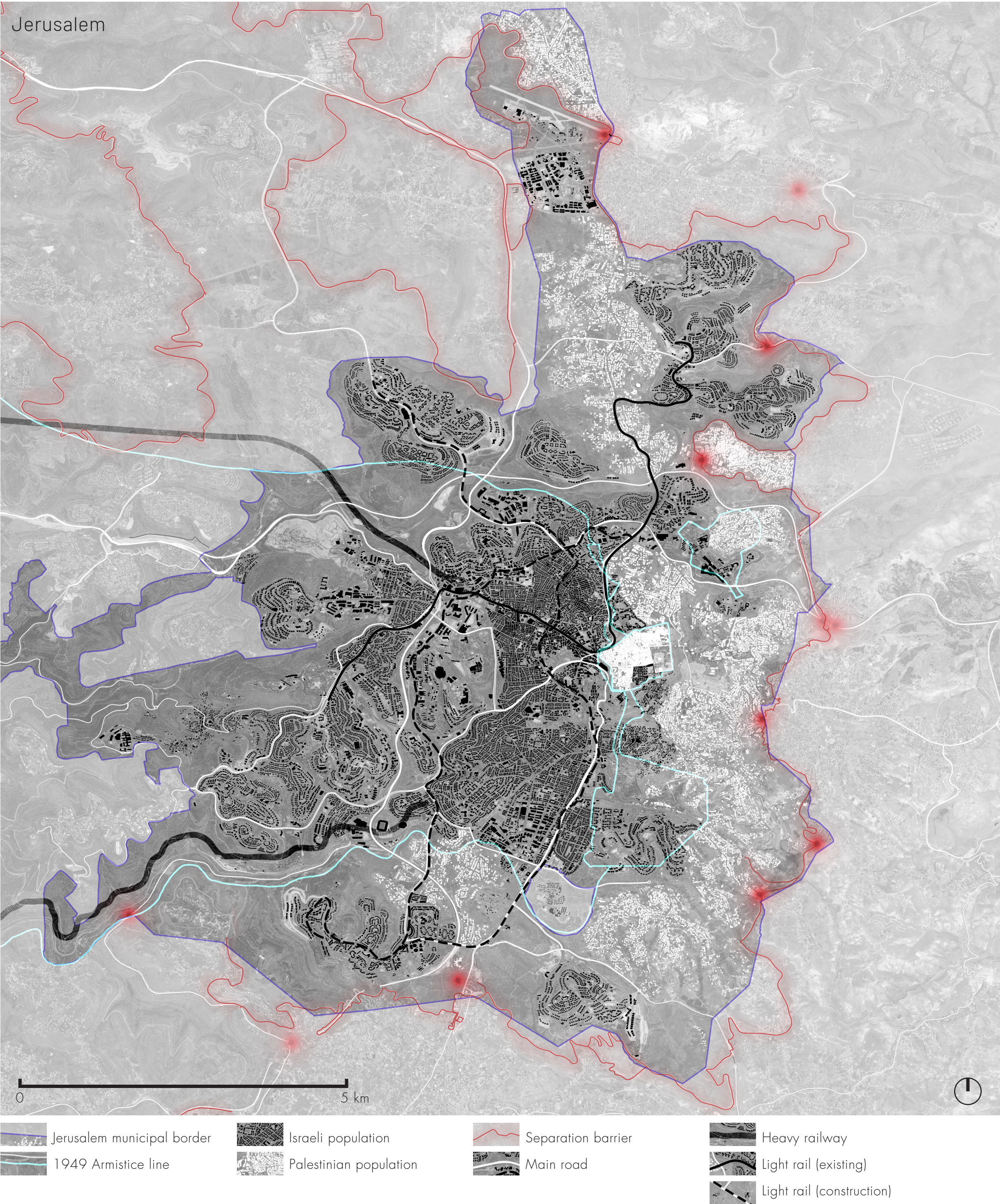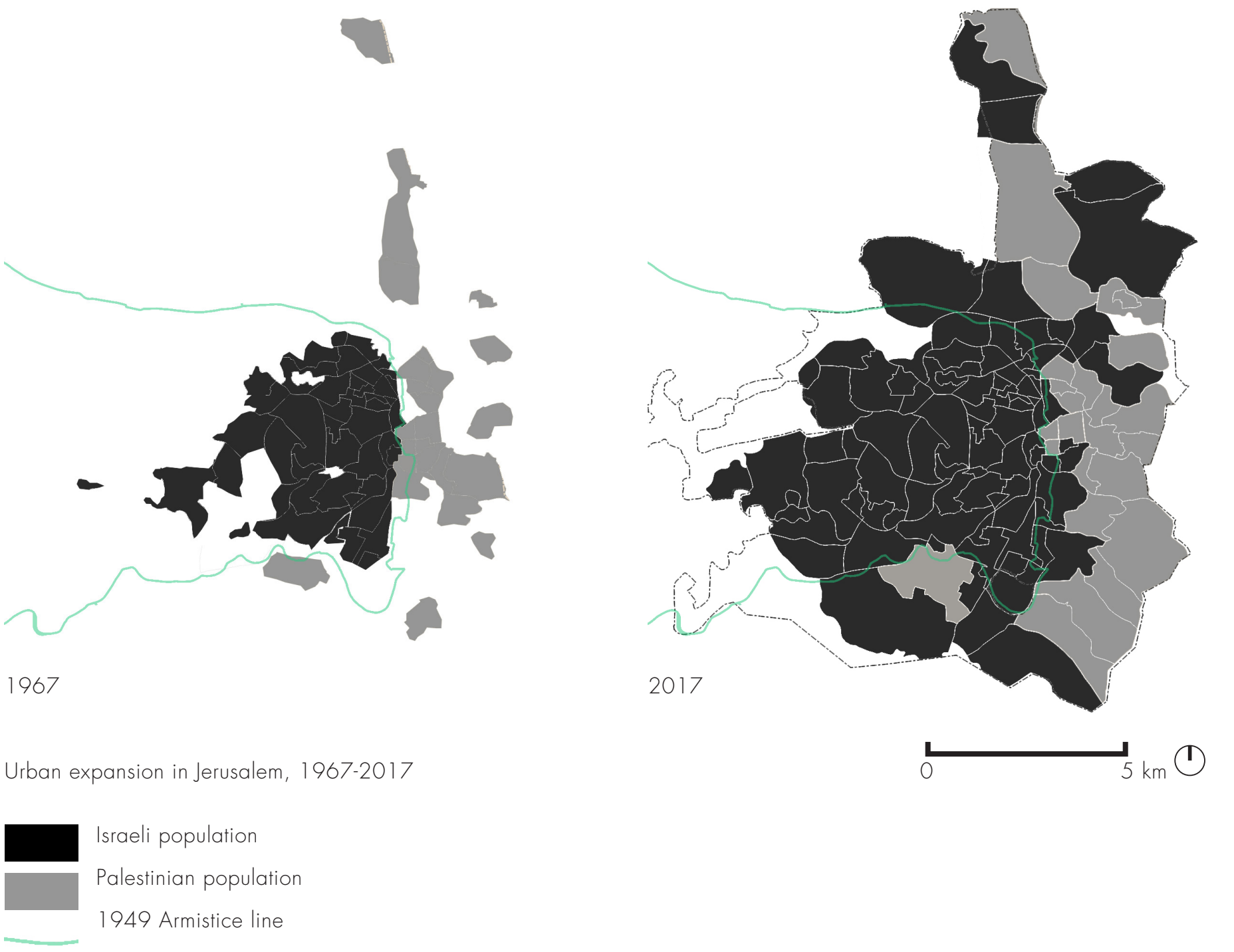# TRANSPORTATION INFRASTRUCTURE IN CONFLICTUAL TERRITORY: JERUSALEM

