# 06

# Metropol.X
# Beirut

## Urban Planning in a Global Context

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KIT  Karlsruhe Institute
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Department of
Architecture

Chair of International
Urban Design

# Content

01.

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# Introduction – Controverse City of Beirut

Beirut, the capital, the largest and the most populous city of Lebanon is a city full of controversies. Located on the Mediterranean coast at the foot of the Lebanon Mountains, it has spectacular nature. As a famous hub of economic, social, intellectual, and cultural life, it is often nicknamed "Paris of the Middle East". It is also a city with a complex political and religious legacy and series of problems, be it the non-existent public infrastructure, privatization of public space, corrupt politics, or the refugee crisis.

Throughout the course of its history, Beirut, the capital of Lebanon, has been affected by profound upheaval in its urban development since the city's foundation in the middle of the second millennium BC: phases of destruction were followed by periods of reconstruction, renewal, and modernization. Today, a tremendous construction boom can be observed in Beirut, as in many other cities in the Arabic world.

Nowadays, very few spaces in Beirut are designated as public. In addition to being scarce, they are often inaccessible or privatized. They consist of 49 public gardens and squares, as well as a fragmented waterfront appropriated by private interests. Beiruts coastline is increasingly being privatized with the Law being undermined.In particular, in Beirut, two remaining pieces of the coast that are publicly used, were threatened by illegal private development plans: the Dalieh of Raouche landmark and Ramlet el Baida, Beirut's popular sandy beach. Both sites have been highly used and accessible to lower income groups who otherwise cannot afford entry to Beirut's privatized beaches. Lack of Affordable Housing Housing provision is mostly organized by private developers. Beirut's real estate landscape is characterized by unjustified high prices, and a vertical expansion at the expense of diversified types of housing. The glaring lack of adequate legislations and the disruptions of powerful private interests lead to an unbalanced growth, within avoid in urban and social policy-making. Due to the unbalanced housing supply, a substantial number

01. Beirut. Photo: MRB, 2014

of residents are forced to dwell in inadequate conditions, often in sub-standard living environment, lacking both tenure security and access to basic services. Others spend a disproportionate percentage of their income on rent, and remain trapped in the vicious circle of poverty. It is safe to speak of an ongoing housing crisis, one that forces a substantial number of Lebanese citizens, refugees, and migrant workers to dwell in inadequate conditions, lacking security and access to basic services.

In the nineteen-sixties, Beirut was a significant commercial and trade location: the cultural, touristic, and educational center of the Middle East, before the city lost this role to other metropolises in the region after the civil war that took place between 1975 and 1991. The Lebanese war considerably changed the inner structure of the capital and led to radical changes of the demographic and spatial structure of the city. In the course of this development, many residents left Beirut and settled outside of the city borders or immigrated to oher countries.

02. Construction Site Beirut: Impression. Photo: MRB, 2014

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03.

Before 1975 Beirut was widely considered the most thoroughly Westernized city in the Arab Middle East and until today, most locals speak 3 languages - French, Arabic and English. However, 15 years of civil war (1975 to 1990 ) ravaged most parts of the city. Despite the sectarian and ideological passions unleashed by the civil war, Beirut retains its basically liberal and tolerant way of life. In the 1990s Beirut began extensive rebuilding efforts to restore its economic base and cultural landmarks. Beirut is one of the oldest cities in the world, having been inhabited for more than 5,000 years. The estimated population today ranges from 1 million to 2.2 million as part of Greater Beirut, whereas one fourth might be illegal Syrian refugees. Beirut has a conscious civil society. In the last years, many citizens interested in the city's development have joined together in NGOs to demand that their interests be considered, including more transparency in the planning process and participation in designing their city.

03.  Visit by Solidere, a Lebanese joint-stock company in charge of redevelopment of Beirut Central District damaged by Lebanese Civil War. Photo: MRB, 2014
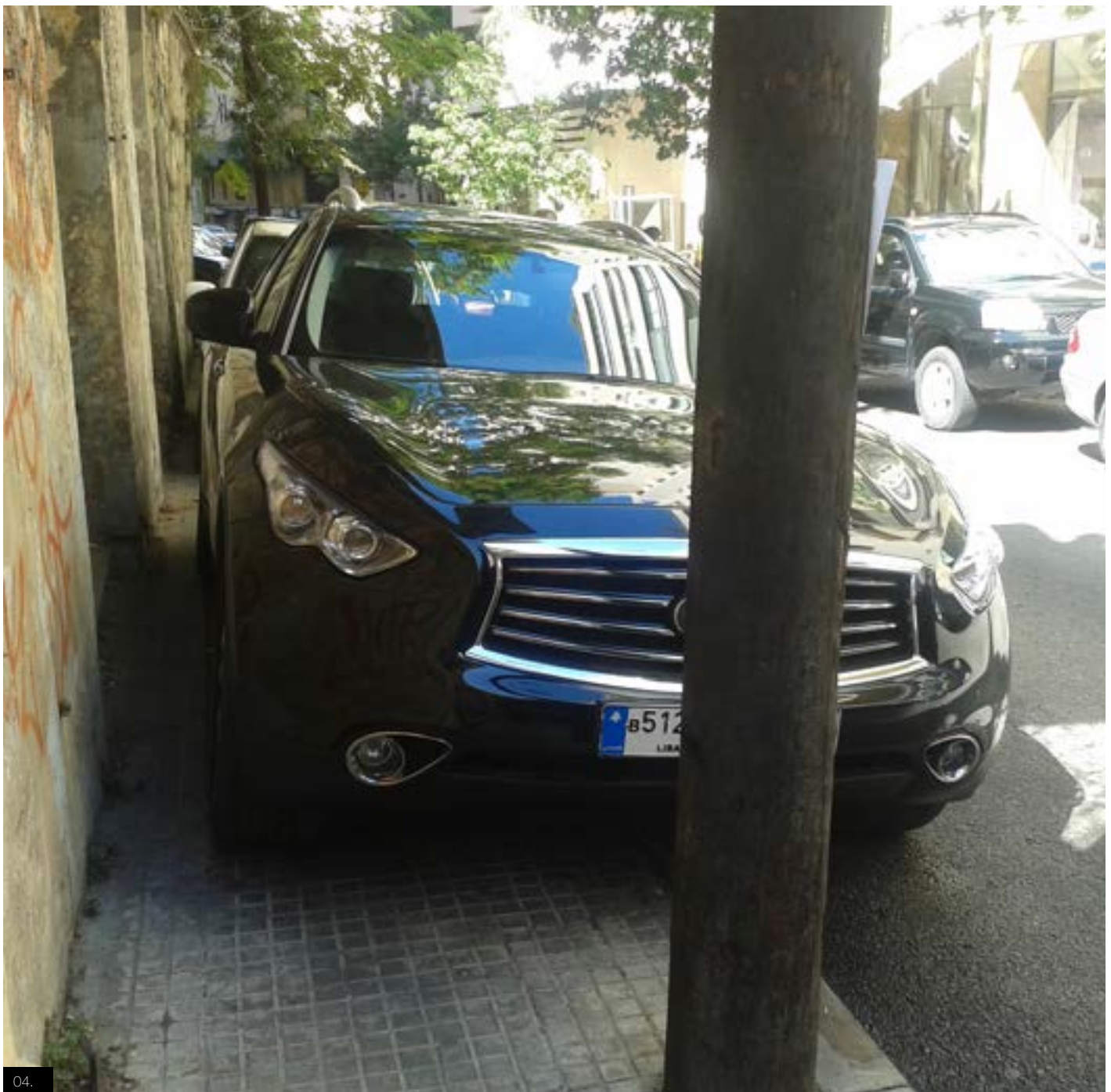
04.

## (Remote) Mapping the Urban Landscape

The focus of the research-based seminar was on observing and mapping the contemporary situation of Beirut. Initial survey of different layers of the city (infrastructure, housing, identity and image, culture, heritage, geography, greenery, or public space) resulted into this reader with maps, an atlas of the contemporary city landscape. Scientific elaboration based on personal editing, critical evaluation and conclusion was visualized in a popular form, including theoretical background of each of the issue, short historical overview, up-to-date condition and views towards future.
All topics closely related to the urban planning and architecture of Beirut and put into a broader context of a Middle-Eastern city and its present socio-cultural, political, economic, and environmental conditions as well as its rich historical heritage. The students detected, studied and drawed different layers of the contemporary city landscapes of Beirut, be it geography, demography, economy, power or

04. Omnipresent cars and parking situation. Photo: MRB, 2014

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05.

politics – in respect to urban planning and architecture of the city.
As a matter of interpretation these landscapes vary, depending on
diverse individual or collective narratives and urban myths formed by
and perceived through different (inter)national media, families living
there, short-time visitors or foreign observers.

In order to communicate gained knowledge, relevant information and
leading arguments of each of the discussed topics were visualized in
a graphical way: as a collection of maps forming together an atlas.
All topics are related to the urban planning and architecture on one
side and put into a broader context of Beirut and its geographical,
socio-cultural, political, economic, and environmental conditions.
Individual chapters of this atlas summarize the students observations
and findings, including personal editing of the collected data, their
critical evaluation and conclusion – all in an accessible, popularly
scientific form. The graphical outcome of the atlas is subjected to the
individual interpretation of the authors.

05. Old traditions. Photo: MRB, 2014

The intention of the seminar was to compose an atlas of Beirut "remotely", from the distance of our studying location in Karlsruhe. Separated by multiple borders, times zones, language barriers, and cultural misunderstandings, the city was visited through books, articles, films, websites, and other selectively accessible forms of data. Just like plans and projects, maps and atlases are projective: they are not so much descriptions of reality as much as they are descriptions (or projections) for reality. Unlike plans and projects, however, maps remain descriptive. The atlas tells various stories, to be explored, in order to become conscious of our own agency as designers in researching and narrating the remote reality of Beirut – and thus helping us to understand the city.

06.  NGO Bicycle Initiative. Photo: MRB, 2014

07.  Birdshop. Photo: MRB, 2014

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01.

Tim Eggers, Alina Koger, Kim Wiltschko

**Tim Eggers**
**Alina Koger**
**Kim Wiltschko**

# Conquering the Streets – Reclaiming Public Space

By walking through the streets of Beirut, the thing that might strike you the most, is how vibrant they are. The city has a long history of streets being full of public life. People are taking over neglected or leftover infrastructural zones and adopt them as public spaces. By even putting out their furniture on the sidewalks as well as on the streets themselves, Beirutis reclaim the spaces as their own. All over the city, people are conquering spaces originally designed for infrastructural purposes and are transforming them into public spaces with various kinds of uses, like leisure zones, informal transportation hubs or market spaces. Especially now in times of the protests against the government, which first started in October 2019, the streets are playing a major part of Beirut's urban life. But not only during revolutionary times the urban life is happening on the streets. We will show that this can happen in various kinds of infrastructural typologies and how the emerging public functions can look like.

**Beirut, where the Streets are not just Ways of Transportation**

In Beirut, there is a shortage of public spaces mostly resulting from insufficient planning and regulations as well as a lack of awareness for the right to the city. The citizens respond to this situation by creating temporary spaces to satisfy their need for public space.
To demonstrate the relationship between spatial typologies and functional types we identified different infrastructural typologies: Alleys and streets, highways, squares and coastal promenade. We will present various types of uses arising in different typological categories. Furthermore, we will show that the infrastructure offers the space for public life to emerge and the type of function is defined by the usage of the surrounding area.

01.  Urban life at Corniche

02.

## In Need of Space

When the 15-year long civil war came to an end in 1990, large parts of Beirut faced redevelopment in light of the war's destruction. In the effort to reconstruct, contracts were given to investors and construction companies, mainly benefitting the elites, not the public. Additionally, infrastructure like public transport systems was not re-established. Instead, the car as a means of transportation became dominant to the urban landscape. This meant, that roads and highways were gradually built and enlarged, leaving less and less space around them and tearing neighborhoods apart.[1]

## Conquering the Streets

From this infrastructural mess, a culture of appropriating infrastructure emerged, creating forms of public space largely intertwined with the streets. By claiming the narrow sidewalks for other purposes however,

02. Prohibition sign at the Corniche

Tim Eggers, Alina Koger, Kim Wiltschko

the only spaces dedicated to pedestrians are further decreased, forcing pedestrians to walk on the streets. Narrow alleyways, just barely wide enough for modern cars can be found throughout the city, most prominently in Bourj Hammoud and the surrounding districts. These spaces serve the residents as front yards, backyards and commercial space in one. Other streets are more specialized and cater to specific needs. An example of this is Armenia Street, leading from Bourj Hammoud to the very center of Beirut. Over the course of just one or two years, this street has turned from accommodating car workshops to bars, pubs and restaurants, their seating areas encroaching on the sidewalks, adding to Beirut's significant nightlife. From the late afternoon onwards, the narrow sidewalks fill with crowds, hungry for food, drinks and excitement.

## Nightly Changes

Later in the night, from about midnight on, the strong club scene vitalizes parts of the city that are otherwise devoid of public life. With the traffic seizing during the late hours of the day, even big streets like the seaside road in the northern part of Bourj Hammoud become publicly accessible. Until morning party attendants populate the street chatting or switching clubs. For the morning rush-hour, the street goes back to a multi-lane alternative to the nearby highway.
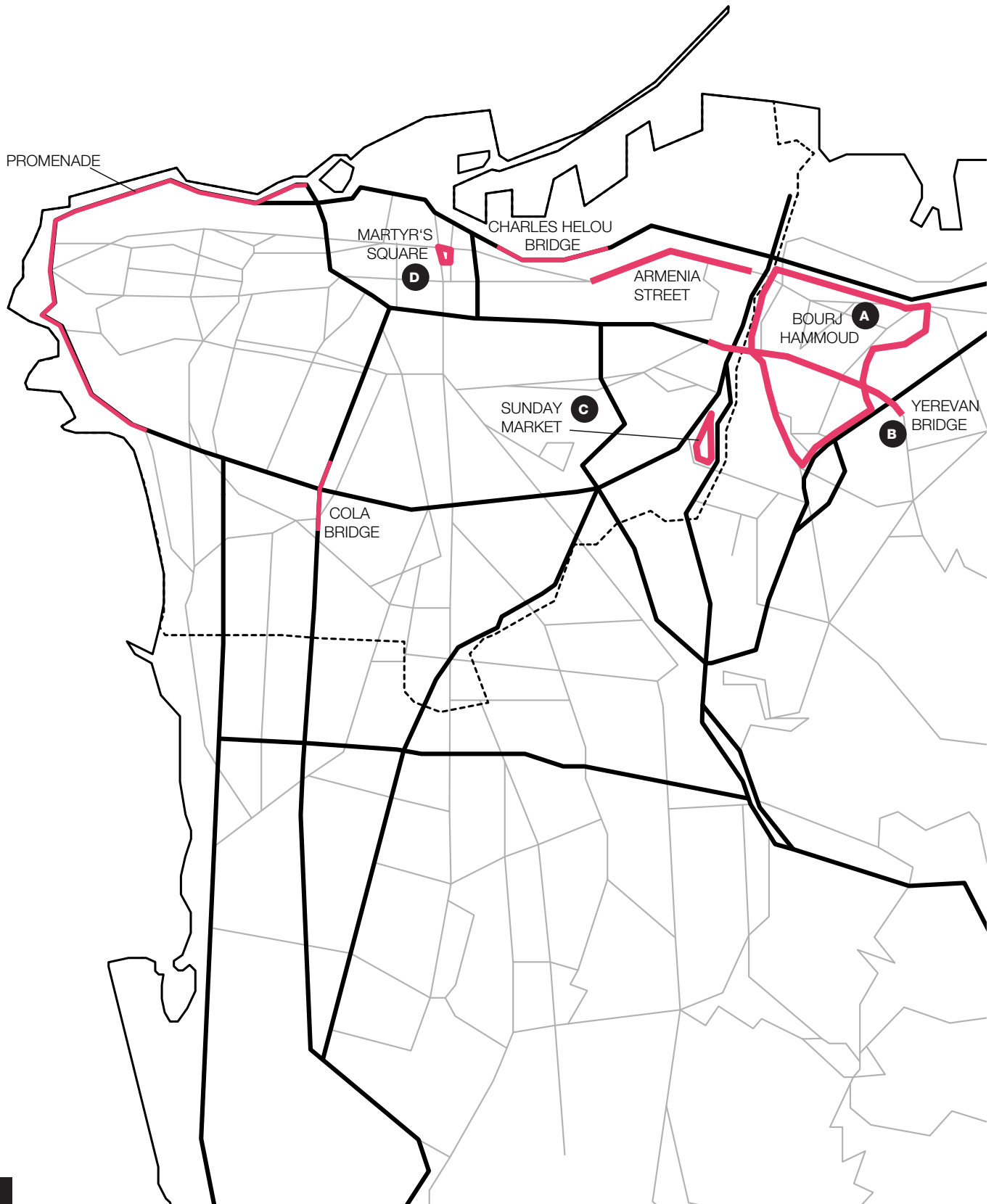
## Below the Bridge

While the highways are often perceived as borders, not allowing pedestrians to cross and separating parts of the city from oneanother, they also create unique situations where people gather for all sorts of social, commercial and transportational activities. These situations mostly arise where the highway leads over a bridge, crossing another street, creating an environment sheltered from sun and rain. Bigger leftover spaces along the highways might even offer room for more permanent institutiovvns, as it is the case with the Sunday Market.

## Coastal Promenade

Along parts of the coastal highway in the western part of Beirut, a promenade is added to the street, called the Corniche. This promenade is a rare occasion in Beirut since it is one of few spaces specifically planned for pedestrians. Even though divided from the rest of the city by the coastal highway, the Corniche is very popular among the locals during suitable weather conditions. In disregard of existing regulations, people tend to bring their own equipment to the Corniche to engage in outdoor activities.

## Revolutionary Spaces

In the early stages of the protests starting in 2019, Beirutis started claiming streets and public spaces for themselves in an unprecedented manner. The city highways, the backbone of Beirut's traffic system, were blocked and overcrowded, bringing traffic to a halt. But also apart from gaining attention for their cause, protestors conquered the streets, thereby expanding public spaces.[2] The most noticeable example of this might be Martyr's Square, an otherwise unattractive open space between two streets near the city center, which became the very center of the revolution.

PROMENADE

CHARLES HELOU
BRIDGE

MARTYR'S
SQUARE

ARMENIA
STREET

BOURJ
HAMMOUD

A

SUNDAY
MARKET

C

YEREVAN
BRIDGE

B

D

COLA
BRIDGE

03.

**Beirut Infrastructure Map**

Examples of appropriated infrastructure

**A** Alleys of Bourj Hammoud

**B** Public life under highways

**C** Sunday Market

**D** Martyrs Square during times of protests

03. Beirut Infrastructure Map
    showing locations of examples

A                                                           04.



B                                                           05.



C                                                           06.



D                                                           07.

04. Bourj Hammoud alley

05. Person sitting under a highway bridge

06. Shoes are being sold on the Sunday Market

07. Protesters on Martyr's Square

**Conquering the Streets**                              **17**

08.
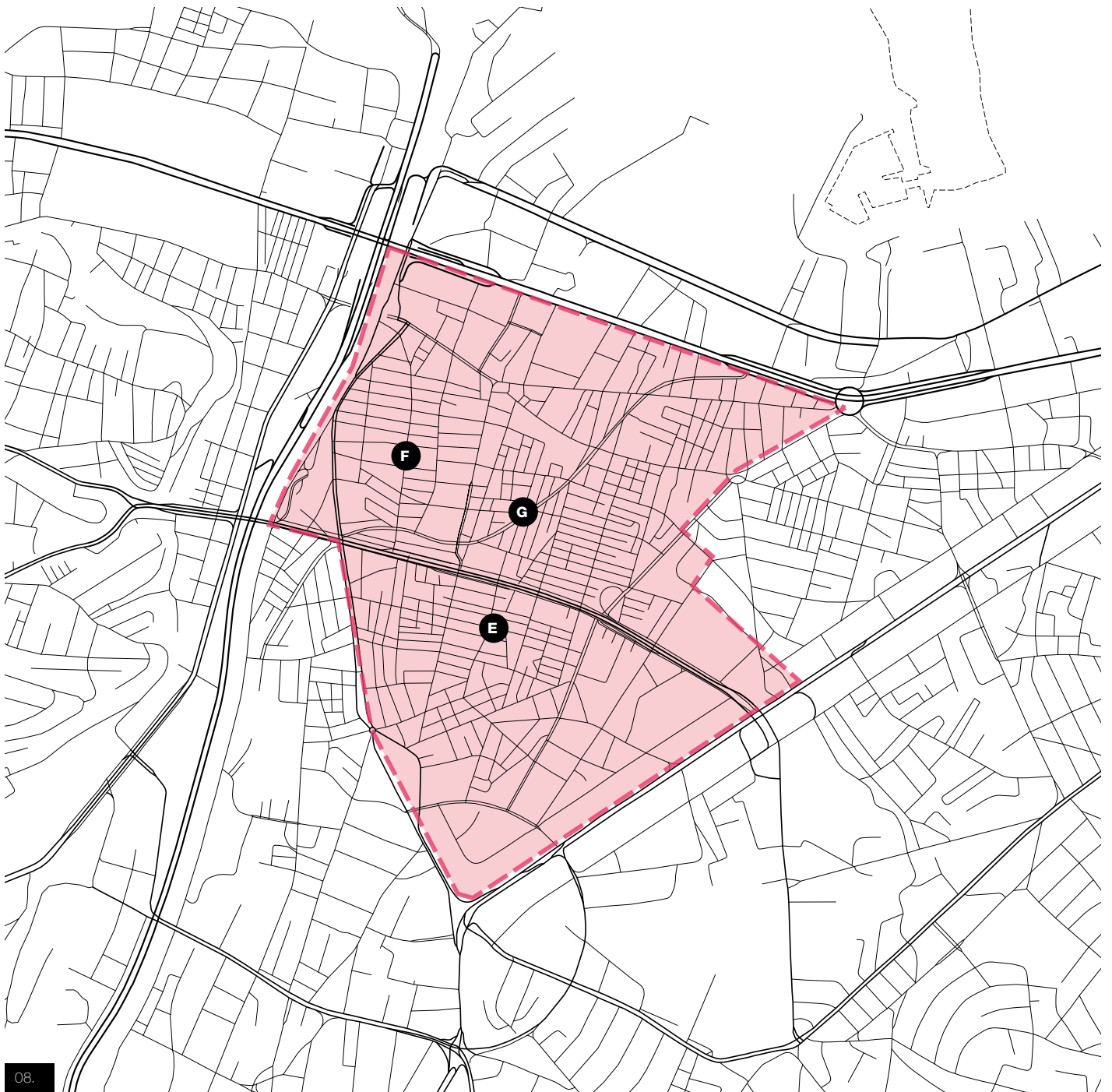
**The Alleys of Bourj Hammoud**

Bourj Hammoud, a quarter north-east of the city is distinguished by a very high population as well as structural density. It was established in the 1920s when the Armenians who fled genocide in their country were able to settle on the agricultural land just outside of Beirut. What began as a refugee camp with tent structures was later arranged as a grid of many narrow streets. This fine grid expanded in different directions creating long rectangular blocks containing small plots from 50-150 square meters. The unique arrangement results in a very homogenous physical setup, that does not offer much space for expansive public areas or parks. However, in terms of usages and activities, a big variety emerged. Residents are taking their activities to the streets therefore the streets are becoming a primary location for exchange, work, commerce and recreation. Often the atmosphere of those spaces is strongly shaped by the adjacent buildings' functions.

**Map Bourj Hammoud**

perimeter of the quarter

administrative border

500 m

08.  Bourj Hammoud in the city fabric
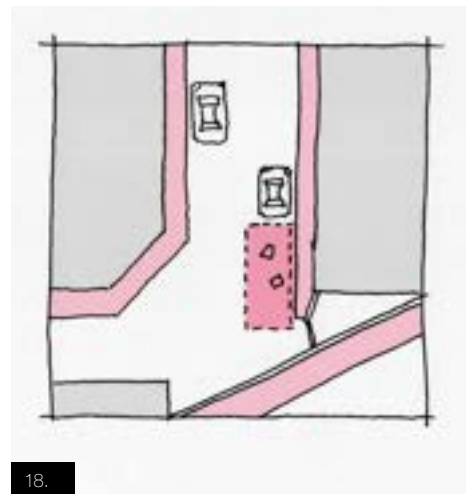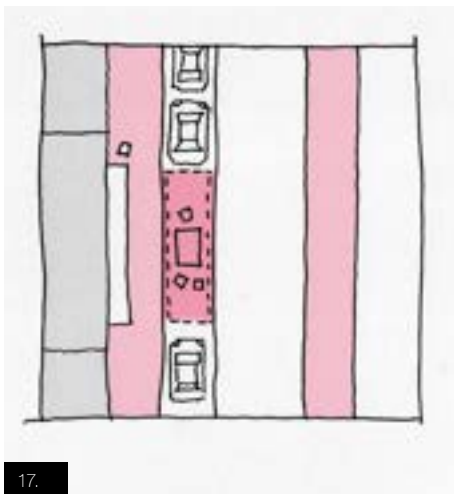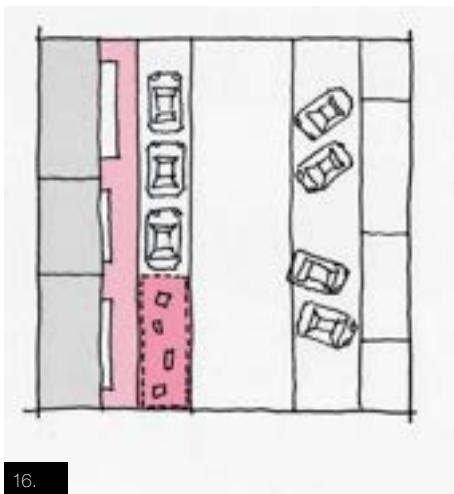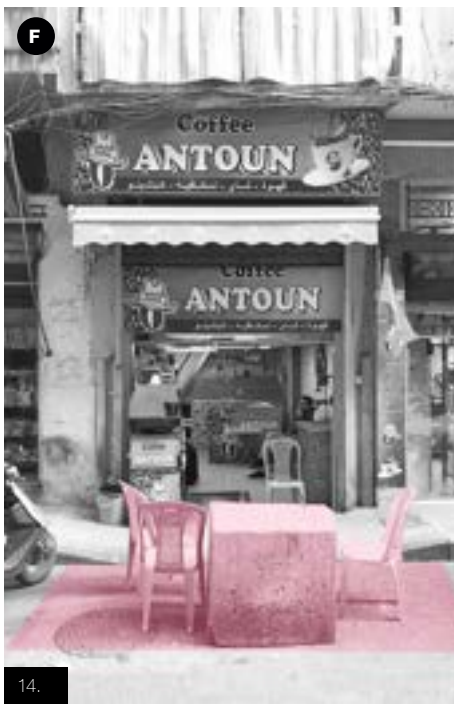
Tim Eggers, Alina Koger, Kim Wiltschko
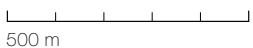
Today it is an urban center with a mixed residential and commercial area that attracts many people due to its distinctive lively atmosphere.[3]

The narrow streets in Bourj Hammoud's grid structure are defined by a variety of shops that offer all types of goods and services. Due to this fact it often creates a feeling similar to being in a traditional Middle Eastern souk. The residents of Bourj Hammoud are sitting on the sidewalks outside their shops to relax and watch people or to secure a parking spot for their customers and family members by simply putting boxes, chairs or tires outside **E**, **F**, **G**. This phenomenon can be observed in numerous areas and it feels like it has always been that way.

In addition to the sidewalks, streets seem to embody an essential part of public life in the neighborhood. Instead of being restricted to the small and often blocked sidewalks, pedestrians take over the streets in this car-centered infrastructural system. The infrastructural space is

09. People playing Backgammon on the street

10. People selecting groceries to buy from a shop that extends onto the street

11. Person sitting on plastic chair on the sidewalk

12. Person pushing street vendor cart

13.



14.



15.



16.



17.



18.

easily changed and adapted into a public space by temporarily placing objects. Thereby space is often not altered permanently. A lot of commercial space is expanded onto and goods are placed directly on the street to attract more customers. Thus, the shops incorporate public space into the streets, which then seems to be extended into the buildings. Additionally, many street vendors display their products near main traffic nodes and in busy streets to gain attention. Consequently, the streets of Bourj Hammoud are bustling locations, places of daily encounters and social exchange between residents, neighbors, customers and visitors. The informal public spaces that emerge on streets are evidently contributing to this quality of the neighborhood.[4]

13.  Objects are placed neatly on the street

14.  A concrete block is used as a table on the street

15.  Plastic chairs are set on the street

16.  Situation Plan of example A

17.  Situation Plan of example B

18.  Situation Plan of example C

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**Selected Alleys of Bourj Hammoud**

The shown examples **E**, **F**, **G** were planned as areas mainly assigned to cars, functioning as parking spaces. However, citizens use them to create their own informal public space to spend time at. Therefore, the street is temporarily utilized as an extension of the sidewalk and is appropriated by adding for example plastic chairs, boxes or other everyday objects.
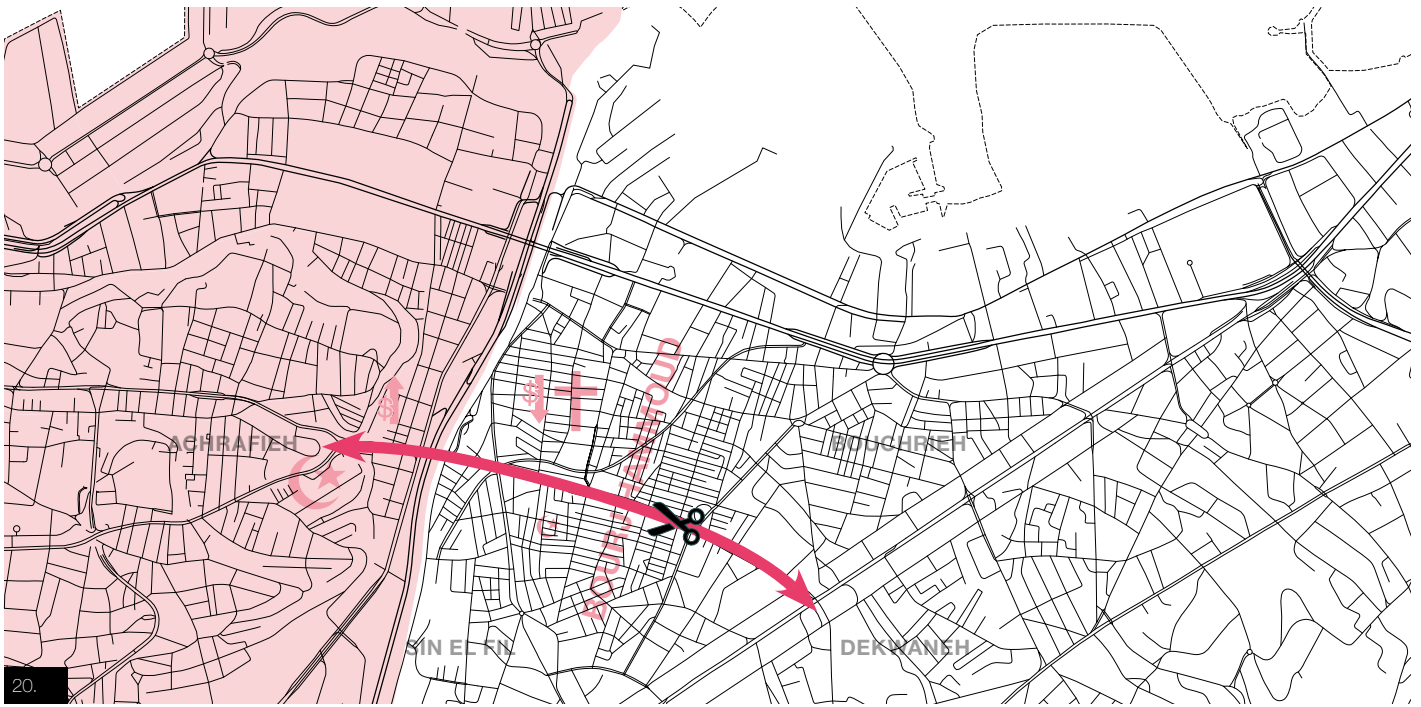
**Activities and Attractors**

Activities that emerge here are playing games, smoking, relaxing, watching the street, drinking coffee, meeting up and exchanging the latest news. Attractors for this kind of usage are small shops and the narrow grid structure overall that creates a high population density.
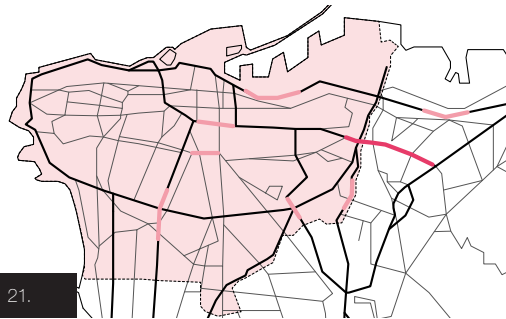
**Dynamic Space in Time**

The streets are vividly used in Bourj Hammoud, not only during day-time but especially in the night as well, when the traffic decreases and some shops extend onto the streets even more, while street vendors retreat. This particularly illustrates the adaptability of the space. It, therefore, shows to be a very dynamic space that is changing depending on the time of day and compliant with the requirements of the users for public space.[4]
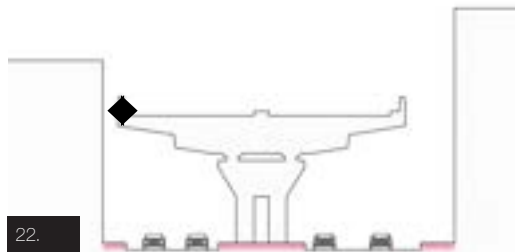
19. Arm chairs set on the sidewalk
   in Bourj Hammoud

20.



21.



22.

**Map Yerevan Bridge**


highway bridges


Yerevan Bridge

500 m

20. Map Yerevan Bridge cutting through Bourj Hammoud

21. Map highway bridges

22. Abstract section Yerevan Bridge

### (Dis-) Connecting Megastructure

The almost two kilometers long Yerevan Bridge was built from 1997 to 2004[06]. It is the connector between the Armenian neighborhood with a high density of economical activities, and a low-income neighborhood of Lebanese, Shia, Palestinian and refugees and immigrants.[5] It is connecting the districts Achrafieh and Dekwaneh, spanning all over Bourj Hammoud. In order to connect Inner Beirut and the East, the megastructure cuts through the previously homogeneous urban fabric of the district.

This megastructure spares only distances between half a meter and two meters **(H)** to the adjacent facades, with a huge effect on everything underneath. The disconnection of the neighborhood is a negative effect of the structure. By blocking not only light but also air circulation, the spaces underneath become unattractive and polluted. "...creating on the ground a long "dead" strip of empty space, under the bridge" [6]

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**Taking Advantage of Disadvantages**

On the other side of the coin, this offers sheltered empty spaces, claimed by no one and ready to be reclaimed by the public. Especially commercial establishments  benefit from the Yerevan Bridge.[6] By using the spaces under the bridge, they are expanding their merchant space. Therefore, some of the spaces stolen by this huge structural intervention, are being reconquered by the public, by using leftover spots underneath the highway bridges for various uses.

**Without Intention but with Effect**

Infrastructure projects of the post civil war reconstruction phase only aimed to benefit the center of Beirut, completely neglected the impact on the urban fabric, especially in the suburbs like Bourj Hammoud. Yet, the leftover spaces originating from this planning disaster are actively used by Beirut's residents.

23.  Cutting through the urban fabric

24.
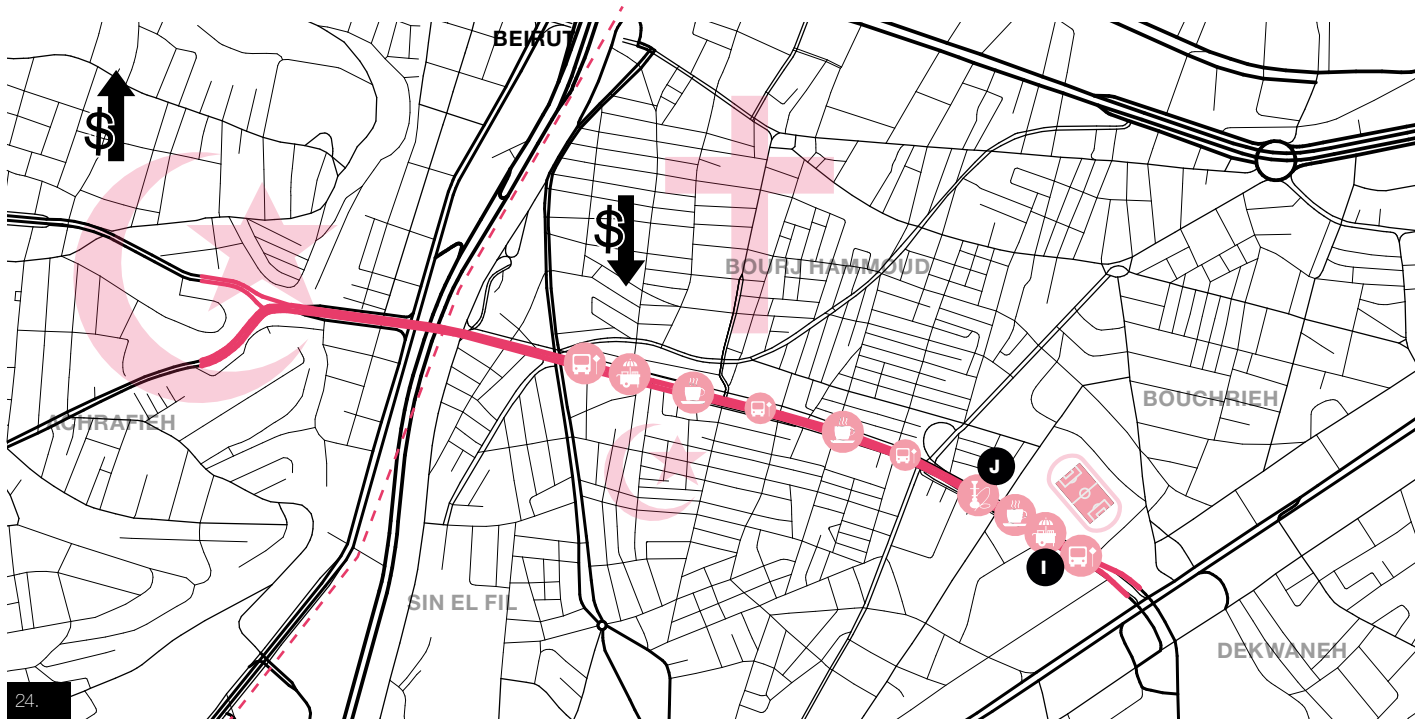
## Public Life under the Highways

Beirutis reclaim these neglected areas beneath the many highway bridges, by seizing the opportunity to create desperately needed public spaces. By being sheltered from sun and rain it offers protected and accessible space, which is otherwise nonexistent in the city.

## Type of Usages Arising

Since public space is so pressingly needed throughout the city, all different kinds of usages are compressed into infrastructural zones due to the lack of public space. Little kiosks **I** are arising under the bridges and surrounding shops are extending their commercial space into the streets to use them as spots for their customers, sitting in the shade or being protected from the rain.

But not only local businesses are benefitting, the spaces also function as meeting spots and distributers. In the spirit of taking what you can get, people use them as public squares to chat, smoke or play with friends **J**. Due to the nonexistence of bus stop shelters, the bridges - big and small - also function as the city's informal bus stops.

Bus drivers are paying special attention for potential clients and are passing those spots more slowly.

