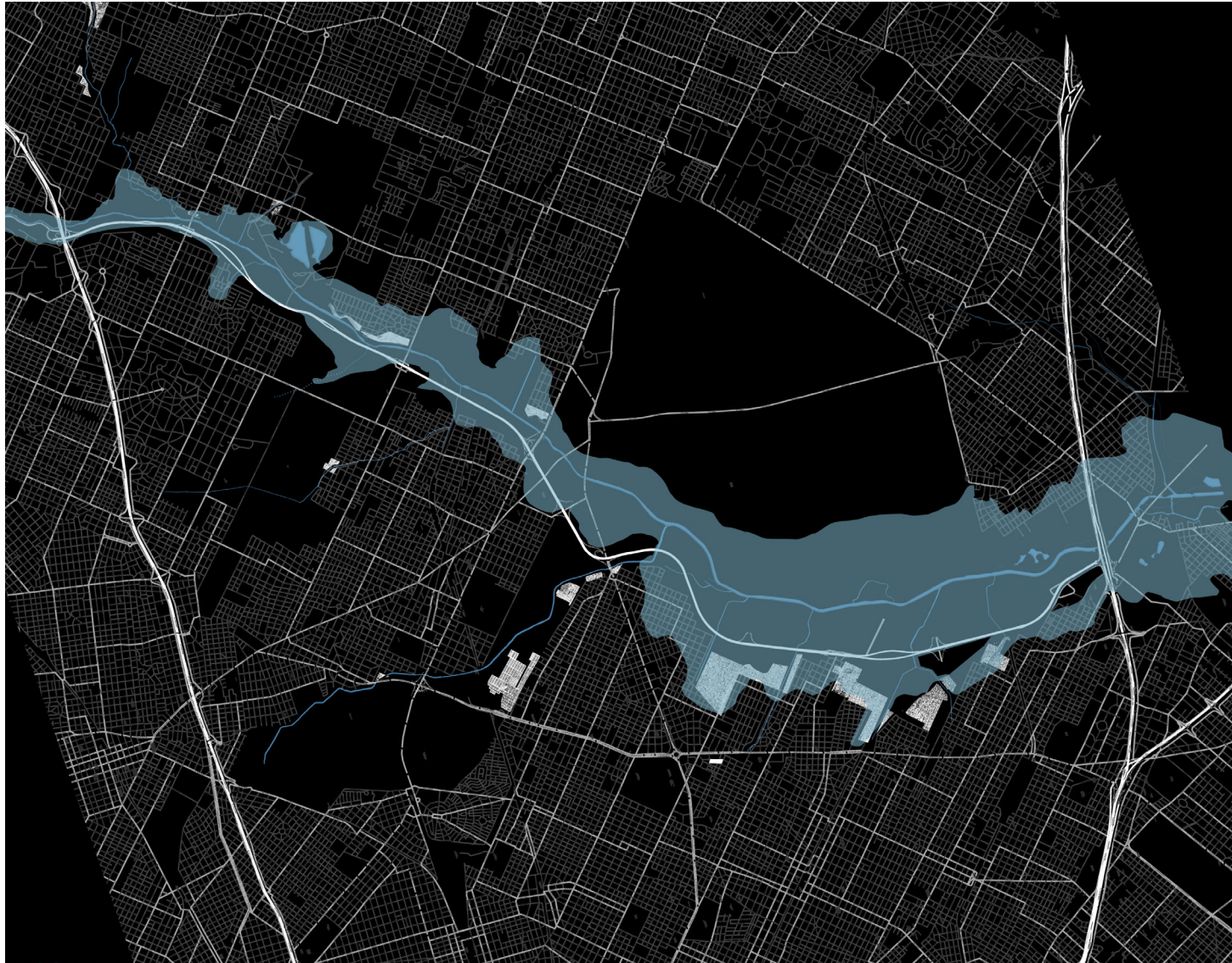


MAIN CONSIDERATIONS

- inaccessible, undefined and marginal area
- many informal settlements
- fragmented area: river and highway as barriers
- limited number of crossing points
- canals connecting the urban areas with the river

0 2km

source: author's own diagram



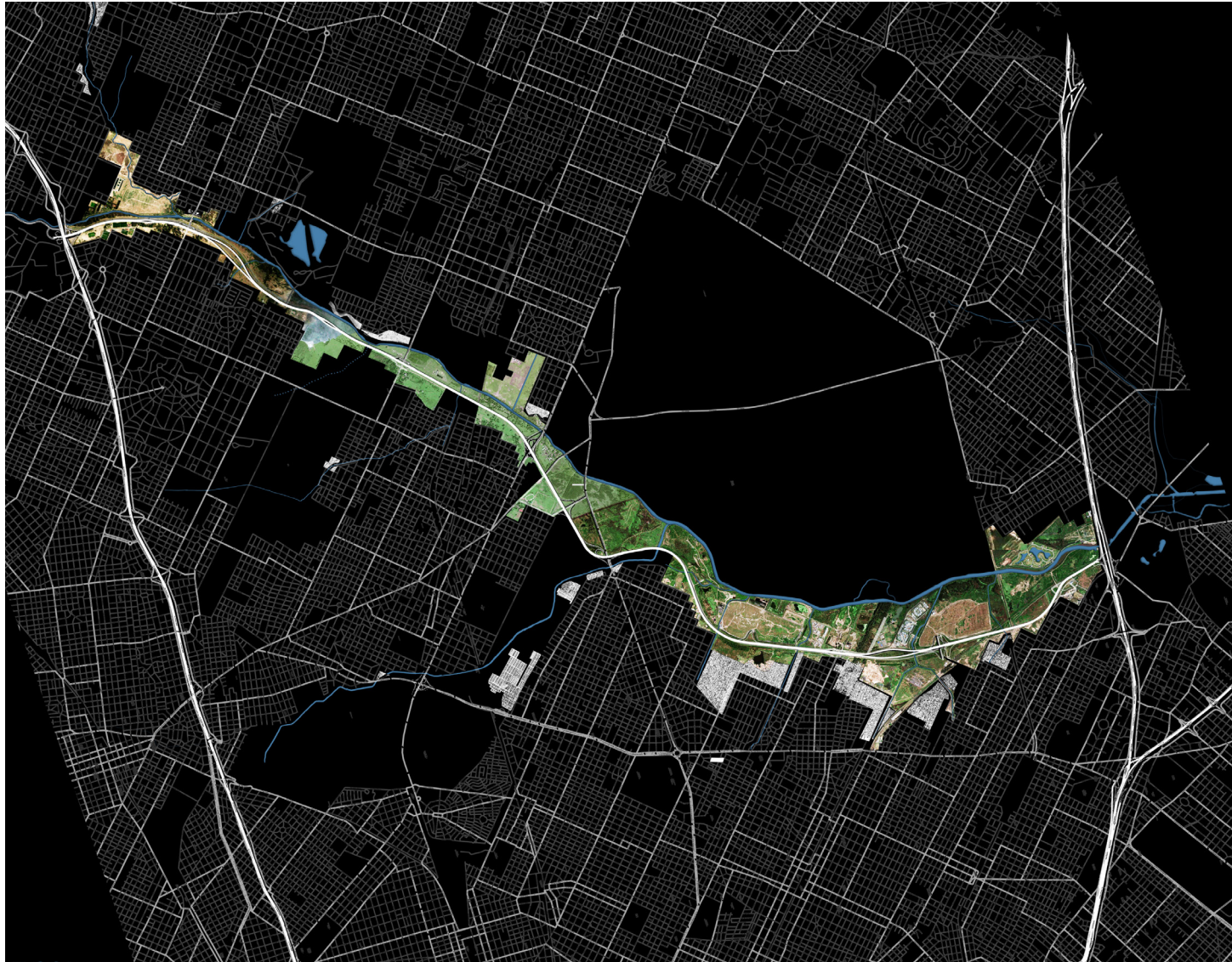
MAIN CONSIDERATIONS

- flood zone based on major flood in 1985
- affecting particularly informal settlements but also formal urban areas



