

A Smart Cairo in the Making

REAL CORP 2014
CONFERENCE PROGRAMME

PLAN IT SMART
CLEVER SOLUTIONS FOR SMART CITIES

Icons on the smartphone screen: Taxi, Lightbulb, Phone, Plus, Laptop, Water tap, Wi-Fi, House, Plug, Tree, Soccer ball.

Logos at the bottom: bmvw, vic, SMART CITY WIEN, ISOCARP, StoDt+Wien, austriatech, CPE, tinavienna, CORP.

21-23 MAY 2014 VIENNA, AUSTRIA www.corp.at

**A Strategic Approach
Towards a Better Quality of Life**

Heba Safey Eldeen
Egypt

Structure

WHAT

WHY

HOW

Structure

WHAT

A closer examination of the concept
in the Egyptian Context

WHY

HOW

Structure

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A closer examination of the concept
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WHY

Debating the validity of the concept
and its application in developing countries

HOW

Structure

WHAT

A closer examination of the concept
in the Egyptian Context

WHY

Debating the validity of the concept
and its application in developing countries

HOW

A Case of a Cairene initiative:

1. Grounded Observation
2. Semi-Structured Investigation

Theoretical Review

REALCORP 2013:



Cities

Theoretical Review

REALCORP 2013:



Cities

Making sustainable communities happen

change planning criteria by introducing socio-cultural indicators

understanding places and impact on people

analysis of socio-spatial phenomenon

everyday practices and perceptions of places

planning a character for public spaces, Spirit, form, shape of the city

Theoretical Review

REALCORP 2013:



Challenges

the need for tailored planning solutions

Place-making
(quality of place – quality of life)

Cities

Making sustainable communities happen

change planning criteria by introducing socio-cultural indicators

understanding places and impact on people

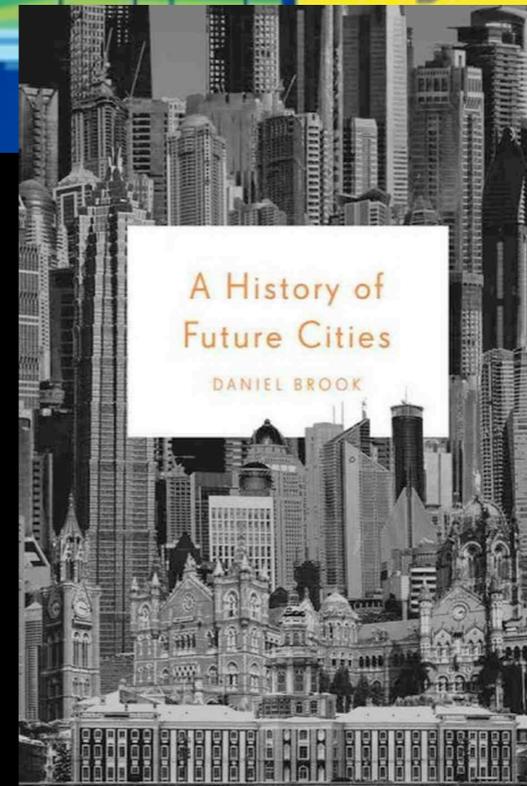
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Theoretical Review

Multi-faceted Definitions of the Concept Smart Cities



Theoretical Review

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Theoretical Review

Multi-faceted Definitions of the Concept

Smart Cities

Theoretical Review

Multi-faceted Definitions of the Concept

Smart Cities

city is a digitally networked and technology-advanced, spearheaded by software and hardware companies has injected advanced technology into the urban mix

Sustainable?

Resilient?

related to the organic integration of social and environmental systems, where an organic urbanism whole if orchestrated

Liveable?