## Type of Usage in Relation to Spacial Typology

By comparing different types of infrastructural situations and the public usages arising in them, it becomes clear that the type of function is not defined by infrastructural typology. All infrastructural typologies have in common, that people use them for whatever they need at that location. Therefore the type of usage is much rather defined by location and opportunity.

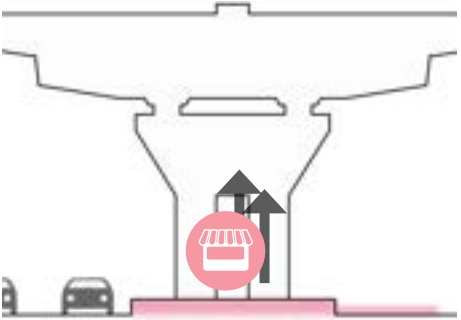**Map Yerevan Bridge**

highway bridges
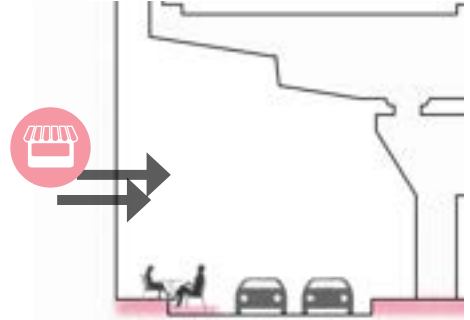
Yerevan Bridge

500 m

**24**

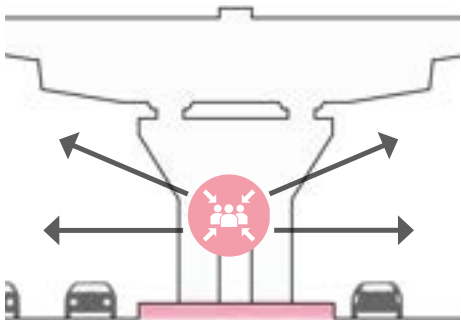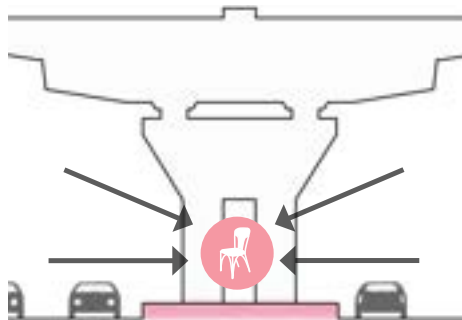Tim Eggers, Alina Koger, Kim Wiltschko

25.



26.

Emerging Commercial Space
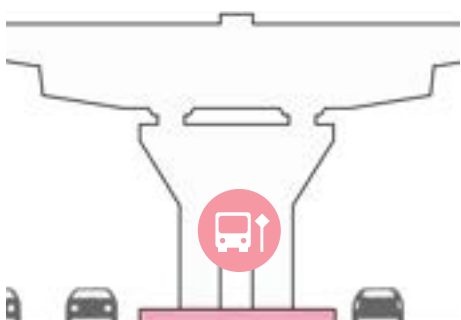
Extending Commercial Space

Meeting & Distributing
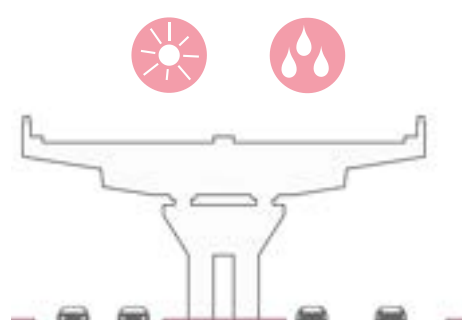
Creatively Using the Space

Informal Bus Stops

Sheltered Public Spac

27.

CHARLES HELOU BRIDGE
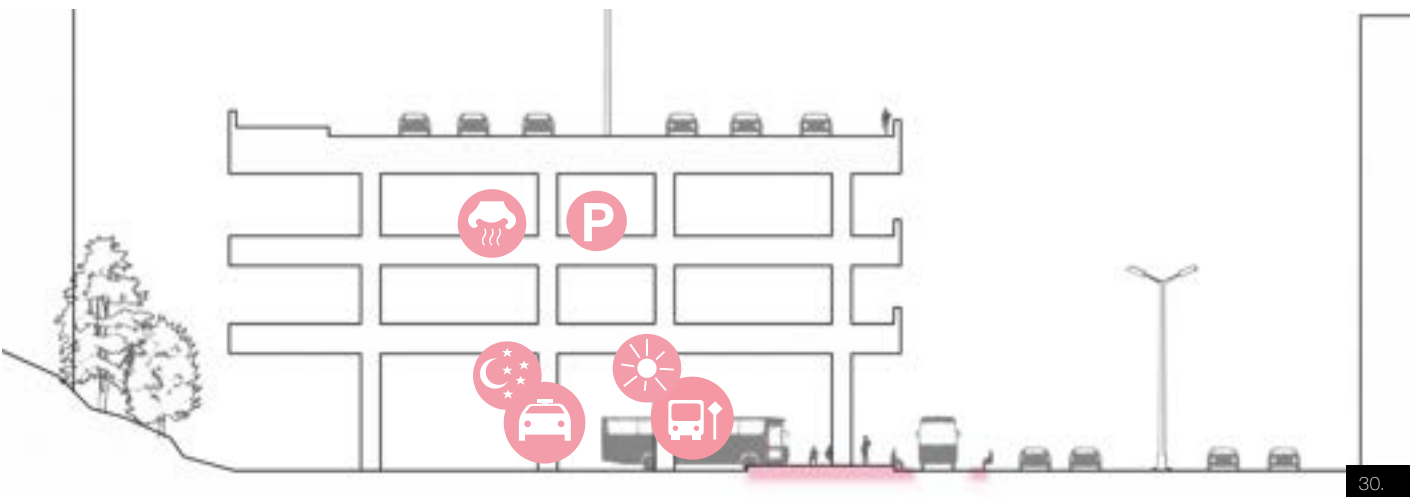
DORA BRIDGE

RING BRIDGE

BASTA BRIDGE

YEREVAN BRIDGE

ELIAS EL HRAUI BRIDGE

EL WATI BRIDGE

COLA BRIDGE

M

L

K
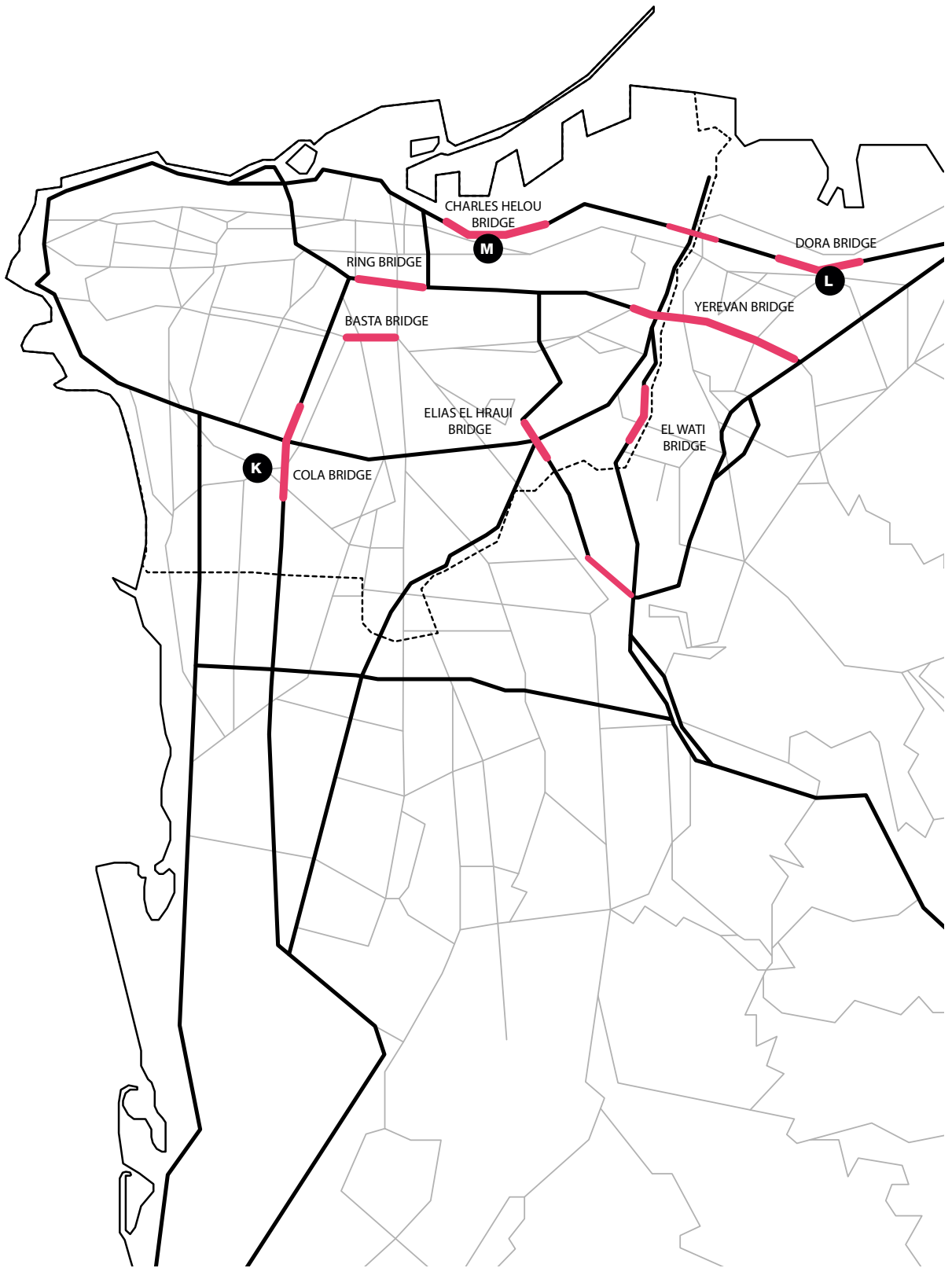
28.

**Map Highway Bridges**

highway bridges

28. Map of highway bridges

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29.



30.

## Highway Bridges as Transportation Hubs

The highway bridges in Beirut function as transportation hubs for the city. But only the Charles Helou Station was intentionally planned as such, the others emerged in leftover infrastructural spaces. „Whilst Cola **K** and Dora **L** have operated as informal transport hubs since the beginning of the Lebanese Civil War, Charles Helou Bus Station **M**, a damaged monument to the Civil War, was reestablished in 1995-1996 to formalise a central terminal for Beirut's private transportation sector."[7]

While functioning as the station for long-distance bus travels during daytime, at night it serves as a location for cab drivers on their break, otherwise being a dead space **N**. Especially the first and second floor parking spaces are completely empty throughout the night, only filled with the smell of urine, leaving the megastructure a rather unattractive spot in the city.

**Charles Helou Bus Station**

☐ (white silhouettes ) day time
◼ used public space

29. Charles Helou Station
30. Charles Helou Station, section and public usage

## Souk al-Ahad

The Souk al-Ahad, which translates to Sunday Market, despite its name, operates the whole weekend as a flea market where a great variety of goods are available for purchase. The market started after the civil war on a left-over piece of land, located under and next to the Emile Lahoud highway bridge passing over Jisr El Watti, as an informal gathering of vendors that gradually increased in size. Even though the ownership of the land is disputed between the Ministry of Energy and Water and the Sin el-Fil Municipality to this day, a lease was given to two families by the Ministry in 1996, making the market legal to some extent and starting a process of formalization. Since the ownership dispute remains unsolved, the existence of the market is still threatened.[8]

## Claiming the Site Structurally

Over the years since 1996, structures have become more permanent. While most stalls are beeing dismantled during the week, essentially making the site another parking lot, some structures have been established permanently. These developments started during the second half of the 21st century's first decade and continue until today, focusing on the sites edges, keeping the inner space mostly free. Until 2008 first permanent structures were set up in the north-western corner. In 2011 most parts of the edges were claimed and until today have been completed. First islands of permanent structures are began to creep into the middle, continuing the process of permanently claiming the site.[8]

## A Souk Divided

The souk does not open to the adjacent street but mainly to the space under the bridge with the main entrance gate to the south. In comparison to the stalls on the main souk **O** , the stalls under the bridge seem to be makeshift, forming an inbetween zone to the parking area, as which the remaining space under the bridge is used. These stalls and vendors appear to be in dispute with the established main souk, since this part does not belong to the original market and is deemed illegal, due to supposedly beeing mostly foreign. Additional stalls are set up on the street leading over the river **P** , which serves as a drop-off point for people visiting the market. The commercial activity outside of the main souk is considered to be the new part. While the souk is not physically devided there seems to be an ethnic and competitive barrier.[8]
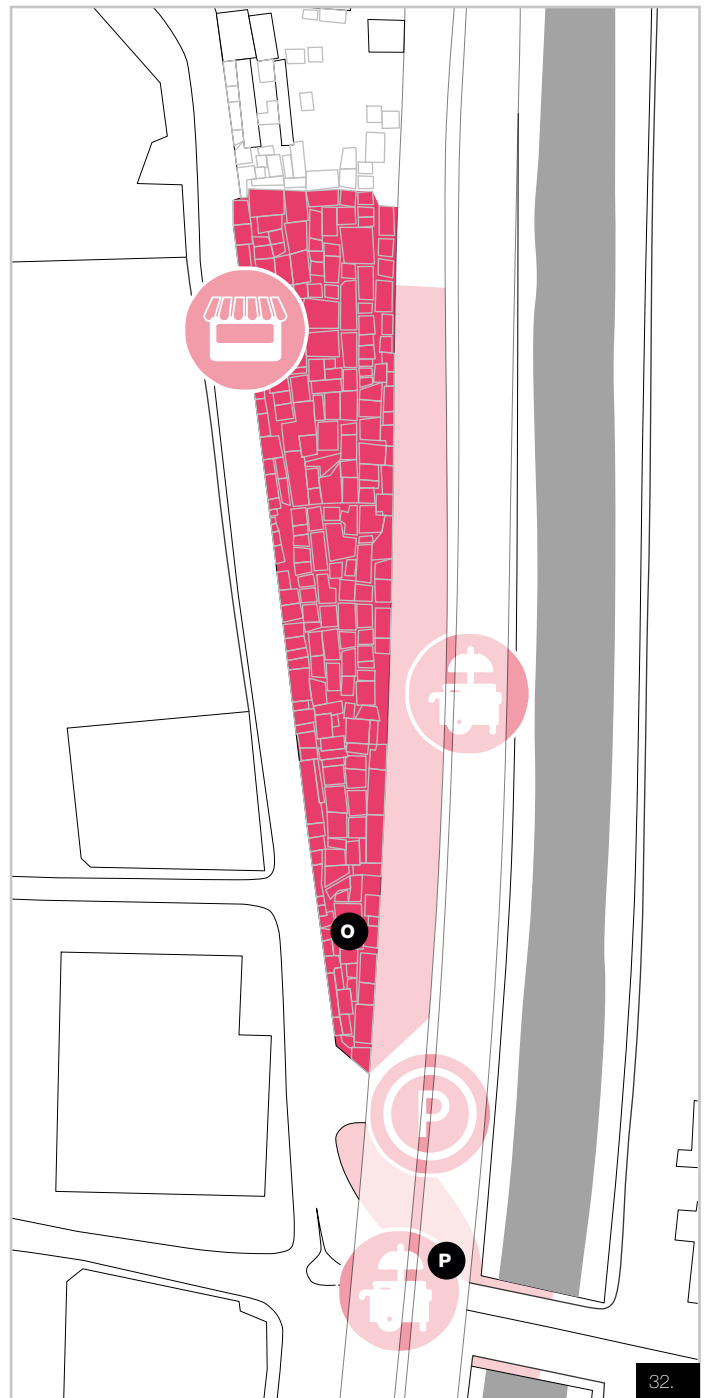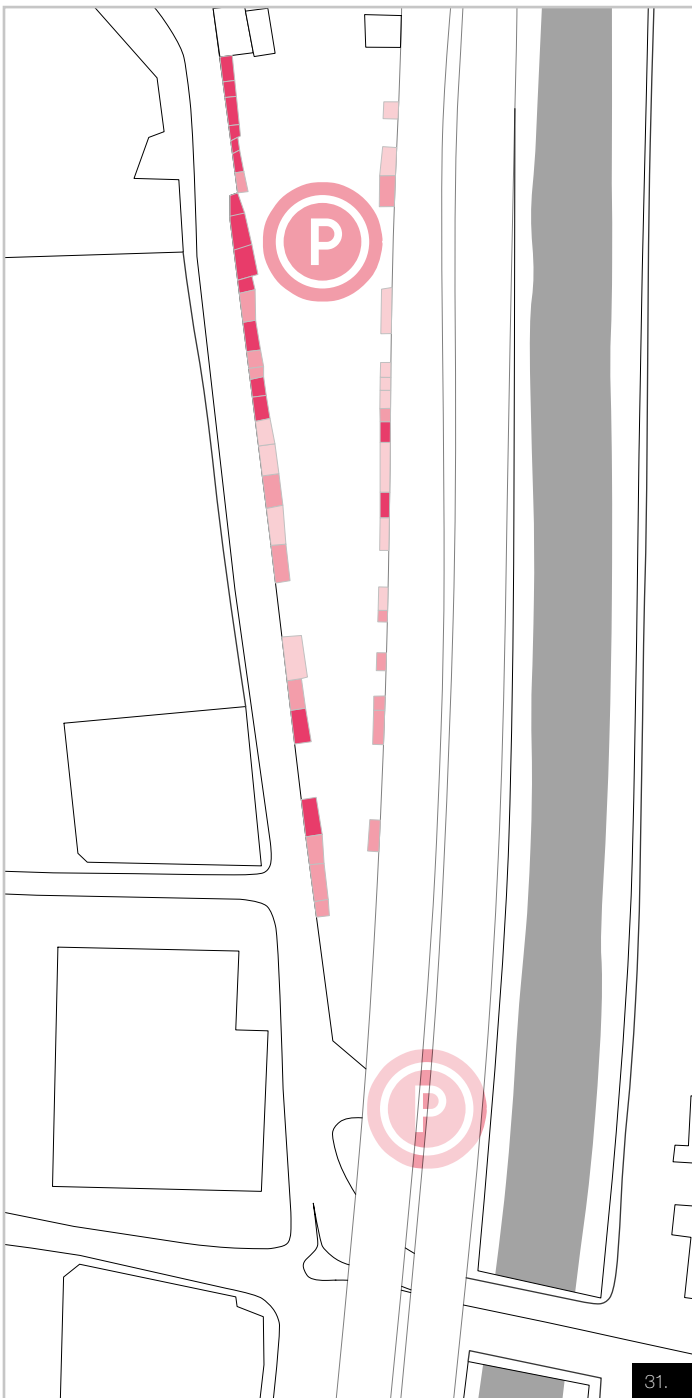
## Reception

In general the souk is not well presented in the media, citing issues with cleanliness and beeing overcrowded in addition to the supposed illegality of the market due to the ownership dispute. This might be related to rising property and rent prices, as well as processes of gentrification in the surrounding areas, since most of the visitors belong to lower income classes, not befitting the changing image of the surroundings. Even though the souk does not seem to be too popular with the upper classes, rare and interesting items can be found in some of the shops, making them a destination for collectors and hipsters as well.[8]

**Souk Old and New**

■ until 2008 | main souk

■ until 2009 | new informal souk

■ until 2011 | street vendors and carts

31. Structural development
Permanent stalls during the week 2008 to 2011
1:2000

32. A souk divided
Areas during the weekend 1:2000

33. The main souk
Established stall structures

34. Informal stall
Street vendors near the bridge over Beirut river

Tim Eggers, Alina Koger, Kim Wiltschko

31.



32.



33.



34.

Conquering the Streets

## Connection of Spaces

<span style="color:#D72660">■</span> main public space

<span style="color:#E87C9E">■</span> public space less used

<span style="color:#F4C4D3">■</span> public periphery and parking

35. Before the revolution
   Martyr's square and surrounding spaces
   1:5000

36. During the revolution
   System of spaces around Martyr's square
   1:5000
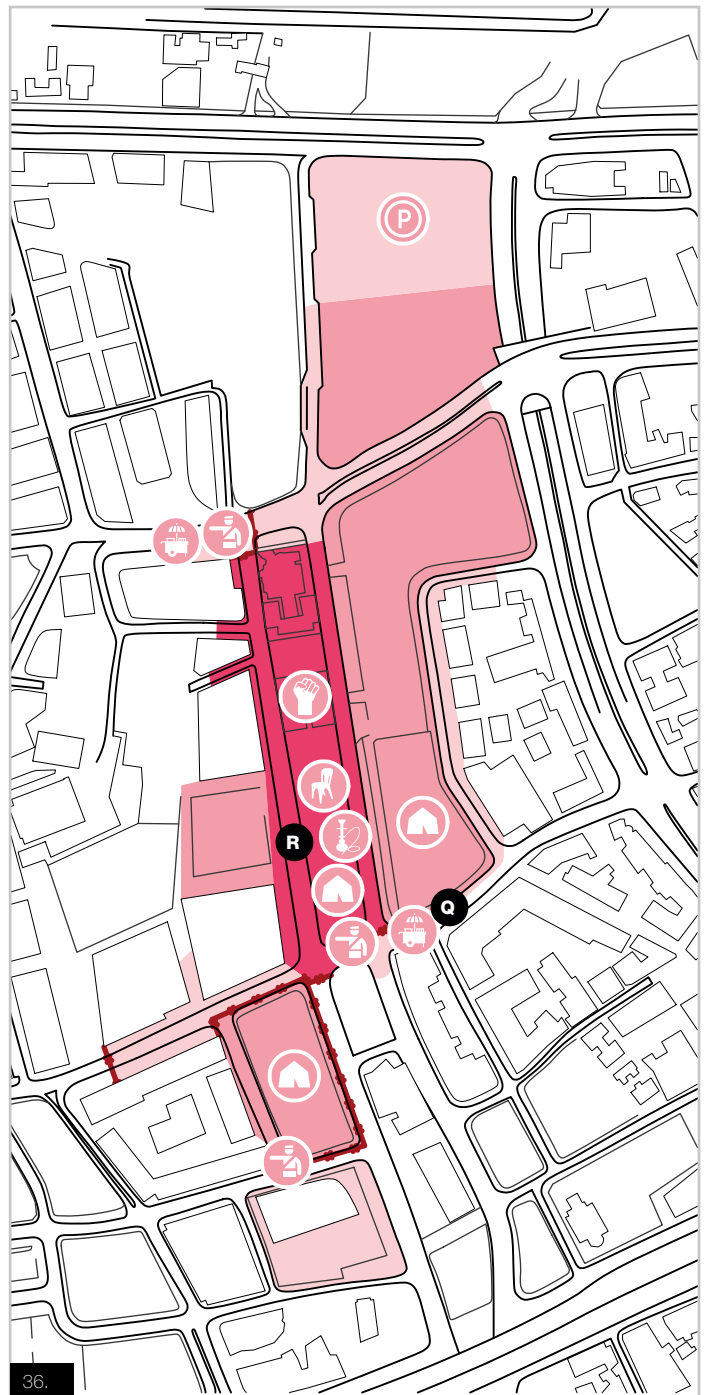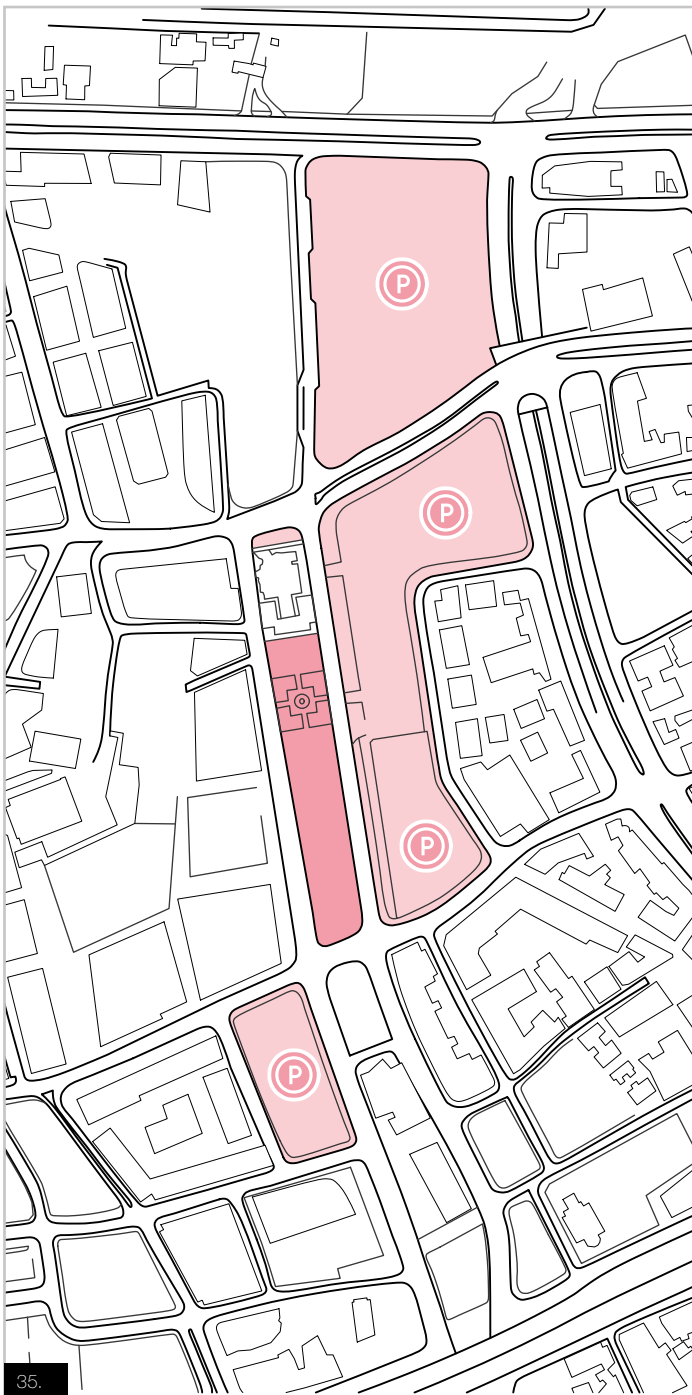
**Protests at Martyr's Square**

Originally being just a narrow block between two roads, the Martyr's Square and the surrounding parking lots have been taken over by the 2019 protests, forming a larger unit, incorporating the streets that have previously devided the open spaces. While still uninviting, the protestors added various installments to the area, including a tent city that caters to a variety of needs, such as space for discussion, information, as well as medical attention.[9] At the entrances to the area, little stalls were set up, selling snacks and revolution supplies **Q**. All these installments helped creating a festival-like atmosphere that was characteristic for the early stages of the protests in fall and winter of 2019. The at first informal occupation of the space has become slightly more formalized over the course of the protests. Fences have been put up by the government to define the „official" protest area and to control the number of people entering. Additionally, soldiers have been positioned at those entrances.

Tim Eggers, Alina Koger, Kim Wiltschko

37.


38.

## Occupying Public Space

While already heavily frequented on public holidays, the now even bigger square has become a popular space to hang out. The people of Beirut bring their chairs and shishas and create an outdoor living room, where they can meet up with friends, smoke and enjoy being outside **R**. Even spontaneous concerts have been held. Connecting the adjacent parking lots, the protest zone has grown to a public space of a size that can not be found elsewhere in the city, giving the unprecedented opportunity for public life to unfold beyond its usual borders. Even formerly unused infrastructure, such as the Metropole Cinema (The Egg) have been reclaimed as former borders became less meaningful. While opening these spaces for public use, others, such as the parliament area were closed off due to the fear of protestors taking over governmental institutions, creating new borders throughout the city.

37.  Revolution supply
     Street vendors at the edge of the protest area

38.  Revolution relaxed
     Beirutis claiming Martyr's square
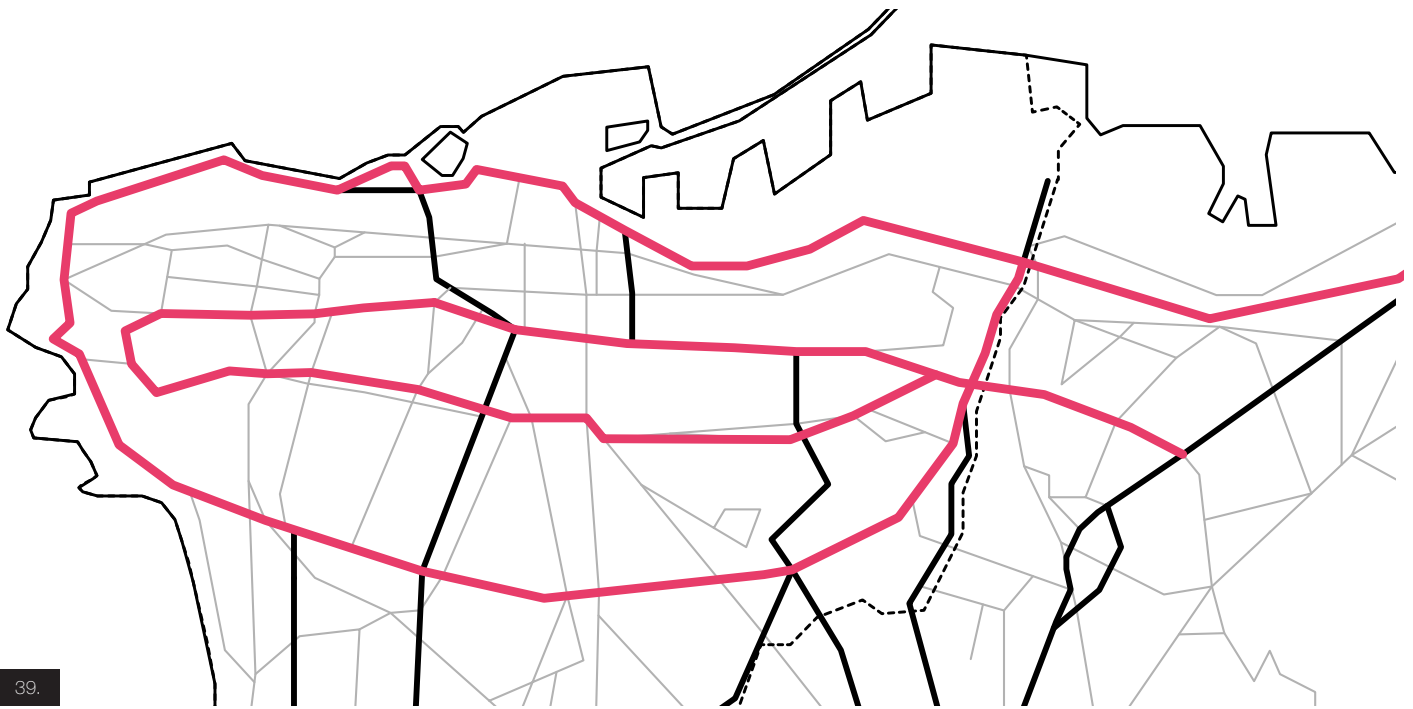
## The City's Veins

The streets of Beirut, especially the big highways form the veins of the city, keeping it alive and busy. Beirut is heavily depending on cars, since no real alternative is available. The ever-present traffic keeps the machinery running, but is also suffocating the spatial freedom of the residents. Therefore, in every niche of this system, people have started implementing other uses and activities to the streets in various ways, coexisting with the traffic around them. The streets offer the only possibility to expand public life with the surrounding functions determining the use. But what if the citys' veins were to be clogged?

## Infrastructural Collapse

During the start of the revolution, protestors blocked roads and highways, essentially bringing all traffic to a halt. Distances of normally less than an hour by car took multiple hours of travel while people got stuck wherever they were when the barricades were erected. The highways are such a major factor in Beiruts transportation network, that even nearby neighborhoods can not be reached by car without using them. This also meant that businesses, schools and offices were not able to operate. But the protestors were not done by simply blocking the roads. The highways themselves became public space stretching throughout the city, extending the public life otherwise happening in niches and alleys to sizes formerly unheard of, giving people a glimpse of what is missing in Beirut.[2]

## The Streets' Identity

Even with the revolutions future uncertain and more problems arising, it has become clear, that the streets of Beirut are equally as powerful as they are important. In Beirut, streets are not just ways of transportation, they contain a whole microcosm of urban public life, for which space has been further reduced over time. As long as no measures to create public space are taken, the streets will continue to serve as substitute, since even in uncertain times, people conquer as much public space as possible.

**The two Highway Rings**

highways

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40.

**List of References:**

1 HARB, Mona, 2013. Public Spaces and Spatial Practices: Claims from Beirut. In: Jadaliyya [online]. 25.10.2013 [Access on: 14.12.2019]. Available at: https://www.jadaliyya.com/Details/29684876

2 HAMMOUD, Mariam, 2019. Reclaiming Public Space During the Revolution: How We Are Reconnecting With Lebanese Cities [online]. In: Beirut Today, 23.11.2019 [Access on: 14.12.2019]. Available at: http://beirut-today.com/2019/11/20/reclaiming-public-space-revolution/

3 HEDIGER, Daniel and Andrej LUKIC, 2009. The Armenian Quarters in Beirut [online]. Bourj Hammoud and Karm El Zeitoun. Basel: Studio Basel. [Access on: 13.01.2020] Available at: http://www.studio-basel.com/assets/files/files/06_the_armenian_quarters_in_beirut_web.pdf

4 DAGHER, Rouba and Petra SAMAHA, 2016. Rethinking shared space: the case of Nabaa neighborhood - Bourj Hammoud [online]. Beirut: Issam Fares Institute for Public Policy and International Affairs [Access on: 16.02.2020]. Available at: https://www.aub.edu.lb/ifi/Documents/publications/working_papers/2015-2016/20160822_nabaa.p

5 BOULOS, Kristelle, 2014. [Under] bridge spaces - the case of [under] Yerevan Bridge [Final Year Project]. Beirut: American University of Beirut

6 YOUSSEF, Maged, 2017. Problems of neglected places under bridges: A case study of Yeveran Bridge, Beirut, Lebanon. In: WIT Transactions on Ecology and The Environment [online]. 226. [Access on: 16.01.2021]. WIT Transactions on Ecology and The Environment. ISSN 1746-448X. Available at: https://www.witpress.com/elibrary/wit-transactions-on-ecology-and-the-environment/226/36337

7 NIASARI, Nora, 2011. Under the Bridge. In: MAS context. n.d. [Access on: 14.11.19]. Available at: http://www.mascontext.com/issues/10-conflict-summer-11/under-the-bridge/

8 KRIJNEN, Marieke and Richard PELGRIM, 2014. Fractured Space: The Case of Souk al-Ahad, Beirut [online]. In: Jadaliyya, 23.07.2014 [Access on: 25.01.2020]. Available at: https://www.jadaliyya.com/Details/30990

9 CHEHAYEB, Kareem, 2019, Beirut's Protest City Is a Rebuke to the Privatization of Public Space [online]. In: Citylab, 31.10.2019 [Access on: 16.02.2020]. Available at: https://www.citylab.com/equity/2019/10/lebanon-anti-government-protests-beirut-martyrs-square/601180/

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21. Map highway bridges. WILTSCHKO, Kim, 2020 based on: FOSSIGIS E.V, 2019. OpenStreetMap [online]. Kirchzarten: Fossgis e.V., 2019 [Access on: 22.01.2021]. Available at: https://www.openstreetmap.de/impressum.html

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32. A souk divided. EGGERS, Tim, 2020 based on: GOOGLE, 2020. Google Earth [online]. Google, 2020 [Access on 22.01.2021]. Available at: https://www.google.com/intl/de_de/earth/

33. The main souk. EGGERS, Tim, 2020

34. Informal stall. EGGERS, Tim, 2020

35. Before the revolution. EGGERS, Tim, Alina KOGER and Kim WILTSCHKO based on: GOOGLE, 2020. Google Earth [online]. Google, 2020 [Access on: 22.01.2021]. Available at: https://www.google.com/intl/de_de/earth/

36. During the revolution. EGGERS, Tim, Alina KOGER and Kim WILTSCHKO based on: GOOGLE, 2020. Google Earth [online]. Google, 2020 [Access on: 22.01.2021]. Available at: https://www.google.com/intl/de_de/earth/

37. Revolution supply. EGGERS, Tim, 2020

38. Revolution relaxed. EGGERS, Tim, 2020

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01.

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**Kamila Bak**
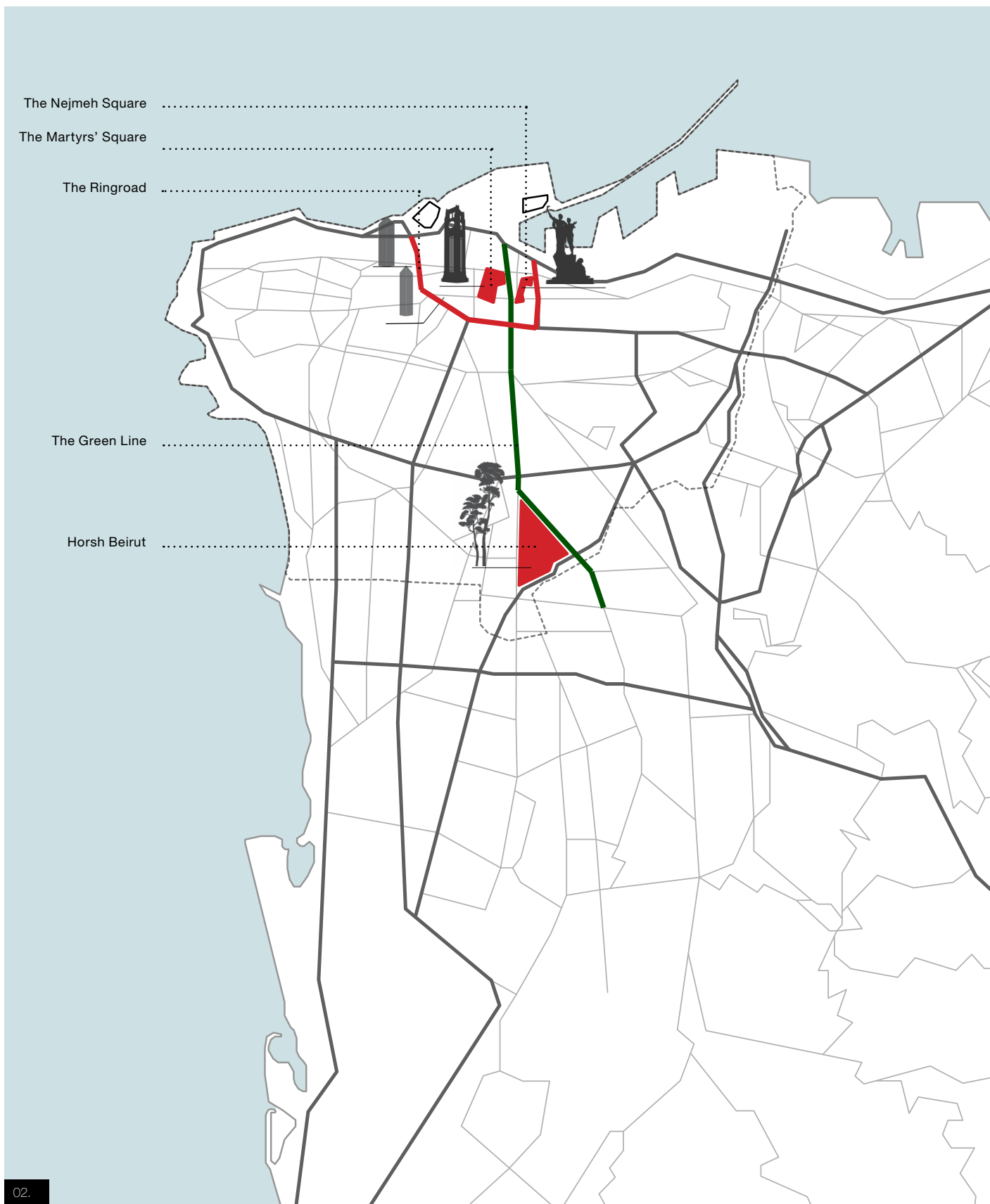**Rita Berisha**
**Anna Grimm**

# Controlling Beirut

Beirut, the capital of Lebanon, is a city of various religious, cultural, political and economical groups. Such a diversity of inhabitants makes the city more vital and enrich social interactions. Unfortunately, in the case of Beirut, these diversity frequently leads to sectarian conflicts. One of the biggest and very tragic consequence of the conflicts was the Lebanese Civil War in 1975, lasting until 1990.[1] In situations such as war or other political tensions, the authorities' response was the omnipresent surveillance of open access spaces. However, control over public places was visible long before the Civil War, when even the urban layout of streets and squares itself was designed to facilitate quick and direct control over the site.
In recent years Beirut was seeing different security statuses,in part strengthened by the Civil War. Thereafter the public spaces were shaped by the control of the Syrian military forces, the outbursts of violence between 2004 and 2006 [2] and various protests. Most recently, the ongoing political corruption caused demonstrations, which started in October 2019, leading to further security measures that once more limited the accessibility of open spaces in the city. In this paper we will look closely at soft design strategies and harder security measurements taken by the government to keep its citizens safe, but also under control and watched over.