0 2km

source: author's own diagram



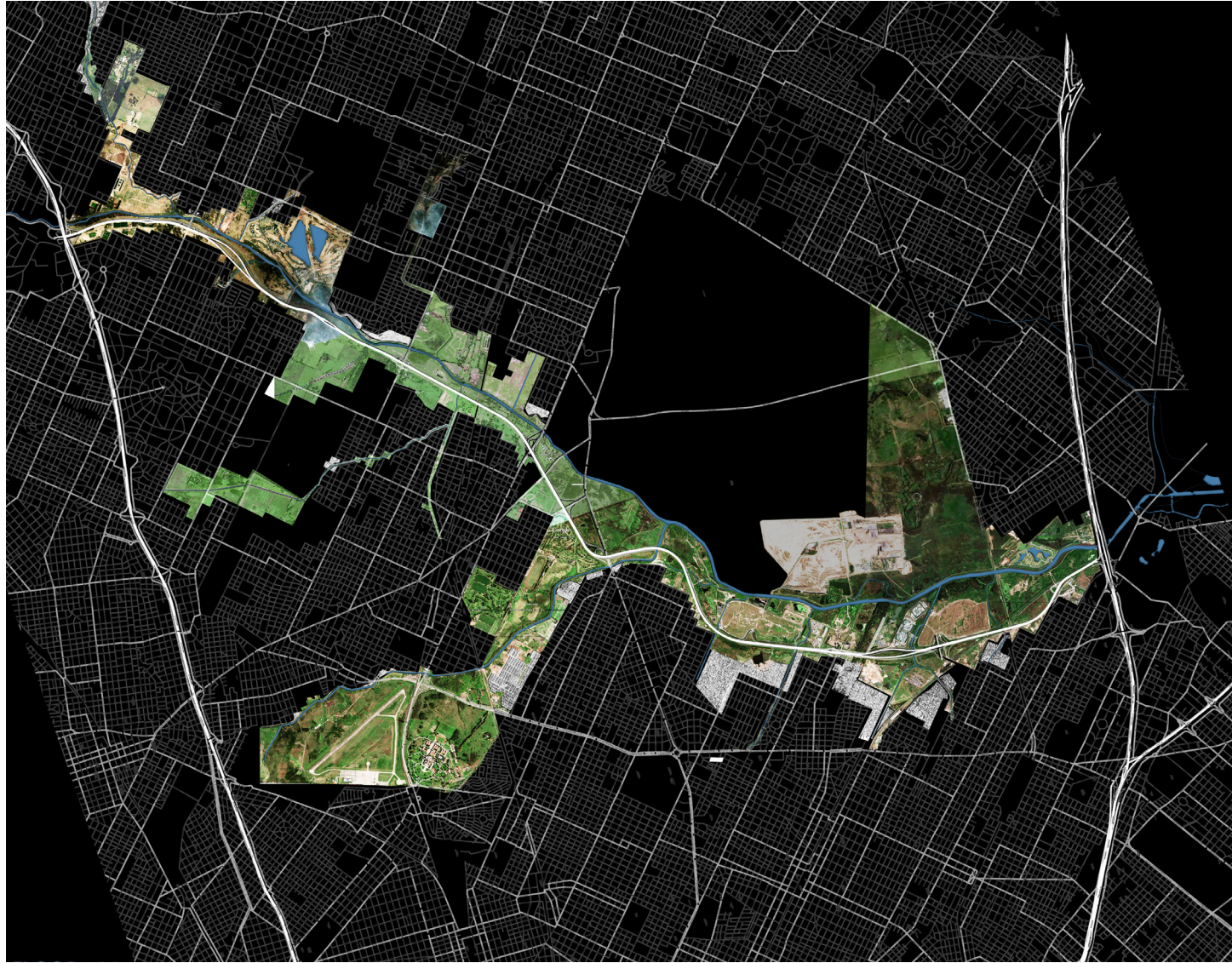
MAIN CONSIDERATIONS

- intervention area by provincial government
- does not sufficiently address local needs
- does not address existing fragmentation
- does not make use of potential of landscape structure



0 2km

source: author's own diagram



MAIN CONSIDERATIONS

- extend intervention area into urban fabric making use of potential of existing water structure (canals)
- open up and integrate river basin area
- create network of open spaces from ecological to urban/productive
- provide facilities on range of scales including local



0 2km

source: author's own diagram

NEW CANAL PROFILE WITH ALLOTMENTS



Reduce flood risk through improved profile

Cleaning of water through constructed wetlands system

Increase productivity through allotment gardens (ProHuerta programme)

Improved public space along canal

Relocation 3 de Julio required

TO BE ELABORATED UPON LATER IN PRESENTATION

NEW SOCIAL ROUTE WITH SQUARE



New social route between school and community centre

Square on meeting point between social and (existing) commercial route, between formal and informal

Space for expansion existing social facilities

TO BE ELABORATED UPON LATER IN PRESENTATION



iDENTITY in Post-Disaster Re-Development

*research into the integration and incorporation
of local identity in the re-development of
Hait's urban slums via an educational public
institute which functions as an agent
towards cultural resilience*

Wouter Pocornie
1286617

work in an historically instable political situation and recently rapid transforming economic and cultural development potential. Will these years go down as an era dominated by another occupation (the disaster related NGO occupation)? Will Haiti rise as a nation to strengthen itself? The crisis poses danger and opportunities. The people of Haiti have deal with major losses and post-disaster psychological issues. The identity of the nation will transform. Will immigration take on new heights? As emigration and its resulting remittance indicate a strong potential for Haitian-stimulated (private) development. A nation domestically dominated by poverty has limited options to develop but from an historic point of view it seems to sustain due to its cultural resilience; its social capital. Components of Haitian culture could possess the right ingredients to be integrated in the re-development. Haiti stands for the difficult task to regain its strength and a possible mission to implement a strategic development agenda. It needs to allow mechanisms to be installed that can cope with issues of disaster, poverty and instability. The latter addresses the momentum following the crisis. Many international organizations; NGOs, are in the final stages of their physical presence. The momentum of financial capital dominated foreign occupation and agendas. The attempts to stabilize, or at least strengthen, the local institutions who will take on the responsibility to organize and coordinate the re-development of Haiti's stricken areas, are geared towards capacity building. With that in place the actors will continue to request the pledged amount of financial aid and stimulate the redevelopment via collaboration projects. In general the local technical and organizational capacity needs to be in place to continue the redevelopment, years after the January 12th 2010 earthquake. The impact of the disaster is not solely attributed to these factors on the state of government. This introduction merely sets the preliminary defined context in which international organizations enter the task of implementing their projects in Haiti. The entirety of the context in which the recovery, reconstruction, and re-development takes place is slimmed down in this thesis in order to set focus on key issues regarding post-disaster re-development, cultural identity in architecture, and education as progress.

image 2 - Haiti's urban slum (Villa Rosa, Port-Au-Prince)
With inadequate governmental (institutional) support to accomodate Haitians the mountains in the urban areas now house the majority of Haiti's urban dwellers. The reaction of inhabitants is to construct enormous informal settlements, resulting in slums.

source: Wouter Pocornie (2011)



figure 9 - Villa Rosa, Port-Au-Prince (Haiti)
The map of Villa Rosa and St. Marie (scale +/- 1:2500)



of the matter that the market never acted alone.²⁰

The deprived are at times highly susceptible to the mechanism in the market that enable these issues to persist. The situation is not meant to be perceived sensationally as onerous. It emphasizes the importance of a foundation of management in projects centering around self-help. Educating the deprived is time-wise not enough to shield them from being outplayed through the market system or political legislation. This is also not the point. Incorporating self-help objectives and integrating identity implies a trilateral ownership of projects (government, community, NGOs). The democracy might not have reached a point of transparency but the project itself needs to be transparent, especially concerning responsibility and ownership on long-term.

Parallels in NGO programs for the handover: Platform as center

Before reaching the critical point on integrating daily program to the concept of a center (chapter 10) the specific characteristics of the center need further elaboration. As mentioned afore the center is a physical hub; connected in a regional network and providing an essential physical node in the community for co-operating actors to bridge the handover phase. This 'community situated organization' is a platform that should promote the interaction by transmitting information. Several NGOs have departments dedicated to projects considered in this thesis as the center for development:

- Cordaid: HOK (House of Knowledge)
- UNDP: Carmen (Centres d'Appui pour le Renforcement de Maisons Endommagées)
- UN-Habitat/ MICTDN: ATL (Agence Technique Local)
- IOM: CRC (Community Resource Centre)

The programs of each project is are traced to three clusters of objectives for transmitting information (see figure 17):

- KR: Knowledge Resources
- TS: Training Services
- OC: Open Consult

The interaction is needed for institutional development. Institutional Development can be successful when external expertise and resources meet local knowledge and problem-solving techniques.

figure 17 - Objectives for transmitting information

For the concept of the centers the program components can be traced to: KR, TS, and OC. Respectively they have the objective to transmit/communicate information to the community, provide feedback (platform) between NGO and community, as well as between government and community.

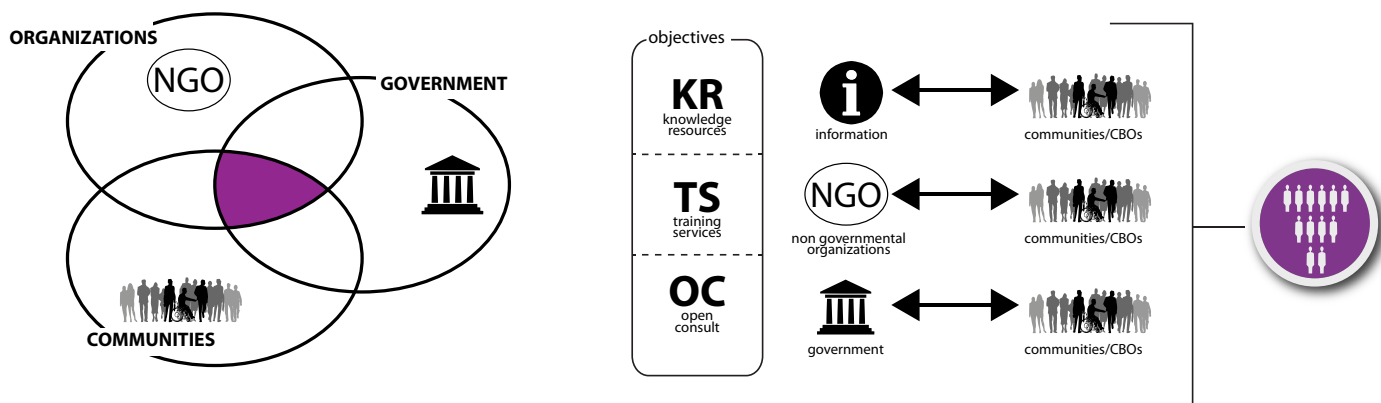




image 11 - Capacity building & social awareness

In order to reduce vulnerability many NGOs aim to educate their target group/the community via social awareness campaigns. Left on top: Cordaid has to spontaneously address the community in Carrefour following discontent regarding community assessments. Left on bottom: Cordaid has a successful mediated campaign addressing the community in Villa Rosa, Port-Au-Prince with a evening gathering which included presentations and intermissions of music and dance. Right: a local advertisement/campaign of a NGO addressing the community responsibility in getting actively involved for women's rights.

source: Wouter Pocornie (2011)

image 6 - House of Knowledge project (Cordaid)