Green?

smart city is a concept that is an urban labeling phenomenon of an icon of a sustainable and livable city

Theoretical Review

Moreover:

REALCORP 2014: **On Vienna:**

“Cities have the capability of providing something for everybody, only because and only when, they are created by everyone”

-Jane Jacobs

SMART
CITY
WIEN

Theoretical Review

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SMART
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Moreover:

- 1.75 million inhabitants- planned for 2 million !!!
- 50% public/open spaces !!!
- mobility: bicycles & public transportation
- renewable energy vs. consumerism emissions
- solar power plants
- 2050 target 80-95% CO₂ emissions!!!
- compact urban framework ???
- high standard of public service
- separation of urban functions
- spacial fragmentation
- social oriented city:
 - aware & interest people
 - create small jobs for smart citizens?
 - participation - fosters sensitivity
- future oriented (green jobs)
- governance and management
- fore runner in world wide city ranking
- holistic planning approach
- application Vs. theoretical research
- innovation as a permanent process
- to be visible as a showcase (competitiveness)
- political & economic issues
(metropolitan development)

Theoretical Review

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Smart City Check List

SMART
CITY
WIEN

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- 50% public/open spaces !!!
- mobility: bicycles & public transportation
- renewable energy vs. consumerism emissions
- solar power plants
- 2050 target 80-95% CO₂ emissions!!!
- compact urban form & network ???
- high standards of service
- separation of functions
- spacial fragmentation
- social oriented
- aware & interested citizens?
- create small jobs for citizens?
- participatory process & activity
- future oriented (green)
- governance and management
- former number 1 in world with city ranking
- holistic planning approach
- application Vs. theoretical research
- innovation as a permanent process
- to be visible as a showcase (competitiveness)
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(metropolitan development)

Theoretical Review

CONCEPT REVISITED: **Flexible Parameters**



Theoretical Review

CONCEPT REVISITED: **Flexible Parameters**



- **Development of more integrated and inclusive urban models.**
- **Strategic management of natural resources.**
- **New models of mobility.**
- **Greater valorization of citizens.**
- **An overall better quality of life.**

Cairo

A Case Study

Facts

18-20 million

40cm/person

35/420 km²

Cairo

A Case Study

18-20 million

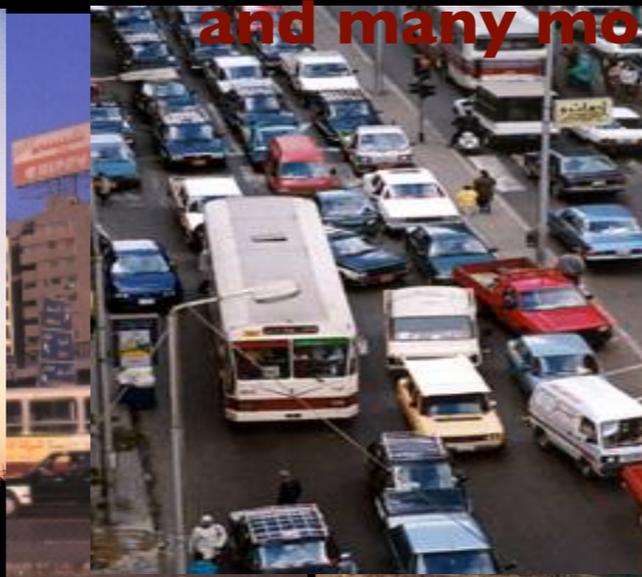
40cm/person

35/420 km²

Facts

1. Messy disorganized urban fabric.
2. Unique problems of subcultural conflicts.
3. Difficulty in waste management.
4. Scarcity of resources (water, electricity and fuel altogether).
5. Air pollution.
6. Human health concerns.
7. Traffic congestion.
8. Inadequate-deteriorating and aging infrastructure.

and many more

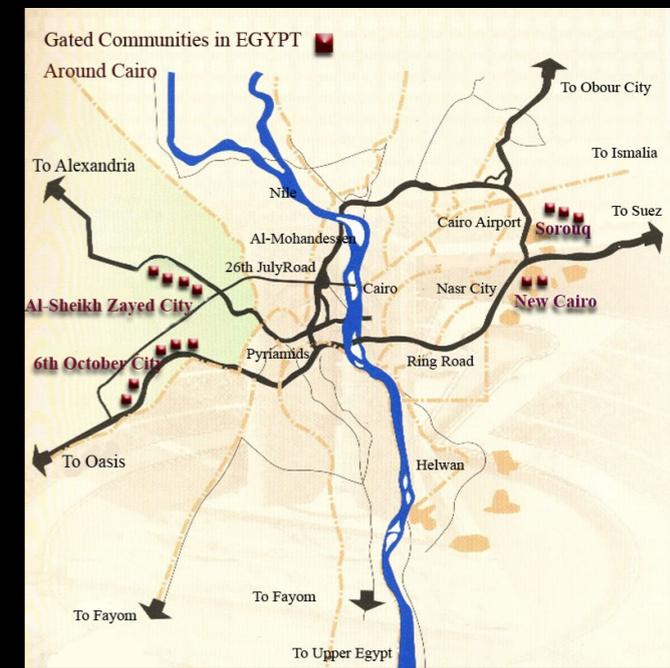


Cairo

A Case Study

Eastward:
El-Shorouk,
Al- Obour,
Al- Kahira- Al-Gadida;