**Open Access Spaces of Beirut**

Beirut, a home for more than two million people,[3] was once known  as "Paris of the Middle East," [...] a fashionable holiday destination to many Europeans and Americans [...] and also publishing and entertainment capital of the Arab world".[4] However, the city has undergone a major change in last 30 years, due to political and sectarian problems, that affected many aspects of Beiruti everyday life including the loss of many public and open access spaces. These kinds of spaces are crucial in the city urban structure, as they build the city's identity and are considered important meeting points, that are significant in citizens' integration.[5] Shortage of public spaces in Lebanon's capital is mostly resulting from poor urban planning, lack of spatial regulations, people's knowledge of their rights to the city and the high importance of open access spaces.[6] Insufficiency of open access spaces in the city gives the ones that are already existing much more focus and relevance, as they are considered essential meeting points
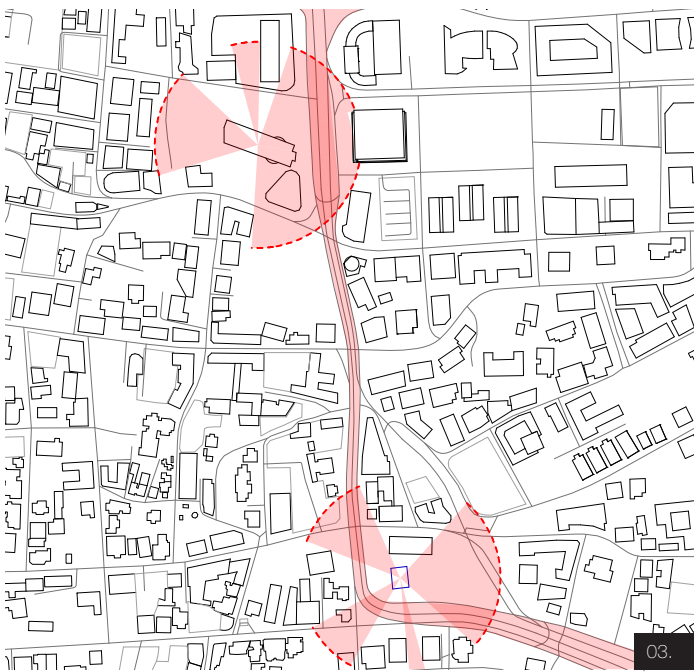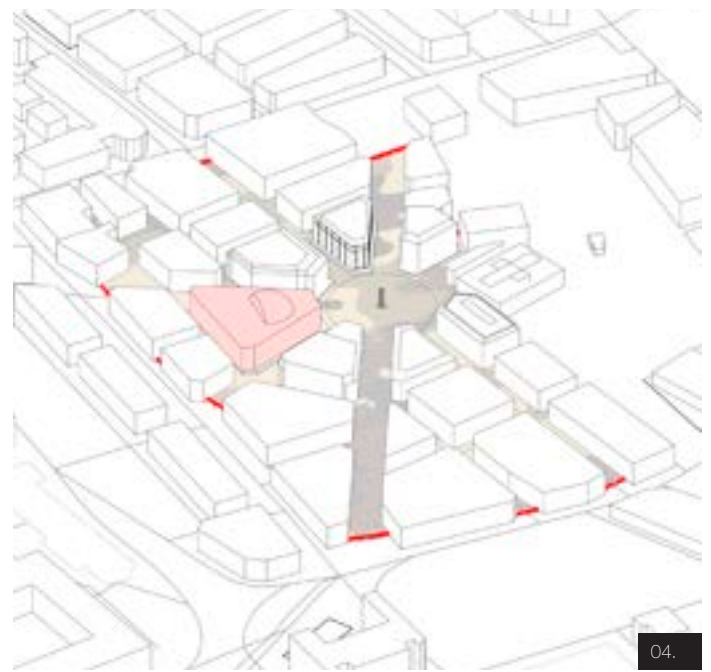
01. Closed gate to Horsh Beirut

The Nejmeh Square .....................

The Martyrs' Square .....................

The Ringroad .....................

The Green Line .....................

Horsh Beirut .....................

**Selected Controlled Areas in Beirut**

■ Controlled areas

□ The Green Line

□ The Ringroad

02. Map of selected controlled areas in Beirut

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03.



04.



05.



06.

and the only areas, that people can get together without consuming anything. But in a city like Beirut, still highly divided through sectarian conflicts, open access spaces are also treated as a political arena. As a consequence, they are thought to be focal points to arising conflicts and are highly controlled and supervised by the government. In this paper, we will focus on three types of open access spaces, different of scale and usage: streets, squares and parks. The places we have a closer look at are the Green Line, the Ringroad, the Nejmeh Square, the Martyrs' Square and Horsh Beirut (map 2), being some of the biggest and most representative public spaces in the city. Each of them is eminently under control of government and military to eliminate the possible hazard of demonstrations and maximize awareness of protection and feeling of safety in the city. There are very different procedures taken by the authorities, that are to demonstrate their presence in average citizens' day. As an example the surveillance points in the city overlooking the streets, closing squares when political tension arise and guarding the parks.[7]

03. The Fakhreddine Street and abandoned hotels

04. The Nejmeh Square and closed area surrounding

05. The Martyr's Square and demonstration's area

06. Horsh Beirut, fence and the gates

Controlling Beirut          **39**

07.

## The Green Line

Taking a look at Beirut's history, the ruling of the Ottoman Empire, the French Mandate, the Independence of Lebanon, while still maintaining a close relationship with the US-Government, we see that control over public spaces has always been an undetachable part of the city.[8] One of the main events that lifted Beirut's controlling behavior to a higher degree was the Civil War. The marks that it left behind still follow and relatively define the city's current situation when it comes to securing safety and keeping peace in Beirut.

In 1975 the city became a territory of war and the Green Line, that was created on the Damascus Road, divided Beirut into the Christian east side and the Muslim west side.[9] This 8 km long strip of land became a no man's land, which has contributed to the fact that it is called the Green Line, as vegetation grew there in the absence of traffic.[10] Museums, schools and many other public buildings that adjoined this line

**The Green Line**

- ▨ The Fighting Area
- ▨ The Green Line
- ⊙ Control Points
- - - - Sight Connection

07. The Green Line Explained

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were extremely damaged and this urbicide led to the fact that many of them were changed in function and used as bunkers, shields for sniper fire and as storage spaces for weapons. This way not only did they fall victim to the war but they were used as instruments of it. The line that went all the way through the city, was a broadly controlled ground with many checkpoints on its both sides. They were constantly controlled by the militias in order to entirely supervise the area and made sure that no one was able to cross the line without being seen.[11]

People who experienced this time, state that the easiest way to cross the road was to stay as close as possible to the exterior walls of the buildings and try to avoid other people.[12] That seems to be a very dangerous option but these walls were the only barriers protecting people crossing from the sniper's sight. And many Beiruti need to take it, as the buildings close or along the Green Line, were the only ones that many of the citizens were able to afford.[13]

08. The Representation of War in the Beit of Beirut today

Beit Beirut
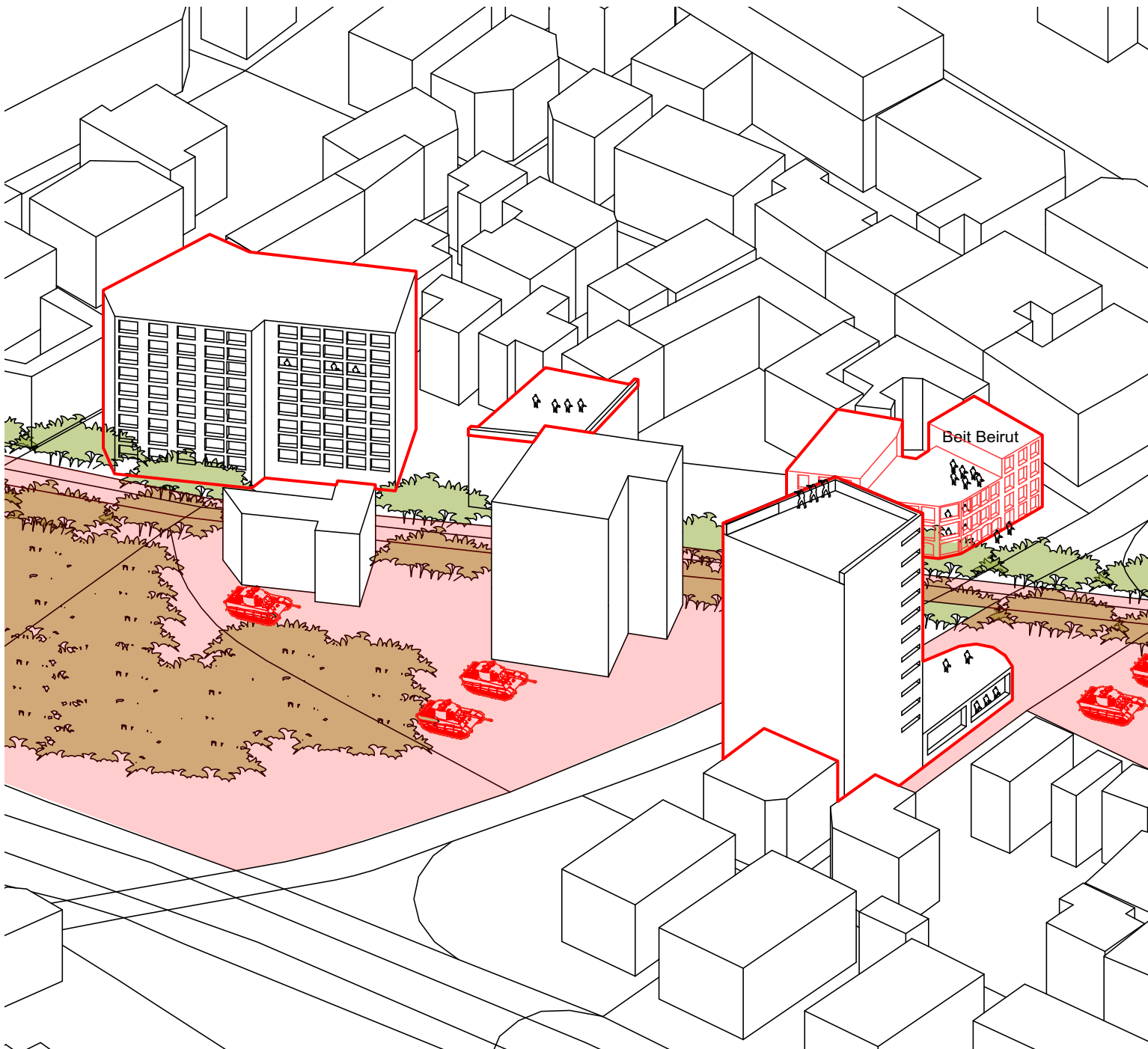
Even 10 years after the Civil War ended the Syrian soldiers were still seen on certain checkpoints in this area, that showed how the supervision strategies used during the war were still present in Beirut long after the war ended.[14]

### How Did the Presence of the Green Line Affect the Present Beirut?

The process of supervision, after the Civil War, shaped the daily experiences of getting around in Beirut. Few of the buildings, such as the Beit of Beirut (image 08), are kept in their state of war, as a ruin full of bullet holes and as a living monument. They are standing as a symbol and are showing the scars of the war in order to remind citizens of the past. They give a concrete example of the importance of the militia and the control points, which exist today, and show why they are still needed for Beiruti's own safety and well-being. It is indisputable that the reason behind high and harsh level of control at this time, was the

Kamila Bak, Rita Berisha, Anna Grimm
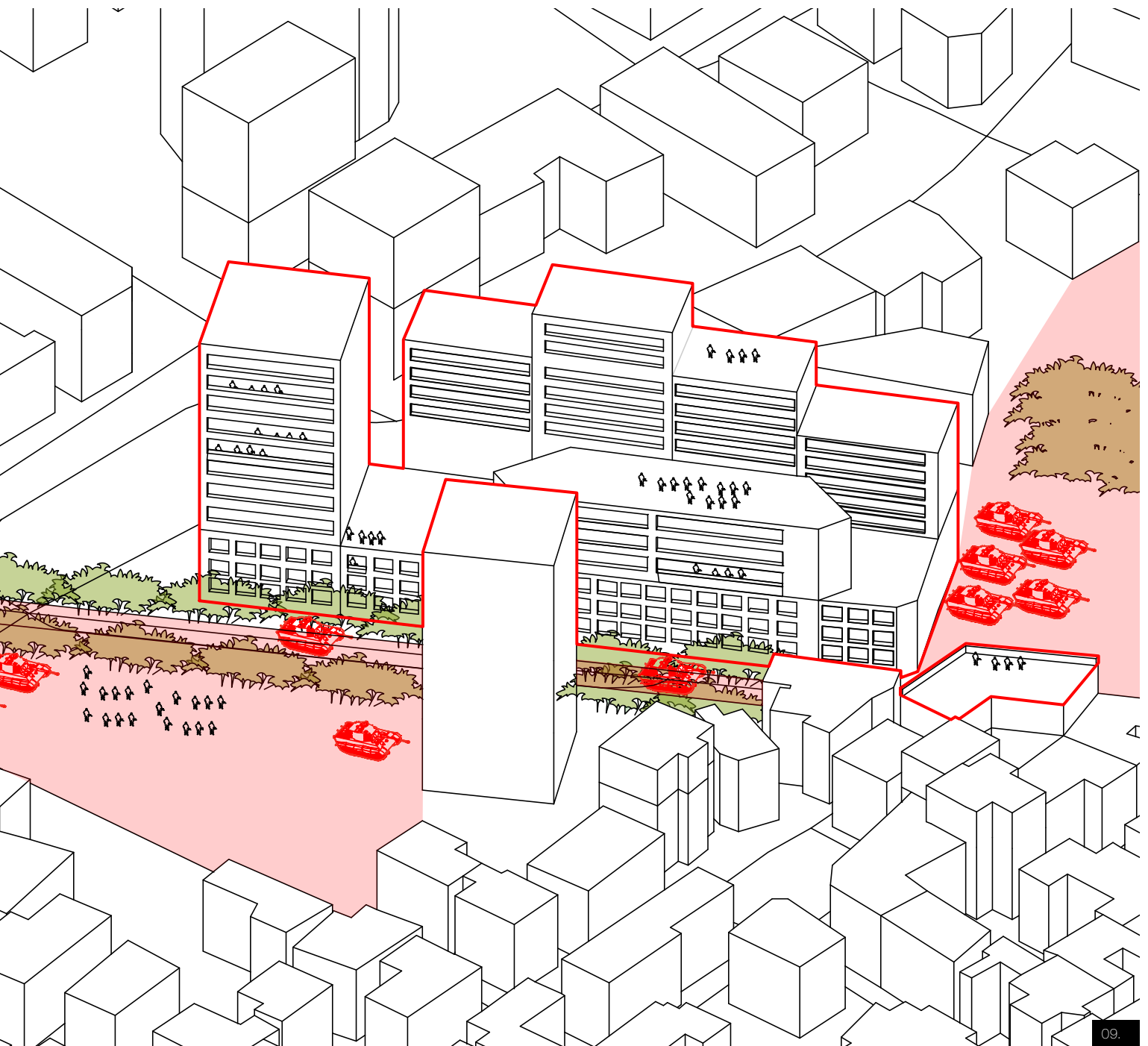
09.

war. It was a form of assurance that the two opposing sides of the city would not meet. But it also represents the foundation of the mentality that Beirut's government still has today. The methods used at this time, such as hiding in the buildings and using them as shields and control points, even if not in the same violent manner, are still used by the government today. As it claims to protect its people and avoid the hazards of another social conflict and misbehavior.
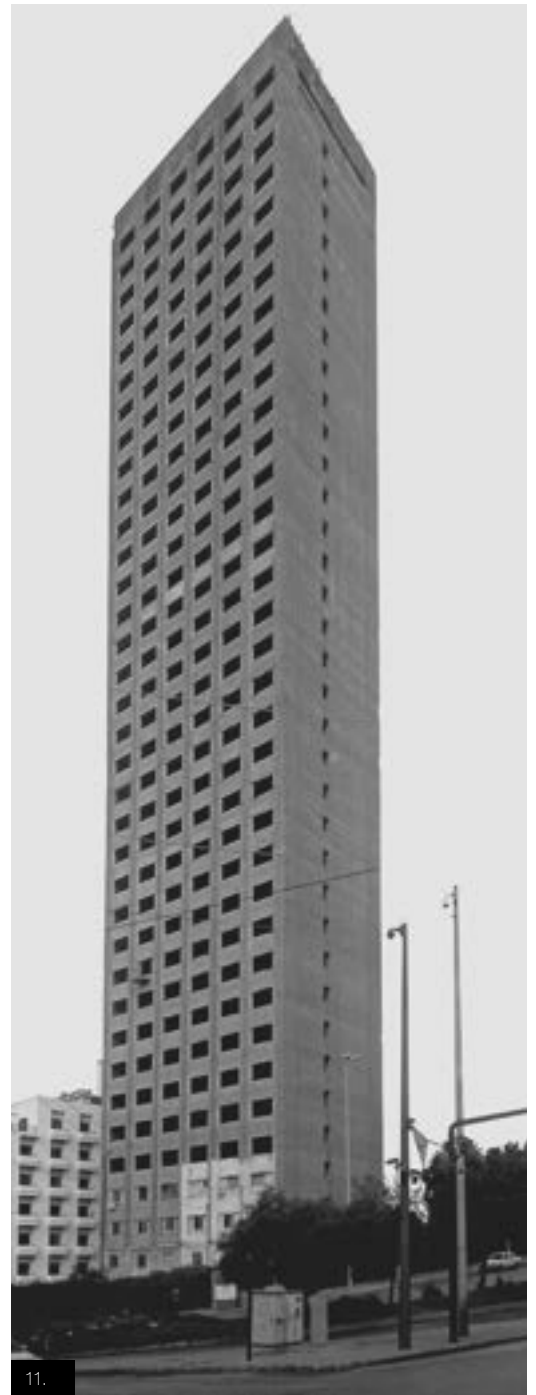
**Zoom in: The Green Line**

The Fighting Areas

Public buildings as military check points

The Vegetation

09. Zoom In: A closer look to the situation on the Green Line

**The Fakhreddine Highway**

A strategy that survived the Civil War was the utilization of buildings as outlook posts. A very common strategy of the governments to keep the city calm is to imply that there is someone watching over public spaces. This could be done with cameras, security guards or military presence in the street. This surveillance might not always be repressive, but the quantity of control in one particular case in Beirut was striking.

When we visited Beirut, one area, close to the Zaitunay Bay, concerning this topic stood out. It is a dense quarter of high-rise buildings, built by starchitects, which shape the skyline, the most prominent ones are Beirut Terraces by Herzog & de Meuron and Foster and Partners'. Beiruti and tourists come here mostly to stroll along the bay, go to the restaurants and enjoy the view of the sea.

10. Holiday Inn

11. Burj al Murr

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Beirut Terraces

3Beirut

12.
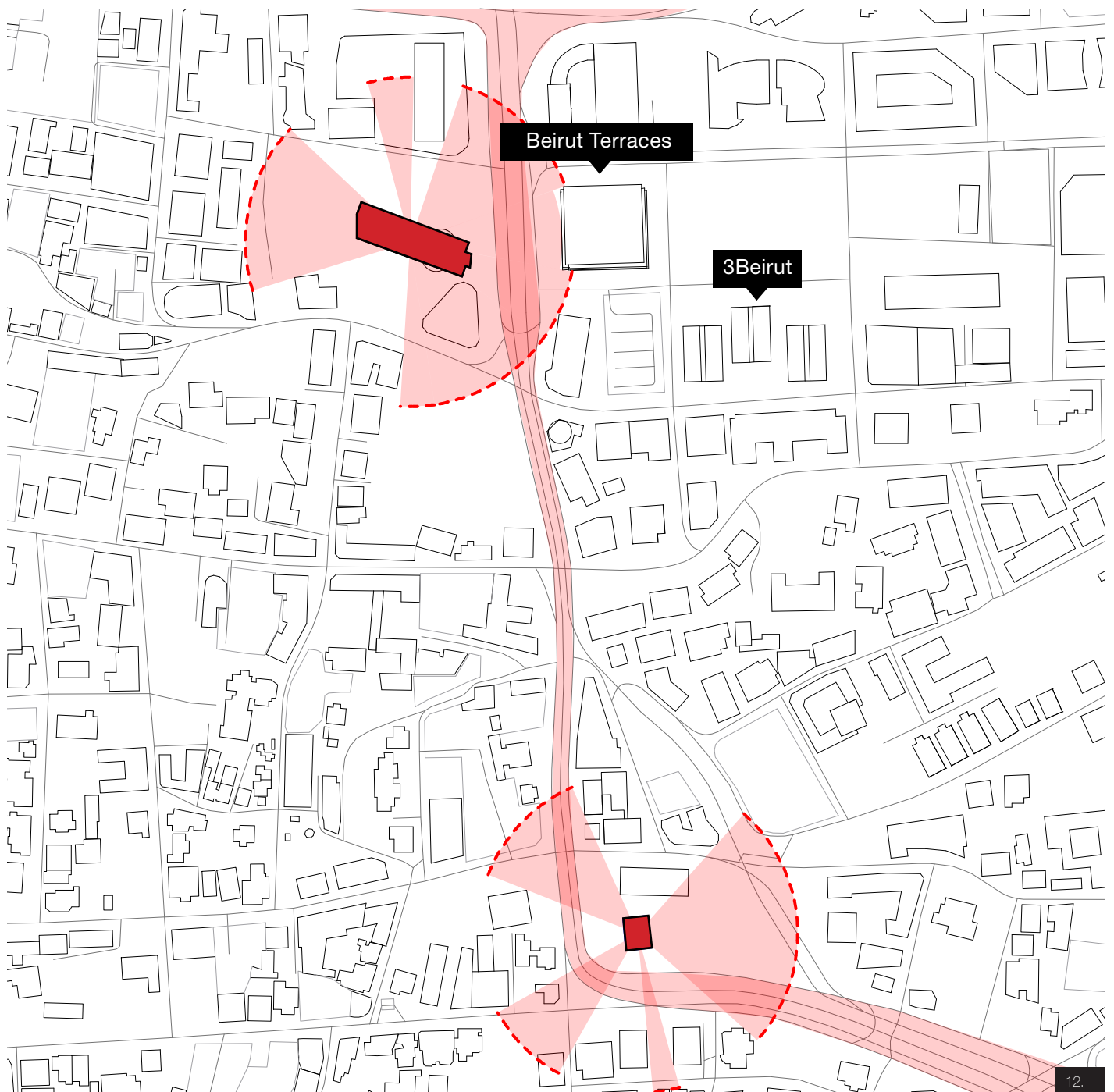
The ambiente is exclusive, but many flats in the high-rises are empty for most time of the year. Since a lot of windows of the apartments are dark at night, the former Holiday Inn, an abandoned building on the plot next to Beirut Terraces, does not stand out much in the evening.

The Holiday Inn building (image 10) is a bare shell of concrete, and its facade was perforated by bullets during the Civil War. The building has 32 floors and was planned with a rotating restaurant on its top.

Standing next to the Holiday Inn, we saw the Burj al Murr tower (image 11), the high-rise built as a residential tower of 35 floors, which is also empty, and was similarly affected by the war. The two buildings are situated on two different corners of the main highway of Beirut, called Fakhreddine. As we walked along the highway, soldiers crossed our view regularly, standing in a nearby café or inside small security booths.

**View from the Towers**

- Burj al Murr
- Fakhreddine Highway
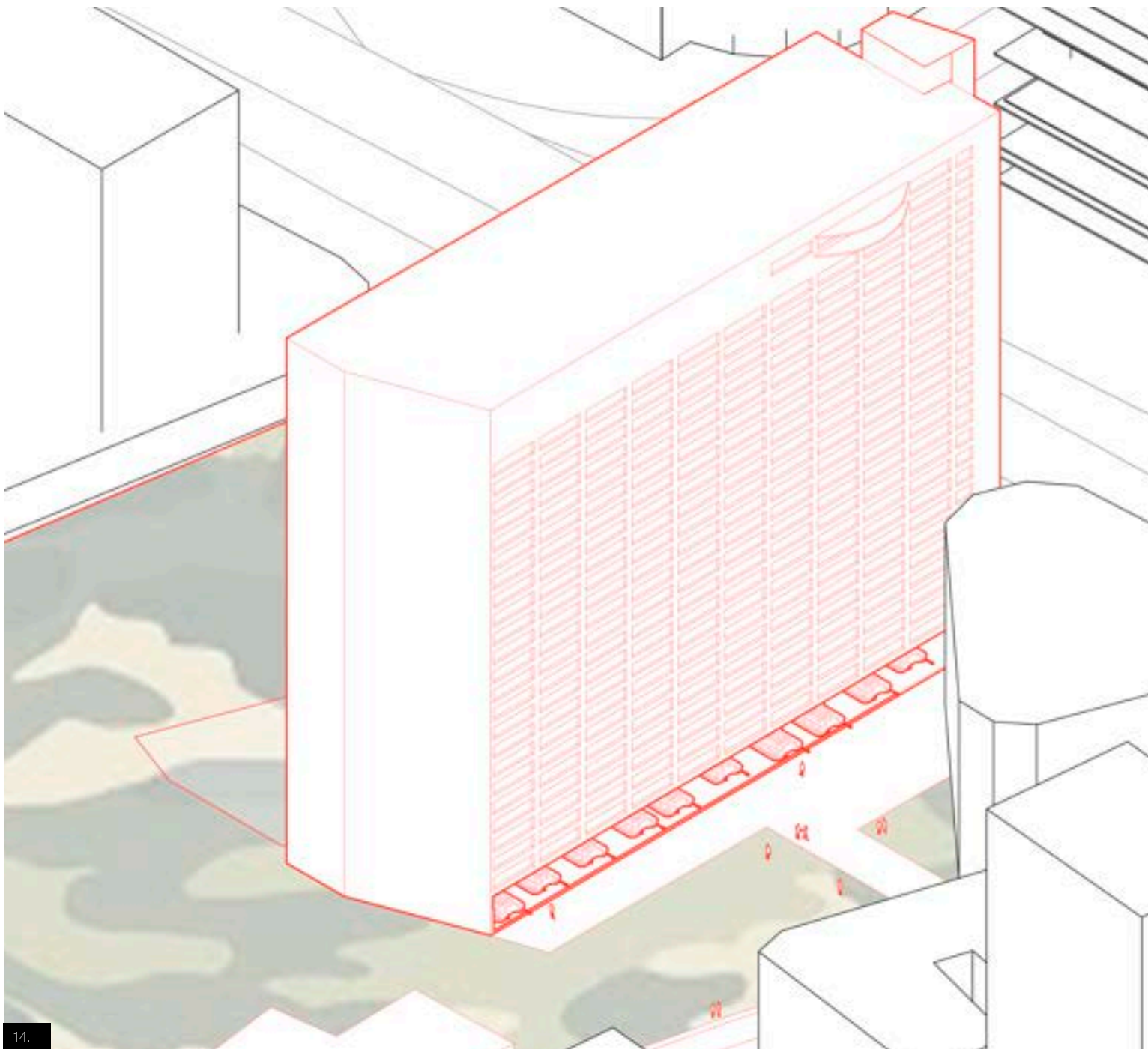- view from the towers

12. View from the towers,

Security Booth

Kamila Bak, Rita Berisha, Anna Grimm
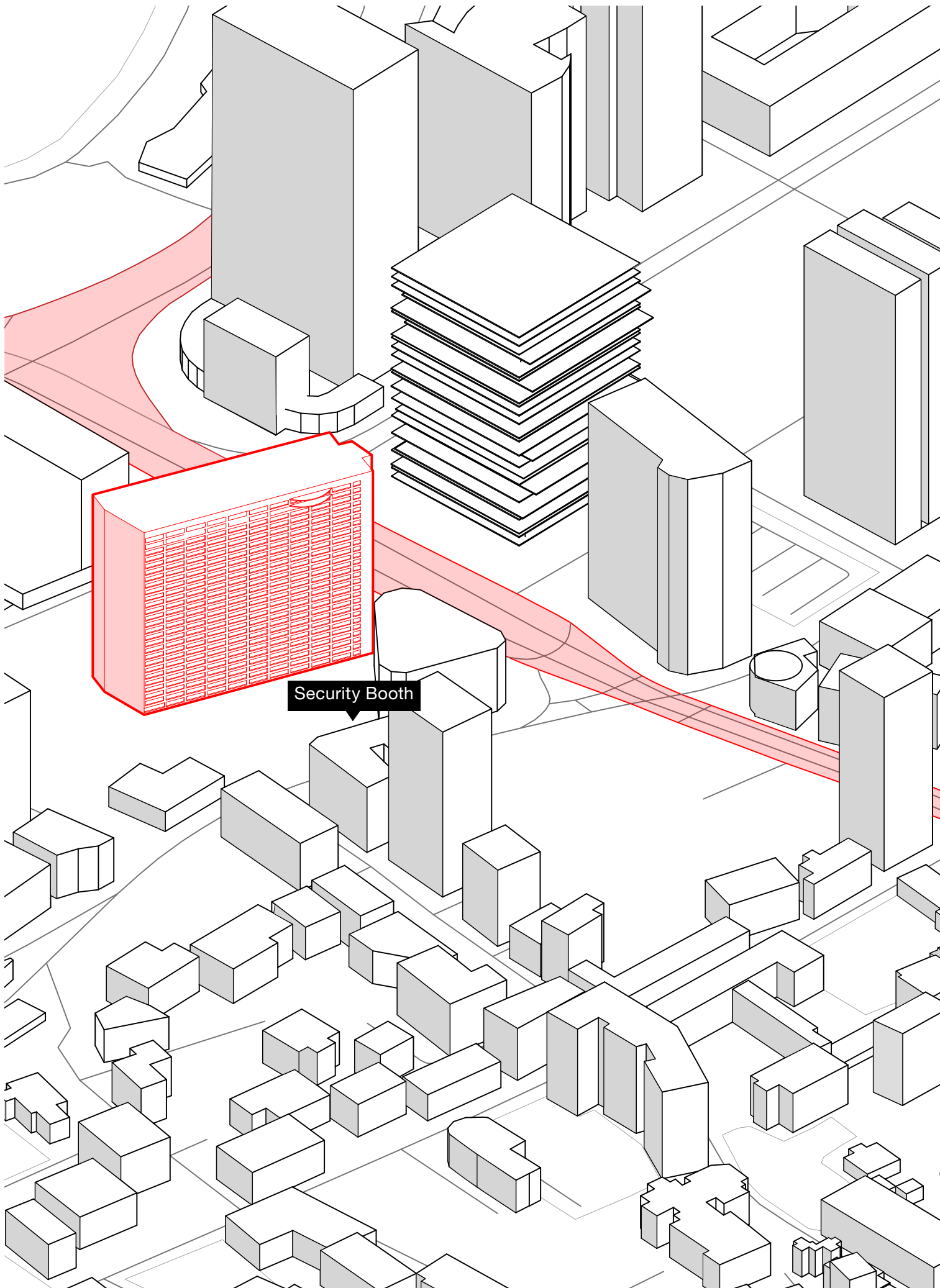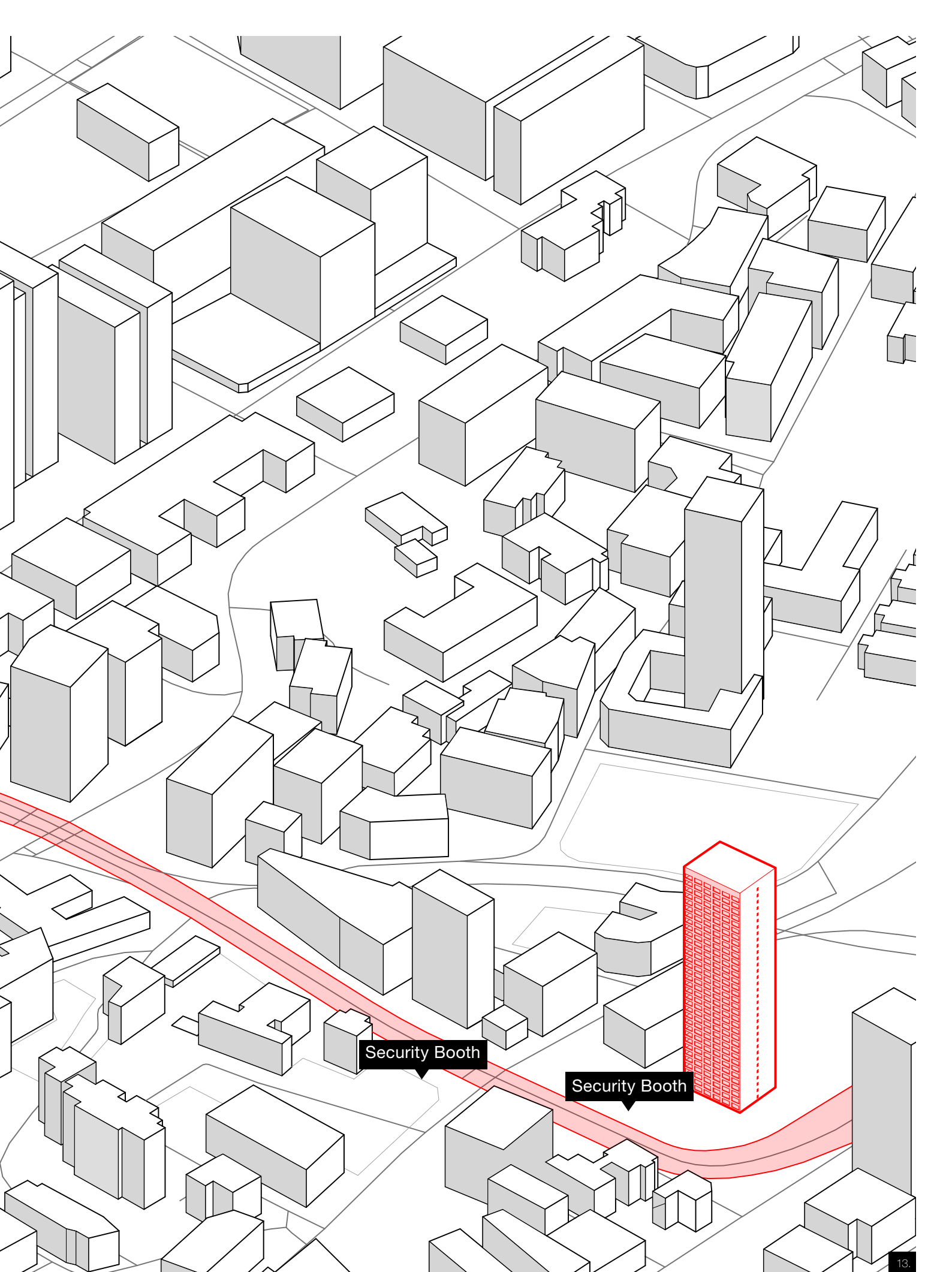
Security Booth

Security Booth

13.

**Controlling Beirut**

14.

Spending more time having a closer look at the seemingly abandoned buildings, we realized, that the military presence on the street was not a coincidence, becasuse the buildings themselves are used as military bases. About 10 tanks were parked on the first floor of the Holiday Inn (image 14).