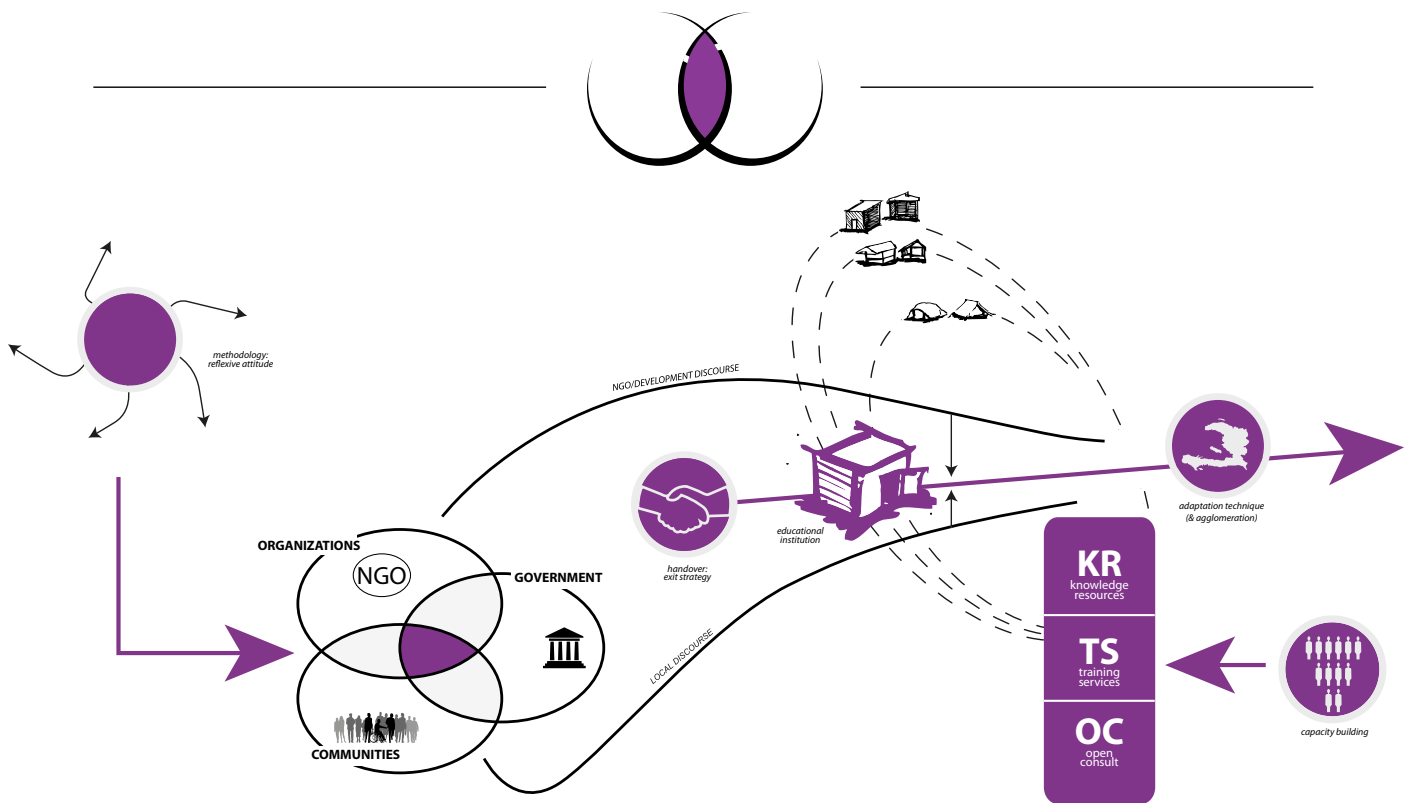
An one-month internship was enough to experience the pitfalls of decision making within the project in Villa Rosa. The original site was unsafe to build on, so the lost time in figuring out the exact ownership details in this informal context were unnecessary. The report is included in Appendix C.

source: Wouter Pocornie (2011)



figure 25 - Educational Institution

The educational institution materializes the concept of syncretism. It integrates the local identity in concept, process of production, and in the management and coordination of the re-development discourse. This discourse aims syncretize the NGO and local discourses while bridging the handover phase. For this capacity building is necessary. The two main technical aspect of the building is that it provides facilities according to the situated tempo and phase of re-development. Adjacent it is a platform that confronts the co-operative approach between actors in order to efficiently adapt the (new) discourse according to a reflexive attitude.



**Name:***Pascal Dobiscas***Organization:***Primary school***Function:***Teacher/principal***Date interview:***28th of October 2011***City/place:***Port-Au-Prince, Villa Rosa**Introduction*

-

Transcript

Could you start off with your name, the teaching staff and the school?

I'm Pascal Dobiscas, the director of the school. We begin with this school in 1998, before the earthquake. We have 8 teachers who teach at the school and 4 people work in the director department. We have 244 students; kindergarten and primary, 'fundamental'. It's about 2,3 year olds to 12 year olds but that depends. Because this is a poor area, for example we can have 20 year old students and we can't say go out because they have no other way to get the education. It's a school for the poor, not for the rich men, for the rich men we follow the 2,3 to 12 year old limit.

So you try to reach as many people as possible. Do you use shifts, like morning and afternoon classes?

Yes. We just began with the afternoon school but we only have 3 children there now who come. Maybe next week we have more places available.

Is it possible to also include an extra group in the evening or is that a problem regarding the electricity?

No, for example we work with our second group from 1 to 5 [in the afternoon] so we don't need electricity.

Is it free to enter the school?

No it's not free. We ask a little contribution [tuition]. In the morning we ask each student to pay 120 [probably Haitian] dollars and 10 dollars to enter, per month we pay 40 dollars.

This is actually quiet of a big school. Do you feel that this school has the potential to teach more aside from education? Could more program be included?

I think we would use the same program. Because if you see the results of government exam for the last class; regional exam for 6th grade – everybody passed the exams. We don't say big school but we say good structure. For example the sister congregation school ask a lot of money for people to come to school but here we don't, we know who we are. We only have the poor that come here, no rich people, but we give the same education, the same program.

So you actually have other schools in in other parts of the country as well?

Yes. Same program.

So more on the cultural side, how important is it to educate in the culture of Haiti? For example educational programs about visual arts, music?

No, we don't have art programs here. For example if you have a program like this you'll have to say to the parents that they have to buy instruments. Right now if we ask for contribution for a food

GLOBAL CITIES:

**PLANNING FOR COMPETITIVENESS AND EMERGING
METROPOLITAN STRUCTURES.**

GLOBAL CITIES

Graduations on global cities investigate urban development projects in **global cities**.

They use notions on **economic competitiveness, social equity and diversity** to analyse how development is influenced by its position in **global networks** on the one hand and how it informs **transformations of metropolitan structures** on the other.

Graduations also use notions on the **quality of decision-making** to detect political dimensions of projects and development. Observations about responses in the public domain are used to (re-)construct political debates and to assess decision-making on **legitimacy and accountability**.



The Guardian, xxx, Model London 2000, **UK**



The Guardian, xxx, Model London 2000, **UK**



Hans Wilschut, 2006, Camouflage, hermetic city, **the Netherlands**



Hans Wilschut, 2013, Interlude, **China**

EXAMPLES

- KABALI, H.P. 2012. Shifting trajectories: Construct urban strategies to restructure Mumbai's main centralities and their functional relationships to facilitate the development of metropolitan hinterlands. Graduation Report Master Thesis in Urbanism. Delft, Delft University of Technology.
- PARENTE PAULA PESSOA, R. 2010. Looking for Urban Synergy. Dealing with Polycentric Development: The Case of the Metropolitan Agglomeration of Fortaleza. Graduation Report Master Thesis in Urbanism. Delft, Delft University of Technology.



DELFT UNIVERSITY OF TECHNOLOGY

Faculty of Architecture, Urbanism and Building Sciences

Track of Urbanism

looking for **UrbanSynergy**

Dealing with Polycentric Development:
The Case of the Metropolitan Agglomeration of Fortaleza

RENATA PARENTE PAULA PESSOA

Delft, 2010

Source: Gilberto Studart

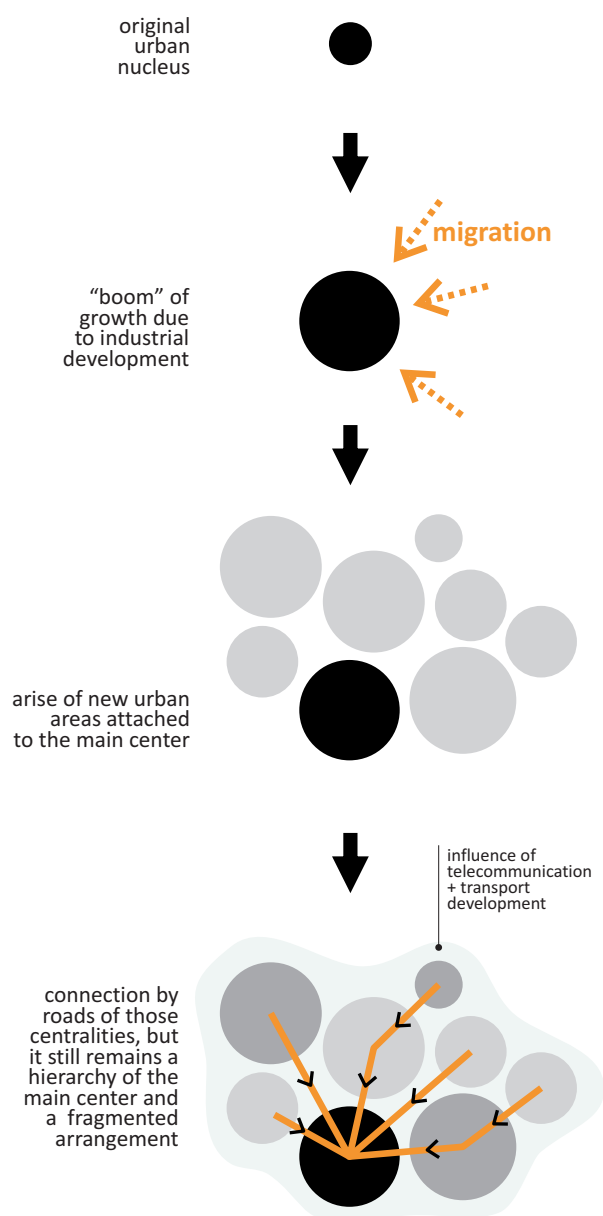


Figure 1.1. Urban growth in most Brazilian's metropolis
Source: Author

2 problems

fast urban growth
+
neglected urban planning and management system

nation of these. However, those areas form a fragmented composition in the city interconnected by roads and/or public transportation lines (Muniz, 2008). Furthermore, the lack of efficient urban planning and management as well as of non-cooperated structure of governance provoked an incoherent and fragmented urban structure.