Westward:
Alexandria-Cairo
desert road,
El- Sheikh Zayed
and OctoberCity



Cairo

A Case Study

- Allowing Private and Holding Sectors Involvement
- Developing Suburbia and Creating New Communities
- Creating Competitiveness
- Applying Recent/Affordable Physical and Technological Urban Advancements
- Reducing Environmental Impact

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A Case Study: **Madinaty**

Basic Info:

3 kilometers on the Cairo-Suez road

12kms before the entrance to Al Shorouk City for 10kms with a depth of 4.5kms.

10 minute drive from Heliopolis and 20 minutes from downtown Cairo.

8 thousand feddans, for 600,000 inhabitants in 120,000 housing units,

acting as extension to New Cairo

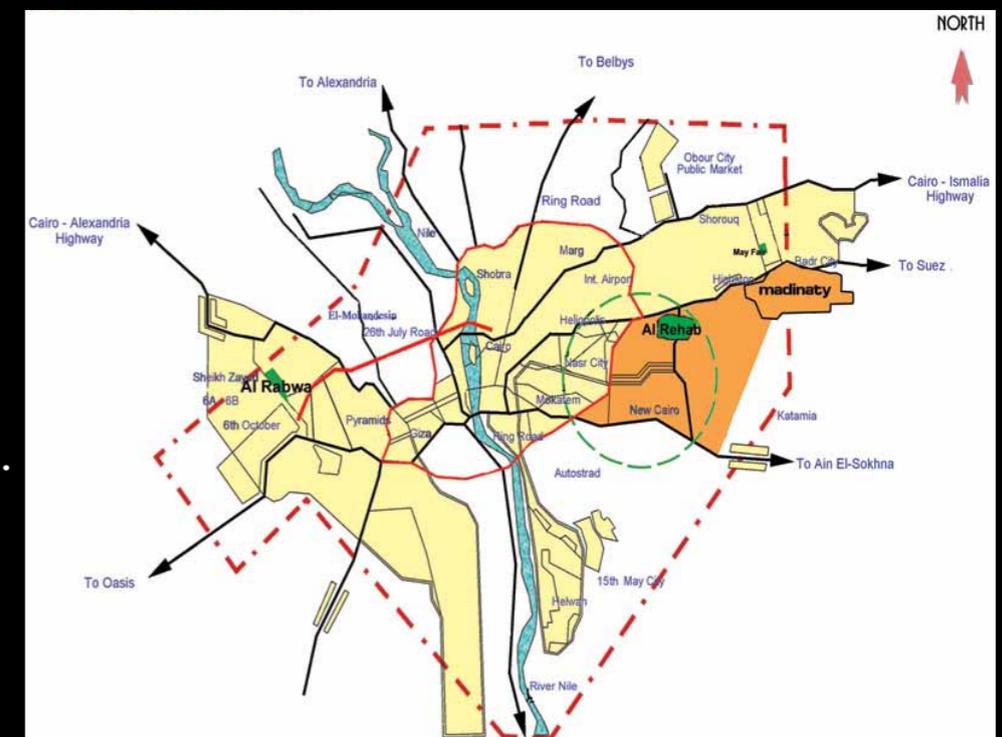
covers 33.6 million square meters

27.3 million square meters residential areas,

fully integrated household services. In addition to the above,

6.3 million square meters dedicated to services the city's inhabitants as well as Greater Cairo residents.