Both Burj al Murr and the former Holiday Inn were used as sniper towers during the Lebanese Civil War, because of the good overview they offer over the adjacent area, mainly the highway. One of the conflicts was later called the „Battle of the Hotels",[15] since the different militias were trying to gain control over the buildings. The control over the towers still seems to be very symbolical, as it is kept in charge by the military until today.
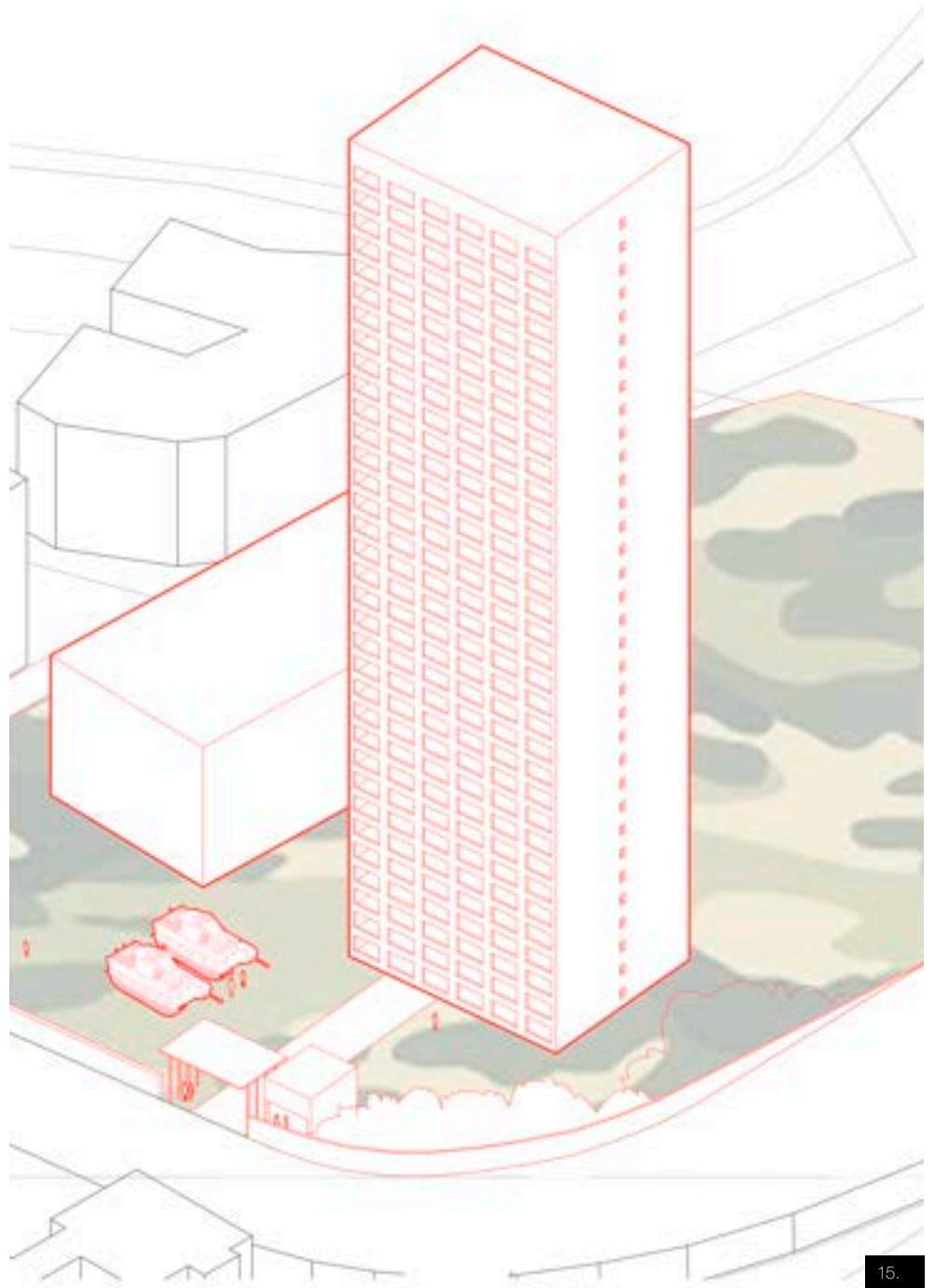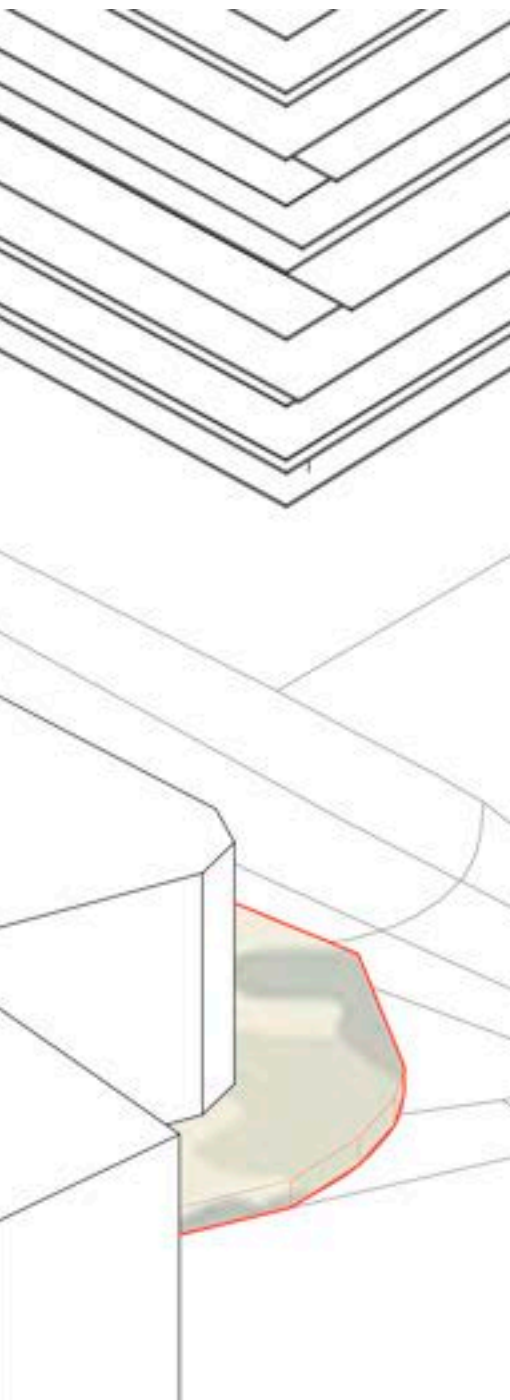
The high-rise buildings offer a good overview of the area of the highway below (image 12). This high military presence changes public behavior. The soldiers are having a closer look at people taking pho-

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tos of the buildings. While photographing close to them, phones and cameras are inquired in order to search for photographs regarding military presence, despite the fact that the buildings are still privately owned. The Holiday Inn belongs to a Kuwaiti and a Lebanese owner,[15] who did not yet decide about building's future. These in fact private buildings, occupied by military, are therefore influencing the public space of the streets around them. The area around the street does not seem to be a place to meet casually since security measures are tight.

There is another aspect, that might be interesting concerning this area of the city and the protest situation that is occuring right now. The highway that passes directly in front of Burj al Murr and Holiday Inn is frequently being closed down by protesters to gain attention. They add roadblocks and demonstrate on the streets to make their protests inconvenient for people who think that the protests do not concern them. The barriers are erected in regular distances on the highway.

**Burj al Murr Military Zone**

Private ground appropriated by the military
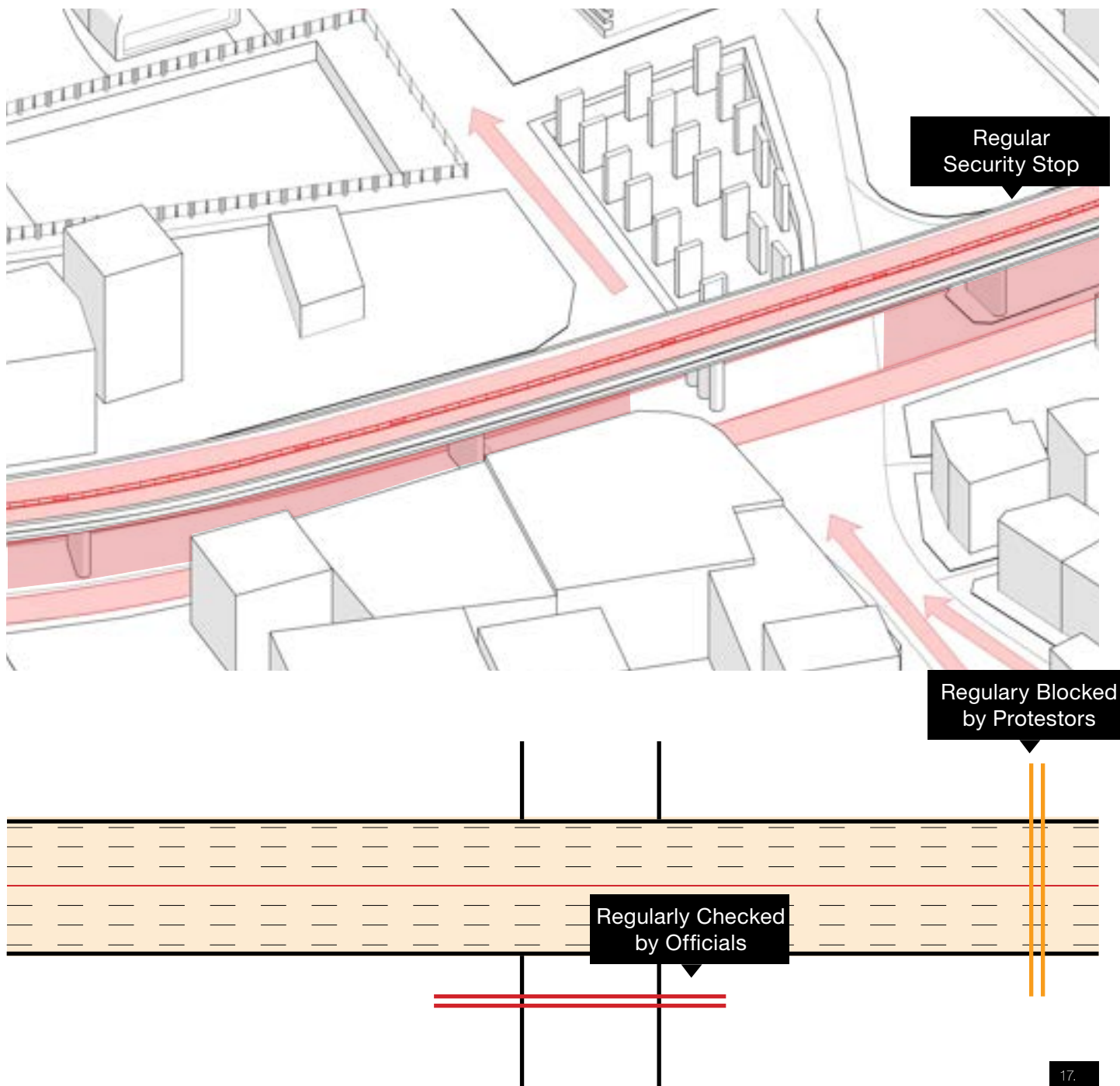
15. Burj al Murr military zone,

16.

### The Ringroad

The infrastructure of the road was used during the Lebanese Civil War to separate the population and the role of public street spaces was also crucial during the war.

"*Suddenly, gunfire exploded on the street outside, and dozens of people scurried into the café to take refuge from the battle.... The street was suddenly deserted. Beirutis have broken all records for getting out of the way on time. It is incredible to see how quickly a street swarming with people can be transformed into ghostly emptiness.*"[16]

As already mentioned, the streets were dangerous zones during the Civil War. To get from one place to another, there was always a certain risk travelling with you. On the other hand, Beirut is a very car dependent city, where streets are very significant. Besides walking, commuting by car is the main mean of transportation since there is

16. View from the "Egg"

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Regular
Security Stop

Regulary Blocked
by Protestors

Regularly Checked
by Officials

17.

almost no public transport system in the city. Thus the primary highway system is the element that connects the remote areas of the city with its centre. It also encloses the Beirut Central District, the heart of Beirut filled with public institutions and entertainment areas, and also the hotspot of several protests. The highway as an enclosing element is a physical barrier[17] separating the inside and outside of Beirut's Downtown and regulating access to it. This makes the highway infrastructure a highly vulnerable area in the city, what is especially visible, when protesters block the highway. Security measures around this area were already tightened during the conflicts of 2004 to 2006. Commuting through the city changed due to the installation of barriers, blockades, checkpoints and the rerouting of traffic flow.[18] The highway was not designed as a space of high security measures but because of its location, on districts' boarders, it is used to show military presence and supervision and to watch over who is entering or leaving the area.

17.  General  Foaad  Chehab  highway

18.



19.
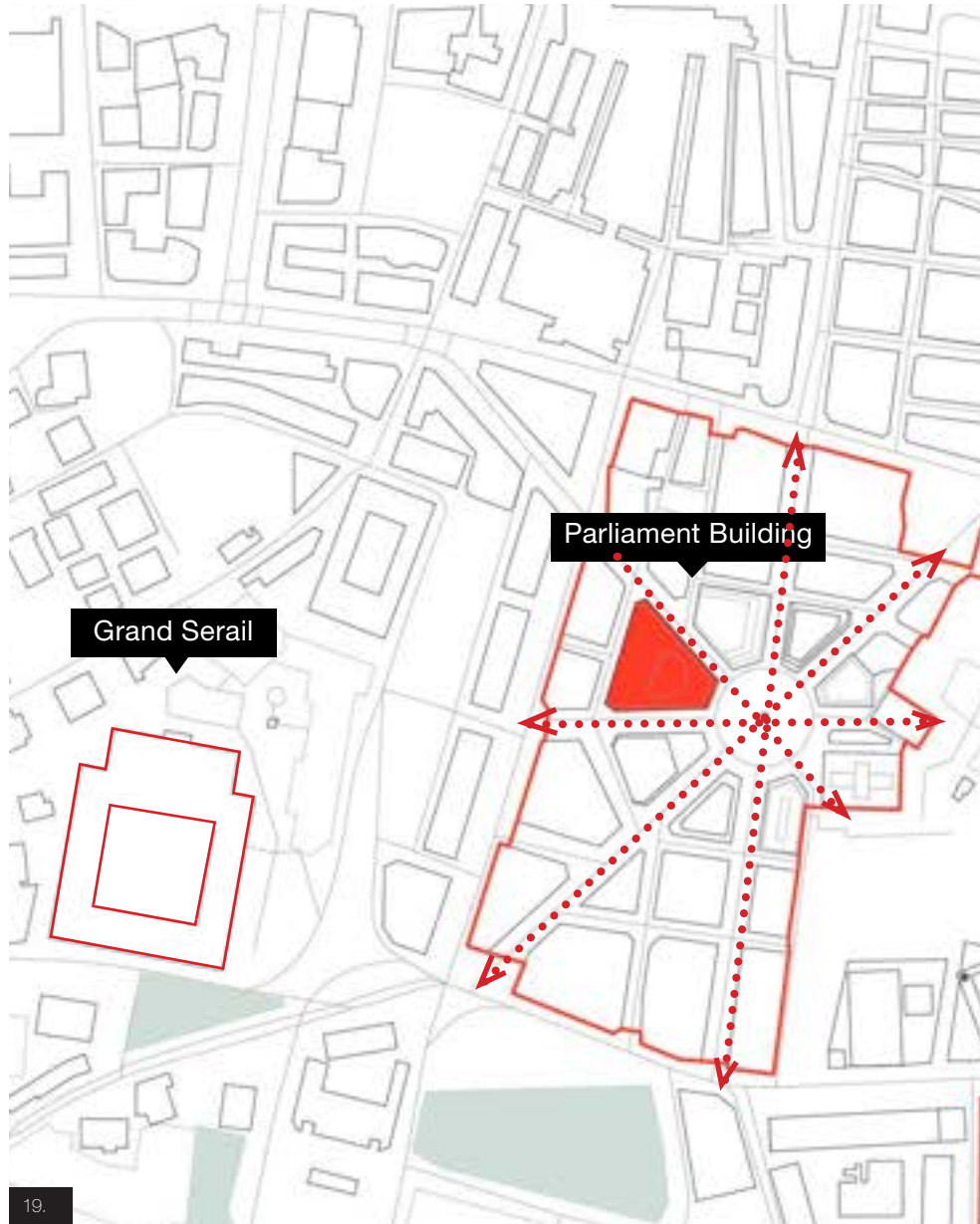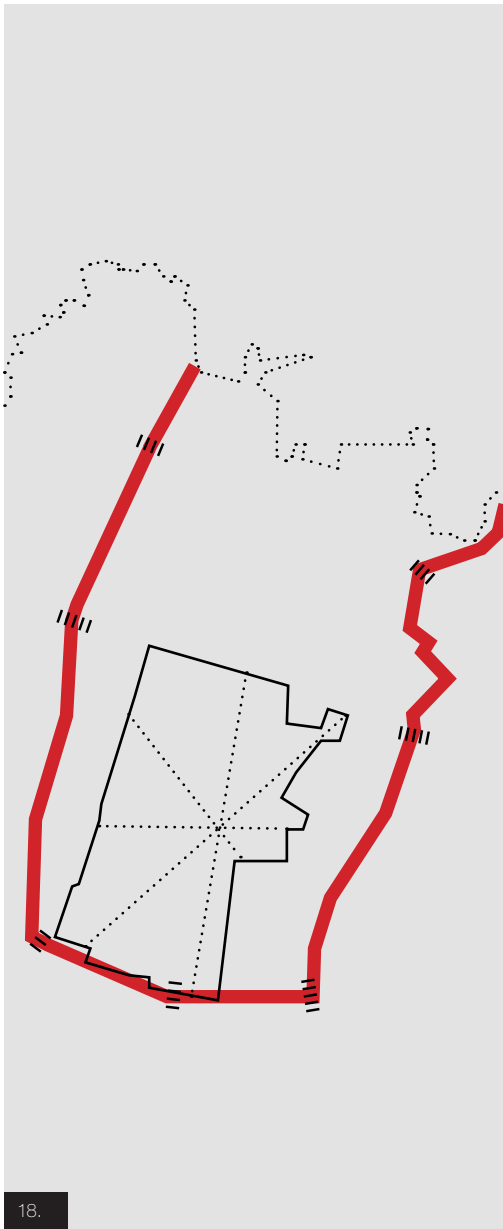
## The Nejmeh Square

Some sites in Beirut were designed with focus on security problem, and a good example is the Nejmeh Square. Governmental buildings like the Lebanese Parliament Building are situated adjacent to this square. The Grand Serail, the government palace, is also nearby. This makes the area a high risk zone with a need for overview and supervision of governmental security forces. Moreover the city centre has been designed to be protected, from its very start in the 9th century, by the city wall surrounding it (image 18). The walls have been dismantled in the 19th century after the city has grown in size. Today, the city centre is being fortified in almost the same place, securing the area around the Nejmeh Square (image 19). After its destruction during the Lebanese Civil War the space was redesigned in a similar layout to the design of the French Mandate. In the square's layout, one can already see a soft security strategy implemented into its design. The star-shape of the square and the streets gives a good

Kamila Bak, Rita Berisha, Anna Grimm
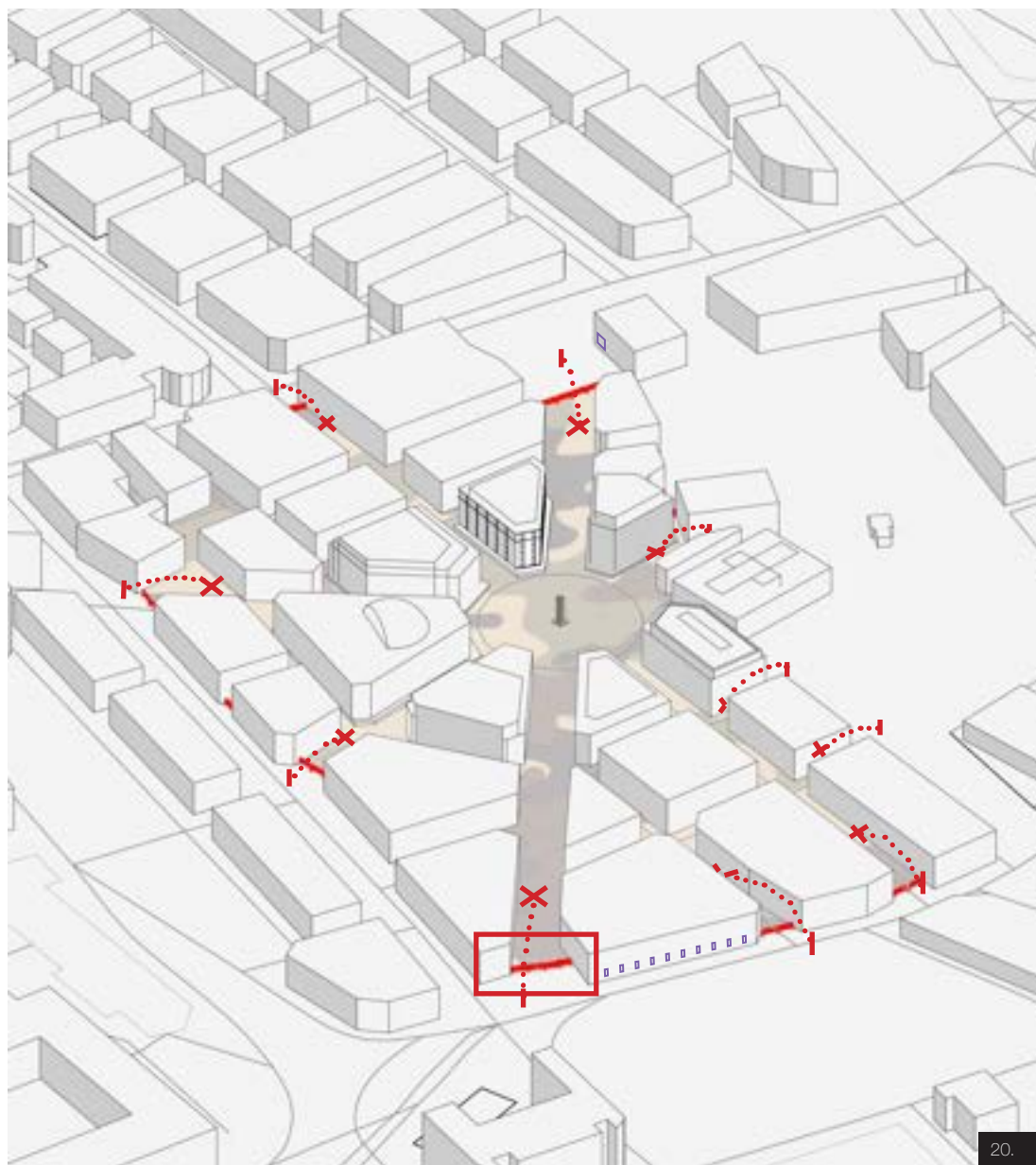
overview over the area from its central point, leaving almost no space unsupervised. It is also hard to gather large groups of people on the square since it is not very big and does not have wider street spaces. The buildings around the square also covers the central governmental building from possible hazards.

Typical for high security zones are the long distances between access point to the quarter and the buildings of importance, that show how blast zones are implemented into the design. This zones restrict access to the buildings, and are located between the point of interest and a possible point of detonation. Kirstin Monroe in her book „The Insecure City"[19] connects this approach with the Civil War: „During this time, as during the protracted civil and regional war (1975–1990), the vehicular bomb was the signature means of violence: in almost all cases, individuals were killed or injured while driving, being driven, or passing by cars. With every car imagined as a possible bomb, "the rules of the road changed".[20]

## Nejmeh Square Gates

☐   Gates

    Guarded area

☐   Shopowners security measures

19. The Najmeh Square
20. The Najmeh Square and gates

21.



22.
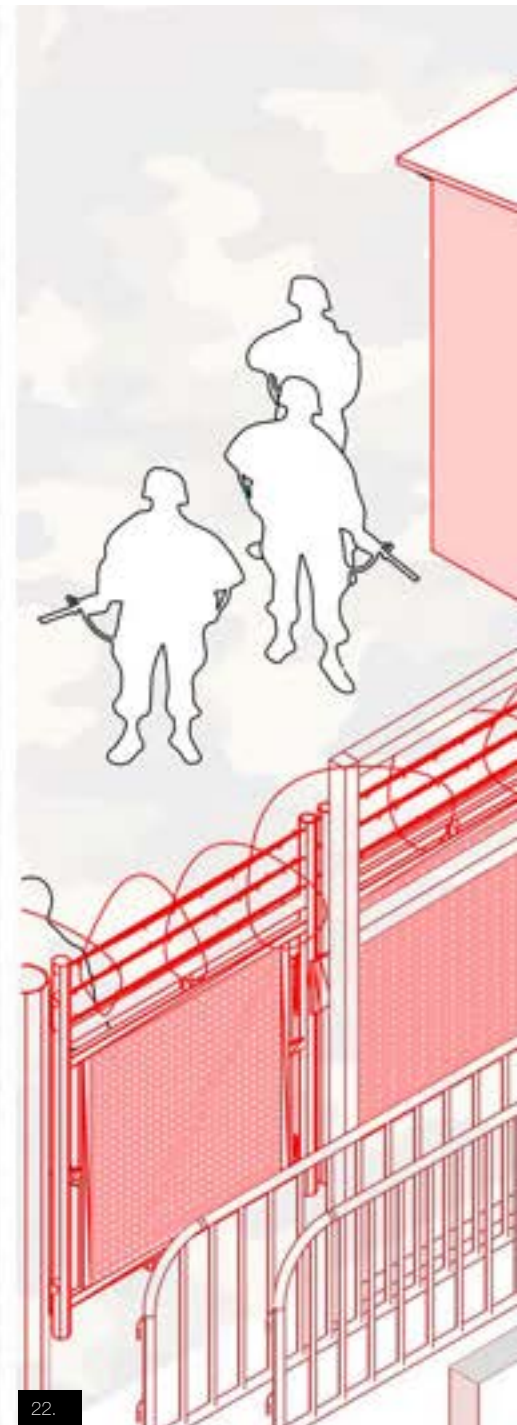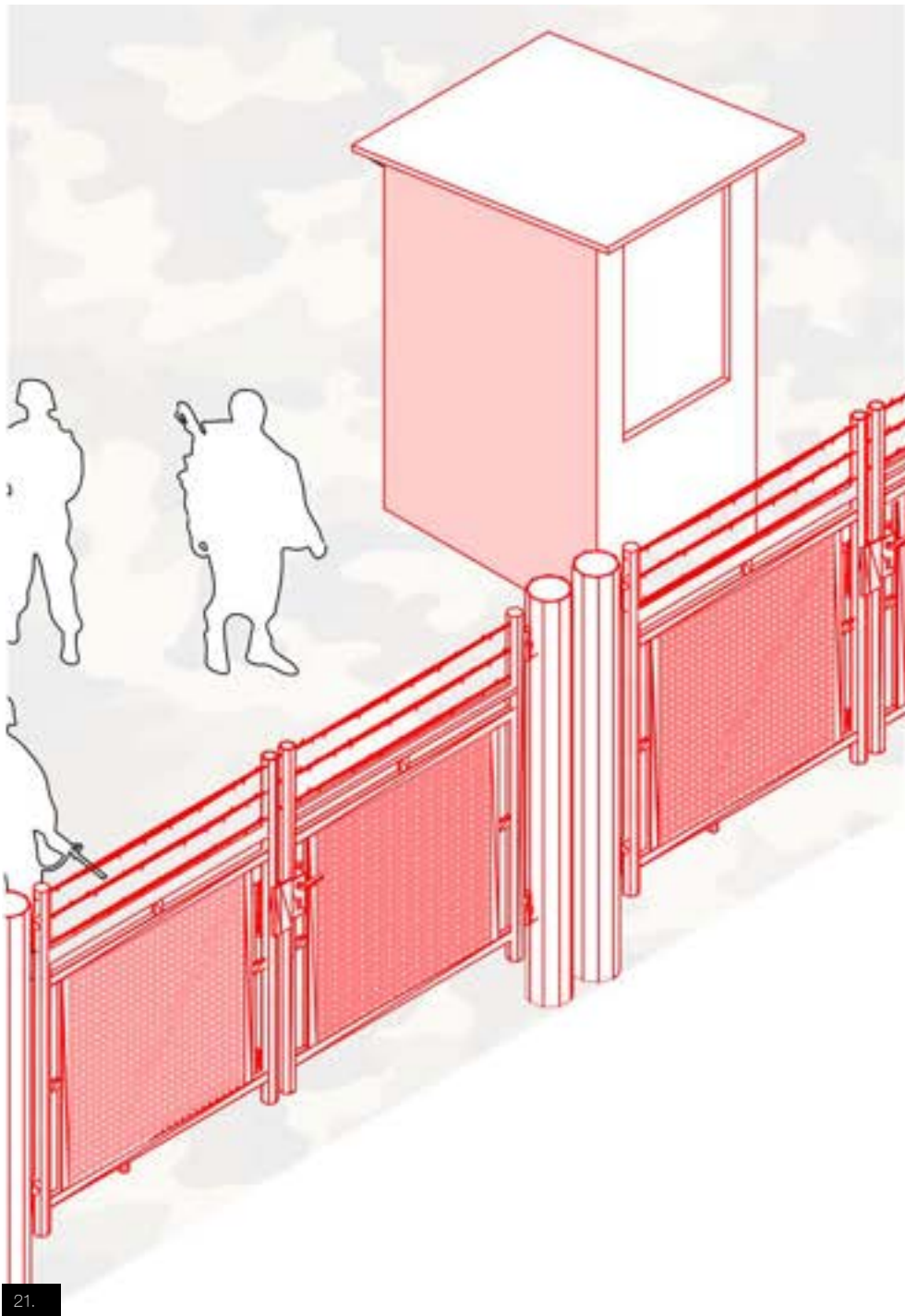
**Status of the Nejmeh Square Gates**

- ■ on 2019-11-23
- ■ on 2020-01-18
- ■ on 2020-01-23

21. The barricades in the Nejmeh Square on 2019-11-23
22. The barricades in the Nejmeh Square on 2020-01-18

When political tensions arise, harder security strategies such as fences, checkpoints and security guards were added on the top of soft design security strategies in the square. The entrance to the area around the Nejmeh Square was first restricted „after security threats by extremist organizations".[21] During the Garbage Crisis in 2015, security measures where tightened, adding metal barriers, heavy concrete blocks and restricted entrance for visitors in order to prevent protests on the square. For many companies around the square that also meant a shut down. The protesters marched towards the square anyway.[22] Security was also tightened during election phases, in 2016. „Employees had to walk to reach their offices downtown, as all the vehicles were banned from entering the area. Security forces set up metal detectors along the streets around Parliament as army helicopters could also be heard hovering overhead".[23] On the last day of 2017, the square was reopened for the public for a New Year's Eve celebration with music, fireworks and dancing after a "decline in security threats".[24]
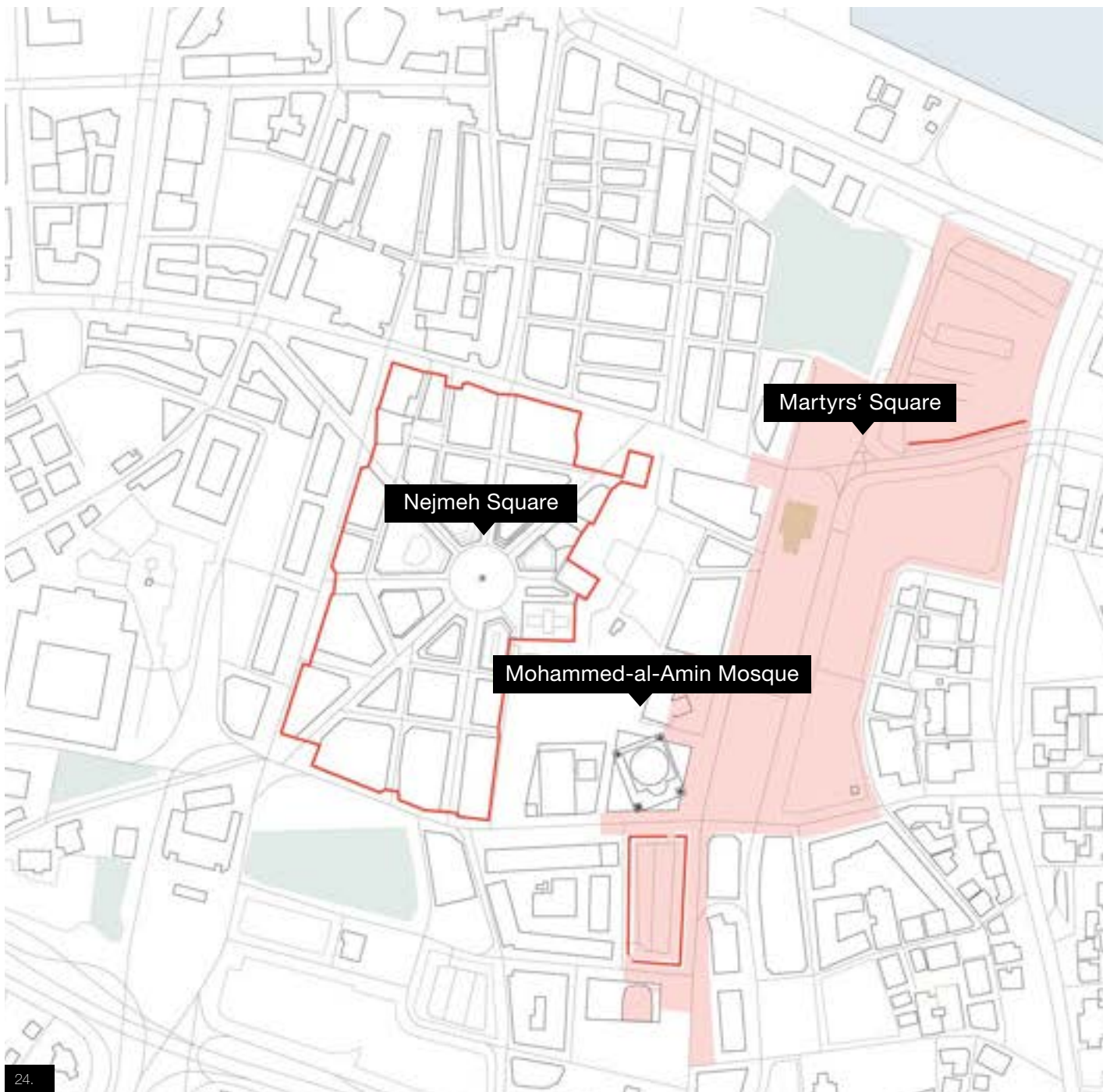
Kamila Bak, Rita Berisha, Anna Grimm
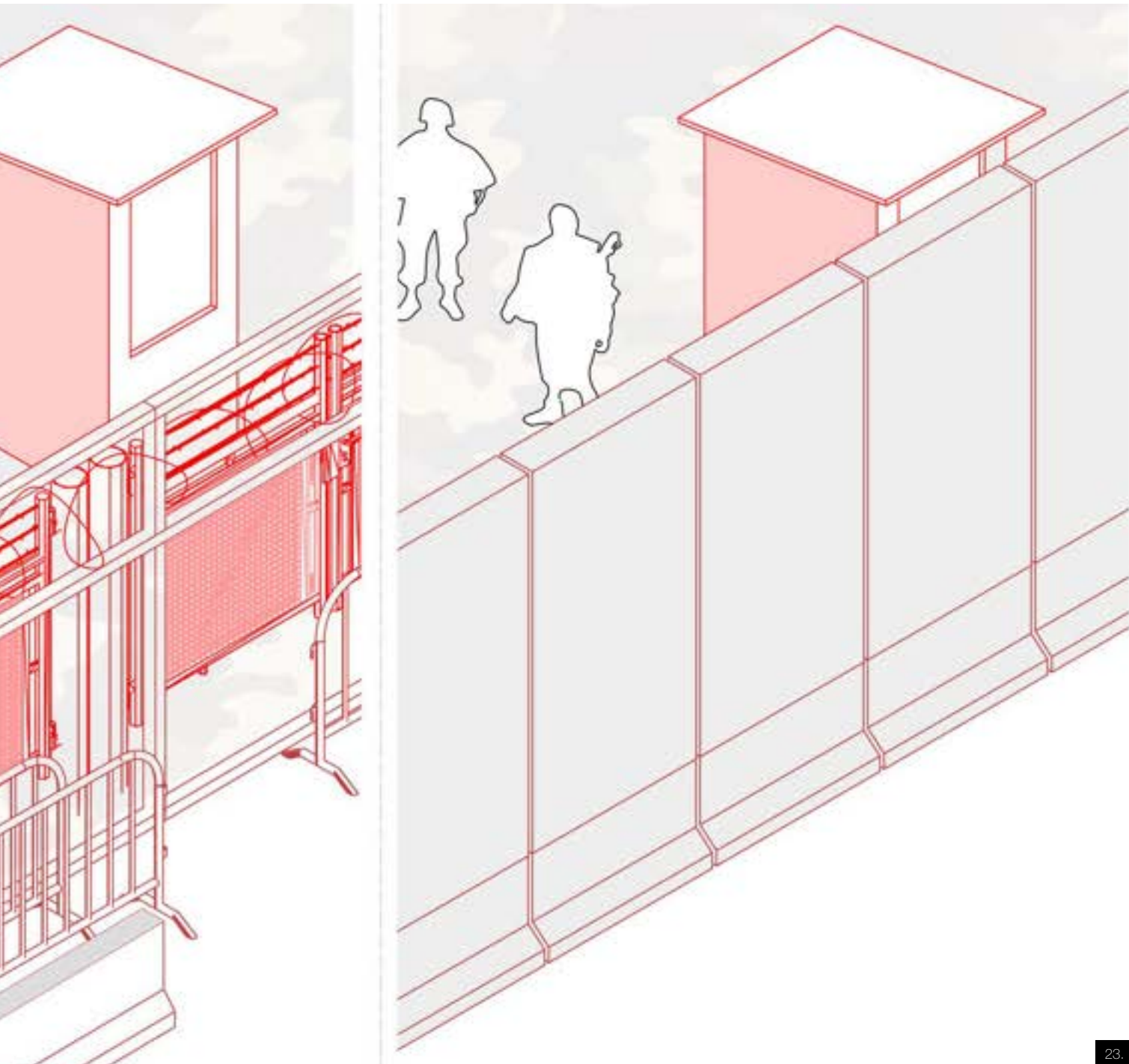
After that, the square and the surrounding area has been gradually closed again. At first, only foreign tourists were allowed to enter the area, while Lebanese residents were mostly denied. The classification of residents as a potential thread shows how the class society in Lebanon works. At the beginning of the 2019's protests, the area surrounding the Nejmeh Square has been completely closed for visitors in order to prevent demonstrations in front of the parliament. The area was protected by high fences with gates on each entrance. In case of an event that requires tighter security presence, soldiers are lining the gates and barricades are erected.

The security measures were even more enforced during the outburst of violence between protestors and the military in January 2020. The gates on the entrances of the area around the square were not just closed, but barbed with wire and steel frames. More crowd barriers were added on January 18, 2020. On January 23, concrete blast walls were erected. (image 21, 22 and 23) Owners of stores around the area also started to secure their windows with metal sheds.

23. The barricades in the Nejmeh Square on 2020-01-23,

24.

Nejmeh Square

Martyrs' Square

Mohammed-al-Amin Mosque


25.

Kamila Bak, Rita Berisha, Anna Grimm

**The Martyrs' Square**

The Martyrs´ Square's design reveals a different approach on security design. Before the war the square was a vivid meeting point with green spaces, aligned by restaurants and shops. After its destruction during the war it was redeveloped in the 2000s by joint-stock company Solidere. The area was kept as an open space, mainly used as a parking lot ever since the war. Design strategies that would lead to more interactions, like benches, cafes or green spaces were left out, eventually planned with the expectation that people would not linger around there and would use the square as the parking lot. Nevertheless, it is still one of the most spacious areas in Beirut and therefore it was recently used as a central spot for the protests of October 2019.

**Beirut, 2019-11-22**

It was the Independence Day in Beirut and the city was celebrating. On that day the protests of October 2019 already lasted for a month and there was still little reaction from the government's side, even though the demonstrators were meeting every day at the Martyrs' Square. We, a group of german architecture students that visited for a workshop, arrived only a couple of days before the Independence Day. On November 22 we visited the protests. A military parade, that usually takes place on the seafront near the Martyrs´ Square got relocated to the defence ministry.[25] The space around the square did not seem to be a suitable environment during the protests.

We entered the Martyrs' Square by walking down Bechara el Khoury Street passing "The Egg", a former cinema, now abandoned and used as a symbol of the protests in many photographs. Most people enter the square from the same side as we did, the direction of the General Foaad Chehab highway.