Transit-Oriented Development as a Tool for Decolonization

PROBLEM STATEMENT

In the past two decades, two big processes have changed the urban configuration of Jerusalem. The first was the construction of the controversial separation barrier, as a response to the violent uprising known as "the second intifada" and the heavy blood toll it waged upon Israeli and Palestinian civilians. The wall, crossing the entire West Bank, also divided Jerusalem, leaving the majority of the Palestinian peripheral neighborhoods and towns completely cut out from their urban center. The second process, still ongoing, is the planning and construction of the light rail system in Jerusalem. The light rail project is a part of the transportation infrastructure upgrade that came as a response to the city's urban sprawl and its heavy traffic problem.

These two processes seem to be of a contradictive nature: one is of absolute separation and segregation, and the other is of interconnection and integration. The truth, as always, is more complex. As any other large planning and development project in Jerusalem since 1967, the light rail project became primarily a political tool for the Israeli government to deepen its control over East Jerusalem, with the clear intention of making any possibility of re-dividing the city unfeasible. However, the light rail project also had a surprising result: public spaces that were developed along the new tramline became rare shared spaces for Israeli and Palestinians, in a city that lost most of its shared spaces due to the separation barrier and the increasing violence. Moreover, as a main public transportation system, the light rail itself became a space that is shared by the different, seldom integrating communities of the city.
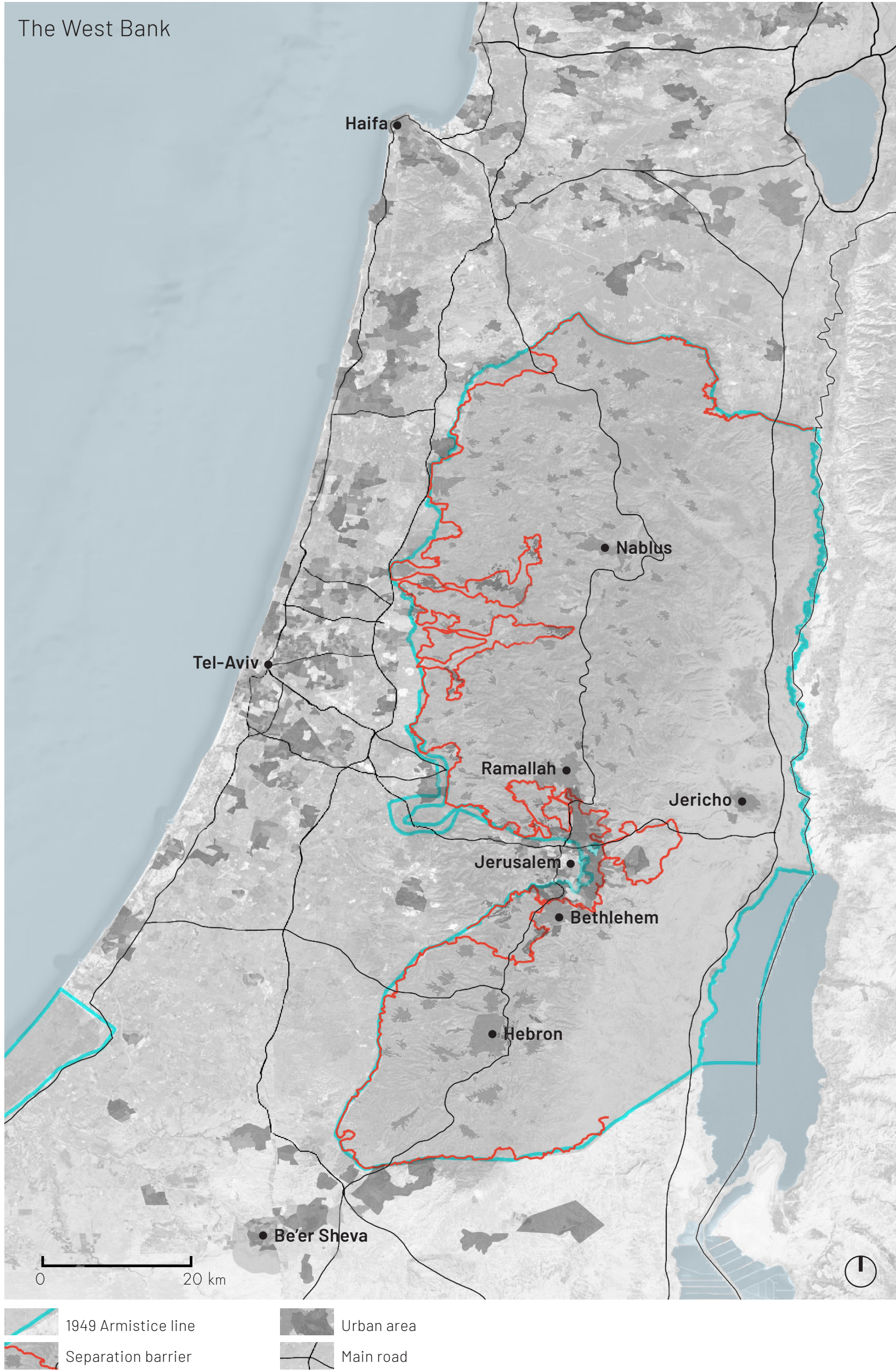

1967

2017

Urban expansion in Jerusalem, 1967-2017

- Israeli population
- Palestinian population
- 1949 Armistice line

0   5 km

Jerusalem

0   5 km

- Jerusalem municipal border
- 1949 Armistice line
- Israeli population
- Palestinian population
- Separation barrier
- Main road
- Heavy railway
- Light rail (existing)
- Light rail (construction)

The West Bank

Haifa

Nablus

Tel-Aviv

Ramallah

Jericho

Jerusalem

Bethlehem

Hebron

Be'er Sheva

0   20 km

- 1949 Armistice line
- Separation barrier
- Urban area
- Main road

RESEARCH AIM

From the understanding of the powerful role that transportation infrastructure plays in the decolonization and segregation of the city, this thesis will explore the possibilities unfolded by the new development of the light rail in Jerusalem in reversing the trend. Hence, the main research question of this thesis is:

How could Transit-Oriented Development (TOD) serve as a tool for decolonization and inclusion in Jerusalem?