Then, despite the MAF has developed urban plans and policies over its urban evolution, most were neglected by the government, which preferred short-term solutions to answer specific and urgent problems. Some of those plans already promote decentralisation, aiming for distribution of the activities and relief of the main centre (Muniz, 2006). However, those policies in general were not implemented, becoming the city a self-organised system oriented specially by the real estate market and land speculation interests. Consequently, nowadays, the relevant sub centres are disconnected from each other, and the city centre still has the main economical significance of the metropolis.

Furthermore, the MAF as other Brazilian metropolitan agglomerations enlarged spatially and demographically very fast (**Figure 1.1**). This occurrence became even harder for planning and management instruments to follow the needs of these urban systems and also to answer those requirements through compatible solutions. Summing up, two situations enlarge the problematic condition of the metropolitan agglomerations in Brazil: the fast urban growth, and the neglected urban planning and management system. Consequently, many urban problems have been raising in MAF over the time, such as unfair life conditions, unbalance distribution of opportunities and facilities, socio-spatial segregation, inefficient use of infrastructure, chaotic mobility and accessibility, overloading of the transportation system, unsafeness and illegal occupation of land (slums).

In this thesis, the MAF is used just as an example of a more general trend, since many cities have similar urban problems in a similar framework. Thus, the intention is to research a theme which can be translated into comparable situations. Then, the MAF is a case study of the Brazilian metropolitan agglomerations. On this context, the research focuses on the understanding of the emerging polycentric development, where the deregulated and fast expansion provoked an acute environment of social-spatial inequalities. The concept of polycentrism is used on this research as a tool of analysis, since it has a broad scope of aspects to understand the current metropolitan condition.



2. CONCEPTUAL DIMENSION

Source: <http://www.flickr.com/photos/>

Another polycentric characteristic is the gradient which is a sliding scale way to measure the degree of polycentricity in an urban system. Green (2007, p.2082) corroborates saying that *“any group of reasonably closely spaced settlements is likely to be polycentric to some extent and any formal definition of polycentricity should reflect that”*. This means that an urban system should be assessed in terms of levels of polycentrism, and not in terms of ‘black and white’ definitions, since these urban structures have a great variety of conditions which rate their polycentric stage. Taking into account the gradient element of polycentricity to rate the level of urban relations, Champion

(2001, p.666) presents 3 degrees of interaction and interdependences within urban areas. The lower level is an urban situation without any relations between settlements, just distribution of the population. Then, the next level requires a minimum degree of interaction to identify which centres form part of the system and which are independent of it. The most synergetic level presumes that each centre has a city or regional scale function. This means that each centre function supports more requests than it is necessary for its own demand, and its function provides supplies for whole urban system (Champion, 2001, p.666). **(Figure 2.3)**

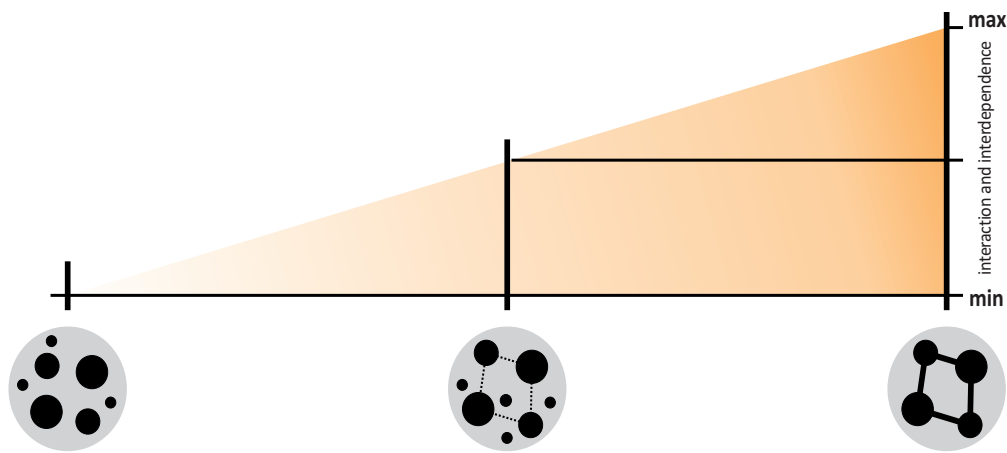


Figure 2.3. Degree of interaction and interdependence
Source: Drawn based on Champion, 2001

In the same line of reasoning, the polycentric urban agglomeration has a dynamic border, since its limits are not fixed anymore with predefined administrative edges. Castells (1996) describes the spatial transformation of the modern metropolis as an *“increasingly discontinuous, fragmented, polycentric, and almost kaleidoscopic socio-spatial structure”* with a *“difficulty of delineating its outer boundaries and hence of accurately estimating its popu-*

lation size” (Soja, 2000, p.235). The border transition is unclear, which is defined by a gradient of borders, and not anymore by a line. This complex urban form defines a complex network of governance. The interrelationships and unclear boundaries create opportunities of cooperation in local, regional, national, and also global level, reflecting therefore dimensions that transcend urban scales. (Moura, 2005, p.89) **(Figure 2.4)**

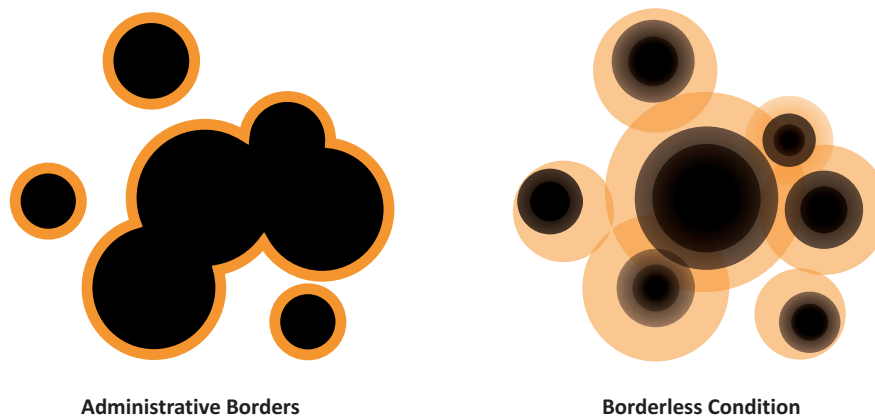


Figure 2.4. Alternative paths for the evolution of polycentric urban regions.
Source: Author

An aerial photograph of a sprawling urban landscape. The foreground and middle ground are filled with a dense grid of buildings, many with reddish-brown tiled roofs. Green trees and vegetation are interspersed among the structures. In the background, a more concentrated area of taller, modern skyscrapers is visible against a clear blue sky with some light clouds. A semi-transparent dark grey rectangle is overlaid on the lower portion of the image, containing white text.

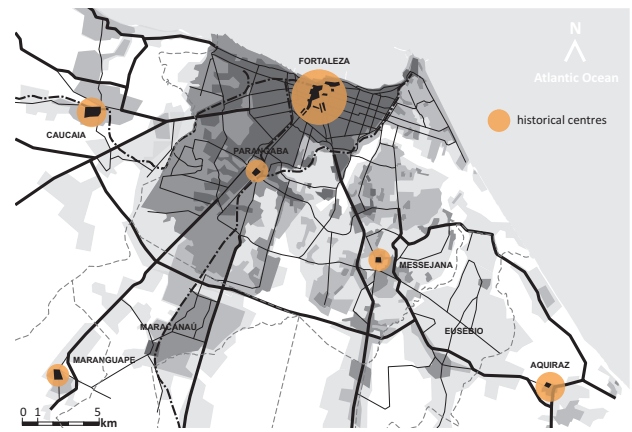
4. THE CASE OF THE METROPOLITAN AGGLOMERATION OF FORTALEZA - MAF

Source: Gilberto Studart

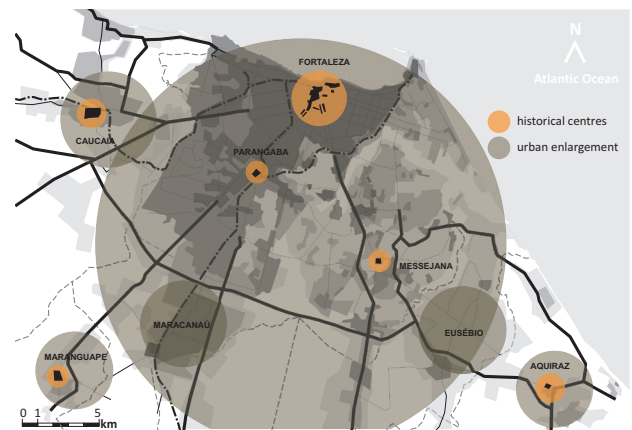
Despite the strong urban concentration in Fortaleza, over the time, other settlements were being located on the vicinities of Fortaleza. Some of them are as old as the historical nucleus of Fortaleza, others emerged later due to network infrastructure, or due to acquire an important metropolitan function, for instance, industrial district of Maracanaú (1964). However, none of them developed as much as Fortaleza. Actually they are dependent towns of Fortaleza, but with some relevance within metropolitan context, because of their traditional local urban activities. That is the case of the historical towns of Messejana (1663), Aquiraz (1699), Parangaba (1759), Caucaia (1759), Maranguape (1851), and the town of Maracanaú, which was beneficiated with the implementation of the industrial district in 1964.