The main protest camp is situated between this round brutalist building and the Mohammed-al-Amin-Mosque. The camp is fenced, and visitors enter it through an entrance tent. The tent is the first small barrier when entering the protests, with security guards having a look at who is coming in. At the exit of the camp on the side of the Mohammed-al-Amin-Mosque there is another gate that can be closed in case of an outburst of violence.
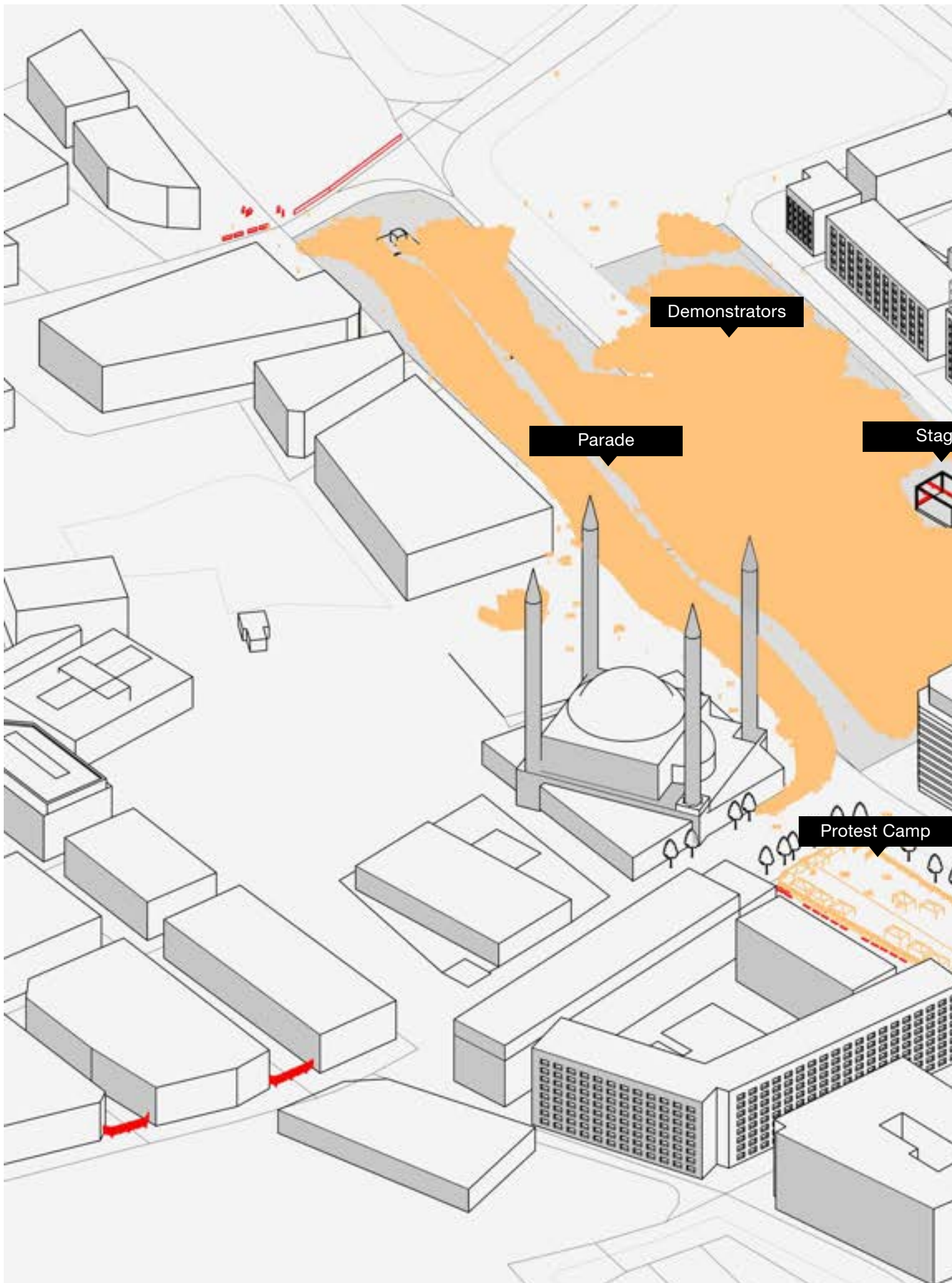While we are standing on the square's corner, there is a group of Soldiers next to us. The scene on the square itself looks rather relaxed. There are people cheering towards a parade that is passing the square, others, mostly elderly women, are sitting on plastic chairs in the shadows of the buildings. Security forces are not visible in the middle of the protests. However after we walked by the demonstrations and left them on the side of the Waygand Street, there is a clear presence of military. The soldiers align the street next to a small park. The military trucks and more CCTV alike cameras are visible. This implies that the Government strategy is to keep all the entrances to the Martyrs' Square under careful observation, in order to calm down the manifestations, and close down the surrounding streets in case of unrest.

**Protests on the Martyrs' Square on 2019-11-22**

■ Protest area

24. Protests on the Martyrs´ Square on 2019-11-22

25. The Independence Day on the Martyrs' Square in 2020

Demonstrators

Parade

Stag[e]

Protest Camp

Kamila Bak, Rita Berisha, Anna Grimm

The Egg

26.

November 22 Street

Omar Beyhum Street

Main Entrance

Privileged Entrance

Jamal Abdul Nasser Street

Privileged Entrance

27.

## Horsh Beirut

Due to extremely heavy urbanisation of Beirut and private investors, who put their own interest above the ones of Beirut's residents, the green spaces in Beirut are remarkably scarce. What is first visible in the already existing gardens, private or public, is fencing topped with sharp elements. Another feature are the guards standing at every entrance glimpsing at every one that is about to enter the park. Everything is aimed on keeping people, especially kids playing inside, safe and free from verbal and physical violence. In addition, the majority of municipally owned gardens are opened for public only for a certain amount of time during the days. The purpose of this closure, given by authorities, is preventing from public drinking, vandalism and inappropriate behaviour.[26] Horsh Beirut, Horsh el Snoubar, Pine forest,[27] the biggest public park in Beirut, has a very troublesome history of accessibility, but today it has its gates opened to almost everyone for some time of the day.

26. The Martyrs' Square with protesters' tent

Kamila Bak, Rita Berisha, Anna Grimm
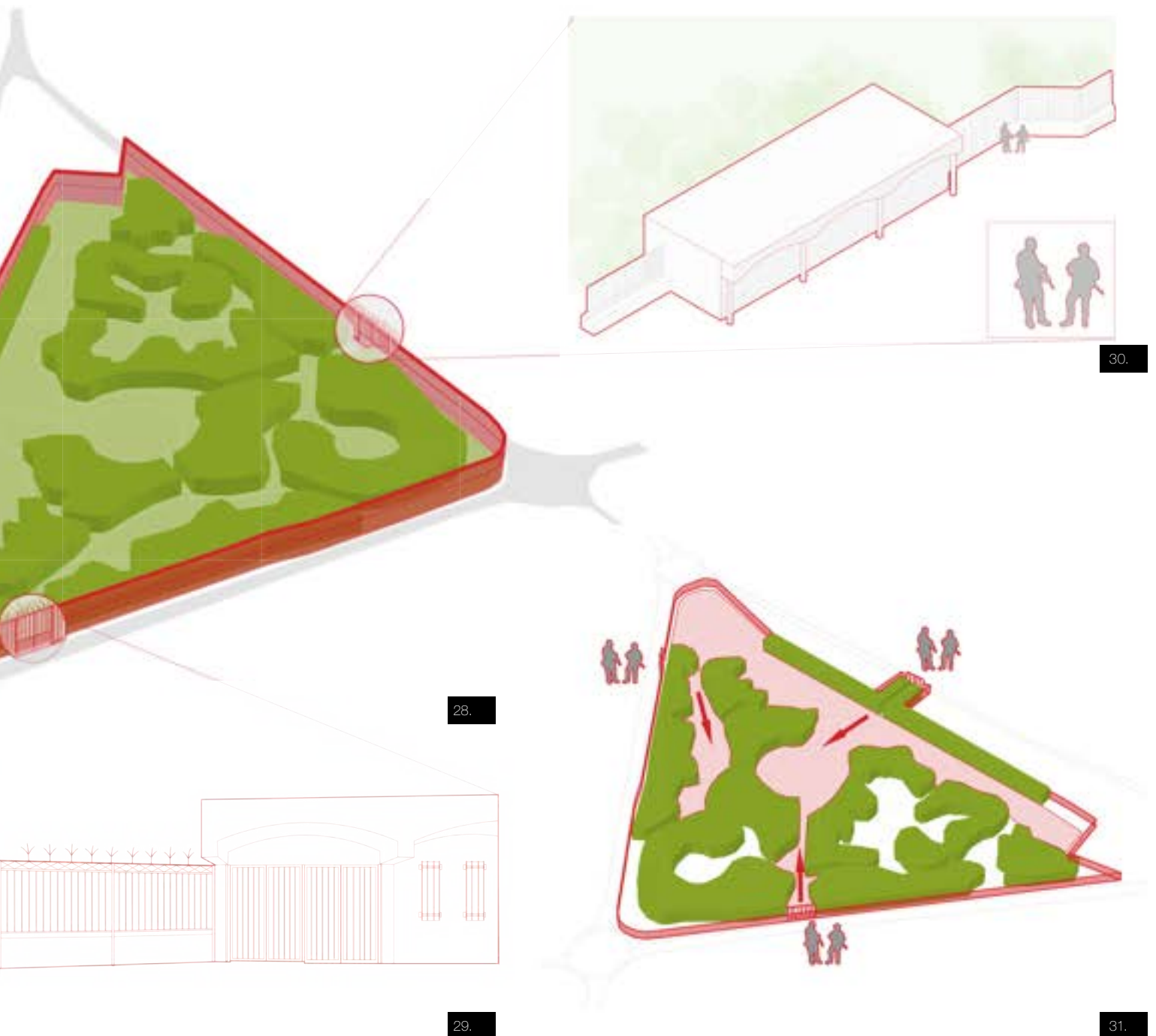
The park was once a vast forest of pine trees, a remarkable green space at the time in south of Beirut. Over years it shrinked in size and in 1960s[28] became an official public park owned by municipality. The park was extremely destroyed during the Lebanese Civil War, which has resulted in the closure of the park for reconstruction and reforestation. The park remained accessible for another 25 years only for the privileged few, who gained the permission to enter,[29] as authorities feared to expose this oasis of peaceful greenery to everyone. As an aftereffect the park was erased from citizens memory for almost 40 years. Thanks to the exceptional efforts of one of the Beirut's NGOs, Nahnoo, Horsh Beirut was gradually reopened to general public in 2015.[30] Already prior to the reinstitution of the park, the NGO suggested a scheme and structure of protection and monitoring of space to restrain visitors from unwanted actions and created a behaviour control charter to be followed strictly when using the park.

27. Plan of Horsh Beirut
28. Horsh Beirut entrances
29. Horsh Beirut south entrance
30. Horsh Beirut north entrance
31. Horsh Beirut gates and guards

**Controlling Beirut**　　**61**

Charter's paragraphs include the park as a no-armed zone and do not allow setting fire in it on any purpose, as well as determine areas restricted to walk in. Violation of rules would be fined severely.[31] Present day Horsh Beirut is a very well maintained, gated public park, opened to the public on weekdays between 7 am and 1 pm and on weekends between 7 am and 3 pm.[32] What all together provide 46 hours a week of peaceful leisure to its visitors.

There are three main entrances to the park area, although only the east entryway serves for the general public, the others remain closed and are privileged, private entrances. At the gate there is a special guardhouse, security booth, for the military guards controlling the access to the park. But already in 16./17. century Horsh Beirut had been redesigned in a grid-like way, that the rows of trees allow to see through, in order to provide better supervision measures.[33] As an outcome, the entry gates are located in positions, where the range of visibility is supposedly the widest.

32.-36.    Horsh Beirut's security measures

Kamila Bak, Rita Berisha, Anna Grimm

As the guardhouse at the main entrance is protected by security guards, it is not possible to make photos of it. The whole park area is surrounded by a more than 2m high fence that is additionally topped with sharp elements. Restricted opening hours also make it difficult for an average Beirut's citizens to visit the park as it is mostly open on typical working hours.

Visiting Horsh Beirut on sunny November's Sunday it was very striking to see how vacant it was. There are groups of people walking and sitting along the main routes or making small picnics close to them, but in the park as a whole, there were not many visitors. Horsh Beirut is the biggest green space in Beirut, and in our opinion, it should bring much more people inside its gates as it has a lot to offer while spending your free time there. On the other hand, all the measurements taken by authorities to maintain Horsh Beirut nonviolent and secured, are leading to visitors feeling (over)protected, safe but also watched-over.

37.-40.    Horsh Beirut's vacancy

## Not Always Open Access Spaces of Beirut

The control over open access spaces has been seen in Beirut for a long time, its starting point was before the Civil War or even the French Mandate. The different circumstances, conflicts and wars, that the city was facing over years, caused this gradually increasing need for protection and limitation of Beiruti's freedom. What today, intensified by the protests ongoing in the city, resulted in the presence of the military and police forces in even seemingly unpolitical places: commercial streets, squares and parks.

The strategies used to secure and control public spaces are diverse. Already the original design of many of Beirut's parks and squares, with their clear grid and axes, shows that control was forecasted, way before the fences in many places were built. Some spaces are being closed by physical barriers, when the political tensions arise, like Nejmeh Square and its surroundings, or opened only during a specific time of the day, like Horsh Beirut. The anticipation of terrorist attacks leads to more serious measures like blast walls, constructed to endure detonations.
The sizes of the parks and gardens are also shrinking so that they are easier to keep an oversight over. Moreover many of them have guards standing next to entrances and the opening hours are reduced to only few hours a day. Streets, as they are more difficult to keep in control, are supervised by outlook points and many checkpoints, with military standing there even today. For example the towers were used because of their advantage of height in order to see as much as possible from the area below them. The observation is frequently connected to the presence of guards and soldiers, that show their power in a very unequivocal way. The clear separation of population and control over passage is another measure to regulate larger entities of people, visible in the way the Ringroad is managed. Not all adjustments in the control sphere are managed in a spacious manner, e.g. the rules implemented in Horsh Beirut.

Private open spaces are always gated, protected or even watched with CCTV like cameras 24 hours a day. Although these measures of safety that are also visible, just like in the public parks or squares, are not usually questioned or frowned upon. It is self-explanatory that they are there to keep the people safe, make sure that they behave properly and that no trouble or crime of any kind is caused, and if so, that the person at fault is caught as fast as possible. The awareness of being looked after by someone, may as well make people feel more comfortable when being in public, especially when the political and social situation in Beirut is very alarming.

Tanks, soldiers and checkpoints may be the government's way of demonstrating its power and keeping people protected, but they also symbolize the war and the city's violent past. The aspect of observation might get even more complex and relevant in the age of Big Data when the monitoring and prediction of actions of the general public is apparently getting easier.
All the measurement taken to control and keep Beiruti safe have influenced how the city is functioning today but also how the Beirut's citizens will behave in public spaces in the future.

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# List of References:

1 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p.36

2 Ibid. p.91–111

3 WIKIPEDIA, 2019, Beirut [online]. CC, Wikimedia Foundation, Inc. 2019 [Access on 14.12.2019]. Available at: https://en.wikipedia.org/wiki/Beirut (there is no formal number of Beirut's population, it is mostly a speculation)

4 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p.30

5 NAZZAL, Maryam and Samer CHINDER, 2018. Lebanon Cities' Public Spaces. In: The Journal of Public Space [online]. 3(1), p.122. [Access on 01.12.2019]. City Space Architecture / Queensland University of Technology / UN-Habitat. ISSN 2206-9658. Available at: https://www.journalpublicspace.org

6 Ibid. p.119.

7 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p.96

8 KASSIR, Samir, 2010. Beirut, originally published as Histoire de Beyrouth, Berkeley, Los Angeles, and London. University of California Press. ISBN 978–0–520–27126–5. p. 251-327

9 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p.42

10 TIMELINE, 2018. Beirut's "Green Line" was one of the deadliest places on earth. In: Facebook [online]. 07.04.2018 [Access on 14.12.2019]. Available at: https://www.facebook.com/timelinenews/videos/2133366460020140/?v=2133366460020140

11 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p.43

12 Ibid. p.43-44

13 FADEL, Hazem, 2016. From Damascus to Beirut: Contested Cities in Arb Writing (1969-1989). New Castle. Cambridge Scholars Publishing. ISBN:978–1–4438–8597–3, p.103

14 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p.47

15 NAYEL, Moe-Al , 2015. Beirut's bullet-riddled Holiday Inn - a history of cities in 50 buildings, day 28. In: The Guardian [online]. 01.05.2015 [Access on: 27.01.2020]. Available at: https://www.theguardian.com/cities/2015/may/01/beirut-holiday-inn-civil-war-history-cities-50-buildings.

16 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p.58

17 UNESCO and THE WORLD BANK, 2018, Culture in city reconstruction and recovery [online]. Position Paper. Unesco and International bank for reconstruction and developement/The world bank. ISBN 978-92-3-100288-5

18 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p. 91-111

19 Ibid, p. 80

20 PACKER, Jeremy, 2006. Becoming Bombs: Mobilizing Mobility in the War of Terror. Cultural Studies. p. 378-399. DOI 10.1080/09502380600711105

21 ASHARQ AL-AWSAT, 2018. Lebanon Reopens Entrances to Downtown Beirut after 4 Years of Closure. In: Asharq Al-Awsat [online]. 04.01.2018. [Access on: 25.01.2020] Available at: https://aawsat.com/english/home/article/1132896/lebanon-reopens-entrances-downtown%C2%A0beirut-after-4-years-closure

22 MOSENDZ, Polly, 2015. Wall Goes Up Between Beirut Protesters and Prime Minister's Office Amid „You Stink" Protests. In: Newsweek [online]. 24.08.2015 [Access on: 27.01.2020]. Available at: https://www.newsweek.com/beirut-trash-protests-wall-365546

23 MONROE, Kristin V., 2016. The insecure City: Space, Power, and Mobility in Beirut, New Brunswick, New Jersey, and London, Rutgers University Press. ISBN 978–0–8135–7462–2. p.91-111

24 ALBAWABA, 2016. Security tightens up as Lebanon tries once more to end the presidential vacuum. In: Albawaba [online]. 31.10.2016 [Access on: 16.12.2019]. Available at: https://www.albawaba.com/news/security-tightens-lebanon-tries-once-more-end-presidential-vacuum-898976

25 OSSEIRAN, Dala and Nadine AWADALLA, 2019. Lebanese protesters pack streets to mark independence day. In: Zawya [online]. 22.11.2019 [Access on: 21.01.2020]. Available at: https://www.zawya.com/mena/en/economy/story/Lebanese_protesters_pack_streets_to_mark_independence_day-TR20191122nL3N2822CQX1

26 DICTAPHONE GROUP, GOETHE INSTITUTE and AFAC, 2013. This Sea Is Mine [online]. Beirut. Goethe Institute [Access on: 14.12.2019]. Available at: https://dictaphonegroup.com/wp-content/uploads/sites/90/2018/12/SIM-booklet-compressed-1.pdf. p.2

27 WIKIPEDIA, 2019. Horsh Beirut [online]. CC. Wikimedia Foundation, Inc. 2019 [Access on: 14.12.2019]. Available at: https://en.wikipedia.org/wiki/Horsh_Beirut

28 SHAYYA, Fadi S., 2006. Enacting Public Space- History and Social Practices of Beirut's Horch al-Sanawbar. In: 5th FEASC Proceedings [online]. 2006, Beirut, American University of Beirut (AUB), (CC BY-NC-SA 2.5- text was restructured) [Access on 14.12.2019]. Available at: http://almashriq.hiof.no/lebanon/300/360/363/363.7/horch/Horch_Beirut.pdf. p.3

29 WOOD, Josh, 201. Resilent Cities- Closed to the Public for Decades, Beirut's Only Park May Re-Open This Year. In: Next City [online]. 15.01.2014 [Access on 17.01.2020]. Available at: https://nextcity.org/daily/entry/closed-to-the-public-for-decades-beiruts-only-park-may-re-open-this-year

30 NAHNOO, 2017. Horsh Beirut [online[. Nahnoo Design & Developement. 2017 [Access on 17.01.2020]. Available at: http://nahnoo.org/our-causes/horsh-beirut/

31 SLIDESHARE, 2014. The roadmap to open Horsh Beirut [online]. Beirut's only urban park. [Access on: 14.12.2019]. Available at: https://www.slideshare.net/gardensontheedge/roadmap-to-reopen-horsh-beirut p.13

32 HADDAD, Nancy, 2019. Horsh Beirut – The green heart of the city. In: Spoted by Locals [online]. 24.12.2019 [Access on 17.01.2020]. Available at: https://www.spottedbylocals.com/beirut/horsh-beirut/

33 SHAYYA, Fadi S., 2006. Enacting Public Space- History and Social Practices of Beirut's Horch al-Sanawbar. In: 5th FEASC Proceedings [online]. 2006, Beirut, American University of Beirut (AUB), (CC BY-NC-SA 2.5- text was restructured) [Access on 14.12.2019]. Available at: http://almashriq.hiof.no/lebanon/300/360/363/363.7/horch/Horch_Beirut.pdf. p.2

## List of Figures:

01.

Roksana Caglar, Fiona Schmitt, Melanie Wank

**Roksana Caglar**
**Fiona Schmitt**
**Melanie Wank**

# Ecological Beirut? How the Trash Crisis Interferes with Eco-Systems

Since the nation wide trash crises in 2015, due to the closing of the main Landfill of Beirut, the situation has not improved. This trash crisis is not only a poiltical problem but also a social, health and ecological problem. Since the beginning of this crisis the government failed to implement a new strategy for the solide waste managment and dumping and bruning trash in the streets became normal.[1] Resulting from this, Beirut has one of the worst states of water and ocean quality,[2] the air pollution rates are sky high[3] and trash and other toxins are being washed into the sea without any filtration.[4] How bad is the situation really and how does it show in daily life and in the air and water quality? How do these results compare to Germany?

**Flora and Fauna in Danger?**

In our chapter we want to highlight the consequences, that the trash crisis has on the eco-systems in Beirut  and what that means in the daily lives. To get a better understanding of these consequences we firstly wanted to take a look at the existing flora and fauna. We also wanted to look at the interaction the human kind had with the animals and how the pollution of the water and consumption all aligned in a cycle. Secondly we want to look at the water and air quality and what consequences it had on daily life. At this point it was specifically important for us to compare our data of Beirut and Lebanon with Germany and other countries to get a better look at what the specific data means for us. At the end of our research we want to determinde whether the pollution really does have a huge effect on the eco-systems not or if it is not as bad as it seems at first glance.

01.  River Dumpsite, Aravinthan Umapathy, Nov 2019

13%
coast

48%
maritim

39%
mountains

100%
4.486 species

02.
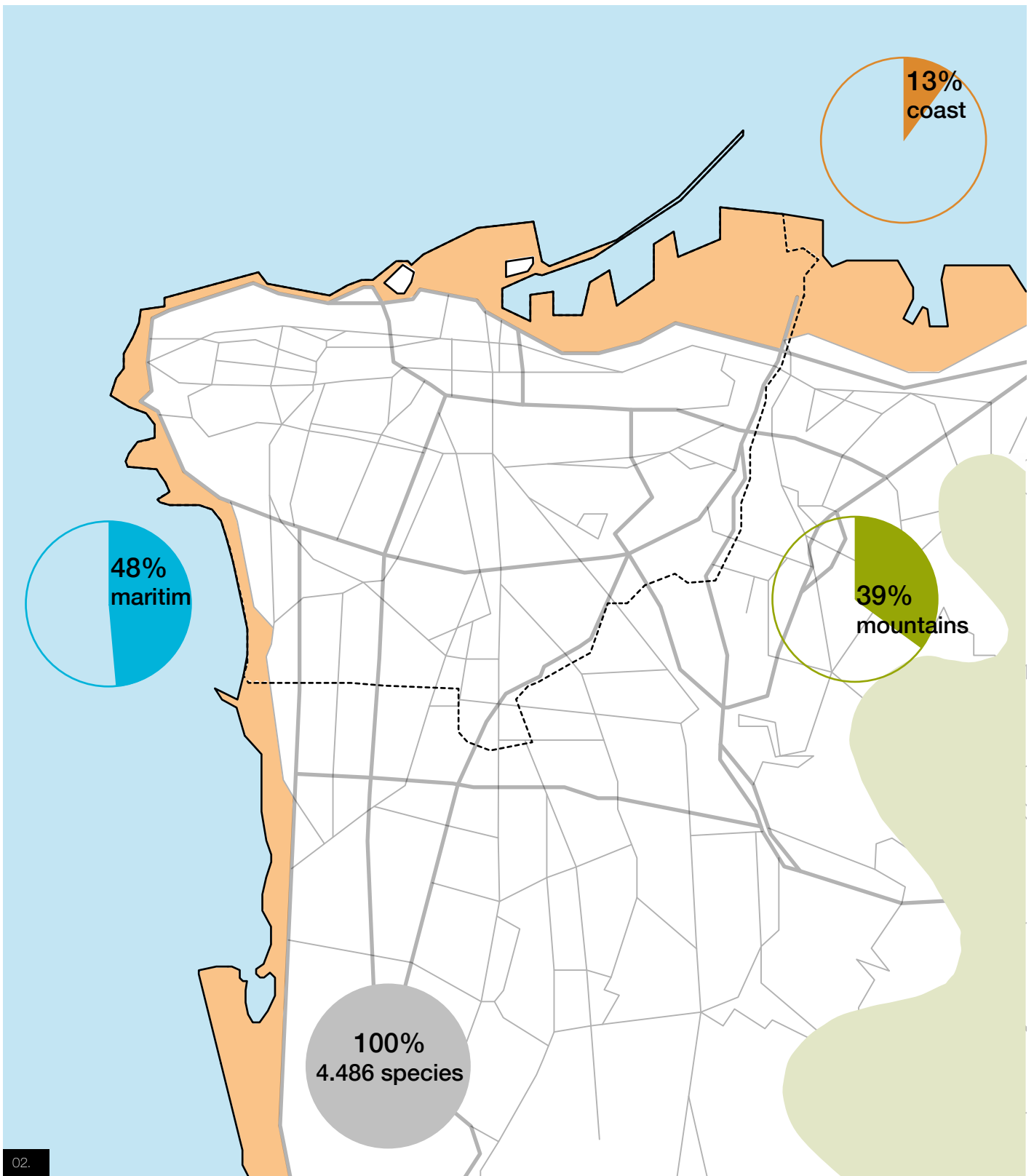
**Distrubution of Animal Species**

Coastal habitat

Maritime habitat

Mountain habitat

02. Flora and Fauna in Beirut, authors own illustration,
    2020

03. Maritime species, authors own illustration, 2020

404

325

21

354

several

3

03.

GENERATE  POLLUTE  EATEN BY  EATEN BY
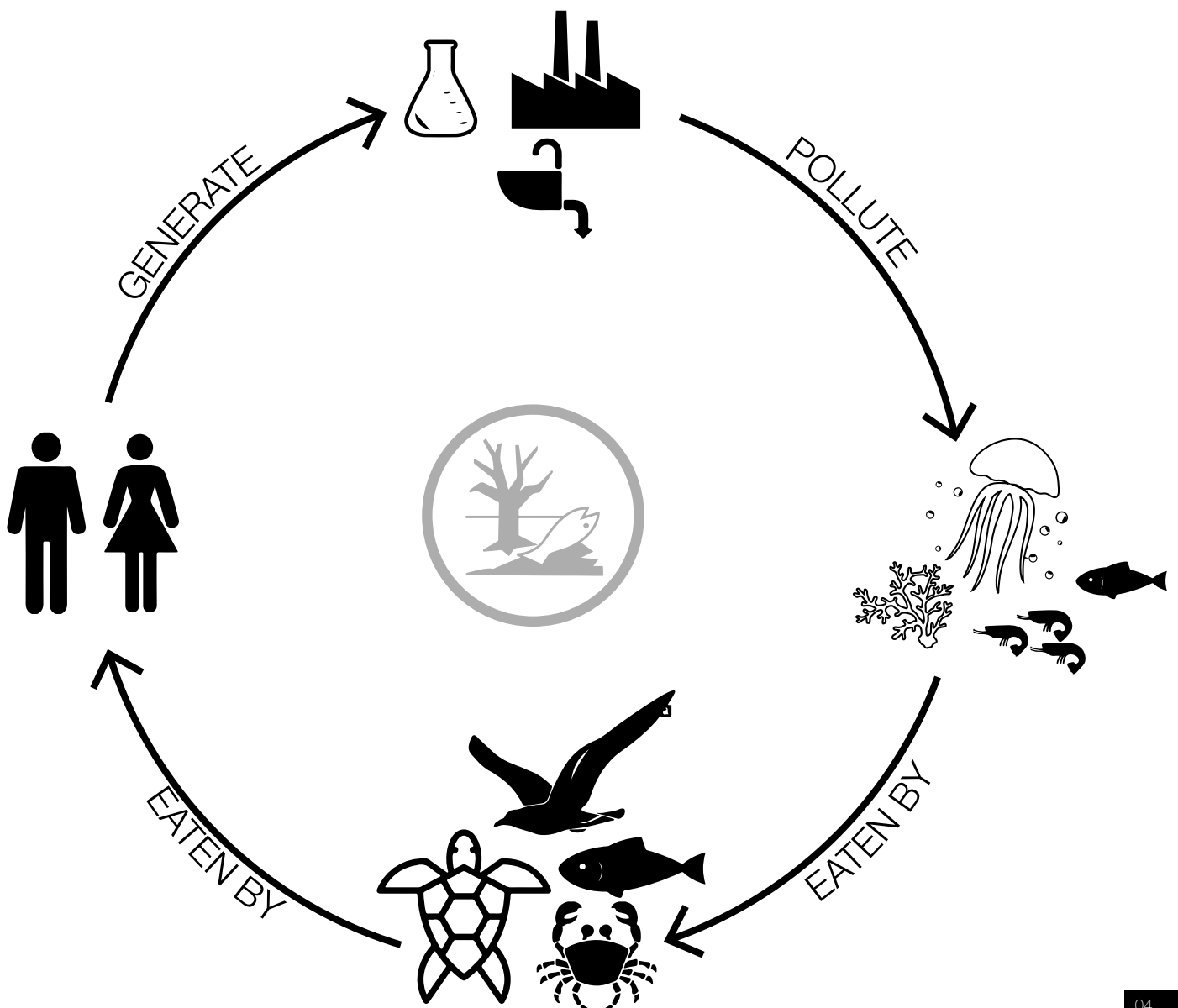
04

## Cycle of Trash

As you can see in our graphic about distribution of animal species (pic. 05), there live 4.486 species of animals in Beirut. Most of it lives in the sea. The study also examines the effects of wastewater discharged into the sea and finds out that pollutants in the sea are increasing.[5] These pollutans have a bad impact on biodiversity. The wastewater from industry and residential flows unfiltered in the sea and contaminate the animals, the water and the coast. The fisherman angle these infected fish[6] and sell them to supermarkets and restaurant, so the humans eat them and get sick. But we humans are responsible for the wastewater, and so a never-ending trash cycle is formed. The rain, coming from the sea, falls back on the land as precipitation and it becomes a nutrient for the native flora. Around 2.600 different species[7] are located in Lebanon. These also gets eaten by an animal, which is probably eaten by human and so there is a second cycle of trash.

04.  Cycle of trash, authors own illustration, 2020

DIRTY BEIRUT1

Roksana Caglar, Fiona Schmitt, Melanie Wank

BEAUTIFUL BEIRUT !

05.

ECOLOGICAL CONSEQUENCES

Sorry, we're closed

- Waste was dumped on sanitary landfills; poise
- Waste causes unpleasant smell
- Garbage pile up on streets

POLITICAL DEVELOPMENT
WASTE TREATMENT

**1995**
- Sukleen
  to provide waste
  collection in GBA

**1997**
- Emergencyplan for
  SWM accepted
- MoE bans waste
  incineration
- Actionplan aproved
  to close
  Bourj Hammoud dump

**1998**
- Sukleen to operate
  the Naameh Sanitary
  Landfill under
  a 10year contract
- Sukleen for waste sorting and
  composting facilities on a 10 year contract

**1999**
- National stragedy
  for SWM
- Plan suspended
  over political
  turmoil and
  pupblic
  opposition

**2000**
- Sukleen
  contract
  extended
  for six month

**2002**
- Law 444 determines
  landfill standards and
  encourage recycling
- Decree 9093 provides
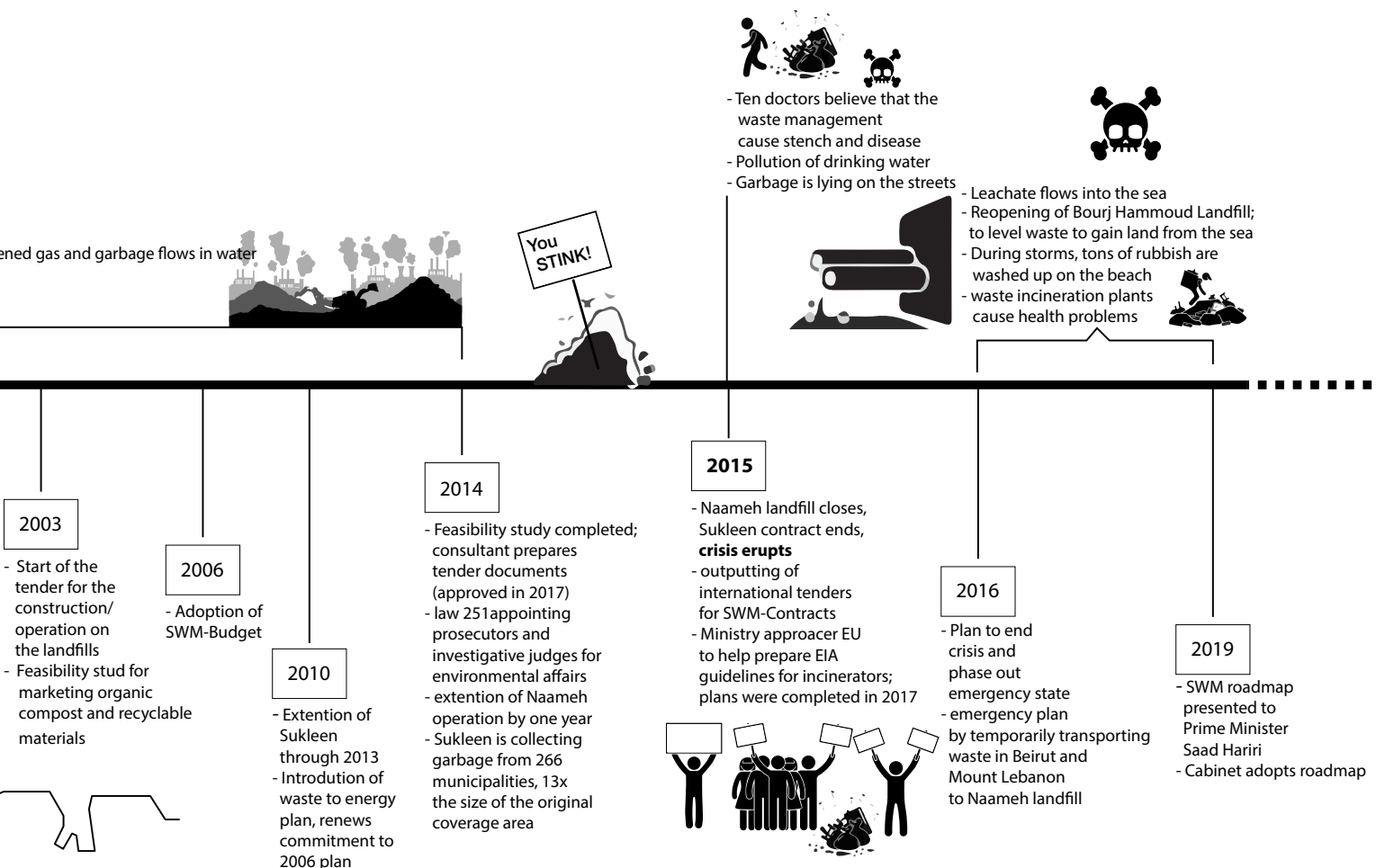  the municipalities
  with funds for the
  disposal of solid waste

**Political Development**

It all starts in 1980s when Sukleen later called Averda gets the contracts of waste disposal authority. The company has the monopol of waste. Apart from the construction and commissioning of the sanitary landfills as an emergency plan nothing really happend.[8] The dumphills began to grow because there is to much garbage for the incinerators. Jad Chaaban, an associate professor of economics at the American University of Beirut with expertise in agricultural, environmental and natural resources economics, has an nice solution for this problem: "[There is] a lot of waste, you can't burn it because it smells very bad, you need to dump it somewhere and there is very little land available. ... Let's also [gain] land from the sea. So it's a win-win for them."[9] The extensins of the contracts and the stacked garbage sacks in streets causes the waste crisis in 2015. Many people protaste with the "You stink!" campaign. But did they a really good solution develop afterwards?

05. Beautiful Beirut / Dirty Beirut, Collage,
    authors own illustration, 2020

06. Timeline political and enviromental development,
    authors own illustration, 2020

Roksana Caglar, Fiona Schmitt, Melanie Wank

## Timeline

ened gas and garbage flows in water

You STINK!

- Ten doctors believe that the waste management cause stench and disease
- Pollution of drinking water
- Garbage is lying on the streets

- Leachate flows into the sea
- Reopening of Bourj Hammoud Landfill; to level waste to gain land from the sea
- During storms, tons of rubbish are washed up on the beach
- waste incineration plants cause health problems

**2003**
- Start of the tender for the construction/ operation on the landfills
- Feasibility stud for marketing organic compost and recyclable materials

**2006**
- Adoption of SWM-Budget

**2010**
- Extention of Sukleen through 2013
- Introdution of waste to energy plan, renews commitment to 2006 plan

**2014**
- Feasibility study completed; consultant prepares tender documents (approved in 2017)
- law 251appointing prosecutors and investigative judges for environmental affairs
- extention of Naameh operation by one year
- Sukleen is collecting garbage from 266 municipalities, 13x the size of the original coverage area

**2015**
- Naameh landfill closes, Sukleen contract ends, **crisis erupts**
- outputting of international tenders for SWM-Contracts
- Ministry approacer EU to help prepare EIA guidelines for incinerators; plans were completed in 2017

**2016**
- Plan to end crisis and phase out emergency state
- emergency plan by temporarily transporting waste in Beirut and Mount Lebanon to Naameh landfill

**2019**
- SWM roadmap presented to Prime Minister Saad Hariri
- Cabinet adopts roadmap

06.

## Environmental Impact

First of all we want to mention the problems with landfills: gas and toxic substances get in touch with the sea. So there is no opportunity to go swimming or even to fish. Earlier we explained that the pollution in the sea is rising and one of factors are the exposion to waste. Another point are the incinerators which pollute the air and make people sick. But that's not all - the smell is an impertinence. "When they burn we can't breathe.... We've had to go to the hospital because of this.", says Mohamed, Kfar Zabad, (February 16, 2017).[10] The smell is strentghen by the tons of rubbish in the street and the government has no satisfying solution. When storms came up and blow the waste on the beach, campaigns started by inhabitans begin to clean the beach by collecting the waste. The tap water in Beirut is not drinkable, because is is so dirty that people can get sick. So there is not alone an environmental impact also an economic one because people have to buy their drinking water.[11]

Germany
Italy
United States of America
Japan
Lebanon
Ivory Coast

World
Average Score
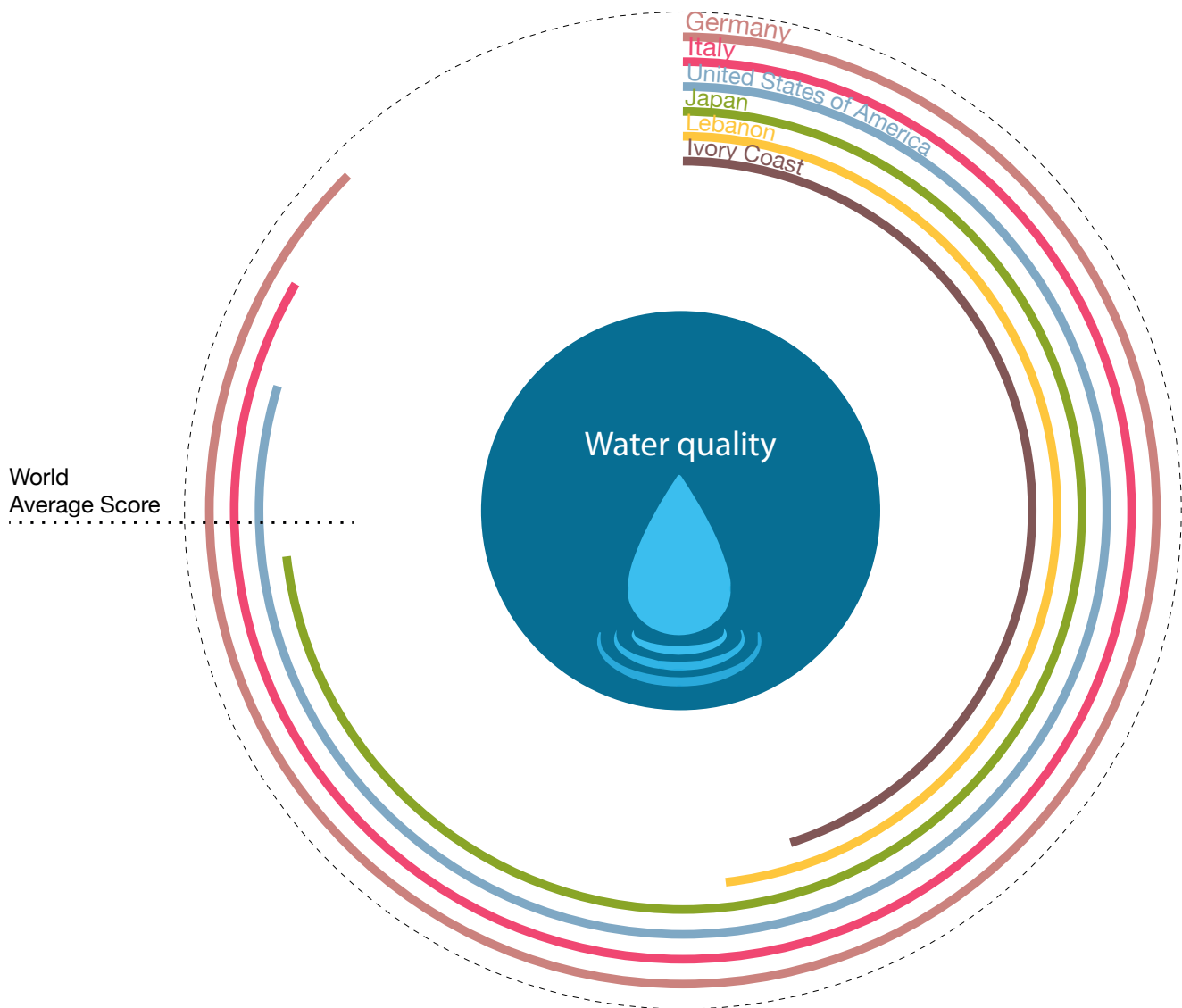
07.