EXPECTED OUTCOMES

- Urban vision for Jerusalem: a masterplan exploring a possible future for the city's urban development, using Transit-Oriented Development as a tool for decolonization and inclusion and to address the problems of the divided city.

- Urban design: Exploring the local and spatial implications of the vision for Jerusalem by designing the public space and urban form in key nodes of the vision, in different phases/scenarios.

- Governance design: Transition to a more distributed and inclusive Israeli-Palestinian planning governance using models developed by existing Israeli and Palestinian civil society organizations of alternative planning.

MOTIVATION

Ever since 1967, the conventional model for a political solution in Israel-Palestine was the two-state solution, in which Jerusalem will be re-divided to West Jerusalem as the capital of Israel, and East Jerusalem as the capital of Palestine. However, urban planning in Jerusalem is completely subordinated to the Israeli government aspirations to deepen Israeli sovereignty over the entire city. Thus, the urban changes that Jerusalem had gone through since 1967 have made the re-dividing of the city practically impossible.

The motivation for this thesis is to explore a new approach for reconciliation and political solution in Jerusalem. One that is not based on division and segregation, but of integration, coming from the belief that the ability to imagine a different future is an important tool for future reconciliation.

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(RE)LEVANT
The Former Ottoman railway as backbone for a sustainable and inclusive region

PROBLEM STATEMENT

At the beginning of the 20th century, the Ottoman railway network connected the Middle East to West to an extent that is unthinkable today. Although it was mostly dismantled, traces of this former network are still present in the landscape today, and constitute a potential future connection.
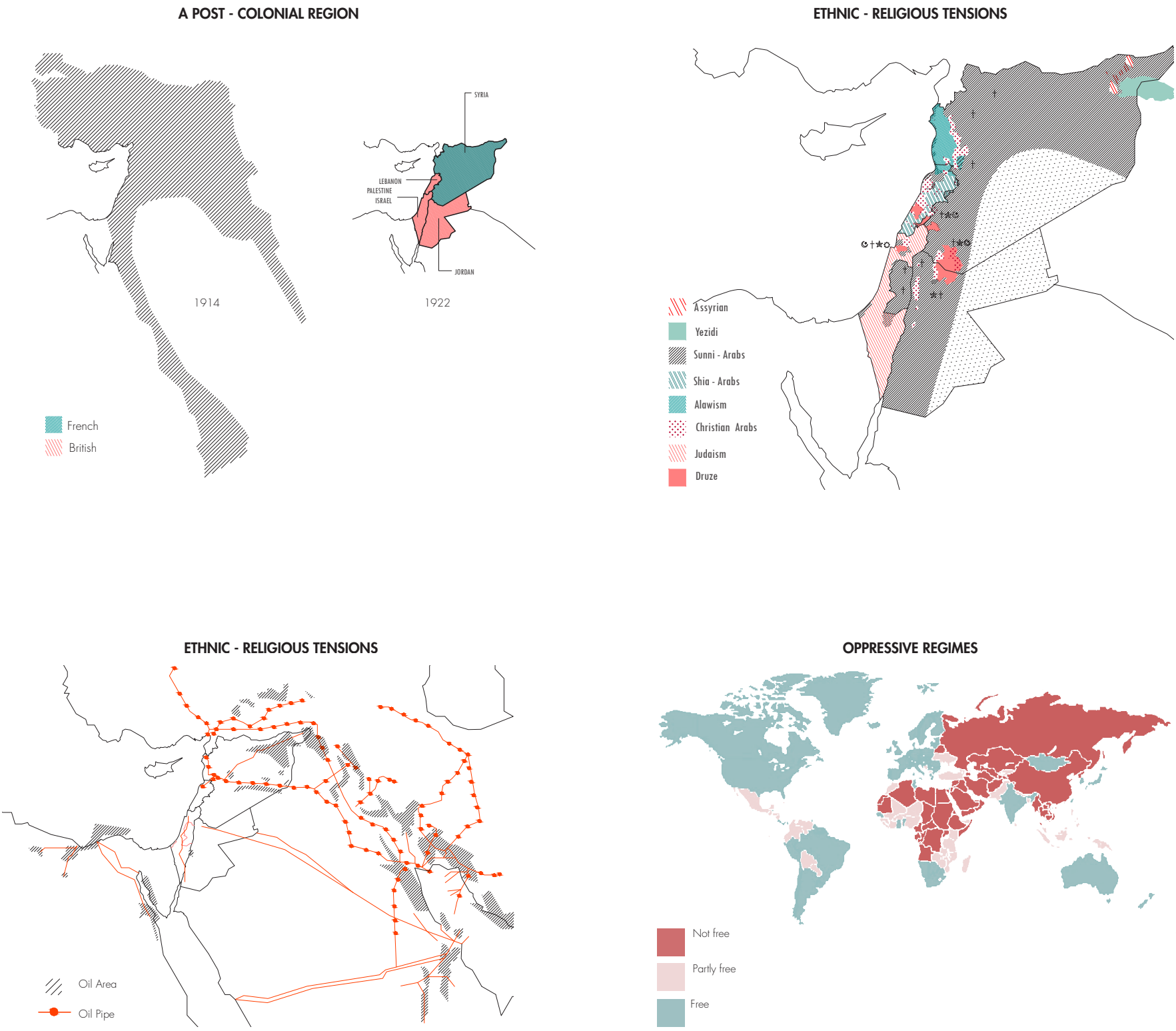
Regional-scale:

During the first half of the 20's century, several new nation-states were defined by the British and French. This intensified borders and frontiers, and existing connections in the area were disconnected. Later on, due to different reasons in each county, multiple states were disconnected completely or partly from the railway line. These states that were once a part of great economic and political network, lost their inner and international connections. Economic relationships, accessibility and freedom of movement were therefore limited. The region that used to act as one territorial sequence, turned into a fragmented and segregated territory. With ongoing conflicts between the borders, the ottoman network and its heritage are forgotten. In light of the current political climate, there are no policies or strategies for cross-border cooperation to promote common interests of prosperity and sustainability around this region.

Local-scale:

In Israel, some parts of the former railway were integrated into the public transportation system. The Ottoman railway connects places with great economic importance, such as the ports of Haifa and Ashdod, as well as the city of Tel Aviv and its international airport. At the same time, several localities that were disconnected from the railway, suffer today from socioeconomic inequality, lack of accessibility and limitation of movement and overall neglect.