own network of bus lines provides transportation services to and from Cairo



Master Plan



Cairo

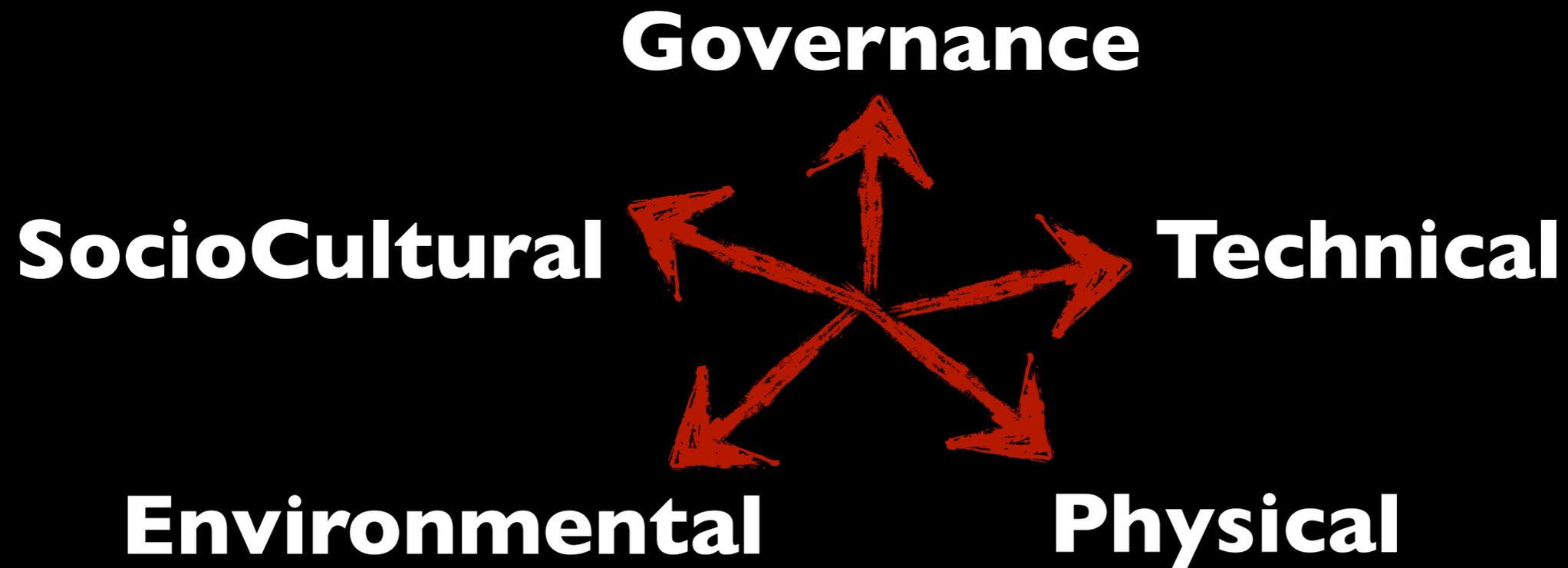
A Case Study: **Madinaty**

**Features of “Smartness”
& Research Methods**

Cairo

A Case Study: **Madinaty**

Features of “**Smartness**” & Research Methods



Cairo

A Case Study: **Madinaty**

Observation

Investigation

Cairo

A Case Study: **Madinaty**

Observation

“smartness” check list
precoded walkthroughs
annotated base-maps
annotated photography

Investigation

Cairo

A Case Study: **Madinaty**

Observation

“smartness” check list
precoded walkthroughs

annotated base-maps
annotated photography

Investigation

integrative multidimensional tool that test people’s perception of elected “smart” features.

MCQ’s, Linkert Attitude Scale, Ranking, Semantic Differential Scale, closed and open-ended questions, images, and additional base-maps were included in the tool.

demographical information, duration and history of residency, reasons for leaving earlier districts.

Cairo

A Case Study: **Madinaty**

Findings

Cairo

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Findings



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Findings



Cairo

A Case Study: **Madinaty**

Findings

Socio-Cultural ✓

Physical ✓

Environmental ?

Technical ?

Governance ✗



Discussion

Lessons Learned **Or** Questions Evoked 

Discussion

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Madinaty:

Pilot - underdeveloped
project

Madinaty:

Response to Cairene
Upper-Middle Sector

Discussion

Lessons Learned **or** Questions Evoked 

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Response to Cairene Upper-Middle Sector

The integrative approach for understanding smart city initiatives relies on the management and organization. This includes: technology, governance, policy context, people and communities, economy, built infrastructure, natural environment.

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Response to Cairene Upper-Middle Sector

How can the majority of unspoken Cairenes attain alike urbanism?