**Water Quality and the Ocean Health Index**

Water is an invaluable natural ressources and needed in all aspects of daily life. To see whether and how the pollution is having an effect it is crucial to look at the water quality. For this topic we looked at the Ocean Health Index, which is a collaborative initiative to research the oceans health and predict possible future actions to protect marine systems and improve the future progress.
The index measures the score of 220 countries and territories. The different factors range from biodiversity, coastal protection to tourism and recreation, covering a variety of aspects. The Ocean Health Index in Lebanon is one of the worst in the world, with a score of 46 out of 100. The only two factor ranged relatively high are the biodiversity and the costal livelihood and economies. It definitely lacks in the factors of tourism and sense of place. Lebanons ranking in comparison to other states in the world and the average score is very low.

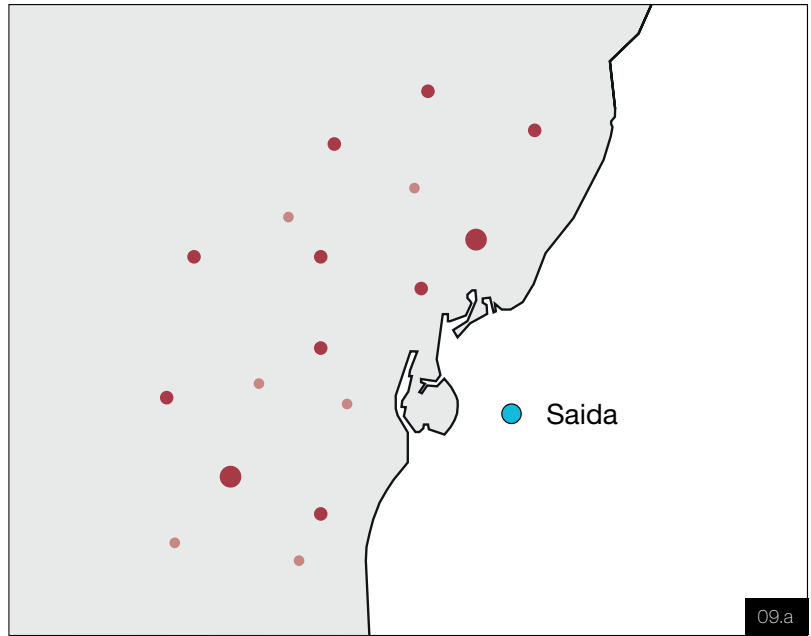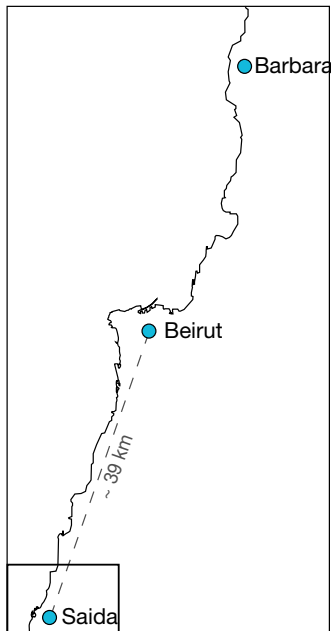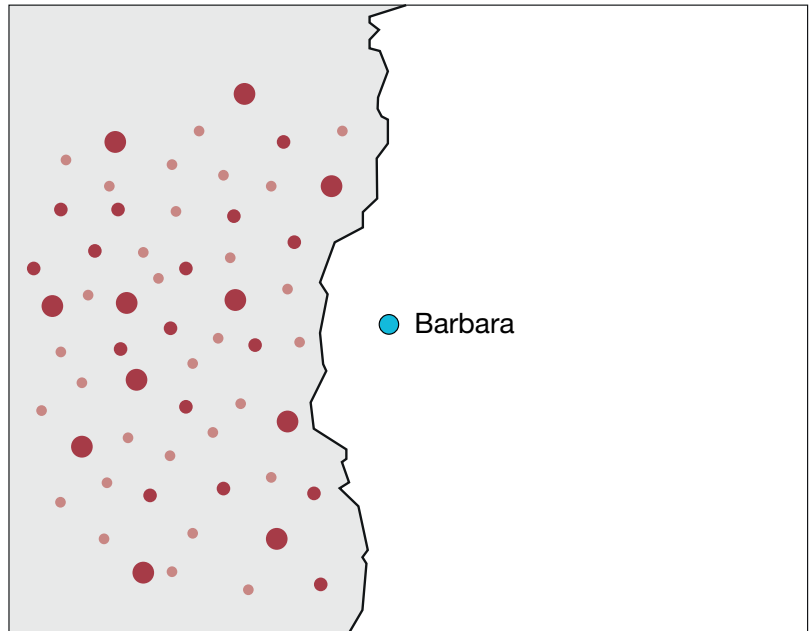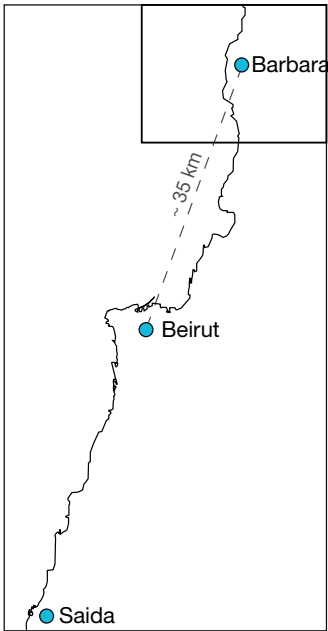Roksana Caglar, Fiona Schmitt, Melanie Wank

08.
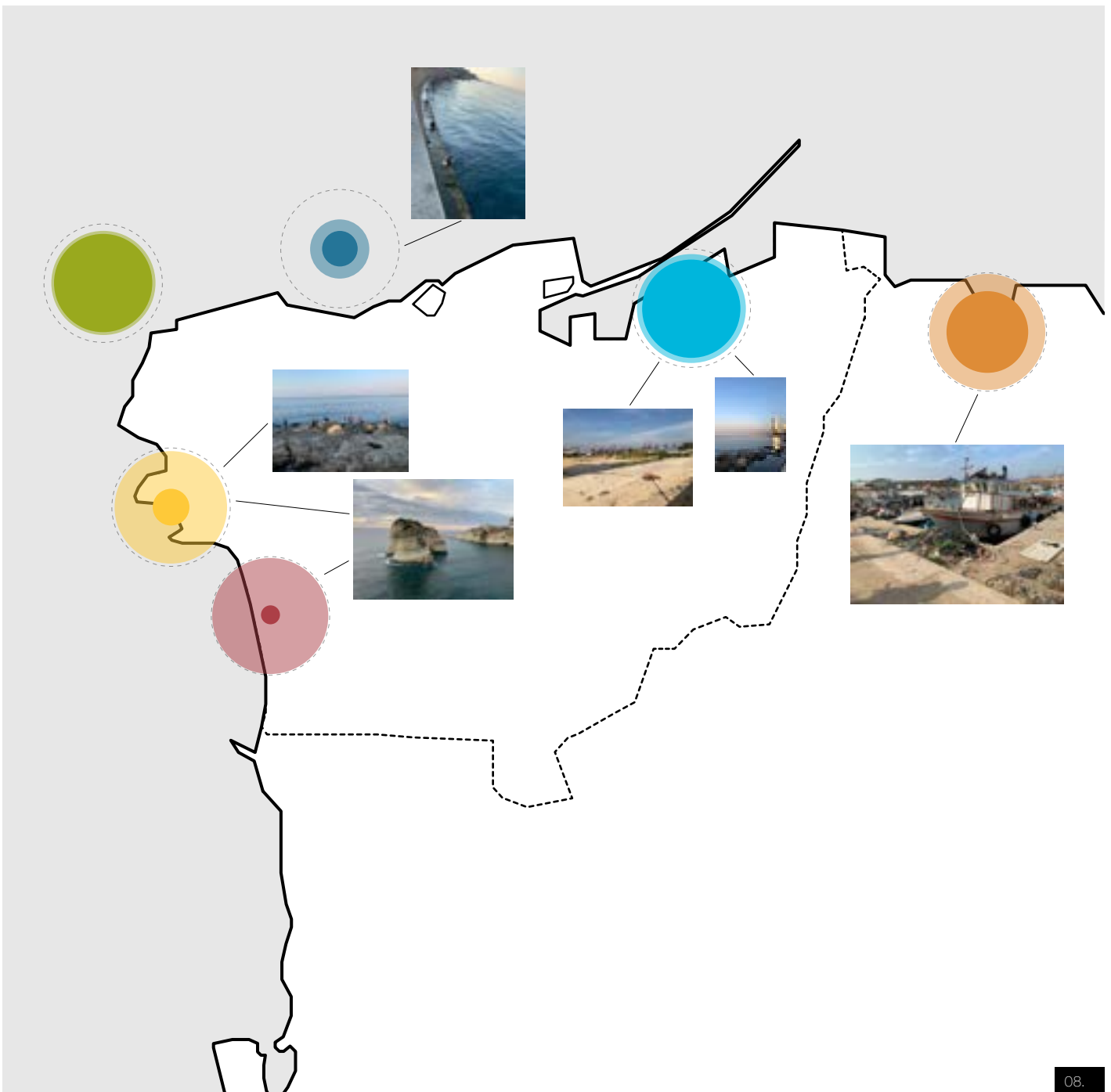
**Spatial Interpretation of the Ocean Health Index**

As a city at the coast and a large potencial in this area Beirut lacks quite a lot of place of sense and quality in tourism and recreation. There is no real identity connected to this part of the city and the eco-sytems are not being protected enough. One of the last landmarks at the coast is the Rouche Rocks. On the other hand are the coastal livelihoods and economies, that are ranked quite high. East of the city center, right next to the boarder to the governmental district of Mount Lebanon, is the lage industrial port. The opportunities for fishing are also quite good even though the options are shrinking due to the privatization of the coast. One point in which Beirut and Lebanon are ranked quite low is the cleanness of the water. This aspect is directly effected by the leaking landfills and toxins.

**Spatial Interpretation of the Ocean Health Index**

Germany Lebanon

Artisanal Fishing Opportunities

Coastal Livelihoods and Economies

Clean Waters

Biodiversity

Place of Sense

Tourism and Recreation

08. Spatial interpretation of the Ocean health Index, authors own illustration, 2019

09.a

## Ecological Drivers / Consequences for the Ecosystem

| | |
|---|---|
| 🟦 | Military Club |
| ⬛ | Coastal urbanisation |
| ⬚ | Oil field |
| 🔴 | Green algae (Chlorophyta) |
| 🔴 | Brown algae (Ochrophyta) |
| 🔴 | Red algae (Rhodophyta) |
| ▨ | Industrial Areas |
| ⚒ | Industry |
| ☠ | Danger |
| 🏊 | Public beach |
| 🎣 | Fishing Port |

09a/b. Enviromental influence and its effects on the algae, authors own illustration, 2020

### Where is it Safe to Swim at Berut's Coastline?

When thinking about where to go swimming in Beirut peole would suggest going by the Riviera-Ain Mreisseh beach. According to results of a survey released by the Lebanese Council for Scientific Research (CNRS) the coastal area of Beirut is the most polluted zone[12] of the whole Lebanese coastline. Beirut has three beaches in total as shown in the picture on the right: Riviera-Ain Mreisseh, Manara, Ramletal-Baida[12] (following in order from north to south). The northest of Beirut's three beaches is current the only safe beach[12] where peole don't have to worry about their kids and spending calm freetime in this hot region. Except this beach the other two are heavy polluted which bacteria and not qualified for swimming and fishing.[12]

Roksana Caglar, Fiona Schmitt, Melanie Wank

Rivera Ain-Mreisseh Beach

Military Beach

Manara Beach

Ramlet al-Baida Beach

Fishing Po[...]

Bourj Hammo[...] Landfill

Southern Suburbs

Baabda

Costa Brava Landfill

Kfarshima

09.b

Ecological Beirut?

**What are the Drivers Causing Beirut's Bad Water Quality?**

Marine and coastal ecosystems are current under heavy pressure due to human activities. Not obvious in people's minds are the small inhabitants of Beirut's ecosystem - the algaes - living in the dept of the sea, in upper water surfaces or on the shoreline suffering under ecological consequences in the wake of changing livehood. To explain the environmental drivers we first have to take a look at the macroalgae diversity.
A survey of Investigation of seaweeds by the Faculty of Pharmacy of the Lebanese University in Beirut discovered 94 species of algaes[13] growing along the Lebanese coast. Their biological importance and pharmaceutical use for medicine due to their good characteristics as antiinflammatory, antibacterial, antiviral, antioxidant, antitumoral are not to ignore.[13] There are also a part of our food diet.[13] The map on the right illustrates the spread of the three most prevailed algae groups - green algae, brown algae and red algae in four areas.[13] On the basis of the diversity of algaes we visualized the scale of ecological condition in several areas. A quite large amount of seaweeds was spottet at Manara Beach. Military Beach has the smalest amount of algaes. That shows the badest environmental condition. When we take a look outside of Beirut to the south along Lebanese coast to Saida, the numbers are even less. In comparison Barbara in the north of Beirut shows the best water conditions with a large amount of algaes.

The most noticeble recent driver over the last years is the climate change. Due to changing maritime environment and higher water temperature the spread of new invasive algae species is noticeble in the last years. These species steal more and more living environment of other maritime inhabitants.[14] More important drivers that affect the coastal and maritime ecosystems are habitat loss[14] due to urbanisation of the coast by building more and more resorts and extending of land over to the water, degradation[14] and pollution.[14]
Water pollution develops in consequence of indutrial, domestic and agricultural waste. Most shocking is the illegal open dumping of solid waste[14] at the coast that flows directly into the sea because the country doesn't know where to put all the waste. Shipping and fishing are also hudge influence for the ecosystems.

Another affective factor is the air pollution due to traffic on the roads near by the coast which spreads toxic gases for the maritime and coastal environment - animals and plants[15]. As pictured in the map and shown in the last pages there a several drivers causing industrial activities in middle of Beirut and in the north next to Bourj Hammoud Landfill is a huge problem for Beirut's living enviroment including Flora, Fauna and Beirut's citizens. Humans interventions are the biggest trigger for all the drivers shown above.
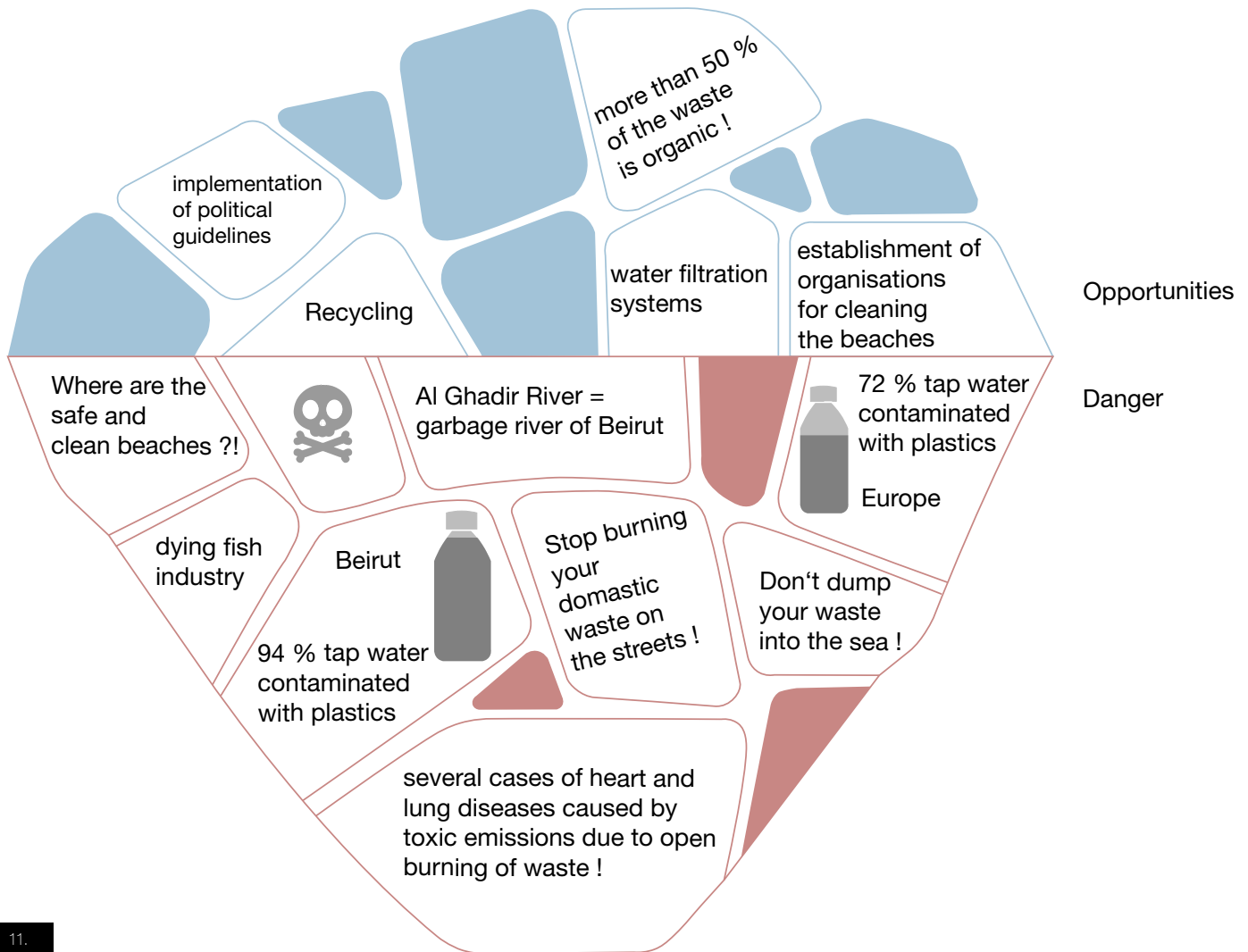
Roksana Caglar, Fiona Schmitt, Melanie Wank
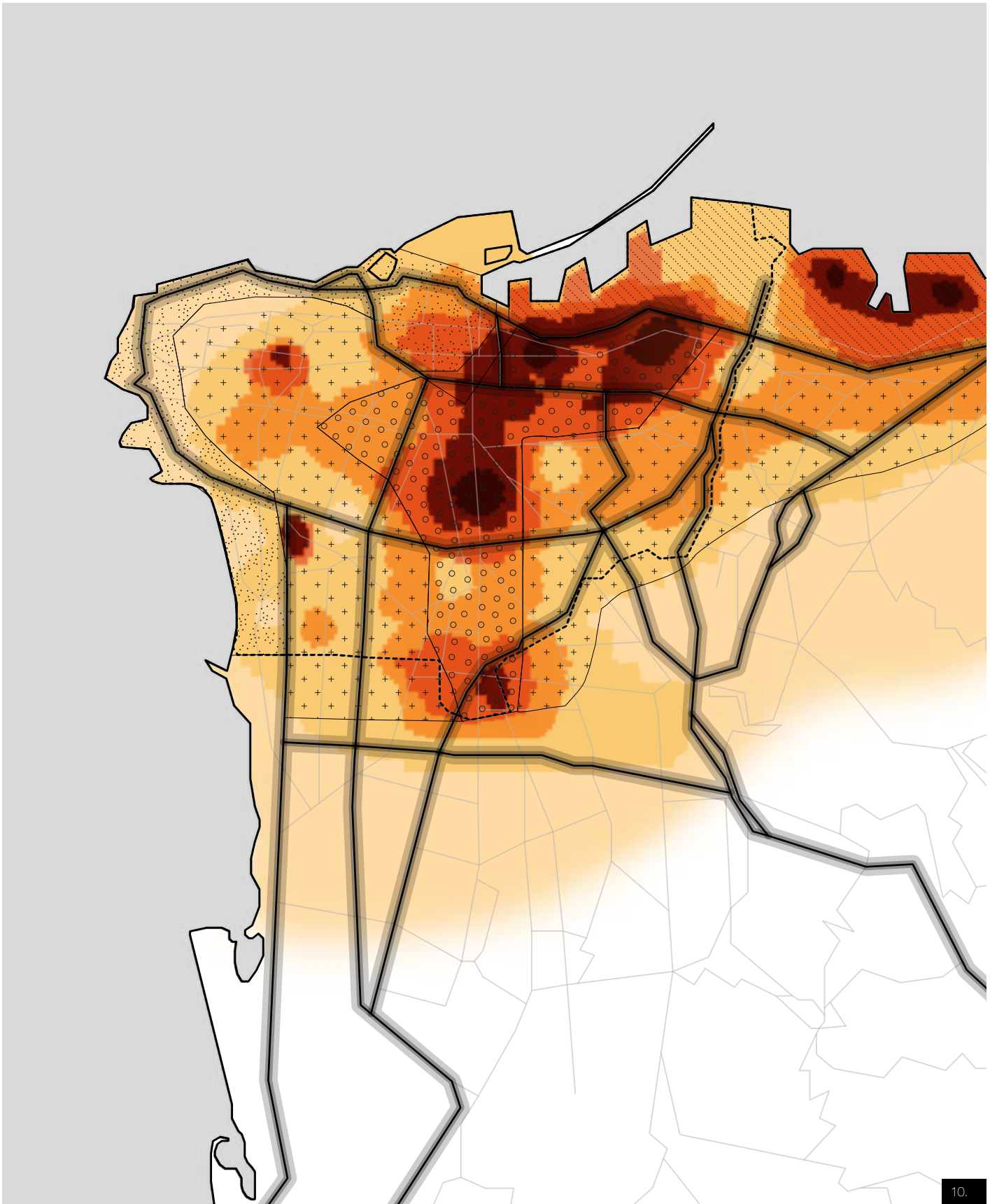
**Air Pollution and Real Estate Prices**

| | | | | | |
|---|---|---|---|---|---|
| ■ (dark red) | High concentration (67 ug/m³) | } of NO₂ and SO₂ | healthy concentration limit: 35 ug/m³ | (dotted) | High prices (6.000-7.700 USD/m²) |
| ■ (orange) | Moderate concentration (50 ug/m³) | | concentration in Karlsruhe: 34 ug/m³ | (crosses) | Medium prices (4.000-5.000 USD/m²) |
| ■ (light orange) | Low concentration (35 ug/m³) | | concentration in Berlin: 23 ug/m³ | (circles) | Low prices (2.000-3.500 USD/m²) |

10. Air pollution and real estate prices,
authors own illustration, 2020

implementation of political guidelines

more than 50 % of the waste is organic !

Recycling

water filtration systems

establishment of organisations for cleaning the beaches

Opportunities

Danger

Where are the safe and clean beaches ?!

Al Ghadir River = garbage river of Beirut

72 % tap water contaminated with plastics

Europe

dying fish industry

Beirut

Stop burning your domastic waste on the streets !

Don't dump your waste into the sea !

94 % tap water contaminated with plastics

several cases of heart and lung diseases caused by toxic emissions due to open burning of waste !

11.

## Air Quality and Pollution

The mix of emissions due to traffic and industry are very dangerous for the human health. Especially people living in nearby areas where open burning is common are heavly in danger risking a range of short and long-term health problems. There are constally touch with the toxic gases. The only solution is moving away and leaving the most affected neigborhoods. Since the waste management crises began in 2015 numerous cases of heart diseases, cancer, skin diseases, asthma and respiratory illnesses developed over time - a part only temporary.[16]

As we can see on the map on the left page, the most expensive living areas are at the coast and in the Solidere district and have low concentrations of pollutions. In cheaper and low income parts of the city the pollution us also higher, also due to open burning of trash.

Roksana Caglar, Fiona Schmitt, Melanie Wank

**Conclusion**

In Conclusion one can see that the effects of the waste crisis and failure to establish a system for the solide waste management and its resulting pollution is having a huge effect on daily lives. Beirut's location a the coast and the various fishing activities resulting from this are being disturbed by the continuous pollution of the water. One of the old fishing ports, at the edge of Bourj Hammoud right next to the two new landfills, is very polluted.

The Ranking in the Ocean Health Index is getting lower each year and the landfills close to the airport and in Bourj Hammoud are leaking toxins into the ocean and releasing unhealthy gases. The effects on daily life are also very noticeable. The beaches in Beirut are the most polluted in whole Lebanon and it is not safe for swimming and fishing. These changes in the enviroment are most noticable in the macroalgae diversity. Something that for us often goes unnoticed in the ocean are small algaes that have a hige impact on the oceans eco-system. Pollution because of solide waste dumping and toxin releases are changing the enviroment and allowing some species to take over. To stop a development, that is replacing the existing bio diversity it is important to keep the ocean and air as clean as possible and instal a managment system that protects the enviroment.

The Flora and Fauna is also in a bad shape due to the pollution. The different animal species are mainly living in the maritime habitat and are effected very much by the increasing pollution. In addition to this the government is failing to insatll a real solide waste managment to solve those problems. There should not be any new landfills in the ocean and there should be a reorientation towards renewable energies and new ways to use the trash. On top of that we know, that there is a huge potential in recycling, since a large part of Beiruts trash is recycable.[17] Right now it is just laking the logistic infrastructure to sort the trash.

12.  Beach with trash, Julian Raup, Nov 2019

**List of References:**

1 SMITH GALER, Sophie, 2018. Lebanon is drowning in waste: Lebanon has been in a rubbish crisis since 2015. Three years on, how are local groups paving a path for a cleaner – and healthier – future?. In: BBC [online]. 28.03.2018 [Access on: 26.01.2020]. Available at: https://www.bbc.com/future/article/20180328-lebanon-is-drowning-in-its-own-waste

2 HUMAN RIGTHS WATCH, 2017. As If You're Inhaling Your Death": The Health Risks of Burning Waste in Lebanon. In: Humans Rights Watch [online]. 01.12.2017 [access on 26.01.2020]. Available at: https://www.hrw.org/report/2017/12/01/if-youre-inha-ling-your-death/health-risks-burning-waste-lebanon

3 OCEAN HEALTH INDEX, 2020. Lebanon [online]. Ocean Health Index, 2020 [Access on: 26.01.2020]. Available at: http://www.oceanhealthindex.org/region-scores/scores/lebanon

4 SMITH GALER, Sophie, 2018. Lebanon is drowning in waste: Lebanon has been in a rubbish crisis since 2015. Three years on, how are local groups paving a path for a cleaner – and healthier – future?. In: BBC [online]. 28.03.2018 [Access on: 26.01.2020] Available at: https://www.bbc.com/future/article/20180328-lebanon-is-drowning-in-its-own-waste

5 WOOLGAR, M., S. PAPAGEORGIOU, G. AKL and T. YOUNG, 2012. MeHSIP-PPIF. Phase II. Extension of Al-Ghadir Wastewater Treatment Plant – Lebanon. Environ-mental and Social Impact Assessment. Earth Link and Advanced Resources Develo-pement. p.131

6 MAJDALANI, S., 2004. The present status of fishery and information system in Lebanon. GCO/INT/918/EC-TCP/INT/2904/TD-4.1. MedFsis Technical Document No. 4.1

7 DAGHER-KHARRAT, Magda Bou, Hicham EL ZEIN and Germinal ROUHAN, 2018. Setting conservation priorities for Lebanese flora—Identification of important plant areas. In: Journal for Nature Conservation [online]. Volume 43. p. 85-94 [Access on: 27.01.2020]. Science Direct. Available at: https://www.sciencedirect.com/science/article/pii/S1617138117301085?via%3Dihub#fig0015

8 NASH, Matt, 2016. How Lebanese governments created a trash monopoly. In: Executive [online]. 15.01.2016 [Access on: 27.01.2020]. Available at: https://www.executive-magazine.com/economics-policy/dissecting-a-waste-empire

9 KECHICHIAN, Joseph A., 2017. Lebanon ploughs the Mediterranean. In: World [on-line]. 21.07.2017 [Access on: 27.01.2020]. Available at: https://gulfnews.com/world/mena/lebanon-ploughs-the-mediterranean-1.2062165

10 HUMAN RIGTHS WATCH, 2017. As If You're Inhaling Your Death": The Health Risks of Burning Waste in Lebanon. In: Humans Rights Watch [online]. 01.12.2017 [Access on: 27.01.2020]. Available at: https://www.hrw.org/report/2017/12/01/if-you-re-inhaling-your-death/health-risks-burning-waste-lebanon

11 KUMAR JHA, Saroj, 2018. Solving the water crisis in Beirut. In: World Bank Blogs [online]. 12.2018 [Access on: 27.01.2020]. available at: http://blogs.worldbank.org/arabvoices/solving-water-crisis-beirut

12 MAZLOUM, Nadine, 2016. Avoid these Lebanese beaches at all cost. In: News-room Nomad [online]. 26.07.2016 [Access on: 17.12.2019]. Available at: https://news-roomnomad.com/avoid-lebanese-beaches-cost/

13 KANAAN, Hussein, Oksana BELOUS and Ali CHOKR, 2015. Diversity Investiga-tion of the seaweeds growing on the Lebanese coast. In: Journal of Marine Science: Research & Development. 31.12.2014 [Access on: 27.01.20]. DOI: 10.4172/2155-9910.1000156

14 BADREDDINE, Ali, 2018. Coastal ecosystems of the Lebanese coast : ecological status, conservation, evolution. Ecosystems. Université Côte d'Azur. English. NNT: 2018AZUR4031. tel-01887770f

15 SHIBER, J.G., and T. SHATILA, 1979. Certain Metals in three coastal algae from Ras Beirut Waters. Hydrobiologia. AUB. vol. 63,2, pv. 105-112

16 HUMAN RIGTHS WATCH, 2017. As If You're Inhaling Your Death": The Health Risks of Burning Waste in Lebanon. In: Humans Rights Watch [online]. 01.12.2017 [Access on 07.02.2020]. Available at: https://www.hrw.org/report/2017/12/01/if-you-re-inhaling-your-death/health-risks-burning-waste-lebanon

17 HUMAN RIGHTS WATCH, 2019. Lebanon: No Quick Fixes to Trash Crisis. Open Burning Endangers Health; Urgently Find Rights-Respecting Solution. In: Human Rights Watch [online]. 10.08.2019 [Access on: 27.01.2020]. Available at: https://www.hrw.org/news/2019/08/10/lebanon-no-quick-fixes-trash-crisis

## List of Figures:

01. River Dumpsite in Bourj Hammoud. Photo: UMPATHY, Aravinthan, 2019

02. Distrubution of animal species. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020 based on: WOOLGAR M., S. PAPAGEORGIOU, G. AKL and T. YOUNG, 2012. MeHSIP-PPIF [online]. Phase II. Extension of Al-Ghadir Wastewater Treatment Plant – Lebanon. Environmental and Social Impact Assessment. FEMIP Support Fund [Access on: 26.01.2021]. Available at: https://www.eib.org/attachments/registers/56369413.pdf

03. Maritime species. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020, based on: WOOLGAR M., S. PAPAGEORGIOU, G. AKL and T. YOUNG, 2012. MeHSIP-PPIF [online]. Phase II. Extension of Al-Ghadir Wastewater Treatment Plant – Lebanon. Environmental and Social Impact Assessment. FEMIP Support Fund [Access on: 26.01.2021]. Available at: https://www.eib.org/attachments/registers/56369413.pdf

04. Cicle of trash. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020

05. Beautiful Beirut / Dirty Beirut. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020 Collage based on: UMPATHY, Aravinthan, Julian RAUP and Anni SODER. Beirut. 2019. and JAVANAUD EMDÉN Teodor, 2020. Skalgubbar [online]. Teodor Javanaud Emdén, 2020 [Access on: 17.02.2020]. Available at: https://skalgubbar.se

06. Timeline political and enviromental development. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020 based on: KOHN, Alice, 2016. Ein neues Umweltbewusstsein für den Libanon. In: Deutsche Welle [online]. 27.12.2016 [Access on: 27.01.2020] Available at: https://www.dw.com/de/ein-neues-umweltbewusstsein-f%C3%BCr-den-libanon/a-36763342, NEUMANN, Julia, 2019. Sand sieben zur Gesichtsrettung. In: Taz [online]. 24.07.2019 [Access on: 27.01.2020]. Available at: https://taz.de/Muellproblem-im-Libanon/!5610410/, and HOLTMEIER, Lauren, 2019. Lebanon's struggle to implement a coherent waste management strategy. In: Executive [online]. 09.09.2019 [Access on: 27.01.2020]. Available at: https://www.executive-magazine.com/economics-policy/lebanons-struggle-to-implement-a-coherent-waste-management-strategy

07. Water quality diagram and comparison. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020, based on: OCEAN HEALTH INDEX, 2020. Annual Scores and Rankings [online]. Ocean Health Index, 2019 [Access on: 26.01.2020]. Available at: http://www.oceanhealthindex.org/region-scores/annual-scores-and-rankings

08. Spatial interpretation of the Ocean Health Index. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020, based on: OCEAN HEALTH INDEX, 2020. Annual Scores and Rankings [online]. Ocean Health Index, 2019 [Access on: 26.01.2020]. Available at: http://www.oceanhealthindex.org/region-scores/annual-scores-and-rankings

09a/b. Ecological drivers / Consequences for the ecosystem. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020, based on: BADREDDINE, Ali, 2018. Coastal ecosystems of the Lebanese coast : ecological status, conservation, evolution. Ecosystems. Université Côte d'Azur. English. NNT: 2018AZUR4031. tel-01887770f

10. Air Pollution from H2S and NO2 combined with residential density. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020, based on: WADVALLA, Bibi-Aisha, 2011. Air pollution threatens health in Beirut. In: Research Gate [online]. 04.2011 [Access on: 27.01.2020]. Available at: https://www.natureasia.com/en/nmiddleeast/figures/169/NO2_distribution_2_.jpg and BAAKLINI, Suzanne, 2019. Beirut stinks: when will the root of the problem be tackeld?. In: Commerce [online]. 13.06.2019 [Access on: 27.01.2020]. Available at: https://www.lorientlejour.com/article/1174582/beirut-stinks-when-will-the-root-of-the-problem-be-tackled.html

11. Consequences for daily life. CAGLAR, Roksana, Fiona SCHMITT and Melanie WANK, 2020, based on: BATTAH, Habib, 2018. On the Making of 'We Made Every Living Thing from Water'. In: Beirut Report [online]. 22.11.2018 [Access on: 24.01.2020]. Available at: http://www.beirutreport.com/2018/11/on-the-making-of-we-made-every-living-thing-from-water.html, CARRINGTON, Damian, 2017. Plastic fibres found in the tap water around the world, study reveals. In: The Guardian [online]. 06.09.2017 [Access on: 24.01.2020]. Available at: https://www.theguardian.com/environment/2017/sep/06/plastic-fibres-found-tap-water-around-world-study-reveals, RAMCO, 2014. Residential Prices in Beirut the time for corrections [online]. Beirut: Ramco Real Estate Advises [Access on: 17.02.2020]. Available at: http://ramcolb.com/pdf/PressReleaseMar14E.pdf and UMWELTBUNDESAMT, 2019. Stickstoffdioxid (NO2) im Jahr 2019 [online]. Beurteilung der Luftqualität. Umweltbundesamt, Fachgebiet II 4.2 [Access on: 17.02.2020] Available at: https://www.umweltbundesamt.de/sites/default/files/medien/4640/dokumente/no2_2019.pdf

12. Beach with trash in Manara. Photo: RAUP, Julian, 2019

01.

Philipp Essig, Lara Klein, Tobias Moritz

**Philipp Essig**
**Lara Klein**
**Tobias Moritz**

# Interactions of the Beirut's Urban Fabric and Refugee Areas on their Intersections

Beirut has been and still is influenced by migration. Refugees and migrants coming to the city have a huge impact on the structure and urban fabric of the city. Due to political unsteadiness there is no official migration policy. As a result many migrants do not have permission to work or even own property which forced them to either illegally settle down on foreign ground or live in refugee camps run by organisations like the United Nations Relief and Works Agency. On basis of this special situation we analysed whether there are interactions between refugee areas and the surrounding urban structure or if those areas are segregated from each other. As well migrants and refugee camps can be divided up into different types which we will compare to each other in this chapter.

**Historic Background of the Migration in Beirut**

Beirut is the capital of Lebanon, a small country in South-West-Asia. Its demographic growth and changes are influenced by the different phases the city went through over the centuries. We base our research only on the migratory movement during the 20th century. The independence years between 1942 to 1975 after the French Mandate caused a rapid demographic and economic growth for Beirut.[1] During this period waves of low-income refugees and migrants from the own country hinterland came to the city. In 1948 the creation of the state of Israel caused many displaced Palestinian refugees to come to Lebanon's capital.[2] During the Lebanese Civil War from 1975 to 1990 not only refugees and migrants were faced with losing their homes also many Lebanese citizens were displaced.[3] In fact of the separation into Muslim and Christian Beirut after the war many were displaced based on their political and religious opinion.

01. Perspective into a refugee camp street

02.