CONTEXT

A POST - COLONIAL REGION

ETHNIC - RELIGIOUS TENSIONS

ETHNIC - RELIGIOUS TENSIONS

OPPRESSIVE REGIMES

Ottoman Empire and the railway network, 1914

ISRAEL RAILWAYS 2012
DISMANTLED RAILWAYS
DISMANTLED STATIONS

MAIN RESEARCH AIM

What can be the role of the former Ottoman railway [in the Levant] in promoting sustainable and inclusive development in a contested region?

RESEARCH AIM

The research will explore the possibilities and opportunities along the former Ottoman railway in order to achieve a more just region in a contested area.

On the regional scale:

To develop spatial planning concepts, vision and strategies to promote cross border cooperation and the use of the former infrastructure for sustainable development.

On a local scale:

To use the former railway in Israel to provide spatial solutions for inclusive and sustainable development in deprived communities related to the train.

EXPECTED OUTCOMES

• Regional vision (plan) and strategies for sustainable and inclusive region by using the former Ottoman railway.
• Spatial design interventions development in deprived\conflicted cities in Israel related to the former railway.
• Case scenarios exploring different conditions in which the railway structure can be used\rebuilt and the consequences of each case.
• Time line for the evolution of the project. For example, the railway can start by using for transportation of goods, and then later be opened for tourists, finally be opened to the public, etc.

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MULTI-CULTURAL ATHENS:
INCLUSIVE SPATIAL PLANNING FOR THE INTEGRATION OF MIGRANTS

CONTEXT

Throughout the years in Athens, attention has been focused on either the centre or the suburbs unevenly, according to the trends of the time. This lead to intense densification of the centre on the one hand, and improved living conditions in the suburbs on the other hand.

Planning today makes no spatial considerations for the existing diversity of the population, that will possibly increase in the future. Recently, degraded areas, where migrants are mostly concentrated, have been targeted as attractors for investment, which forces vulnerable social groups into displacement.
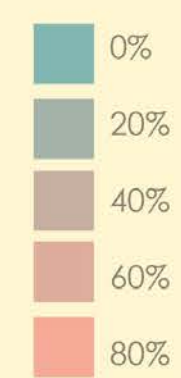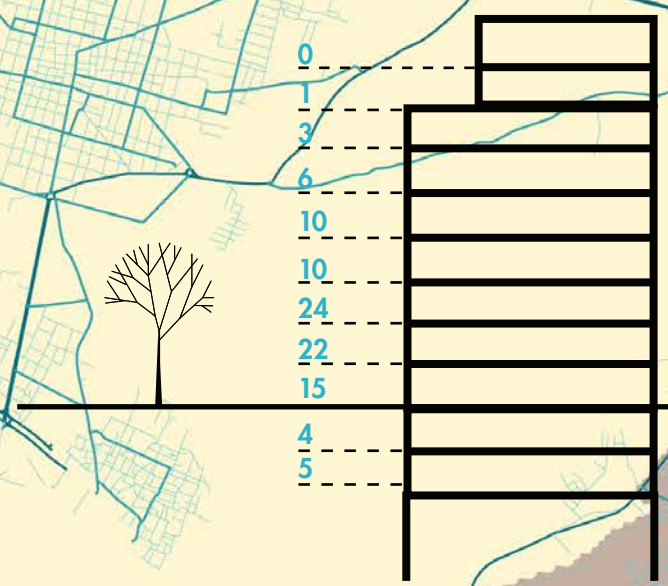
PROBLEM STATEMENT

The **uneven development** process between the centre and the suburbs in Athens, combined with centralised governance, provoke and feed social exclusion for migrants, either directly or indirectly. The domains of spatial planing and governance remain compartmentalised, as migration governance makes no considerations for spatial implications and urban regeneration makes no social considerations.

This has led to spontaneous spatial distribution and social proximity, which is instigating further **social conflicts** instead of resolving them.

RESEARCH AIM

The research aims to promote the activation of diversity in the Metropolitan Area of Athens through spatial strategies. The main objective of the research is to counteract the existing urban governance culture and practice, that operates through centralised routes. Instead, the vision is to propose inclusive stakeholder participation, by designing interactive communication mechanisms.

Legend:
- 0%
- 20%
- 40%
- 60%
- 80%

CONCEPTUAL FRAMEWORK

- INTEGRATION?
- SOCIAL JUSTICE
- DIFFERENCE AS RESOURCE
- SPATIAL PLANNING
- DIVERSITY
- GOVERNANCE
- DESIGN AGENCY
- BALANCED DEVELOPMENT
- DIVERSE HOUSING TYPOLOGIES
- COMMON GROUND FOR INTERACTIONS
- ENDOGENOUS SOLUTIONS
- REPRESENTATION OF DIVERSITY
- INTERACTIONS
- ATHENS AS INCLUSIVE CITY

EXPECTED OUTCOMES

The *context analysis* will present the problems in supranational level (Europe) and national level (Greece). The multiple *design scales* will together shape the vision of this research, that will be distributed in 3 levels: regional (Attica), metropolitan (Athens Metropolitan Area) and local (city centre).

The building and neighbourhood scales might represent an interesting start for the design outcomes, where diversity is explored in tangible environments.