The central area of Fortaleza thus grew towards its west and east side from 1950s. The west side located the first industrial zone, as already present (**Map 4.15**), using the railway line to be connected with the countryside (**Map 4.28**). This area attracted more popular residents who served as labour force. The east side (Aldeota) concentrated the wealthy families, where over the time became a consolidated new centrality, competing with the hegemony of the historical centre (Bozarchiello, in Pequeno, 2009, p. 11). The implementation of the Industrial District of Maracanaú (1964) decentralized this activity to the south, stimulating the implementation of mass produced social housing on the south west side of Fortaleza and Maracanaú, and later also on Caucaia, where are the denser part of the MAF nowadays. The east side occupation of Fortaleza towards Messejana and Eusébio occurred later, since the railway obstructed the expansion toward that side (**Map 4.27**). With the opening of links toward east and the later improvement of the Washington Soares avenue, increasing the accessibility, promoting the development of that area and also the consolidation of a linear economic centre along that road.

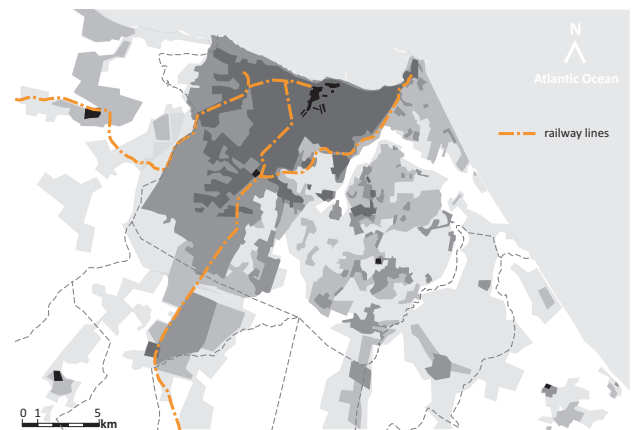
The urban enlargement of Fortaleza has also tied relation with the road and railway system. The historical core of Fortaleza is the centre of the radial-concentric system of the MAF's rail and roads (**Map 4.27 and 4.28**). This configuration coincides with the route of the old agriculture export trade in 19th Century, which the production used to come from countryside to be shipped on the Fortaleza's seaport. Furthermore, the rural migration to the capital also used these routes, defining them as the main axes of metropolitan integration. The rail and road configuration reinforced the central power of Fortaleza within its metropolitan context and also they influenced the distribution of population and the location of the main service facilities. (Pequeno 2009, p.134 and 135).



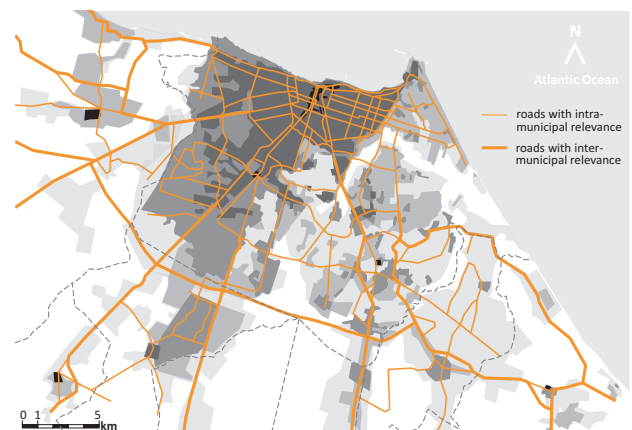
Map 4.25. Historical nucleus of MAF
Source: Author



Map 4.26. Urban expansion of the historic nucleus of MAF
Source: Author



Map 4.27. Railway system of MAF
Source: Author



Map 4.28. Main roads of MAF
Source: Author

Table 4.7. Summary of the normative analysis of plans and policies relevant in the context of MAF

Source: Author

NORMATIVE DOCUMENTS	POLYCENTRIC ASPECTS IN THE SCALE OF METROPOLITAN AGGLOMERATION OF FORTALEZA			
	Morphological	Relational	Governance	Deficiency
NATIONAL LEVEL				
Federal Constitution 1988	-	-	Suggest creation of norms to regulate the cooperation between national, state and municipal, aiming to balance development and national welfare.	The law lacks reference to the metropolitan phenomenon, treating each municipality as an individual area of urbanisation.
City Statute (Law N° 10.257/2001) 2001	It aims the distribution of population and economic activities within Municipality and its area of Influence (Art.2-IV).	It aims the integration and complementarity between urban and rural activities (Art.2-VII).	It defines to the federal government the competence to legislate rules for multi governmental levels of cooperation (Art3).	The norm is specifically related to the intra-municipal organization, missing more practical rules for metropolitan scale, although has few guidelines about this theme. The relational aspect is in municipal scale, referring only to the relations between urban and rural activities.
STATE / METROPOLITAN LEVEL				
Plandirf 1972	It proposes the integration and territorial equality between municipalities through creation of areas of economic incentives	It proposes the decrease in number of commuter toward Fortaleza through the increment of jobs and income in other municipalities	It proposes a regional administrative system to manage the metropolitan plan as well as coordinate it with the other level of governance.	The proposal to territorial integration is mainly about the mobility interconnection, through a system of radial and ring roads. The complex intra-governmental implementation interfered in the stakeholders' acceptance.
Ceará State Constitution 1989	-	-	It recognises the political individualization of each municipality (decentralization), although it also refers to the regional integration, considering the neighboring municipalities as a whole.	The metropolitan planning references are generic guidelines for the whole state. Its focus is toward intra-municipal scale.
Planefor 1997	-	It proposes to plan and develop an integrated metropolitan area and consolidate its competitiveness.	It aims the management cooperation and the solidarity society.	The plan is more economic rather than spatial orientated. It is a private sector initiative, but did not acquire political force to implement the proposals.



5. EVALUATIVE DIMENSION

5.2. URBAN PLANNING RECOMMENDATIONS TO DEAL WITH POLYCENTRIC DEVELOPMENT

The Metropolitan Agglomeration of Fortaleza, as other Brazilian metropolitan agglomerations, is experiencing deconcentration of urban activities and increase urban mobility, after years of monocentric development. The normative documents has been promoting the deconcentration of the main centre of the city in order to relieve it from the urban pressure and to share its benefits with other areas of the metropolises. However, the normative approach has been provoking a dispersed and fragmented urban system, because its missing an integrated understanding of problems and requirements of the urban system. In this context, this thesis attempts to provide recommendations to deal with polycentric development in a integrated approach, using the concept of polycentrism as a tool to analysis the current situation and the normative framework.

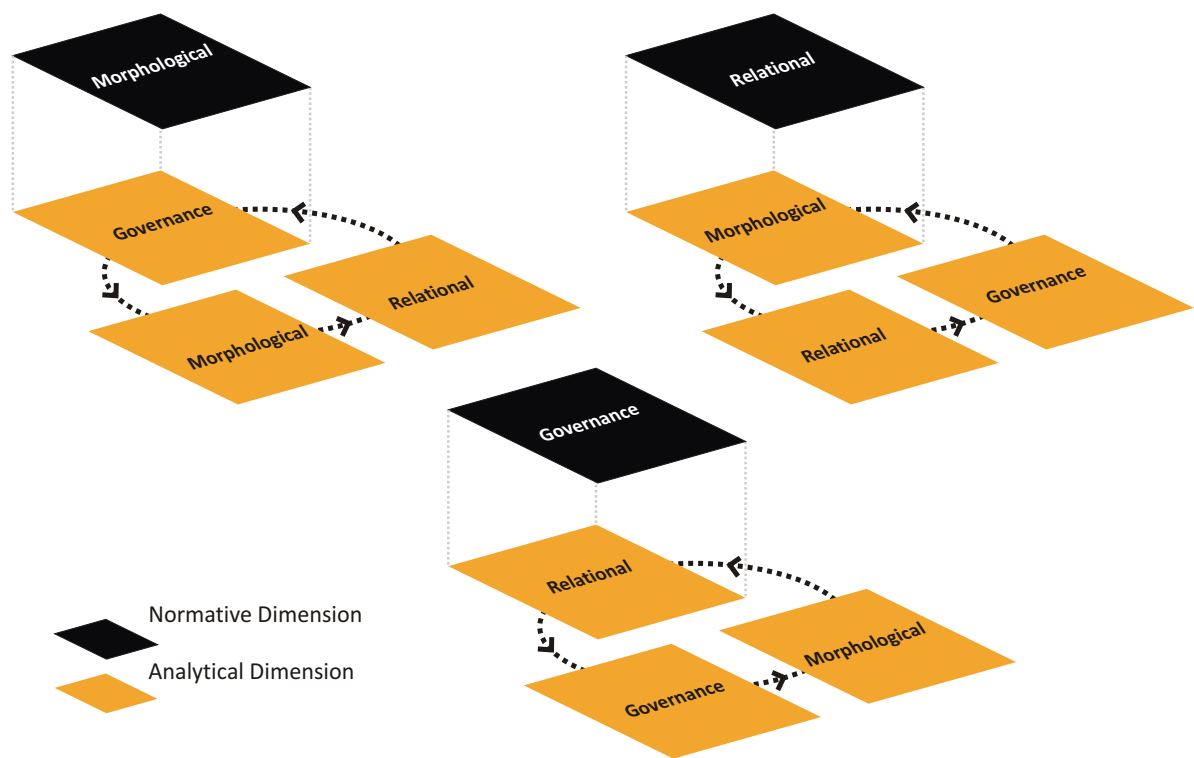
The urban planning recommendations are results of an integrated analysis of the research dimensions: conceptual, contextual, analytical and normative. They focus only on metropolitan scale, but provide references re-

lated to lower scale when being relevant for macro context. Moreover, the research dimensions have been so far sistematised according to the polycentric aspects: morphological, relational and governance. In order to have an integrated assessment, those aspects were evaluated together, combining them when assessing the analytical and normative dimensions in different aspects. For instance, the morphology of the analytical dimension with relational of the normative dimension **(Figure 5.1)**.