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Can Cairo become A **SMART CITY**

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Conclusion

Theoretical Reflections

Smart City:

Vision

Mission

Strategic Outcomes

Conclusion

Theoretical Reflections

Smart City:

Vision

enterprise & Social Collaboration
help people live, learn & work better
using leading technology

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Mission

create sus. env.
enable business
community & citizens to learn, create & prosper
provision of city governance, platforms & spaces
integrate and leverage intelligence

Strategic Outcomes

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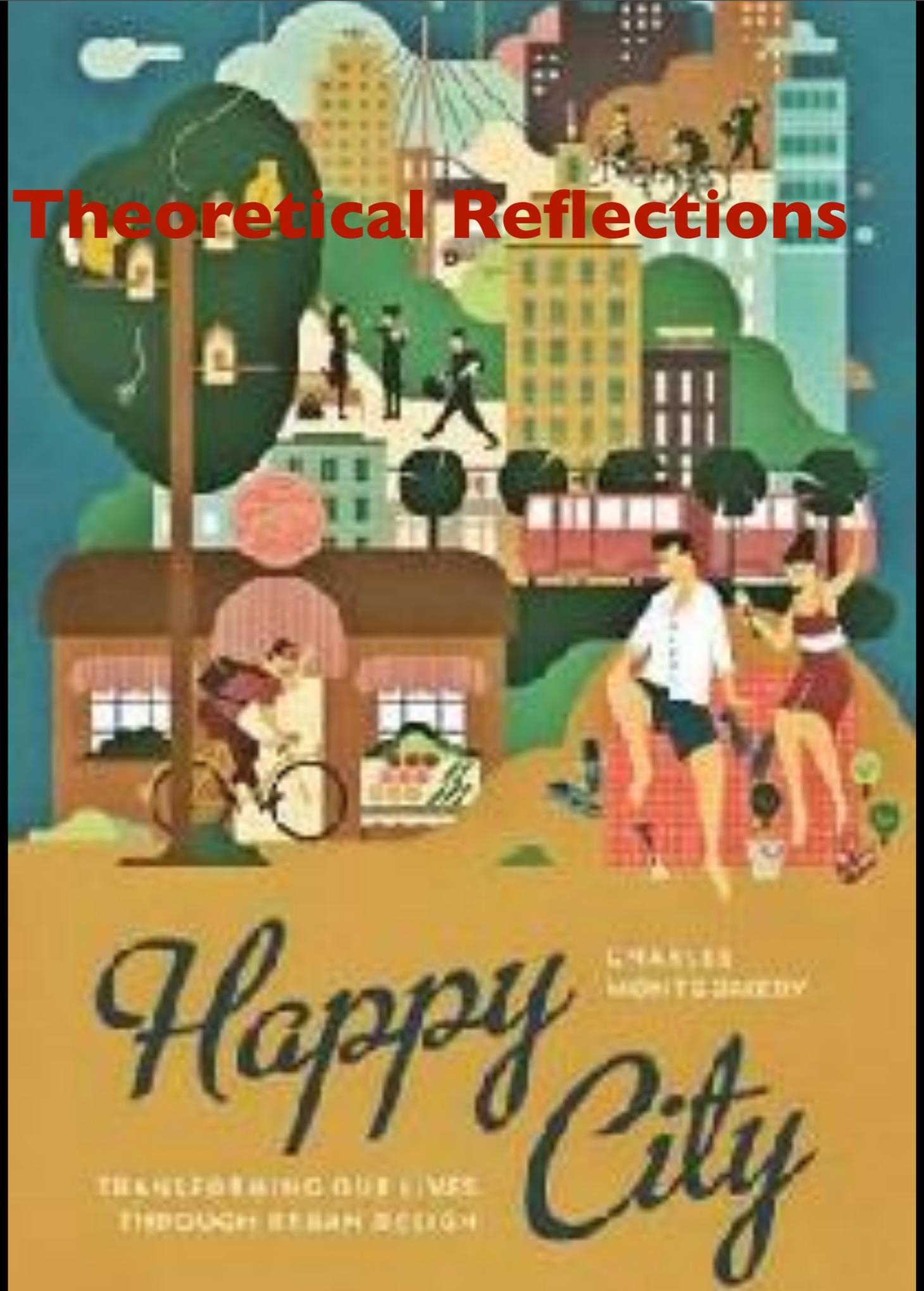
Strategic Outcomes