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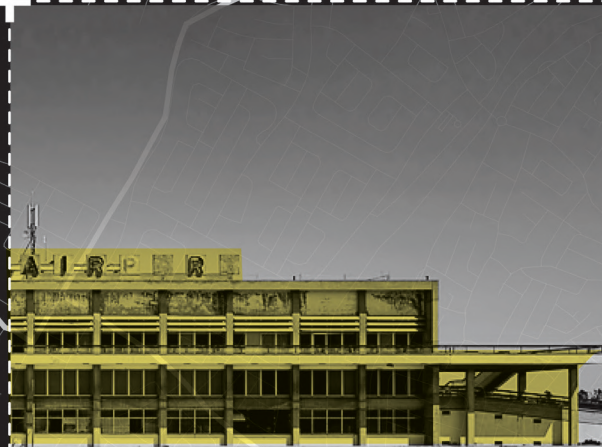Eleni Maria Koskeridou (4937406) e.m.koskeridou@student.tudelft.nl
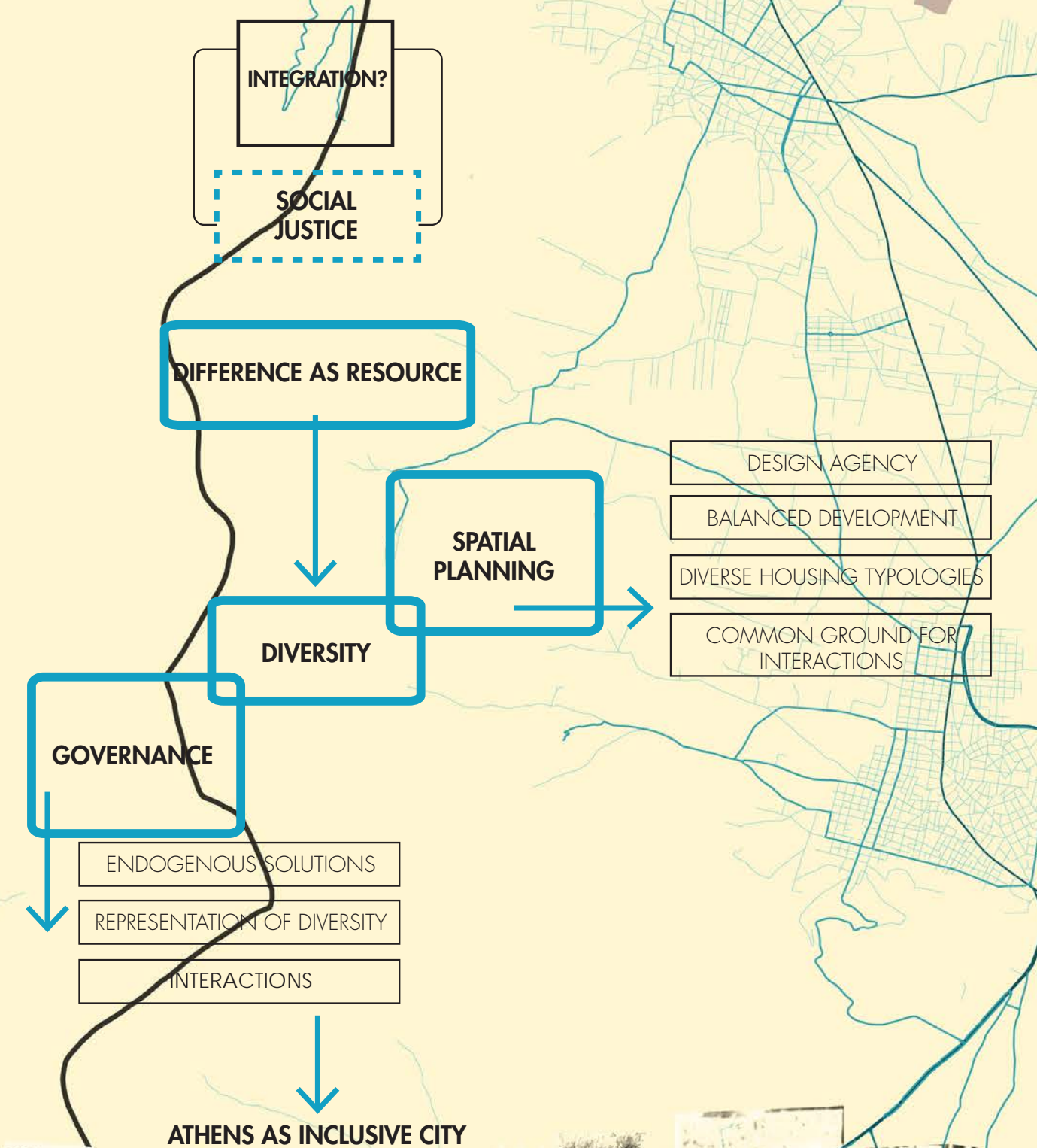
BRIDGING NICOSIA

PLANNING SHARED SPACES IN A CONTESTED CITY

How ethnic conflicts affect the spatial and social environment of a city? Greeks and Turks used to coexist peacefully in Cyprus despite their differences. However, their strong ethnic identities and foreign influences coming from Greece, Turkey and Britain, created feelings of mistrust and fear which resulted in nationalistic claims of sovereignty followed by territorial separation. Since 1964, the capital of Cyprus, Nicosia, has been divided. A cease fire line patrolled by the UN was established to ease the tension between the two rival communities. Ten years later, Turkish military forces invaded the island and changed completely its spatial, social and political background. Now, even though the porosity of the border changed, the division line still remains. "The wall hasn't fallen"; the division line may disappear physically, but the country will be still divided. The thesis aims to bridge the spatial and socio-cultural gap between the two rival communities in Nicosia, though construction of shared physical and institutional spaces.

MILITARY SERVICES
UN BUFFER ZONE
WALLED CITY
BI-COMMUNAL SOCIO-CULTURAL CENTRE
CROSS-POINTS
ABANDONED AIRPORT

The division line may disappear physically but the city will be still divided.

2km   4km   6km   8km   10km   12km

problem statement

Since 1974, Cyprus is divided in two parts; Turkish-Cypriots (TC) on the north and Greek-Cypriots (GC) on the south. This division is a buffer zone patrolled by the United Nations Peacekeeping Force. The division line divides the old city of Nicosia into two approximately equal parts and continues with a physical line which divides the entire island into two unequal regions. Mainly, it divides rural areas and smaller communities, but on the scope of special importance is the division of the capital, Nicosia.

Nicosia is the last divided city in Europe. The old city of Nicosia is the core of this division. The main commercial street, Hermou Street, became a cease fire line in 1960s and later part of the UN buffer zone. Over the years, United Nations, the Government, National and International negotiators have made several attempts on solving this problem but none of these attempts has been completely accepted by citizens. The spatial gap between the two communities may be bridged in the future, but peacebuilding processes require citizens' realisation and acceptance as well. **The division line may disappear physically but the city will be still divided.** Trauma and loss are well integrated in the memory of the two communities. Both communities bore the brunt of this conflict; they lost relatives, friends and property. Therefore, both communities seek for justice, socially and spatially, in order to tolerate, accept and create a shared space in this contested environment.