The recommendations are specific to the Metropolitan Agglomeration of Fortaleza since each urban system has similar context but different requirements. Using the case study, the recommendations become more specific and less generic, which can be referenced for other Brazilian Metropolitan Agglomerations, although they need adjustments.

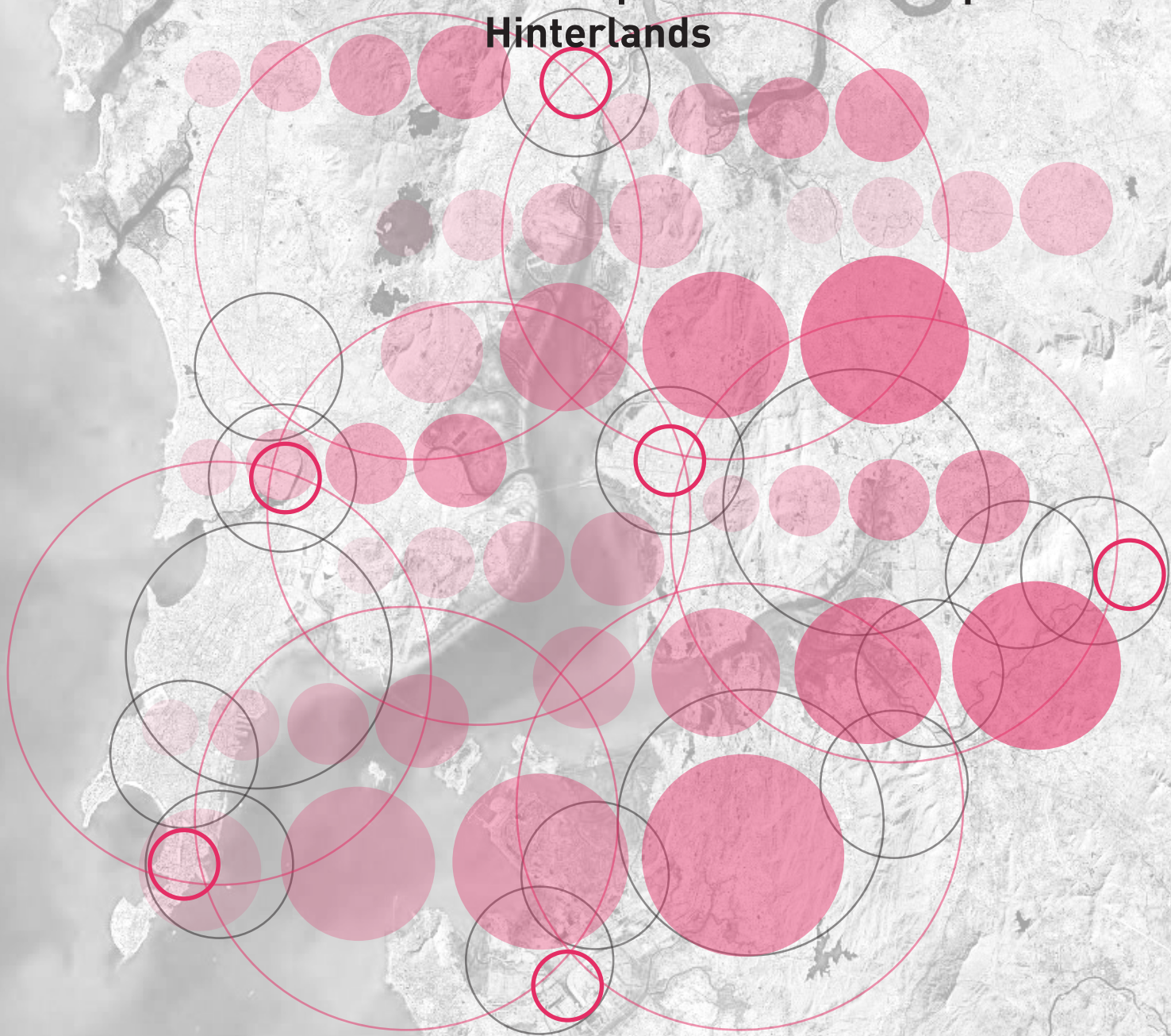
But what kind of goals are these recommendations addressed? The recommendations to the Metropolitan Agglomeration of Fortaleza are based on specific goals:

Figure 5.1. Methodology of integration between aspects of polycentrism: morphological, relational and governance
Source: Author



Shifting Trajectories

Construct Urban Strategies to Restructure Mumbai's Main Centralities and their Functional Relationships to Facilitate the Development of Metropolitan Hinterlands



P 5 R e p o r t

Hema Priya Kabali

Studio: Complex Cities And Regions in Transformation

Department of Urbanism

TU Delft

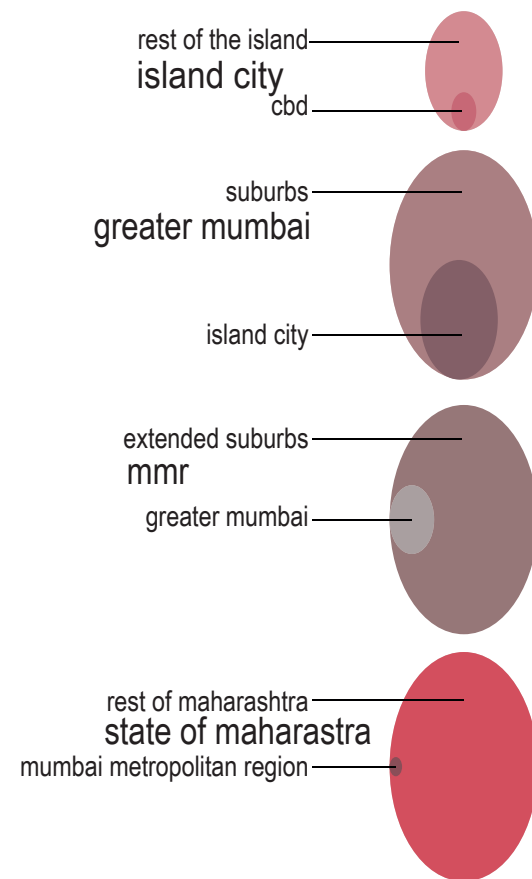


Fig 12-Mumbai within its administrative context
Source: author, 2012
Adapted: Raju, 2009

Fig 13- Mumbai in India (next page)
Source: author, 2012

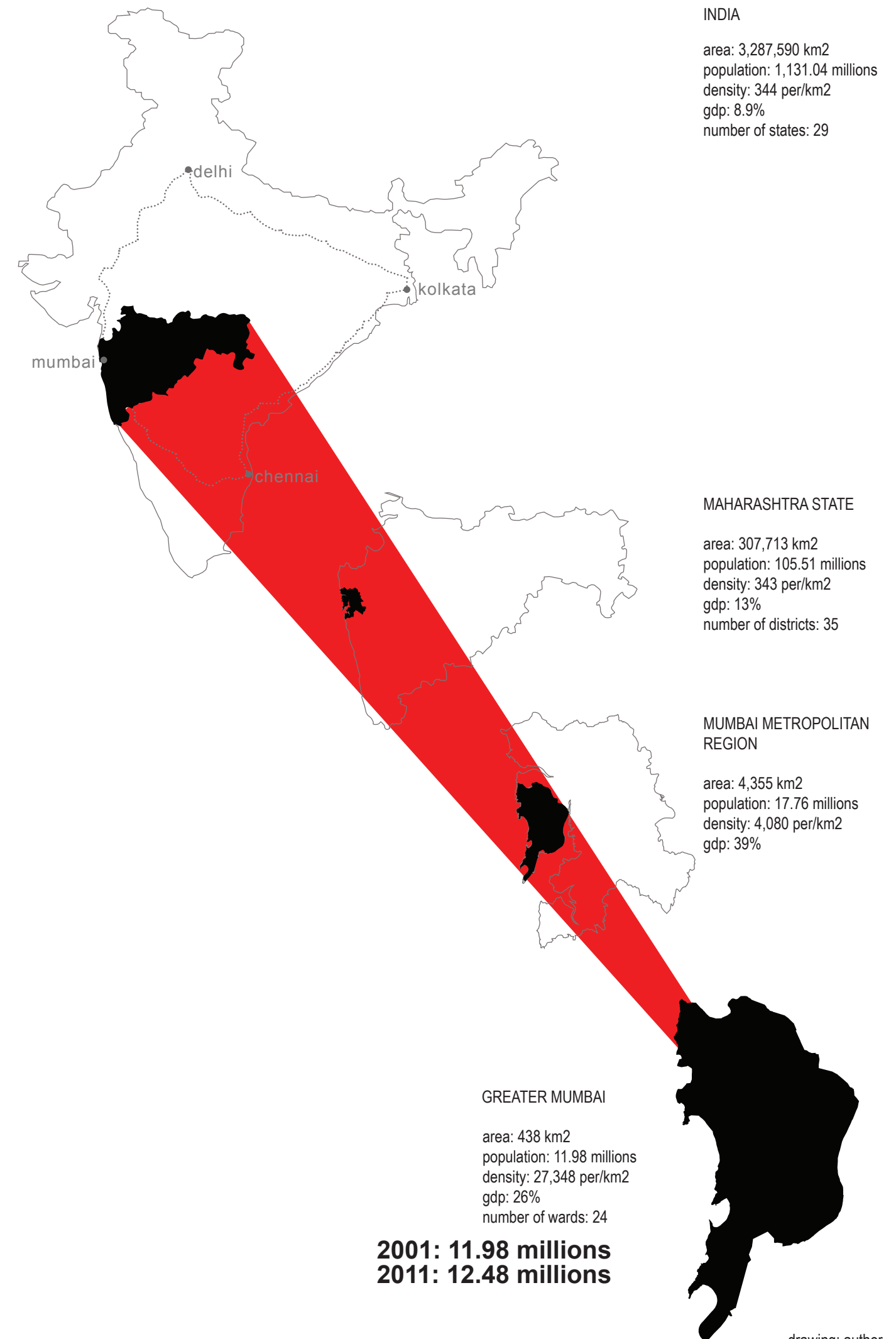
1 Mumbai Suburban Railway Network - Today, of 14 million people travelling per day by the Indian Railways, around 7 million people travel per day on Mumbai Suburban section alone.