## Camp Areas in Beirut

| | Inoffical camp |
|---|---|
| | Offical camp |
| **1** | Urban fabric near Shatila camp |
| **2** | Refugee camp Burj Baranjeh |
| **3** | Illegal settlement areas at the coast line |

02.  Location of inoffical and offial camp areas in Beirut

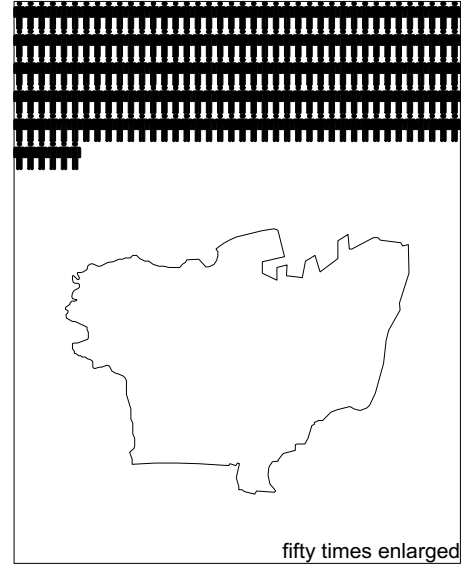Philipp Essig, Lara Klein, Tobias Moritz

Germany:
232 per square kilometers
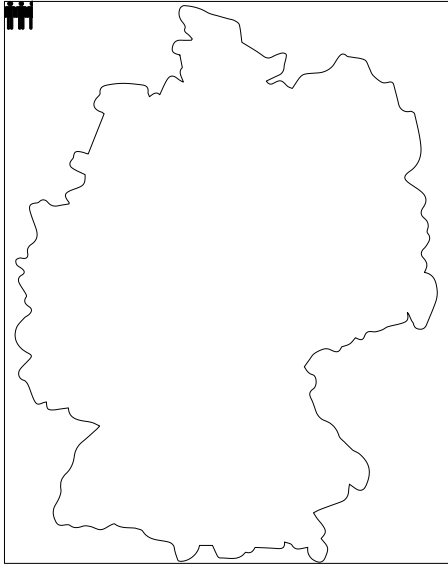


Lebanon:
583 per square kilometers
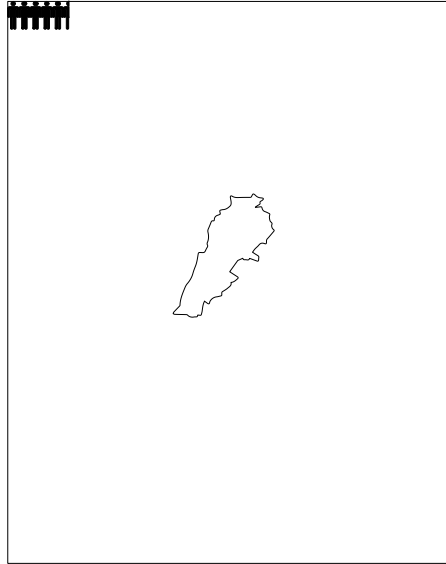


Beirut:
20 604 per square kilometers



fifty times enlarged

Shatila:
22 000 per square kilometers



one-hundred times enlarged
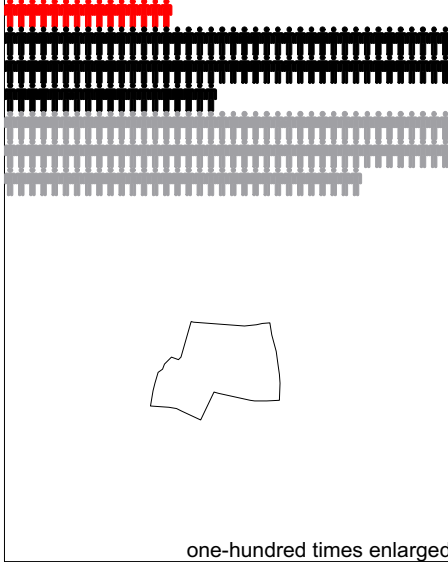
Illegal Settlement:
18 000 per square kilometers



one-hundred times enlarged
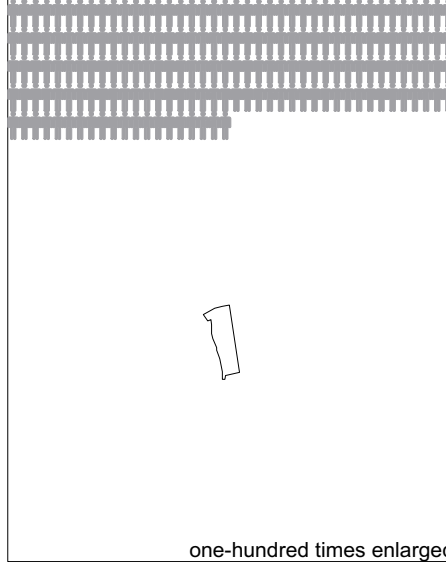
Burj Barajneh:
40 000 per square kilometers



one-hundred times enlarged
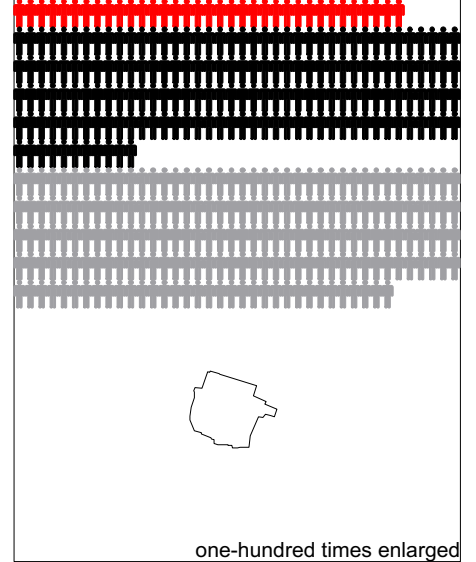
03.

## Population Density in Beirut and Refugee Camps

Beirut is not only the capital of Lebanon; it is also the country's largest city with a population close to two million citizens.[4] The unofficial estimation in the greater areas says up to four million citizens. The population density breaches approximately more than 20 000 individuals per square kilometer.[5] The main problem of making statements based on data to the populations density of Beirut and the camp areas is the absence of public data. For example the United Nations Relief and Work Agency for Palestine refugees in the near east (UNRWA) "does not claim to represent the actual number present in the country as, for example, Palestine refugees may have left over the years and UNRWA does not track the habitual movement of refugees out of its fields of operation."[6] The number of refugees living in the camp areas nowadays is explicit higher than the number for which the camps were originally planned for. The high density has a big impact on the living conditions, infrastructure and built structures of the refugee camp areas.

## Density Comparison

- 👤 100 residents
- 🟥 planned for
- ⬛ official population based on UNRWA data
- ⬛ estimated actual population

03. Comparison of population density in Germany, Lebanon, Beirut and selected refugee areas
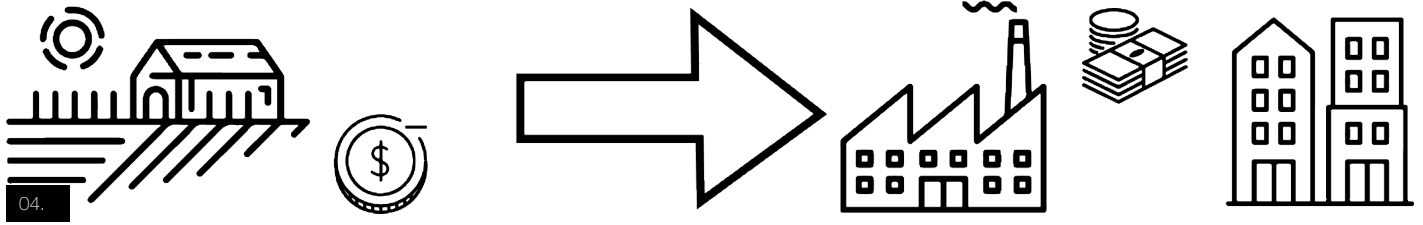
**Rural to Urban Migration (After 1943)**

The independence in 1943 after the French Mandate has changed Lebanon to the commercial and financial centre of the Middle East.[7] Beirut became the location for many multinational companies during the period from 1950 to 1970.[8] Those alternations affected many Lebanese families living in the outlands of Beirut to leave their villages and come to the city in search for employment in factories. The industrial sector located its new factories near the growing slum areas in the eastern suburbs of the city.[9] The cheap workforce mainly lived in slums, squattered inside camps or informal settlements. It was difficult to get a housing permission for those families because of factors like the area which they settled, their religious affiliation, the earlier trajectories of members of their family, tribe or village.[10]

04. Rural to urban migration

05. Interaction between camp area and urban fabric

Philipp Essig, Lara Klein, Tobias Moritz

07.

0m    50m    100m    150m    200m
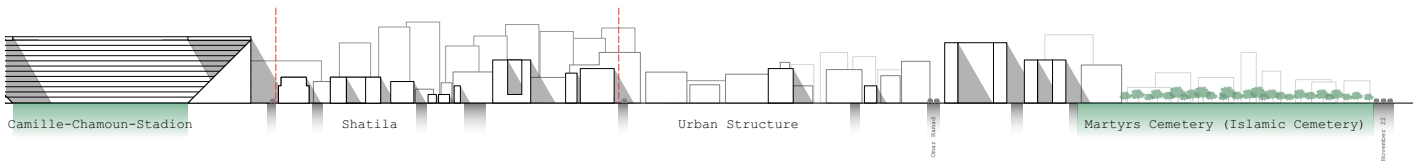
**Urban Fabric Around the Shatila Refugee Camp**

The Shatila refugee camp was established in 1949 for Palestine refugees in the southern suburbs of the city.[11] Since its establishment the initial number of compromised units it was planned for has grown tenfold. The one square kilometre footprint of the camp area has been existing for over 70 years, but the surrounding structure of the city makes it impossible to expand the camp for new refugees and low-income workers. Therefore the residents built upwards making the area common for its narrowed streets and up to seven storey buildings which are blocking out the sun in the streets. The not existing building and property regulations in those areas induced the now characteristic structure of buildings and streets. On the one hand the area is not isolated by specific surrounding boundaries. On the other hand, it is noticeable how the structure on the outlines of the camp slowly translates into more organised infrastructure and building complexes. Over all the structure of the camp and the surrounding city fabric slowly start to merge and Shatila becomes part of Beirut.
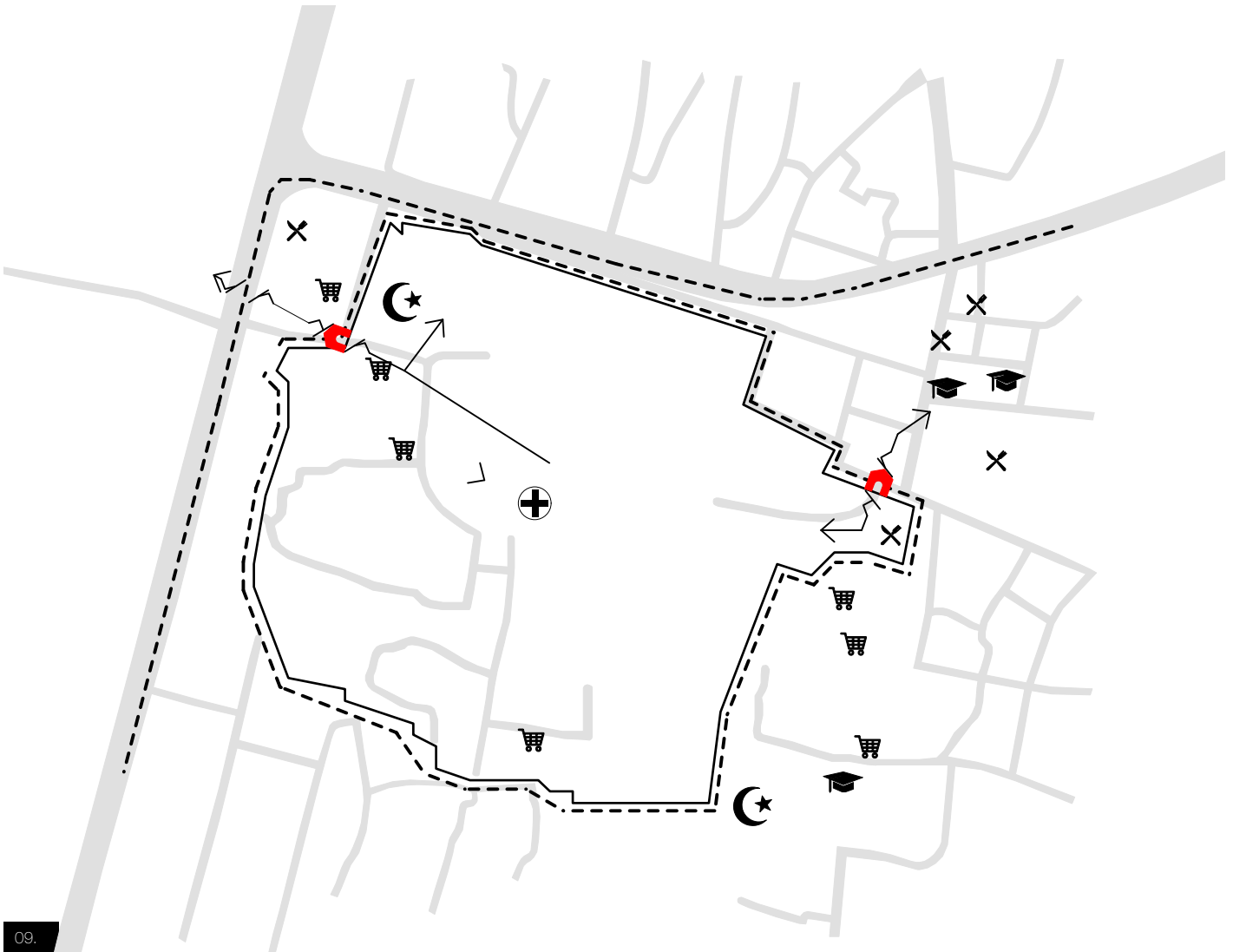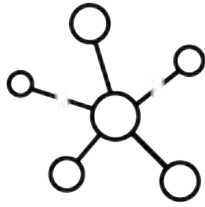
**Activities and Facilities**

⚽ Football field

✕ Restaurant

🎓 School

✚ Hospital or pharmacy

🛒 Store and market

☕ Coffee shop

06. Section A-A'

07. Urban fabric near the Shatila refugee camp

**Interactions of Urban Fabric and Refugee Areas**

**91**

08.



09.

**International Refugees (In 1920, 1948 and Today)**

The 20th century brought in most instances Armenian and Syrian refugees (1920s) and Palestinian refugees (1948) to Beirut.[12] Armenian and Syrian refugees first came to Lebanon from their areas of origin because of the massacres of the World War I. Armenians who came to Beirut were permitted to built up permanent housing structures after the Catholic Church fought for official citizenship for the refugees.[13] Many of the Syrian refugees reside illegally in Lebanon due to the fact that they are unable to register with the UN Refugee Agency (UNHCR).[14] Because many of them are living illegally in the country and their freedom of movement is restricted by the authorities, it is difficult to find employment.[15] Both the establishment of the state of Israel in 1948 and also nowadays the Syrian Civil War forced many Palestinian refugees in search of safety to flee to Lebanon. Due to not being a formal citizen in Lebanon they are unable to claim the same rights, to gain a job or inhabit property than other foreigners in Lebanon.

08. International refugees

09. Interaction between camp area and urban fabric

Philipp Essig, Lara Klein, Tobias Moritz

11.
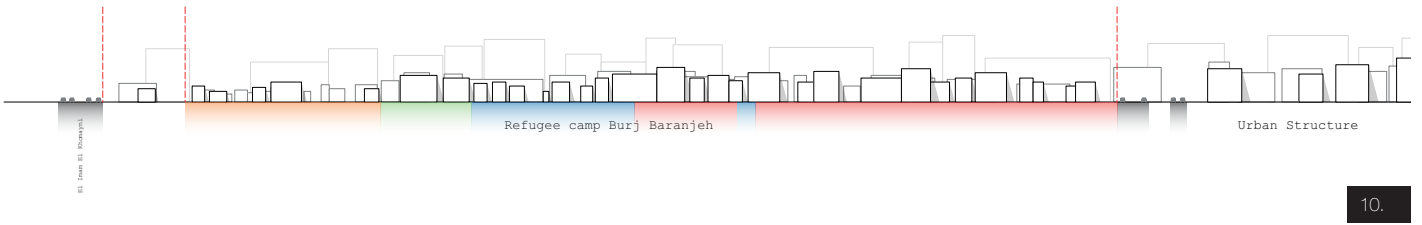
## Refugee Camp Burj Barajneh in the Urban Structure of the City

Burj Barajneh is a refugee camp established in 1949 also in the southern suburbs of Beirut's city. Initially it was planned for approximately 3,500 people.[16] The number has been increasing rapidly in the past years. Dependent on the rapid demographic growth, the building structure and infrastructure were modified randomly which caused a high density of buildings with small narrowed and labyrinth streets in the whole area. The camp is clearly framed by three traffic roads in the west, the north and the east. Those infrastructural boundaries allow no direct interactions with the surrounding areas. Only the boundaries in the east and south contribute to integrate the outer fringe of the camp into the urban landscape. In this part the dense building structure slightly opens to distinguish the urban continuity between the camp and the surrounding environment. Since today Burj Barajneh still is a segregated district, which is controlled by private security services and with two main gates you can get out or access the camp.

### Activities and Facilities

- Camp area in the 1950s
- Camp area in the 1960s
- Camp area in the 1970s
- Camp area in the 2000s
- Football field
- Restaurant
- School
- Hospital or pharmacy
- Store and market
- Coffee shop

10. Section B-B'

11. Refugee camp Burj Baranjeh and the surrounding urban structure

**Interactions of Urban Fabric and Refugee Areas**

**93**

12.
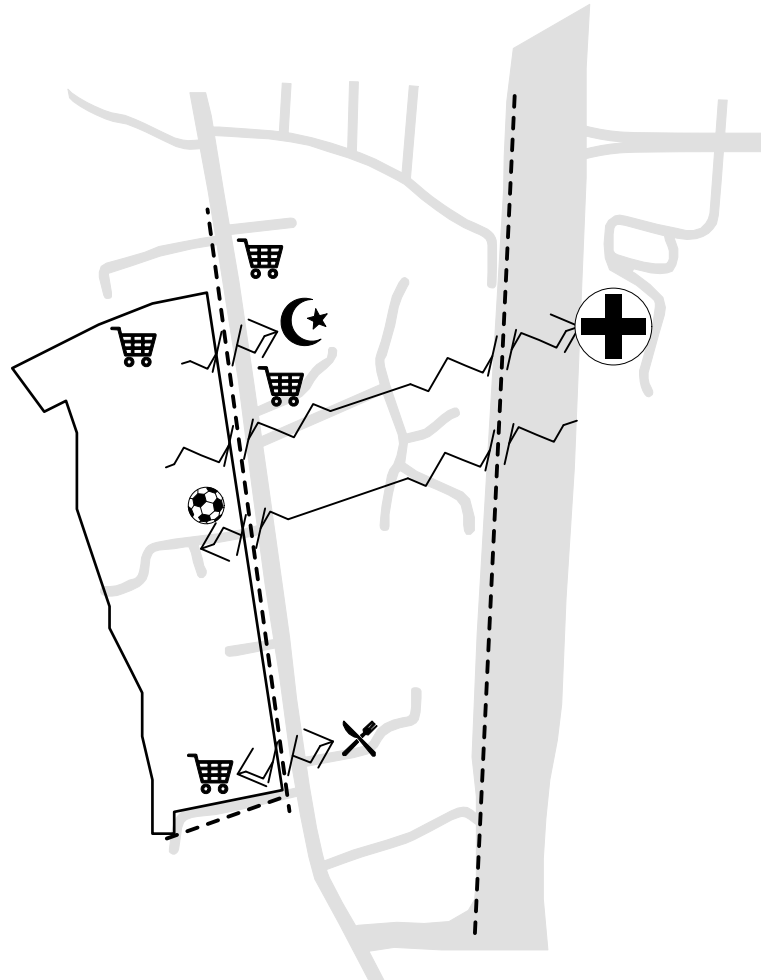


13.

**Displaced People Trough and After the Civil War  (1975 - 1990)**

The Civil War not only had a big impact on the political structures of Lebanon and the city of Beirut but also brought great changes in the demographic and geographic structures of Beirut suburbs. The conflicts between slum dwellers and military in charge caused massacres and deportations of the residents.[17] The slums and camp areas of the southern suburbs were razed to the ground.[18] The post war years were then marked by projects which should help the refugees to return to their original places of residence in the city.[19] But the other hand the reconstruction and modification of the building structures and infrastructure caused another wave of displacement for some communities.[20] That is why those people were forced to find another place to live. Mostly they appropriate private land to build up new housing structures illegally.

12.  Displaced people through and after the Civil War

13.  Interaction between camp area and urban fabric

Philipp Essig, Lara Klein, Tobias Moritz

14.



15.
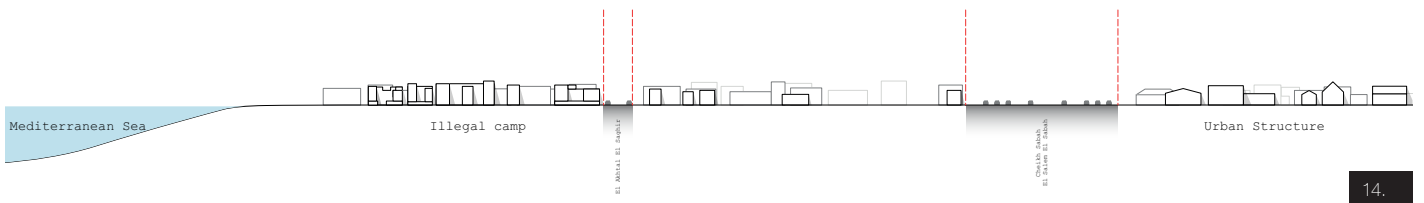
**Illegal Settlement Areas on the Coast Line**

After the war many parts of the city and its suburbs were severely destroyed or damaged. In conjunction with the reconstruction of the city the entire coastline in the west of Beirut became new space for displaced communities and refugees after the war. The new emerging settlements mainly occurred illegally in violation of building codes, construction codes and property rights regulations.[21] The occupied area on both private and public land is framed by the airport area in the south, the municipal boundaries in the north and to the east by big traffic roads. Often referred to as a part of the "belt of misery"[22] the area is marked by consolidated multi-storey buildings with barely a visible limit to the actual beach line. Missing structures like infrastructure or electricity also cause the lack of integration into the city fabric. Most inhabits do not even have the chance to get out of the camps to get a job or education.

**Activities and Facilities**

- Football field
- Restaurant
- School
- Hospital or pharmacy
- Store
- Coffee shop

14.  Section C-C'

15.  Settlement structure on the coastline

## The Three Steps of Interactions

Being a refugee in Beirut makes you face many problems. Its kind of like you do not exist. The reasons for migration are very different and influence in which area the migrants try to settle down. Furthermore the backgrounds of the migrants have also an impact on the structure of the areas and how they integrate or border to the surrounding city fabric.
Especially people from the nearer outback of Beirut came into the city to find a job because the income in rural areas is low. They settle down in camp areas like Shatila, which are pretty good integrated into the urban fabric to work in factories or run their own markets inside the camps. Compared to the two other areas Shatila is located nearer to the city center. Even though there are some structural borders like the Sports Stadium on the one side and bigger streets on the other side we can assume that the residents of the camp area do interact with the facilities nearby. Shatila more and more develops to a public market area. Particularly tourists try to get a deeper insight into the narrowed streets which are full of life. With its mixture of many different ethics and backgrounds the camp tells the story of what life inside a refugee camp really is like.

Religion always will be a subject of conflicts. That is why many people were forced to flee from their home. Beirut also has its own difficult history in terms of religion, in fact the conflict between Christian and Muslims. Most of the religious refugees settle down in segregated districts like Burj Barajneh. This camp is managed by the UNWRA and was originally planned for Palestinian refugees. Today it is home for more than just migrants from one nation or religion. Because of this circumstance they are still facing trouble inside the camp area. To segregate those conflicts from the outside city the borders were controlled by private security services, causes that Burj Barajneh became a almost independent town inside the city with its own infrastructure and supply system to work independent from the rest of Beirut. The two main entrances to Burj Baranjeh limit as well the possibility of interaction and integration to the city nearby.

Refugees who were forced by war inside and outside of Lebanon to immigrate to Beirut do not have any property or chance to work in the city. They have no other choice than illegally take possession of unused land near the coastline. Those areas do not have any kind of structure or are run by a system. The living conditions are really bad and the crime rate is extremely high. That is why interaction between the refugee area and the urban fabric nearly does not exist. No one, not even the owners of the property want to get inside these areas. Each type of those refugee areas has a different interaction into the surrounding city. It reaches from tourist attraction down to completely illegally and criminal slums without any connection to the city.

The three areas we analysed in this research showed us in the first place that all different types of refugee areas have an big impact on the surrounding city. The different interactions between camp area and surrounding city are primarily affected by the outlines of the camp area. Infrastructure mainly traffic roads are the main reason why residents of those areas can not and do not leave the camps. This fact is also the only common factor all of the three areas we compared shared with each other.

16. Life inside a refugee camp

Philipp Essig, Lara Klein, Tobias Moritz

Interactions of Urban Fabric and Refugee Areas

# List of References:

1 FAWAZ, Mona and Isabelle PEILLE, 2002. Urban Slums Report: The case of Beirut, Lebanon. [Publication]. Massachusetts Institute of Technology. p. 4

2 Ibid.

3 Ibid. p.8

4 WORLD POPULATION REVIEW, 2019. Lebanon Population 2020 [online]. Walnut: World Population Review. 27.08.2019 [Access on: 16.01.2020]. Available at: http://worldpopulationreview.com/countries/lebanon-population/

5 Ibid.

6 UNITED NATIONS RELIEF AND WORKS AGENCY FOR PALESTINE REFUGEES IN THE NEAR EAST, n.d.. Burj Barajneh Camp [online]. n.d., [Access on: 19.01.2020]. Available at: https://www.unrwa.org/where-we-work/lebanon/burj-barajneh-camp

7 EDUCATION ENCYCLOPEDIA, 2020. Lebanon [online]. History & Background. NET Industries and its licensors. [Access on: 16.01.2020]. Available at: https://education.stateuniversity.com/pages/825/Lebanon-HISTORY-BACKGROUND.html

8 Ibid.

9 FAWAZ, Mona and Isabelle PEILLE, 2002. Urban Slums Report: The case of Beirut, Lebanon. [Publication]. Massachusetts Institute of Technology. p. 13

10 Ibid.

11 UNITED NATIONS RELIEF AND WORKS AGENCY FOR PALESTINE REFUGEES, n.d. Shatila Camp [online]. n.d., [Access on: 19.01.2020]. Available at: https://www.unrwa.org/where-we-work/lebanon/shatila-camp

12 FAWAZ, Mona and Isabelle PEILLE, 2002. Urban Slums Report: The case of Beirut, Lebanon. [Publication]. Massachusetts Institute of Technology. p. 9

13 HARTRICK, Adrian, 2020. Beirut's Little Armenia, a Haven of Diversity [online]. New York: News Deeply, April 26, 2016 [Access  on: 16.01.2020]. Available at: https://www.newsdeeply.com/refugees/community/2016/04/26/foucaults-prediction-of-live-and-let-die-2

14 HABIB, Rima R., 2019. Survey on Child Labour in Agriculture in the Bekaa Valley of Lebanon: The Case of Syrian Refugees. American University of Beirut. Beirut: American University of Beirut Press. ISBN: 978-9953-586-47-2. Page 15.

15 Ibid.

16 UNITED NATIONS RELIEF AND WORKS AGENCY FOR PALESTINE REFUGEES IN THE NEAR EAST, n.d.. Burj Barajneh Camp [online]. n.d., [Access on: 19,01.2020]. Available at: https://www.unrwa.org/where-we-work/lebanon/burj-barajneh-camp

17 FAWAZ, Mona and Isabelle PEILLE, 2002. Urban Slums Report: The case of Beirut, Lebanon. [Publication]. Massachusetts Institute of Technology. p. 16

18 Ibid. p.16

19 Ibid. p.16

20 Ibid. p.5

21 Ibid. p.5

22 CARPI, Estella, 2015. Revisiting Vulnerability in a Slum of Beirut: when Citizenship Disempowers [online]. The Civil Society Knowledge Centre, Lebanon Support. July, 2015 [Access on: 16.01.2020]. Available at: https://civilsociety-centre.org/paper/revisiting-vulnerability-slum-beirut-when-citizenship-disempowers

# List of Figures:

01. Exemplary image of a refugee camp street. SWAN, Michael. Street 5. In: cc Search [online]. [Access on 17.12.2019]. Available at: https://ccsearch.creativecommons.org/photos/6666d3d4-406f-4d52-a87b-27fb7d7204cc

02. Camp Areas in Beirut. Lara Klein, 2020

03. Density Comparison. Philipp Essig. 2020, based on: MACFARLANE, Julia, 2014. Syrian refugees fear permanent exile in Lebanon's camps. In: BBC News [online]. 03.04.2014 [Access on: 01.01.2020]. Available at: https://www.bbc.com/news/world-middle-east-26816043, GEO-REF.NET, n.d.. Libanesische Republik [online]. Geo-ref.net, n.d. [Access on: 19.01.2020]. Available at: http://www.geo-ref.net/de/lbn.htm, STATISTISCHES BUNDESAMT, 2020. Bundesländer mit Hauptstädten am 31.12.2019 [online]. Wiesbaden: Statistisches Bundesamt 2020 [Access on: 19.01.2020]. Available at: https://www.destatis.de/DE/Themen/Laender-Regionen/Regionales/Gemeindeverzeichnis/Administrativ/02-bundeslaender.html and NISCVT, 2020. Burj Barajneh Center [online]. Beirut: The National Institution of Social Care and Vocational training, 2020 [Access on: 19.01.2020]. Available at: https://www.socialcare.org/portal/burj-barajneh/51/

04. Rural to urban migration. Philipp Essig, 2020

05. Interactions between camp area and urban fabric. Philipp Essig, 2020

06. Section A-A'. Tobias Moritz, 2020

07. Urban fabric near the Shatila refugee camp. Tobias Moritz, 2020

08. International refugees. Philipp Essig, 2020

09. Interactions between camp area and urban fabric. Philipp Essig, 2020

10. Section B-B'. Tobias Moritz, 2020

11. Refugee Camp Burj Baranjeh and the surrounding Urban structure. Tobias Moritz, 2020

12. Displaced people through war. Philipp Essig, 2020

13. Interactions between camp area and urban fabric. Philipp Essig, 2020

14. Section C-C'. Tobias Moritz, 2020

15 Settlement structure on the coast line. Tobias Moritz, 2020, based on: GOOGLE, 2019. Google Maps [online]. Google 2019 [Access on 16.12.2019]. Available at: https://www.google.com/maps/@33.8624359,35.4849075,688m/data=!3m1!1e3

16. Life inside a refugee camp. KUPELI, Ismail, 2006. In: flickr [online]. 22.06.2020 [Access on 09.02.2020]. Available at: https://www.flickr.com/photos/ismail-kupeli/172702762/in/photolist-2hYhQEo-2hYhQuJ-dcfmco-p3rnZA-gc8vSt-7ksFZV-dDdzGS-egLQ1n-2hYhR8N-2hYmrYY-2hYhQTV-gc-99gk-gc8zk3-7NXECT-2hYmsVs-2hYkkU9-2hYmsEs-nREyBQ-a6ENbX-gc8TzE-x8E-XZ-7kwym7-YFffnG-gc9r5o-nuKd3-gc91bV-aA5C3h-aA3164-aA5B6L-2hYkjFn-ggb-fC-ZJLD6P-gc8YDr-4zmt1N-9ksznq-2hYhRu9-ZG6bpo-pjEar8-5V2Tjj-egSAy5-eg-SAjA-gc9jgb-aA2ZG6-gg9vM-CCJnQU-2hYkjXu-FPkemX-gg9vQ-ggao1-ZJL8zz

01.

Jonie Benoufa, Giovanni Böwer, Cara Hähl-Pfeifer

**Jonie Benoufa**
**Giovanni Böwer**
**Cara Hähl-Pfeifer**

# Reclaiming Beirut: Propagation of a Movement

City of privatisation. Political failure and state corruption. Few public spaces. There have been many reasons for Beirut's citizens to be dissatisfied.However, recently the cumulation of all above and the elimination of these problems caused a societal shift from the public in the role of a passive bystander to someone who is actively taking charge of the situation. This has been the case for quite a while in the exclusive Lebanese art scene. Most recently, however, the general public decided they have had enough and have started protesting directly against the politics of the state. The streets of Beirut have transformed into a showroom of the public's desire for change, and are being moulded back into their original purpose, a public space.

## From Passivity to Activity

Beirut, a city with a very long and diverse history, has been developing into a demonstration hot spot since October 2019. People have been blocking streets, public squares, have been demonstrating in front of political institutions or have been occupying abandoned buildings. In a way they have reclaimed the space that was taken away from them by the state and given to private land owners. This development can also be observed in the Lebanese contemporary art scene. Artists have been intervening and raising awareness for political issues through different sorts of media in Beirut's supposedly public spaces. Lately, the October Revolution has sparked an increasing number of artists to create and spread their work around locations of the protests. This chapter aims to look at how the public takes a stand through different kinds of interventions and thereby converting the streets, Beirut's original public space, into a showroom of change.

01. Protests during the 76th Lebanese Independence Day on Martyr's Square

MEDITERRANEAN SEA

WITHOUT ACCESS TO THE BEACH

CORNICHE (WATERFRONT PROMENADE)

CENTRAL DISTRICT

AMERICAN UNIVERSITY BEIRUT

RAS BEIRUT

DOWNTOWN

MOST OF THE DEMON-STRATIONS ARE HAPPENING HERE

HAMRA

MAINLY PRIVATISED

MARTYR'S SQUARE

GEMMAYZEH

HIGHWAY SEPARATING THE BEACH FROM THE CITY

MUNICIPALITY OF BEIRUT

RAOUCHEH

ASHIRAFIEH

VERDUN

RAMLET AL-BAIDA

A PARK WITH OPENING HOURS

ONLY PUBLIC BEACH IN BEIRUT

HORSH BEIRUT

OFFICIAL CITY BORDER

HIGHWAY TO DAMASCUS

TO THE AIRPORT

02.

## Beirut Public versus Private Spaces

■ Public parks
▨ Private parks
╱ Privatised land
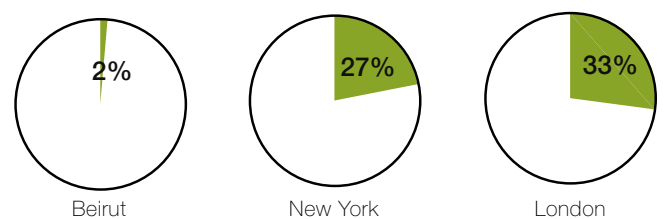
02. Map of Beirut comparing public with private space and notes on the city

## Public green space in Beirut compared to other metropolitan cities in percentage[2]

2%

Beirut

27%

New York

33%

London

Jonie Benoufa, Giovanni Böwer, Cara Hähl-Pfeifer

## Scars of the Past

Historically Beirut's main public spaces were the streets. Small unplanned spaces like street stalls and their outside seating were seen as public. Then the 15 years lasting civil war began and today the city is not what it once used to be.
Before the war Beirut was a mono-centric city with the vibrant Central District and a historic core.[1] During the war, however, there was a shift that turned Beirut multi-centric.[1] Main public spaces such as the historic core (today known as Downtown) became shooting zones. These "neutral" spaces had the great potential of becoming public spaces again after the war as no specific ethnic group took ahold of them. In 2006 a reconstruction plan was decided on by the municipality[2] and instead of the city centre rebecoming what it used to be, "a popular historic, cultural space adorned with local merchants and street vendors, (it) was morphed into a high-end commercial centre with luxury brands that only an elite minority could afford."[2]

03. Revolution hand in Martyr's Square

### The Few Public Spaces that were Included Deemed Uninviting and Small

Today one of the biggest issues the population struggles with is privatisation. All over Beirut former public areas are being sold to private investors and landowners. Especially the coastline, which according to Lebanese Law actually belongs to the public is step by step being fenced off and no longer accessible for everyone. This is due to corrupt politicians who also serve as private investors.[3]

### The Streets as a Showroom for Art

Due to the lack of state-given infrastructure, there is a very active self-organising art scene in Beirut. Over the past decade artists' collectives and independent, non-profit associations have constructed an alternative infrastructure for the making and exhibiting, documenting and archiving of the contemporary arts.[5]

04.  Military barricades transformed into seatings

Jonie Benoufa, Giovanni Böwer, Cara Hähl-Pfeifer

Corniche Extended by AUB architecture students (2012)

The design of a flying piece of sidewalk, in shape of an old train car, that can transport you despite the private pier to restricted spaces. A flying public space in the private sphere.

Fractions of Memory by Nada Sehnaoui (2003)

This large installation takes hold of the collective memory, the public spaces and the reclamation of it. She asks: "Do you have any memories of daily life in Downtown Beirut before the war started in 1975?"

ART IS by the Popular Front for the Liberation (2013)

A march on the Lebanese Independance Day inspired by the words written on banners including ‚ART IS'. For ex. ‚ART IS SALVATION', ‚ART IS HOPE'.It imitated and decoded the language used in public demonstrations in Lebanon.

There is no Sea in Beirut by the French and Orient Institut (2015)

An performative and innovative city walk starting at the AUB to Manara, passing by historic sites realted to the sea. This performance tells a story of a city, a harbor and public space in search of an identity.

Ali Abdallah by an graffiti artist (2013)

An homage and sign of empathy towards all the homeless in Beirut after the passing away of the well-known homeless man Ali Abdallah in a very cold night in Beirut.

Holidays in the Sun by TSakhi Architects (2018)

Barricades are transformed into urban furniture and want to draw attention to the lack of urban space, urban seating and greenery by using pieces of the old security infrastructure of the city.

BCD

HAMRA

DOWNTOWN

GEMMAYZEH

RAOUCHEH

MANARA

05.

The Temporary Art Platform (TAP) wrote a toolguide about art in public space in Lebanon with advice on things like how to deal with legal regulation and restriction, vandalism or even political parties that may be in the way by raising questions such as: "How and to what extent can art projects address politically fragmented public spaces like those existing in Lebanon?"[5] TAP is also currently working on a database of already realised projects, which can be used as inspiration and reference.

The large number of carried out projects shows how experienced Beiruti are in creating art interventions. They use it as a means to start a conversation about lack of social infrastructure and privatisation due to corruption, which can be observed as one starts to place these projects on a map. Most of the interventions took place in an area with political controversy.[5] The coast (such as the Corniche Promenade) and Downtown are particularly affected, most likely because of privatisation politics and the thereof lack of public space.