How to bridge the spatial and socio-cultural gap between two rival communities in the divided city of Nicosia, Cyprus through construction of shared physical and institutional spaces?
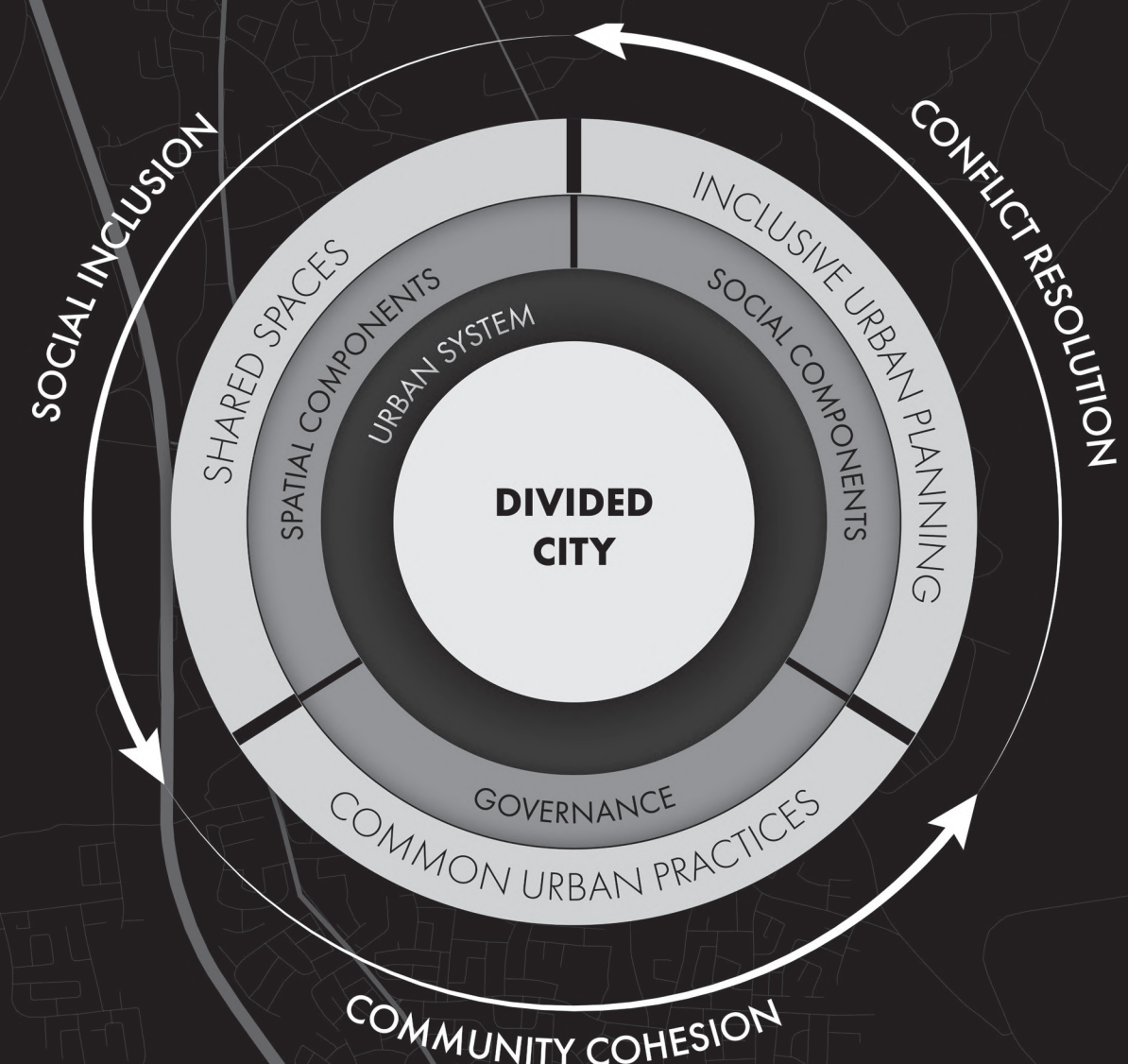
research aim & objectives

The research aims to bridge the spatial and socio-cultural gap between the two rival communities. Through exploration of the local knowledge and the current initiatives, this project can be seen as an exploration and guidance for conflict resolution processes grounded by local incentives. The main objective of the research is to introduce an alternative way for dealing with ethnic conflicts in divided cities based on local knowledge and common issues and concerns.

expected outcomes

Scenario planning for conflict resolution: A tool for guiding negotiation and dialogues between the two communities. Regeneration of the social, spatial, and institutional setting of the city and adaptation in current issues and emergencies (shared issues and concerns as a tool for bringing the two communities together) and maintain or create "shared spaces"(shared infrastructure, physical (public) spaces, institutions).

conceptual framework

SOCIAL INCLUSION
CONFLICT RESOLUTION
COMMUNITY COHESION
COMMON URBAN PRACTICES

INCLUSIVE URBAN PLANNING
SOCIAL COMPONENTS
GOVERNANCE
URBAN SYSTEM
SPATIAL COMPONENTS
SHARED SPACES

DIVIDED CITY

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(EN)GENDERING THE CITY

Towards the development of a gender-inclusive approach to urban design and planning

ABSTRACT

Despite the common idea that urban design and planning is neutral, I stand by many key theorists in perceiving it otherwise, particularly when related to gender. Women have constantly been hindered in cities due to this supposed neutrality of design; whether it is because of safety issues that affect women and marginalised minorities to a larger degree, or due to the extra tasks expected of them to complete, that the city plan does not consider in its form and structure. In this graduation project, I explore how city planning and design can be done in such a way that considers the lifestyles and time-use patterns of its users and how this can progress the development of cities to gender-inclusivity instead of gender-neutrality.

CONTEXT

Throughout history, the city adapted when its users' lifestyles adapted; people shape cities and cities shape people. Increased use of cars means increasing distances, and increasing distances means increasing travel time, which can be crucial when it comes to balancing what societal norms expect each individual to accomplish on a regular basis, and what these individuals want to achieve for themselves (Beall, 1996). Who the projected user is of a city design is therefore of key importance, as this reflects the experiences and expectations they are exposed to on a regular basis, which differs for people of different genders, income, culture, religions, origin and other factors that define a person's lifestyle and daily division of time (idem; Sassen, 2016). Whether the projected user of an urban design is a true representative of majority real users and whether the use of a standard user is justifiable is therefore highly debatable.

Because of this issue, women cannot be said to be a well-integrated group in the city; they are hindered either by societal expectations, or by induced or perceived fear, or other factors that are strengthened by urban design, which affect the way and ease with which they use and navigate the city.

Women make an effort to empower themselves through taking on opportunities in education and employment where possible. The global trends of increased educational attainment for women has made it possible for women globally to attain knowledge in various fieldsw. Through this, women are gradually inserting themselves into the public domain that had been male-dominated for a long time. However, crime directed towards women makes it difficult for many to sustain this. Solutions to these clearly gendered problems have not made it easier either; solutions that are centred around creating "women-only" spaces, such as in figure 8, do not solve the underlying problem at hand, only its symptom. These solutions re-privatise women's lives and makes it more difficult to integrate them in the public domain when they are constantly separated from the men who ostracise them. Aside from this, these kinds of solutions are clearly retroactive in nature; they wait for a problem to occur before trying to solve it, which disconnects the solution from its underlying structure. Again, while the structural system itself is inefficient, it is only the symptoms of the inefficiency that are tackled through these "solutions".