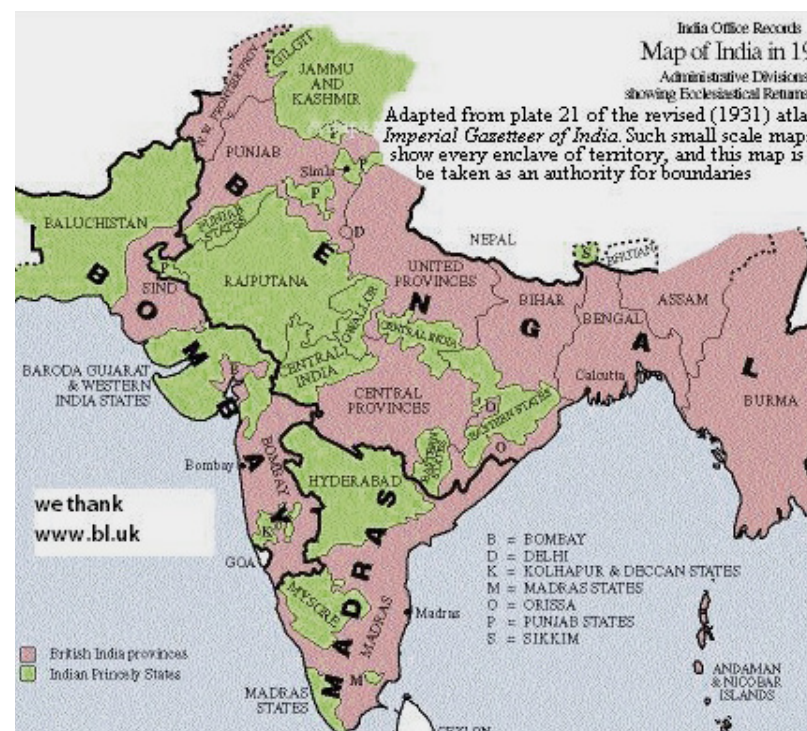
At the region, Mumbai shares close relationships with the cities of Gujarat, namely Surat and Ahmedabad; and with the cities of Maharashtra, namely Pune and Nashik.

At the Metropolitan level, the twin cities of Mumbai and Navi Mumbai are welded together with the Thane district, the extended suburbs of Kalyan, Bhiwandi-Nizampur, Mira-Bhayandar, Vasai-Virar, Khopoli, Karjat. Pen, Alibag and Matheran planning divisions (MMRDA, 1999).

At the city level, Mumbai shares a structural relationship with residents from the distant suburbs, in addition to its own native population having millions of commuters passing the city space on an everyday basis. The suburban railways carry around 7 million passengers on an everyday basis¹

At the level of the urban centers, the main CBD which is at the southernmost tip of the peninsula locates two-thirds of the city's jobs (UrbanAge, 2007) and further in itself, constitutes the global CBD, national-historic CBD and local-native CBD, each differentially connected to the wider global network (Grant and Nijman, 2002).





2.1 Historical Growth and Transformations

2.1.1 Pre Colonial Age: Story of Seven Islands

It is known that the city belonged to different local kingdoms and switched hands to the mughals until the beginning of the 14th century (gazettee of mumbai,2008).After 200 years of Mughal rule and its function as an important military and naval outpost on the western coast the islands came under the Portuguese in the year 1534.(Gazetteer of Mumbai,2008)

2.1.2 Colonial Age: Trade and Expansion

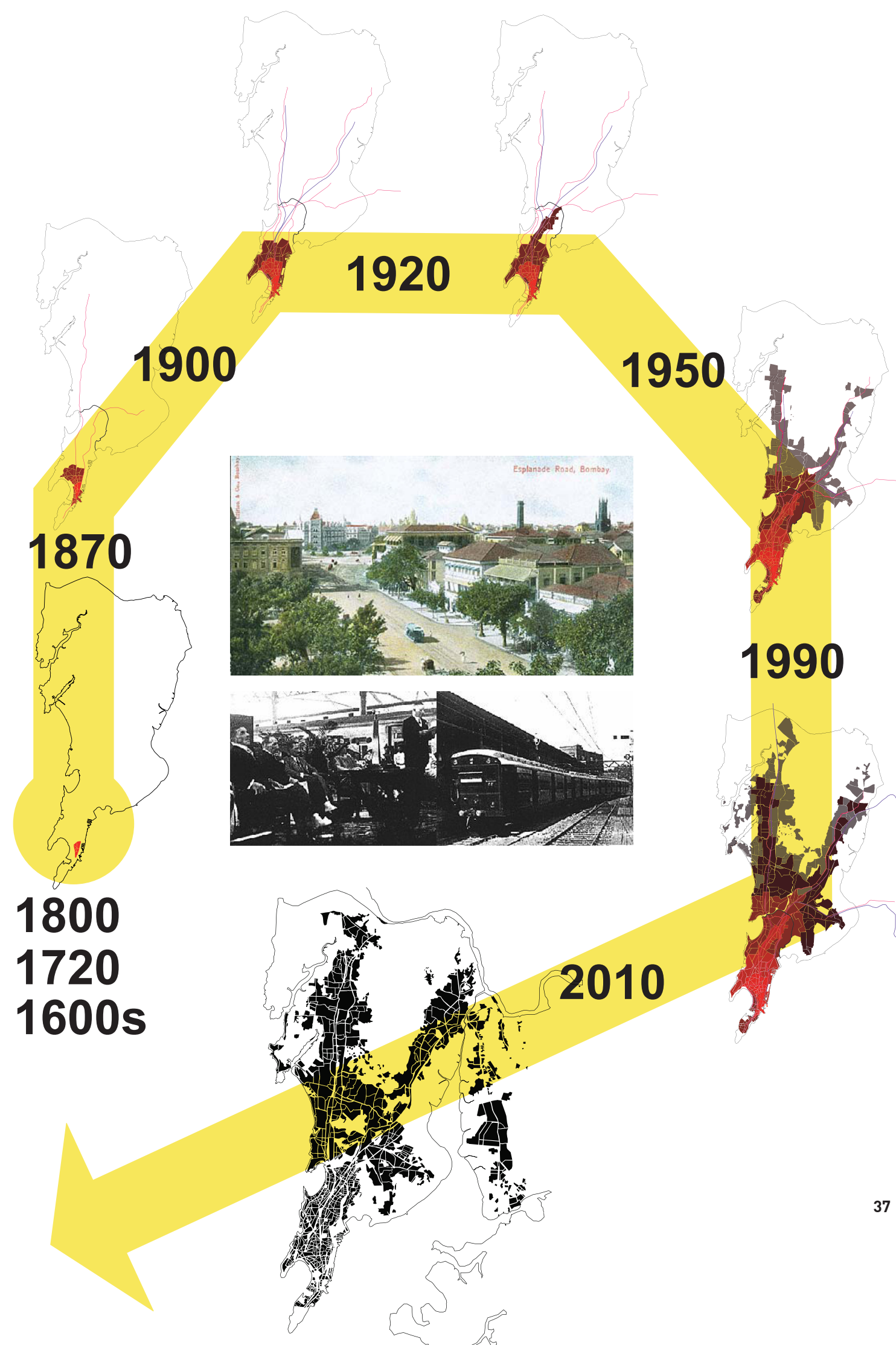
The period of colonial history of Bombay rightly commences in 1534 with the cession of the island to the Portuguese by Sultan Bahadur of Gujarat. But for several years prior to this, date, the Portuguese had been consolidating their power in the north Konkan and on more than one occasion had visited Bombay.(gazetteer of Mumbai,2008;HPIP,Rossa).The various attempts of the English to obtain possession of Bombay, were the outcome of the general policy of the East India Company.The company foresaw that British trade interests in India could not flourish unless it secured fortified stations and maintained at such stations a naval and military force sufficient to render the Company wholly independent of the intrigues and quarrels carried on between the native powers of the continent(gazetteer of mumbai,2008). In regard to Western India in particular the growing power of the Dutch and the disturbances consequent upon the death of Shah Jahan impressed upon the Company the imperative need of obtaining a fresh station auxiliary to their chief settlement in Surat. The signing of the marriage treaty between Charles II and the Infanta Catherine of Portugal at Whitehall in June 1661, whereby the post and island of Bombay with all the rights, profits, territories and appurtenances whatsoever thereunto belonging were handed over to the King of Great Britain, his heirs and successors forever.