Succeed Economically
stay safe in green, clean neighborhoods
be healthy

Conclusion

Theoretical Reflections

Smart City:

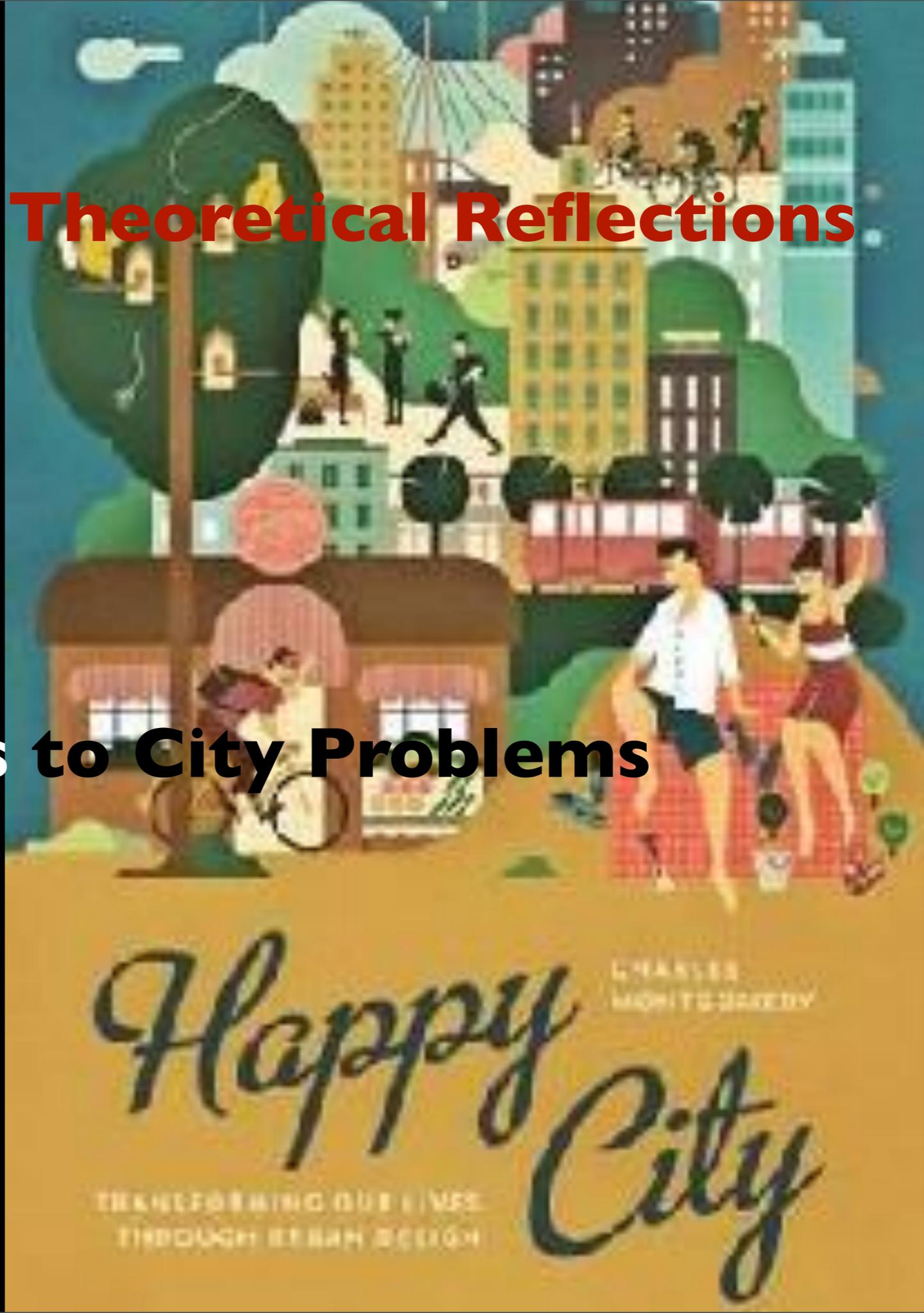


Conclusion

Theoretical Reflections

Smart City:

Innovative Solutions to City Problems



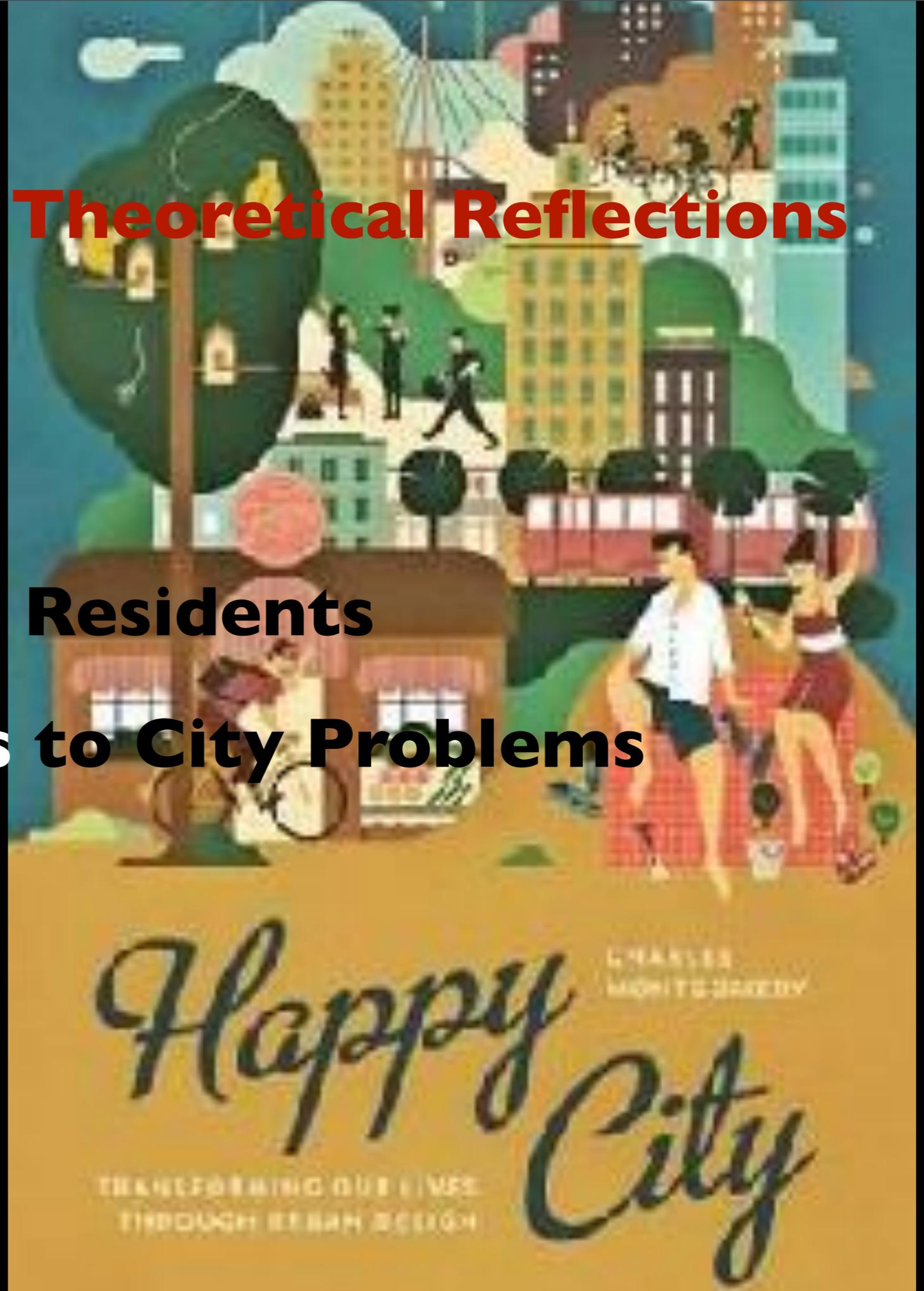
Conclusion

Smart City:

Satisfied Residents

Innovative Solutions to City Problems

Theoretical Reflections



Conclusion

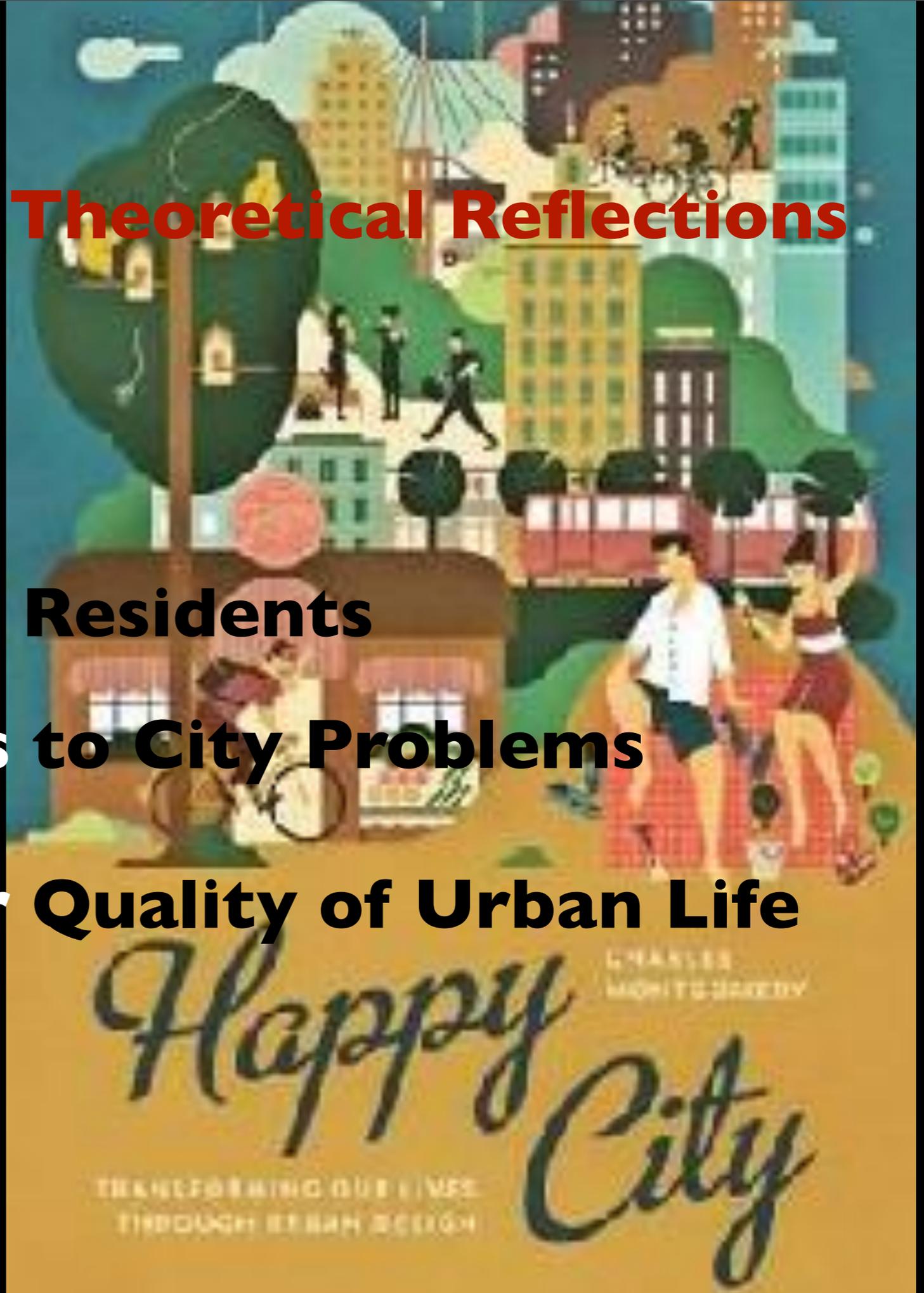
Smart City:

Satisfied Residents

Innovative Solutions to City Problems

A Better Quality of Urban Life

Theoretical Reflections



Conclusion

A LOVE
LETTER
TO THE
CITY



Conclusion

The study needs further work:
It should focus on governmental perspective, as well as the other societal sectors, seeking:

1. a wholistic explanation/definition of the concept
2. a practical/integrative approach to its application

A LOVE
LETTER
TO THE
CITY



"...Therefore, we may consequently state that: this world is indeed a living being endowed with a soul and intelligence ... a single visible living entity containing all other living entities, which by their nature are all related."

- Plato, Timeus, 4th century B.C.

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Thank You