But what does urban design have to do with gender equality? Why have a gender-perspective in urban design? Women's rights in the city are just as important as others' rights and just as important and relevant as other goals cities want to achieve. Cities are spaces of opportunity, where there is a higher chance for people to achieve their ambitions than elsewhere. This should remain the same whether the people in question are men or women, irrespective of their religion, race, income, and other factors. Gender equality in particular is an important factor in achieving a truly Just City. People should not just be able to live in the city, being able to function and actualise their ambitions to an equal degree should be the reality of living in the city. Urban design, as stated previously, has an important role in this, especially regarding the fitting out of spaces in such a way that they are (perceived to be) safe to walk through, the networking of streets, spaces and transportation in a way that fits the time-use patterns of different groups of people, and the functional distribution through the city.

SCOPE

As the empowerment of gender in space is broad and will require multiple years to develop an all-encompassing strategy for, I will focus closer on the application of theories and practices relating to the safe city, assessing what will vary based on context and what can be globally applied. I will also explore how the plan and design of the urban form can be reconfigured to facilitate opportunities for women. Because of issues regarding the retrieval of data from conservative countries, other gender minorities will not be explored on a deeper level.

PROBLEM STATEMENT

Due to the current urban fabric and planning structure in many countries that does not make room for women in the city, women have been significantly hindered, not only from going about their daily lives, but also from pursuing their ambitions in cities. Therefore, for any city to be considered Just, this issue is a significant one that must be tackled spatially.

RESEARCH AIM

The aim of the research is, therefore, to minimise gender inequality through a restructuring of the city in a way that allows for equality and equity of opportunities for women and gender minorities at a spatial level, governance level and eventually at a societal level. Instead of creating "neutral" cities or cities for the "general user", the aim is to arrive at a structure that empowers women.

The goal is to arrive at different approaches to urban planning that are more gender-sensitive and can progress the discussion on empowering users through urban planning and design. It is therefore important that the possibility of urban design interventions in this topic is acknowledged and fully evaluated. As perceptions of gender and the discussion on equality differs depending on the context and level of conservativeness of different cultures, it is important that women are still empowered despite this and are able to achieve their ambitions in the city regardless of culture. Through this perspective, I hope to arrive at a vision for gender-equal city transformations with elements that can be applied globally and ones that vary depending on the context.

RESEARCH QUESTION

How can the urban plan and design of cities be adapted so that their socio-spatial structure can pro-actively facilitate the coexistence of genders in space and provide equal opportunities to people with varying time-use patterns and lifestyles?

CONCEPTUAL FRAMEWORK

gender

participation · gender norms

representation · time-use patterns

equity/equality · connectivity

empowerment

gradual change

gender-sensitive design

agency

socio-cultural (and economic) progress loop

confidence · safety

increased use

APPROACH

As gender empowerment is a global problem, this project assesses how this global problem can be tackled, regarding which spatial interventions can be applied to cities on a global scale, and which will need to be altered based on the context in which they are implemented. As such, an approach that will best suit this problem is a comparative approach of cities in different countries with different cultures and cultural norms.

The aim is to assess an older neighbourhood and a more contemporary one in each city addressed in this project in order to see how urban design through the times has impacted the way with which women and men use the space and how the networks are arranged within these neighbourhoods.

Based on my degree of familiarity with the sites, I have chosen The Netherlands, Egypt and South Korea as countries in which to undertake this project, coincidentally focusing on their political capitals of The Hague, Cairo and Seoul respectively.

THE HAGUE, THE NETHERLANDS

Degree of Urbanisation

Gender Progressiveness (wrt global average)

CAIRO, EGYPT

Degree of Urbanisation

Gender Progressiveness (wrt global average)

SEOUL, SOUTH KOREA

Degree of Urbanisation

Gender Progressiveness (wrt global average)

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URBANISM IN CONFLICT

Investigating spatial planning for an inclusive urban sustainable ideal within contested environments.
The case of Cyprus

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ABSTRACT

The scope of the current graduation project is the study of post-conflict urbanism in relation to spatial planning and governance. Specifically, the focus is on the topic of ethno-national conflict and territorial division, that can lead to spatial fragmentation and social segregation. The project, examines the ongoing conflict in Cyprus as the main case study and design location, by researching in what ways the territorial division of the island, caused by the Turkish invasion in 1974, has impacted certain policies and planning decisions. It is evident, that there is a lack of planning legislation considering the wider region of the island and an ineffective control system concerning urban development, as well as lack of adequate planning that meets the challenges of the future. Therefore, this project proposes a strategic planning framework, that will activate urban inclusion and sustainable development in Cyprus, through the lenses of identity, challenging the current territorialism approach.
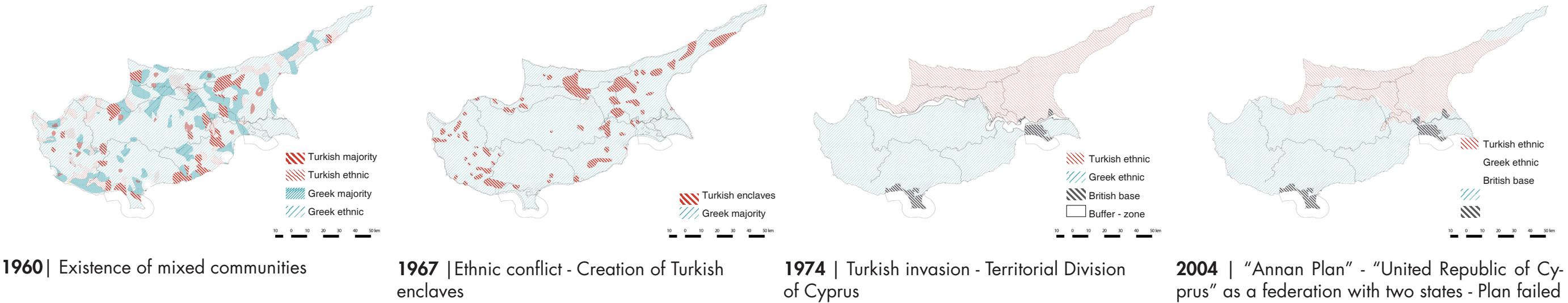
LOCATION

PROBLEM STATEMENT

Throughout the island's history, the conflicts and the authoritative power of each chronological period has shaped both the cities and the society. Most resent and ongoing conflict, is the territorial division of the island caused by the Turkish invasion in 1974. This has resulted in the social, political, economic and spatial division of the island.

The case of Cyprus, can be an example of how local ethnic issues can be intensified and create conflict when they become macro national disputes, as well as how external powers can influence and aggravate situations based on their territorial agendas. Moreover, it is also an example of how "conflict infrastructure" such as the ethnic enclaves that were created in 1963 in Cyprus, instead of deescalating the conflict they intensified it, leading to the invasion and to the temporary, now permanent, solution of another "conflict infrastructure", which is the buffer zone.