Fig 24- Extent of British Indian (Top right) and the Bombay Presidency (Top left)

Source: Allen &Co, 1880

Fig 25- Urban development of Mumbai (next page)

Source: author. 2012



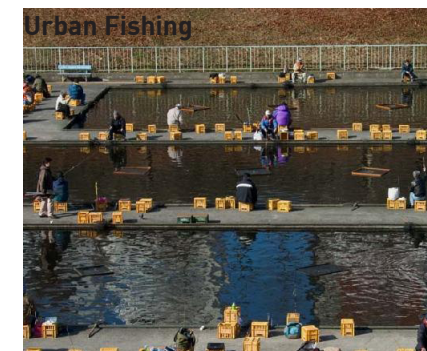
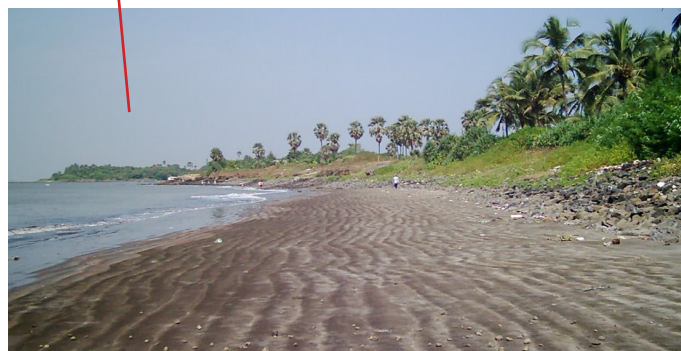
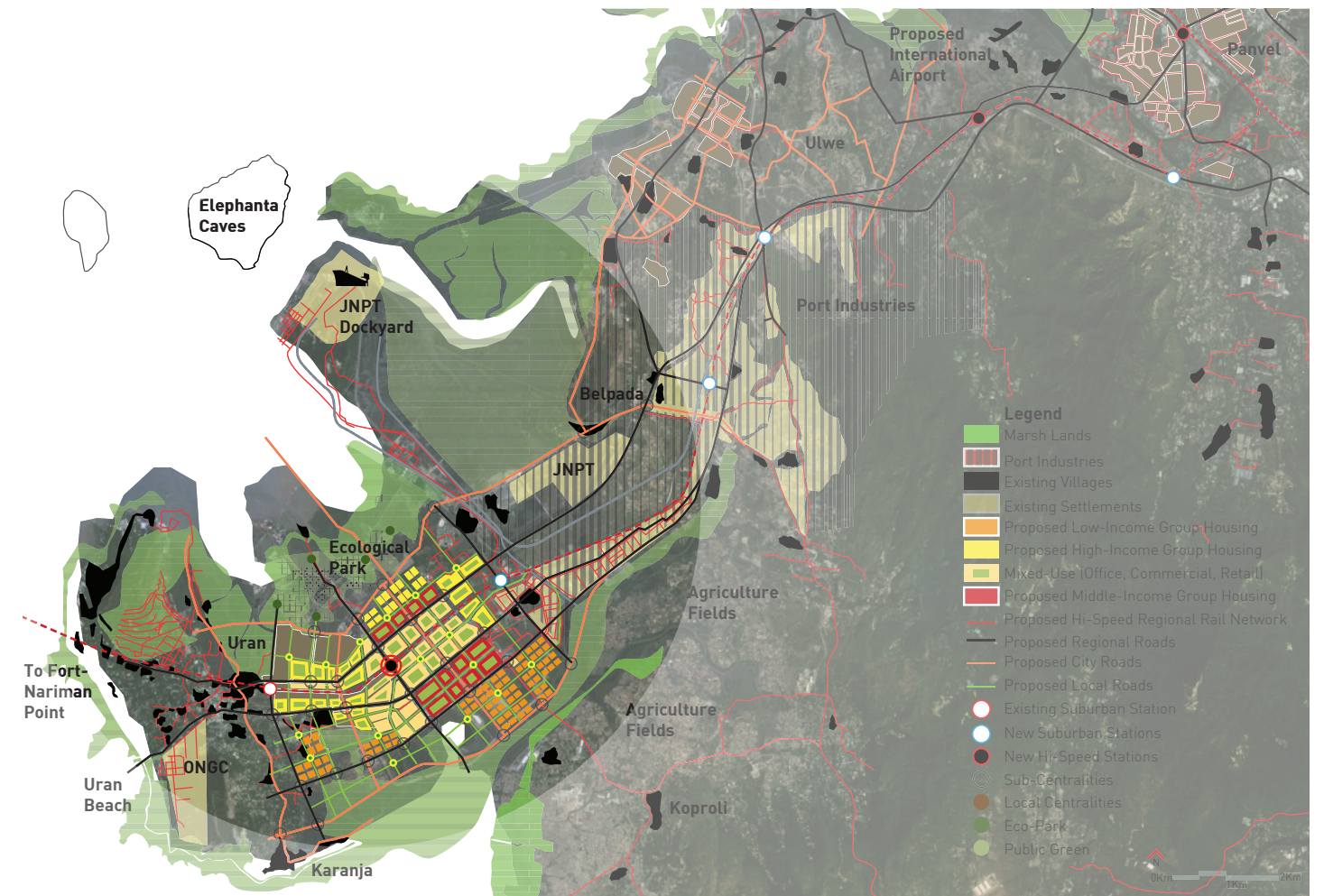
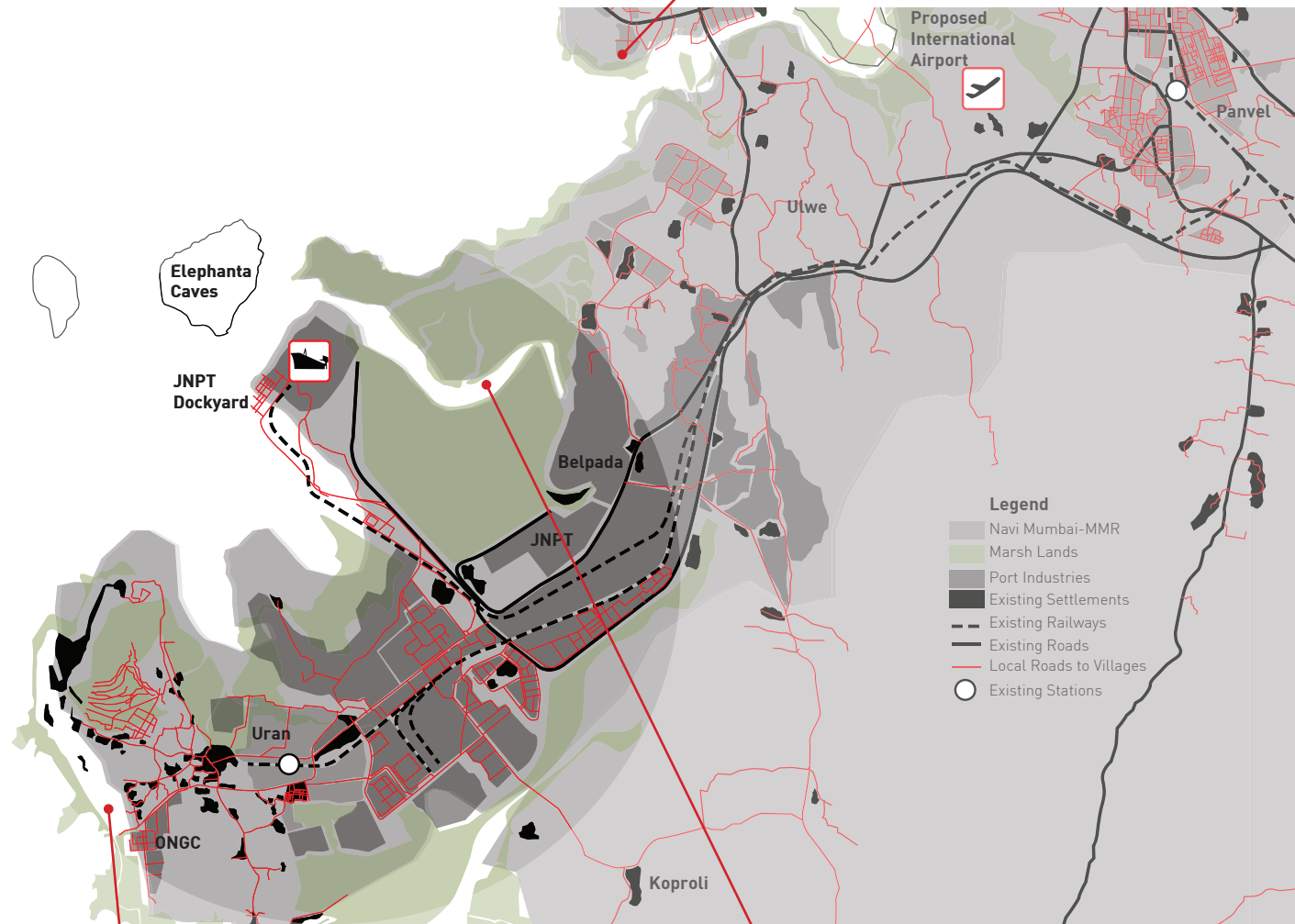


Fig 160- Existing Structure and the Site Conditions of Uran
Source:author, 2012

Fig 161- Proposed Urban Structure with Public Transportation as the defining backbone
Source:author, 2012

HAPPY CITIES

Graduations on Happy cities assess diverging ideas on **happiness, livability, and well-being** and apply these notions to a physical context and the discourse on happy cities. Within a chosen context they analyze and reflect on **criteria for happiness** (i.e. quality of life indicators), determine **stakeholders and political visions**, and can relate these to the fields of **spatial planning and strategic design**. Graduations translate abstract notions on happiness into spatial terms, formulating strategies and designs that take into account the urban context and contribute to happiness.



Pedro Maia, 2003, Hoogvliet, Rotterdam, **the Netherlands**

EXAMPLES

- UPCOMING

RE-OCUURING TOPICS

- Actors, stakeholders and governance,
- (Strategic) spatial planning,
- Complex cities: interwoven scales.

RE-OCUURING METHODS.

REFLECT

- Actors, stakeholders and governance:

Think of 8 actors/stakeholders that are involved/affected by your project.

- (Strategic) spatial planning:

Think of 4 sectors that find consideration in your project.

- Complex cities: interwoven scales and interests:

Think of 2 scales that matter in your project.

Formulate: For whom, what and where do you research/plan/design?