This temporary solution of dichotomy has become permanent in the recent history of Cyprus affecting political decisions concerning planning. In recent years, there have been several talks and negotiations from the political authorities of both sides in order to resolve the conflict, with the spatial issue being one of the most important topics of conversation. Planning in Cyprus, is following the territorial division as they approach spatial planning with separate strategies. There was a lack of planning legislation up to 1990, more than 15 years of ineffective development control that has consequences in the urban development even till this day.

The conflict and the outcome of spatial planning are inherited to the future generations. However, spatial planning should not be based only on the past and the history, but also to understand and foresee the challenges or opportunities of the future.

Spatial development of the conflict | Historical timeline

1960 | Existence of mixed communities

- Turkish majority
- Turkish ethnic
- Greek majority
- Greek ethnic

1967 | Ethnic conflict - Creation of Turkish enclaves

- Turkish enclaves
- Greek majority

1974 | Turkish invasion - Territorial Division of Cyprus

- Turkish ethnic
- Greek ethnic
- British base
- Buffer - zone

2004 | "Annan Plan" - "United Republic of Cyprus" as a federation with two states - Plan failed

- Turkish ethnic
- Greek ethnic
- British base

Inside the buffer zone

1 | Nicosia_divided capital

2 | Famagusta_"ghost" city

3 | Achna_abandoned village

4 | Nicosia_abandoned airport
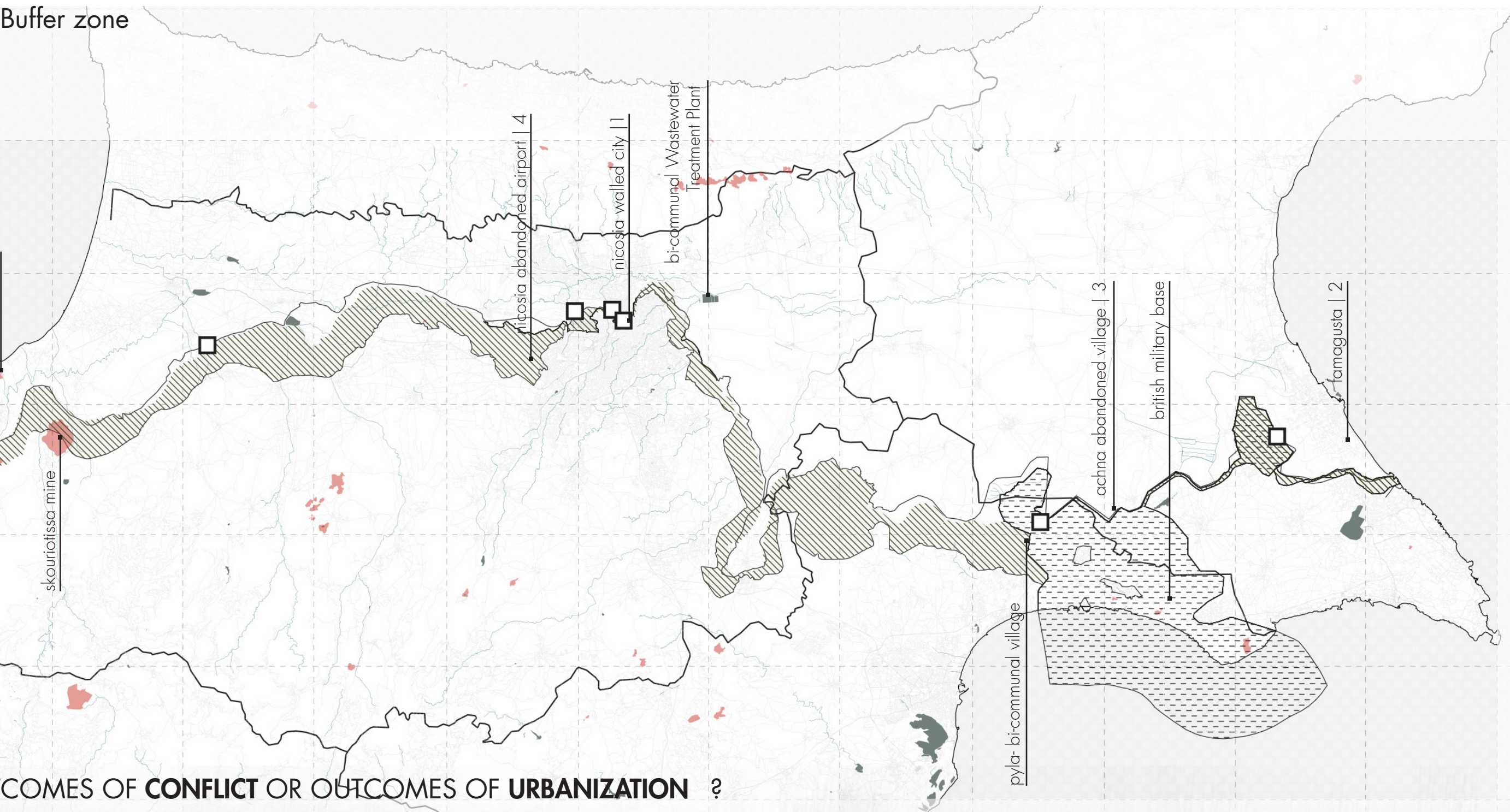
4 | Lefke_abandoned mine

RESEARCH AIM

This project aims to establish a **strategic planning framework** in contested areas in Cyprus, that will create a **bi-communal identity**, towards a **common sustainable urban development**. This framework with facilitate by bridging the urban divides, inequalities and segregation creating an urban ideal for co-existence and co-operation between the two communities.

RESEARCH QUESTION

How can spatial planning, address the territorial divide and social segregation in Cyprus, in order to promote urban inclusion (social, economic, environmental) towards a common sustainable urban development?

EXPECTED OUTCOMES

The project aims to develop a multiscalar **strategic planning framework** that goes from national, to regional and then focuses on specific urban design interventions in the local scale. Through the national and regional scale, the project aims to create a **common vision** and **strategy,** based on the challenges and opportunities, in respect to the both communities in Cyprus. Along with that, in the regional and local scale, the project aims to develop **an integrated infrastructural system** than will facilitate by connecting both communities, initiating a framework of co-operation and co-existence towards an urban sustainable development.

Buffer zone

lefke mine | 5

nicosia abandoned airport | 4

nicosia walled city | 1

bi-communal Wastewater Treatment Plant

achna abandoned village | 3

british military base

famagusta | 2

skouriotissa mine

pyla bi-communal village

OUTCOMES OF **CONFLICT** OR OUTCOMES OF **URBANIZATION** ?

uncontrolled urban development - **refugee** settlements   **FLOODING**   traffic **congestion** renewable **ENERGY** transition   **BI-COMMUNAL**
natural resources CONFLICT   drainage problems - **WATER** management   transport **INFRASTRUCTURE** development   sewage infrastructure

SCALES OF DIAGNOSIS

National

Regional

Local

SCALES OF INTERVENTION