**Artistic Interventions as an Expression of Public Opinion**

Performance

2D - Art

Installations

05. Examples of different artistic interventions in Beirut 2000-2019 and their accumulation in political controversial areas
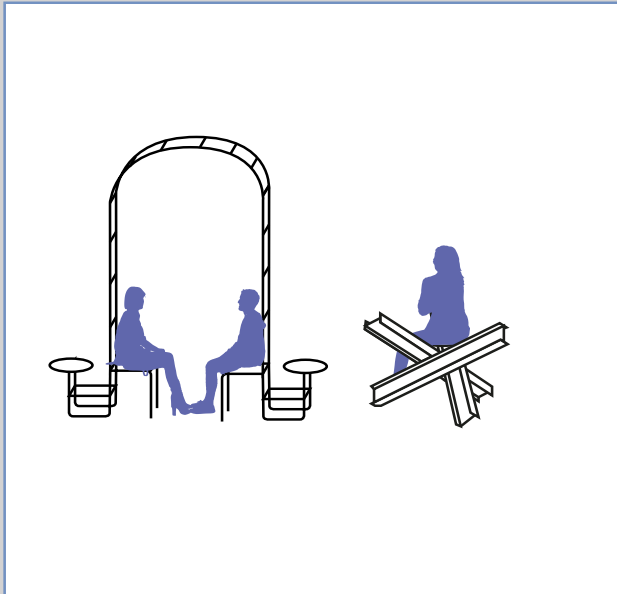
Holidays in the Sun and Lost
in Transition
by TSakhi Architects
(2018)
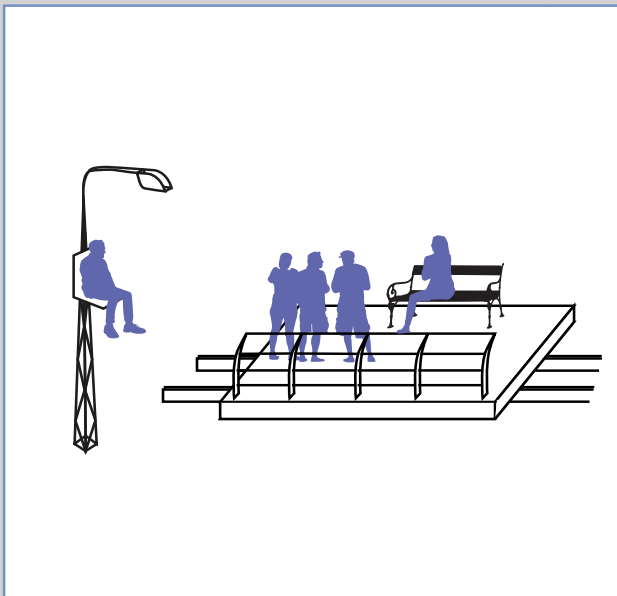


Corniche Extended
by AUB architecture students
(2012)



Fractions of Memory
by Nada Sehnaoui
(2003)

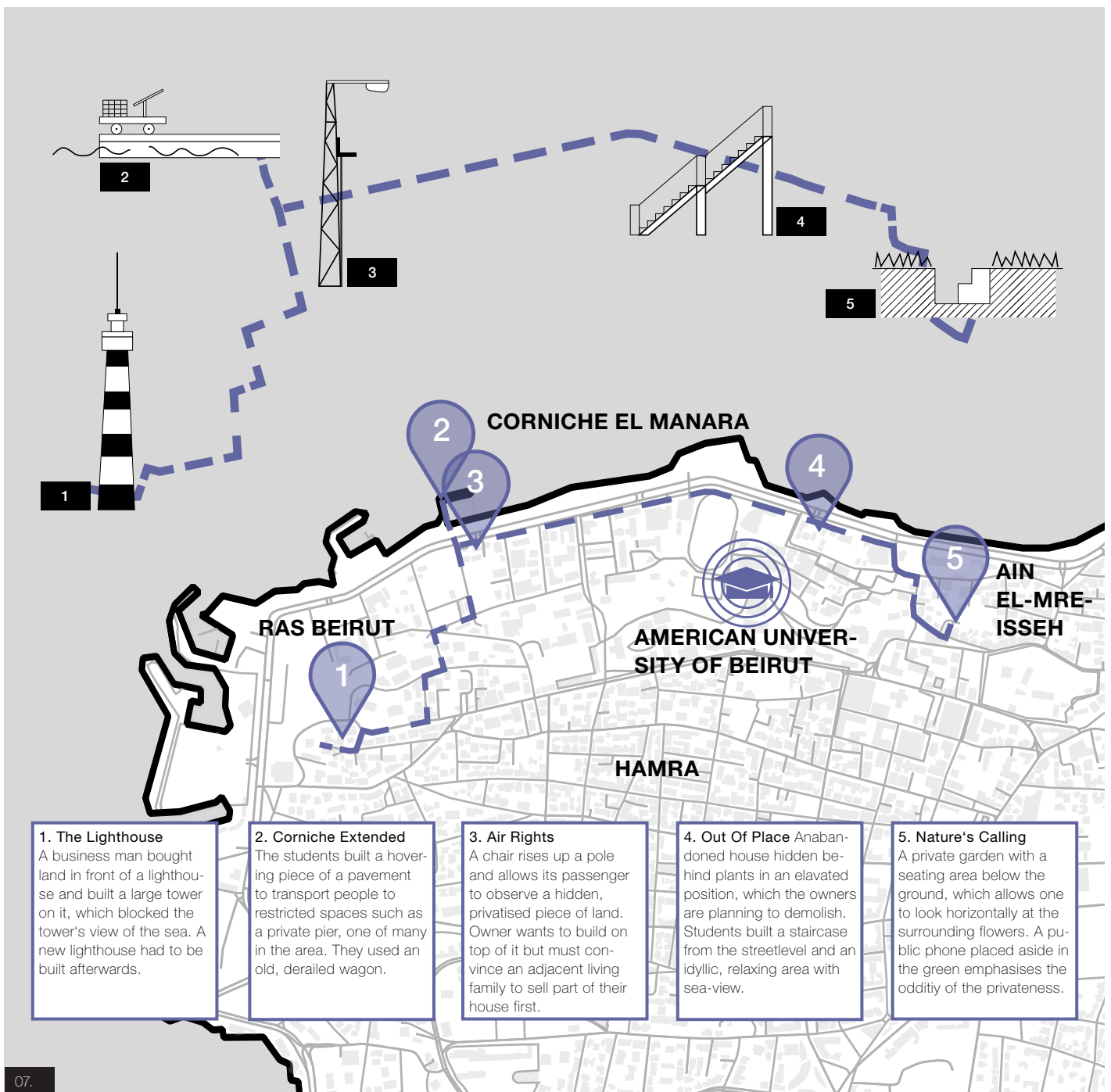Jonie Benoufa, Giovanni Böwer, Cara Hähl-Pfeifer
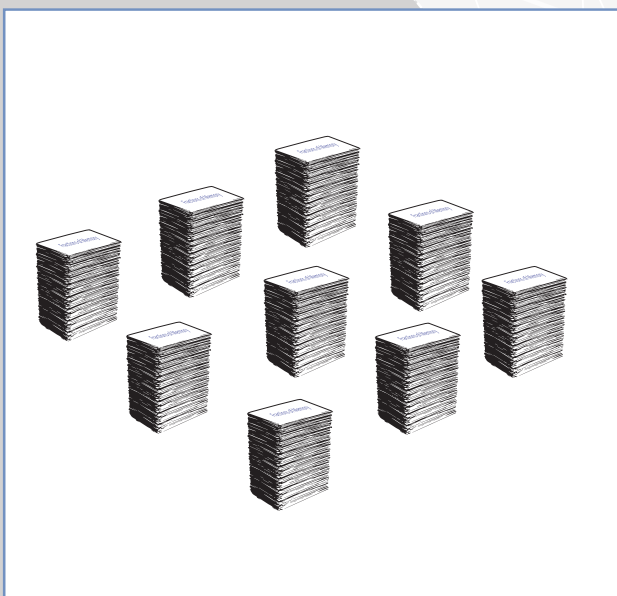
ART IS
by the Front for the Liberation
(2013)

There is no Sea in Beirut
by the French and Orient Institut
(2015)

Ali Abdallah
by an graffiti artist
(2013)

**CORNICHE EL MANARA**

**RAS BEIRUT**

**AMERICAN UNIVERSITY OF BEIRUT**

**AIN EL-MREISSEH**

**HAMRA**
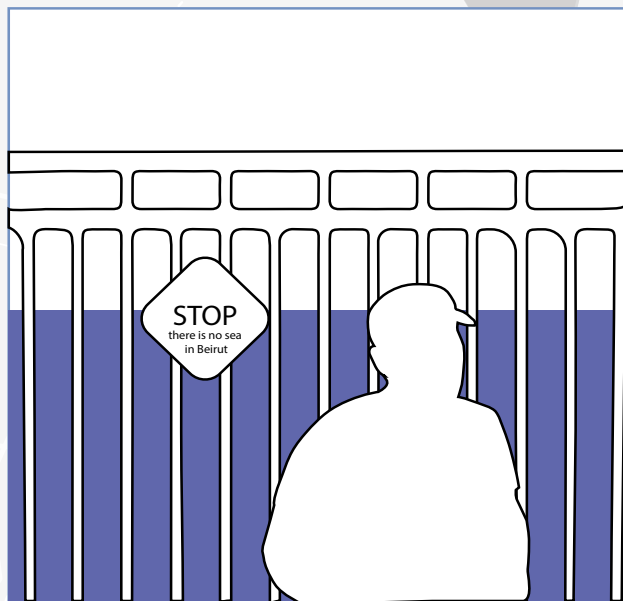
**1. The Lighthouse**
A business man bought land in front of a lighthouse and built a large tower on it, which blocked the tower's view of the sea. A new lighthouse had to be built afterwards.

**2. Corniche Extended**
The students built a hovering piece of a pavement to transport people to restricted spaces such as a private pier, one of many in the area. They used an old, derailed wagon.

**3. Air Rights**
A chair rises up a pole and allows its passenger to observe a hidden, privatised piece of land. Owner wants to build on top of it but must convince an adjacent living family to sell part of their house first.

**4. Out Of Place** An abandoned house hidden behind plants in an elavated position, which the owners are planning to demolish. Students built a staircase from the streetlevel and an idyllic, relaxing area with sea-view.

**5. Nature's Calling**
A private garden with a seating area below the ground, which allows one to look horizontally at the surrounding flowers. A public phone placed aside in the green emphasises the odditiy of the privateness.

07.

### "Welcoming City Design Studio" - A Case Study

A rather successful series of interventions was conducted 2012 by students of the American University Beirut (AUB) as a part of their architecture course.[7] "Welcoming City Design Studio" explored 5 cases of privatisation along the Corniche, each with a different perspective on the matter. It helped residents discover and engage in public space and its meaning.

For one of the interventions, called "Corniche Extended", the students built a piece of sidewalk and put it on rails in order to "fly" over a private pier (one of many nowadays).[7] The sidewalk was taken from the Corniche itself, which is Beirut's seaside promenade and till this date a popular hotspot for spending freetime close to the sea. The Corniche counts as one of Beirut's most successful public spaces although there is not a large number to compete with.[3]

**New Perspectives on Beirut Through a Walking Performance**

▪▪▪▪ Pedestrian walk line

⬤ Location of the projects

06. Illustrations of art interventions as seen in figure 5

07. Interventions from the project "Welcoming City Design Studio" by AUB students

Jonie Benoufa, Giovanni Böwer, Cara Hähl-Pfeifer

08.

The entire installation could only be reached if the visitor trespassed through a fence, as the public is generally not allowed to enter the pier due to "health and safety concerns about sea spray rendering the pathway slippery and dangerous".[7] The students, however, avoided this issue by hovering over it.

This is only one example of a wide range of interventions that shows how extensively people are looking at the perception of public space in the eyes of the public or the government and how bizarre the experience can be if a space that was taken for granted for decades suddenly is no longer accessible by ordinary means.

08.  Corniche Extended

Jonie Benoufa, Giovanni Böwer, Cara Hähl-Pfeifer

CAN WE PLEASE
PUT THE SMART PEOPLE
IN CHARGE NOW?
MERCI

YOU AIN'T GOT
NONE UNLESS
YOU GOT FUNDS
HUN

09.
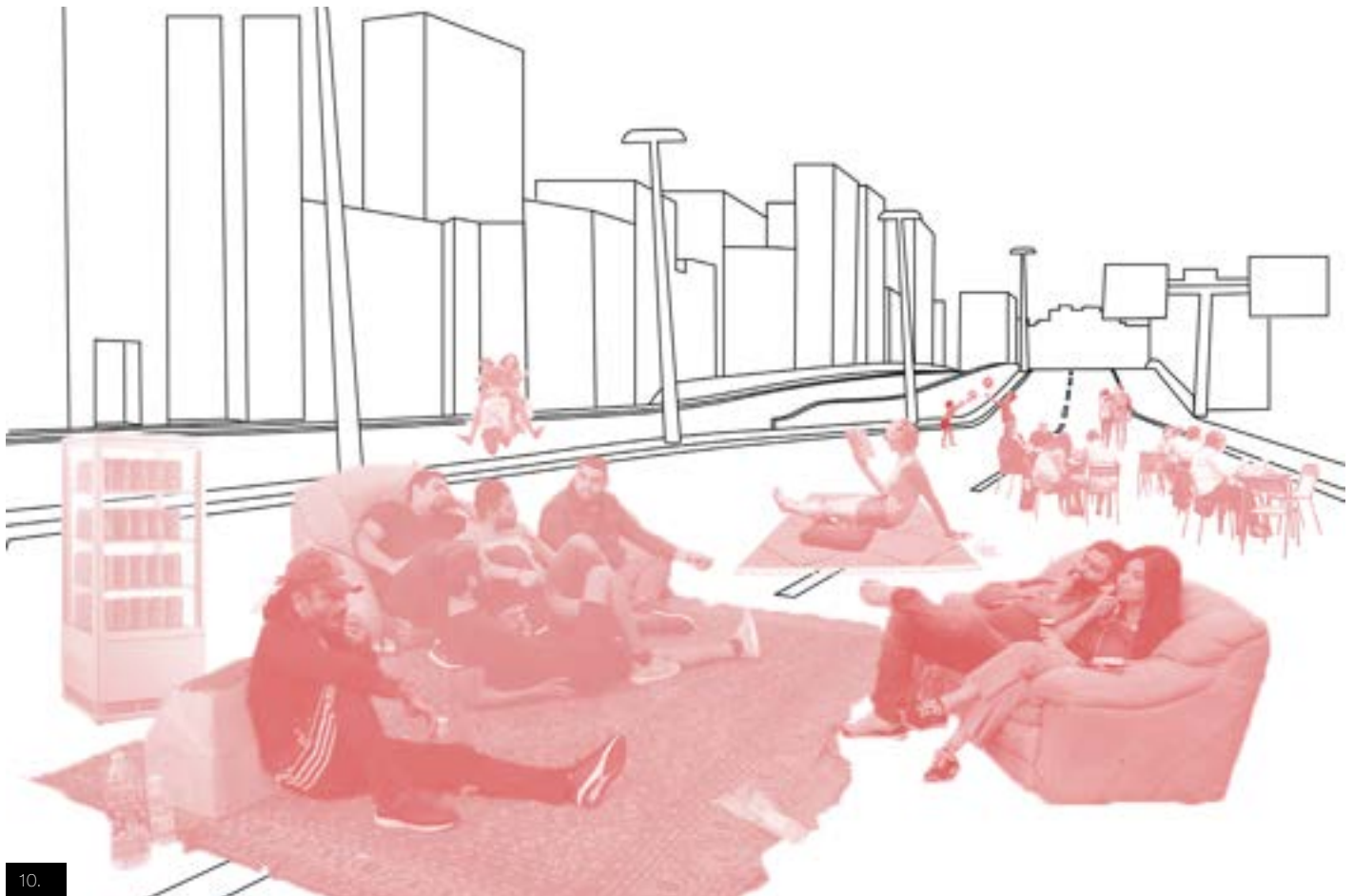
10.

### The October Revolution

The 17th October 2019 marked the beginning of a new kind of revolution that brought together citizens with different political, religious, social and cultural affiliation who agreed on one thing: The existing regime needed to fall. Caused by the affirmation of a new tax-law, this revolution showcased the need for one basic human right: public space.
It all started when people decided to park their cars on the highway and began marching. This way the demonstrators not only cut off the city of its main mean of transportation but also retaught themselves how to walk. In Beirut there is no culture of strolling through the city in order to get around. Most of the people usually take the car, because the city lacks infrastructure for pedestrians. This shows the importance of streets as a transportation instrument and how the protestors essentially blocked Beirut's traffic veins, turning it dysfunctional.

09. Examples of demonstration slogans from the October Revolution

10. "Beit El Cha3eb" = "House of the People", built by protesters on Ring Road

Jonie Benoufa, Giovanni Böwer, Cara Hähl-Pfeifer

11.
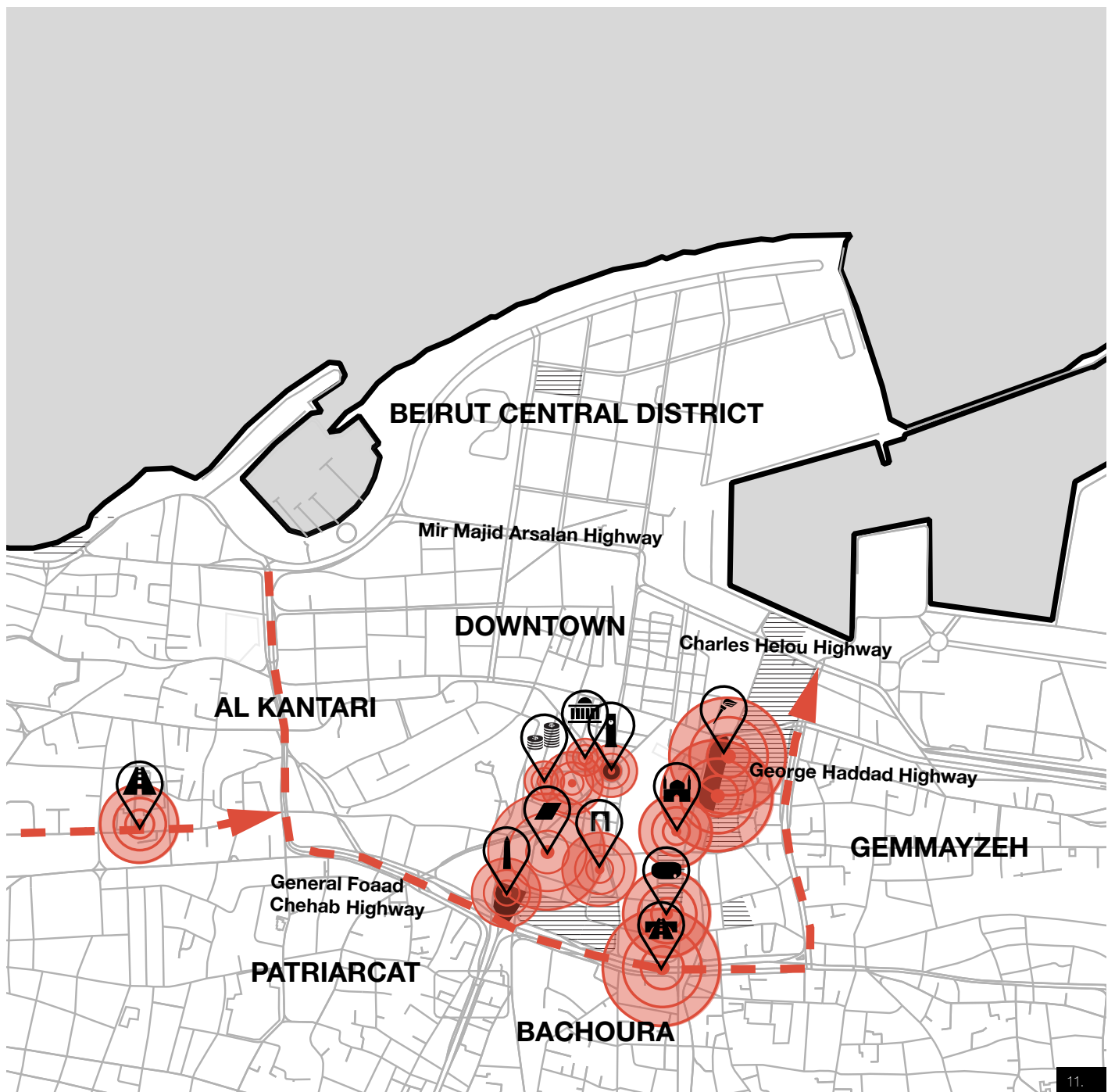
After a while the demonstration became a self-sufficient system with own infrastructures that provided everything from food, beverages, hookahs and demonstration items, medical service and psychological help, talks and lectures about the political situation, to raves and concerts and so on.

The protesters also built a living room 'without walls' with a carpet, sofas and a fridge in the middle of the road and called it „Beit El Cha3eb", which translates into "the House of the People" for protestors to rest if they were drained from the action. In a way the demonstration truly transformed the streets into a huge living room where people played football, tennis, card games, did yoga or held concerts. At night, when the light were low, people created fireplaces or lit up the area with their phones and cars. Lara Bitar wrote 2019 on Twitter: „The House of the People will host you for free for as long as you'd like. B(reak)fast and morning yoga provided. Location: Ring Bridge."[8]

**Locations of Protests in and around Downtown**

- The Egg
- Ring Bridge
- Central Bank
- Nejmeh Square
- Parliament
- Martyrs Square
- Mohammad Al-Amin Mosque
- Khalil Gebran Garden
- Grand Theater
- Riad El Solh Square
- "public space"
- parking space
- Demonstration

11. Protests in Beirut in October 2019-January 2020 and the expansion of squares into parking spaces

People occupied old, abandoned buildings and repurposed them as centres for talks, lectures, concerts and raves organised by academics, students and artists. One of these „Icons of The Revolution"[2] became "the Egg". A cinema built before the civil war, which remained one of the last artefacts of that time in Downtown that had not been torn down and been replaced by a new building up till today. Called "eggupation" by those protesting, the Egg was climbed, painted and many academic lectures took place.

Slowly, the squares in Downtown, which before the 17th October were mostly empty and poorly-conceived zones became what they were suppose to be all along: a vibrant centre and a public space. Mariam Hammoud described it 2019 in Beirut Today „ironically, contested spaces became spaces for contesting".[2] Riad el Sohl square, Martyr's Square and Ring Road were transformed into the main frequented and therefore most powerful locations.

12. The Egg as an icon of the Revolution

ART MADE OUT OF PROTEST'S CAMP-
SITE DESTRUCTION CAUSED BY
HEZBOLLAH AND AMAL MOVEMENT
SUPPORTERS ON 29/10/2019

MOHAMMAD AL-AMIN MOSQUE

**RIAD EL SOLH**

MARTYR STATUE

MEDITERRANEAN SEA

**MARTYR'S SQUARE**

REVOLUTION HAND

EGG

**RING ROAD**
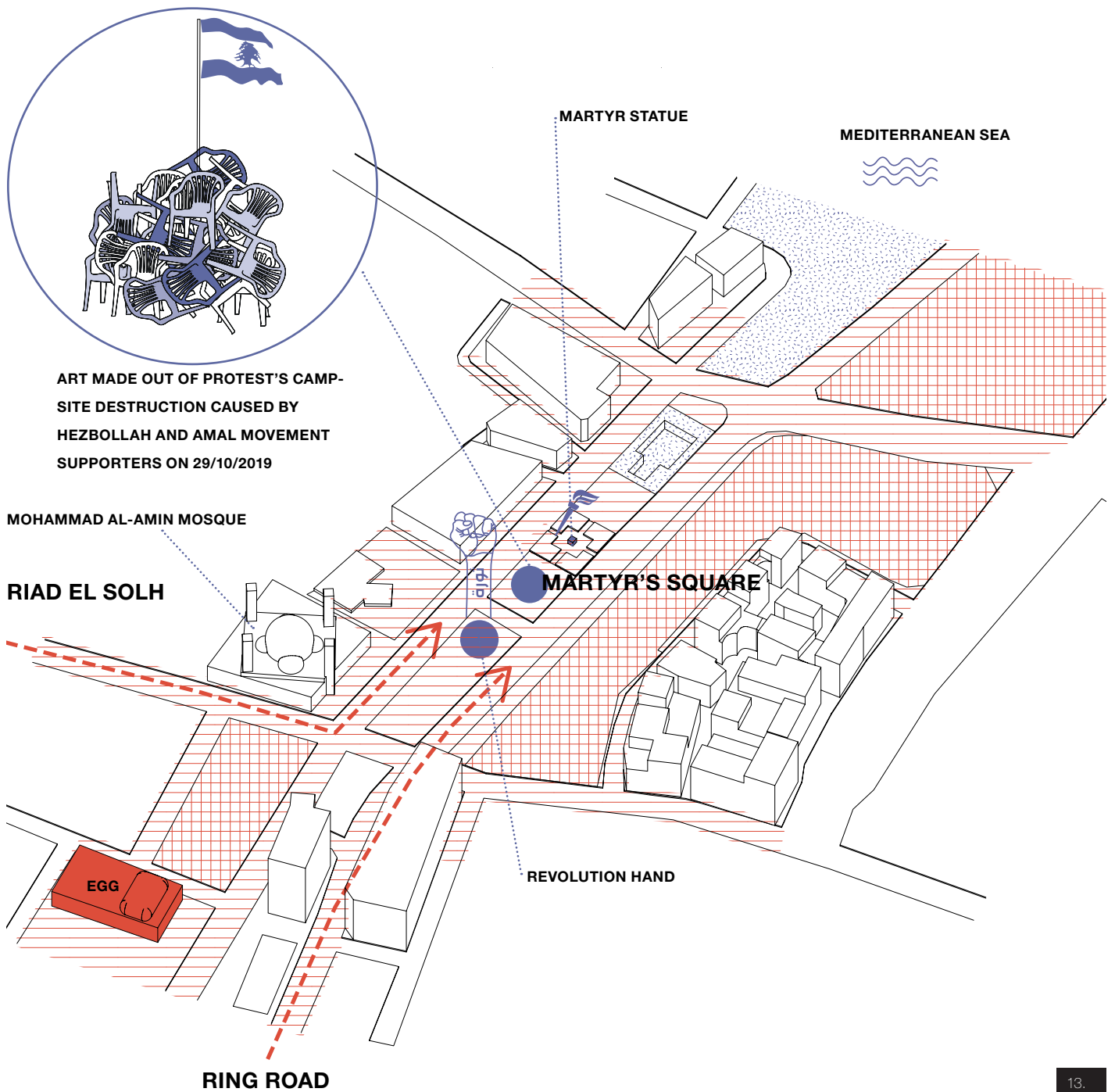
## Martyr's Square as a Hub for Change

Looking at infrastructure for vehicles one can observe many parking
places in Downtown especially close to public squares such as Mar-
tyr's Square. It is surrounded by three major parking places adding
up to around 37.000 m$^2$ solely available for vehicles. Compared to that
the Martyr's Square only takes up about 1300 m.$^2$ Considering that,
the parkings essentially served as an expansion of many plazas like
Martyr's Square during the Revolution, which at times (e.g. the 76th
Lebanese Independence Day on the 22nd November 2019) was so well
visited that individual protests in different locations in and around
Downtown connected to a single, grand demonstration.
Even though artistic interventions in Martyr's Square were not uncom-
mon before the October Revolution of 2019 (e.g. Fractions of Memory
by Nada Sehnaoui in 2003[5]) they have ever since increased signifi-
cantly. In fact it was almost like the demonstrations were feeding into
the creativity

### Art and Protests on Martyr's Square

| | |
|---|---|
| ▤ | Public demonstration |
| ▦ | Parking space |
| ▦ | Archaelogical excavation |
| ■ | Artistic exposition |
| ■ | The Egg as a reclaimed building |
| ╍╍ | Protestor's crowd joining from other demonstration hotspots |

13. Demonstration on Martyr's Square showing how
surrounding parkings serve as an expansion
of the square

14.

creativity and drive of artists, inspiring them to draw, paint, spray, create sculptures and graffiti. Large amounts of the latter appeared on streets, squares and abandoned buildings. Especially the paintings on walls of mosques, cathedrals and governmental institutions were a very controversial topic (as there is a fine line between art and vandalism). It nevertheless showed what kind of creativity the Revolution has sparked among the creative scene and how artists in their turn have fuelled the demonstration by inspiring with their work.

### Action = Reaction, Privatisation = Intervention

Artistic interventions and political protests next to each other on a map of Beirut indicate a clear correlation between people's dissatisfaction with the political situation and the locations where they assemble to show resistance: Areas that have been privatised - like most beaches - or are in risk of privatisation, areas with inadequate public spaces like Downtown or parks that have specific opening hours

14. Graffiti on and in front of the Egg

Jonie Benoufa, Giovanni Böwer, Cara Hähl-Pfeifer

**PRIVATISED BEACH**

**BCD**

**DOWNTOWN**
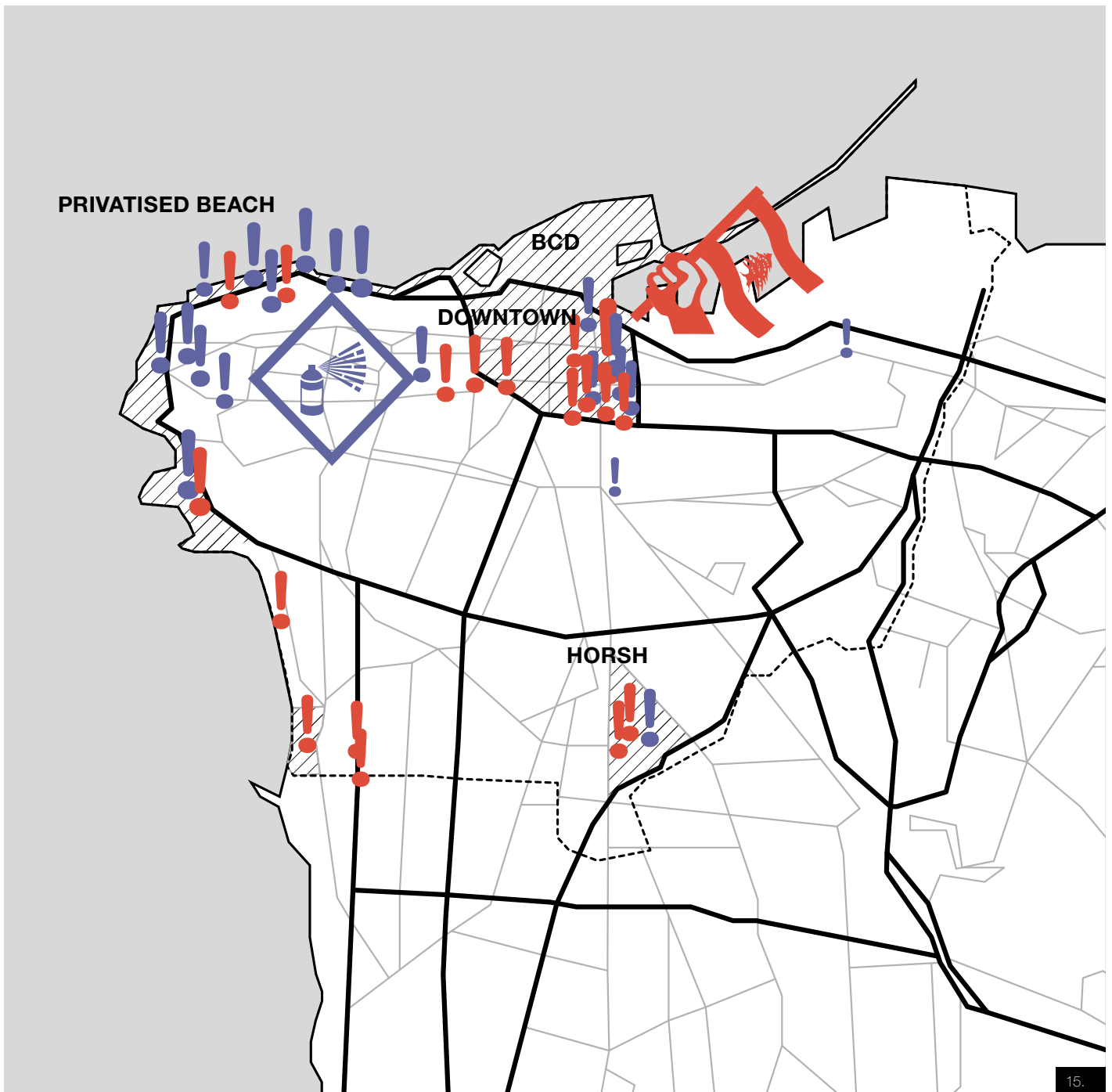
**HORSH**

15.

like Horsh Beirut. They have almost all been site to some sort of political or artistic intervention. The extent and amount of interventions that have so far taken place in the city prove that Beiruti have a very strong sense of citizen responsibility and ownership and are not to be underestimated. They are reclaiming the space that legally belonged to them but was illegally taken away and are at the same time completely committed to the issue.[3]

"Reclaiming urban public space, means reclaiming it in every sense, reclaiming the right to walk, to stroll, to loaf, to sit alone, to hang out with others, to wander, to get lost, to be visible, to be invisible, to use a toilet, to just be, in all those spaces, at all hours."[10] "Reclaiming Space" was the source of power and endurance behind a lot of artistic interventions and certainly still is for the October Revolution. Only because people transformed the streets, the squares, buildings or parking lots into their personal living rooms, they are still out there protesting for their right to public space, accessibility to the coast and a new political system as we speak.

**Locations of Protests and Art Interventions Compared to Privatised Land**

! Political protests

! Artistic action

▨ Privatised land
(area with limited public access)

15. Correlation of protests and art interventions and privatised land

## List of References:

1 ROWE, Peter G. and Hashim SARKIS, 1998. Projecting Beirut: episodes in the construction and reconstruction of a modern city. München: Prestel-Verlag. ISBN 2-7913-1938-8

2 HAMMOUD, Mariam, 2019. Reclaiming Public Space During the Revolution: How We Are Reconnecting With Lebanese Cities. In: Beirut Today [online]. 23.11.2019 [Access on: 06.01.2020]. Available at: http://beirut-today.com/2019/11/20/reclaiming-public-space-revolution/

3 NAZZAL, Maryam and Samer CHINDER, 2018. Lebanon Cities' Public Spaces. In: The Journal of Public Space [online]. 3(1), p. 199-125 [Access on: 06.01.2020]. ResearchGate. ISSN: 2206-9658. Available at: https://www.researchgate.net/publication/327156838_Lebanon_Cities'_Public_Spaces

4 WILSON-GOLDIE, Kaelen, 2009. On the Politics of Art and Space in Beirut. In: Tate Papers [online]. 12.08.2009 [Access on: 06.01.2020]. Available at: https://www.tate.org.uk/research/publications/tate-papers/12/on-politics-art-and-space-beirut

5 TEMPORARY ART PLATFORM, 2016. A few Things You need to know when Creating an Art Project in a Public Space in Lebanon. Beirut: Temporary Art Platform [Access on: 06.01.2020] Available at: http://85.90.245.224/research/

6 BATTAH, Habib, 2012. Reclaiming City Spaces. In: Beirut Report [online]. 14.05.2012 [Access on: 06.01.2020]. Available at: http://www.beirutreport.com/2012/05/reclaiming-city-spaces.html

7 ALABASTER, Olivia, 2012. Creating breathing space amid Beirut's bustle. In: The Daily Star [online]. 16.05.2012 [Access on: 21.01.2021]. Available at: http://www.dailystar.com.lb/Article.aspx?id=173535.

8 BITAR, Lara, 2019. „The house of the people" will host you for free for as long as you'd like. Bfast and morning yoga provided. Location : Ring Bridge. In: Twitter, Inc. [online]. 28.10.2019 [Access on: 12.01.2020]. Available at: https://twitter.com/LaraJBitar

9 NAAMANI, Aseel, 2019. Lebanese youth are reclaiming public spaces with arts and dialogue. In: International Alert [online]. 20.11.2019 [Access on: 12.01.2020]. Available at: https://www.international-alert.org/blogs/lebanese-youth-are-reclaiming-public-spaces-arts-and-dialogue

10 SANYAL, Ira, 2016. Activating and Reclaiming Public Space: Visibility of marginalized communities in public spaces are important steps towards a diverse, dynamic and urbane world. In: Medium [online]. 20.10.2016 [Access on: 12.01.2020]. Available at: https://medium.com/@irasanyal/activating-and-reclaiming-public-spaces-efacef-fa1279

## List of Figures:

01. Showroom of Change. Photo: EGGERS, Tim, 2019

02. Map of Beirut comparing public with private space and notes on the city: HÄHL - PFEIFER, Cara and Jonie BENOUFA, 2019 based on HALL, Richard, 2017. Beirut's only public beach is about to be taken over by an exclusive private resort. In: Public Radio International [online]. 30.05.2017 [Access on: 08.11.2019]. Available at: https://www.pri.org/stories/2017-05-30/beirut-s-only-public-beach-about-be-taken-over-exclusive-private-resort, WORLD CITIES CULTURE FORUM, 2020. % of public green space (parks and gardens) [online]. London: World Cities Culture Forum, 2020 [Access on: 16.01.2020]. Available at: http://www.worldcitiescultureforum.com/data/of-public-green-space-parks-and-gardens and RICHANI, Sandra Rishani, n.d.. Beirut the Fantatstic [online]. Beirut is ill: The WHOs ‚Healthy City Networks'. Beirut: Sandra Rishani Richani, n.d. [Access on: 24.01.2020]. Available at: http://spatiallyjustenvironmentsbeirut.blogspot.com/2011/07/beirut-is-ill-whos-healthy-city.html

03. Revolution Hand. Photo: BATTA, Maram, 2019

04. Holidays in the Sun. T SAKHI, Taym KARELSY and Tony ELIEH, 2018. Holidays in the Sun: Security Barriers. In: tsakhi.com. [online]. 06.2018 [Access on: 12.01.2020]. Available at: https://www.tsakhi.com/holidaysinthesun

05. Examples of different artistic interventions in Beirut 2000-2019 and their accumulation in political controversial areas. BENOUFA, Jonie, 2020, based on Reference 2, GRIFFITHS, Aylin, 2019. Tsakhi creates public spaces using Beirut's security infrstructure. In: Dezeen [online]. 07.09.2019 [Access on: 19.01.2020]. Available at: https://www.dezeen.com/2019/06/07/t-sakhi-beirut-seating-design/ and MARKUS, David, 2017. Learning from Beirut: In a city of maddening contradictions, artists have learned to adapt in manifold ways. In: Frieze [online]. 11.07.2017 [Access on: 19.01.2020]. Available at: https://frieze.com/article/learning-beirut

06. Illustrations for the examples of art interventions in Beirut. BÖWER, Giovanni. 2020 based on: Reference 5 and Figure 04

07. Interventions from the Project "Welcoming City" by AUB Students. HÄHL - PFEIFER, Cara, 2020 based on: RISHANI, Sandra, 2012. Welcoming City are waiting for you for the LAST DAY todayyy!!! Don't miss out!! In: Facebook [online]. 08.05.2012 [Access on: 19.01.2020]. Available at: https://www.facebook.com/photo.php?fbid=101517193673 40526&set=oa.289009701188726&type=3&theater

08. Corniche Extended. LÉVESQUE, Carole, 2012. The Welcoming City Design Studio. In: bureau d'étude de practique indisciplinées [online]. 2016 [Access on: 12.01.2020]. Available at: https://www.be-pi.ca/contenu/The-Welcoming-City-Design-Studio

09. Examples of demonstration signs of the October Revolution. HÄHL - PFEIFER, Cara, 2020, based on: THIS IS NOT AN ATLAS: A global collection of countercartographies. 1. Auflage. Bielefeld: transcript Verlag. ISBN 978-3-8376-4519-4 used under CC BY 4.4, AGENCIES, 2019. Hundreds of thousands Lebanon's biggest protest for years. PM promises reform. In: The Times of Israel. [online]. 20.10.2019 [Access on: 24.01.2020]. Available at: https://www.timesofisrael.com/tens-of-thousands-take-to-streets-as-lebanon-protests-enter-4th-day/, KHALIFE, Leyale, 2019. Slaying Corruption: 18 protest signs Lebanese held during demonstrations. In: StepFeed. [online]. 22.10.2019 [Access on: 24.01.2020]. Available at: https://stepfeed.com/slaying-corruption-18-protest-signs-lebanese-held-during-demonstrations-5229, ROSENBERG, David, 2019. Opinions: For Lebanon's Leaders Reforms Are The Last Priority. In: Haaretz [online]. 24.10.2019 [Access on: 24.01.2020]. Available at: https://www.haaretz.com/opinion/.premium-for-lebanon-s-leaders-reforms-are-the-last-priority-1.8019565 and DAHIR, Ikran, 2019. Here Are 15 Of The Best Signs From The Protests In Lebanon. In: Buzzfeed News [online]. 21.10.2019 [Access on: 24.01.2020]. Available at: https://www.buzzfeed.com/ikrd/here-are-15-of-the-best-signs-from-the-protests-in-lebanon

10. "Beit El Cha3eb" - "House of the People" on Ring Road. BENOUFA, Jonie, Giovanni BÖWER and Cara HÄHL - PFEIFER, 2020, based on: MALLA, Hussein, AP and ALJAZEERA, n.d.. In: Beirut Today [online]. [Access on: 12.01.2020]. Available at: http://beirut-today.com/2019/11/20/reclaiming-public-space-revolution/

11. Protests in Beirut October 2019 - January 2020 and the expansion of squares into parking spaces. JADALIYYA REPORTS, 2019. Ongoing Post on Protests in Beirut/Lebanon (Jadaliyya Co-Editors in Beirut). In: Jadaliyya [online]. 08.11.2019 [Access on: 12.01.2020]. Available at: https://www.jadaliyya.com/Details/40115 and WIKIPEDIA, 2020. 2019 Lebanese protests. In: Wikipedia, the free encyclopedia [online]. 11.01.2020 [Access on: 12.01.2020]. Available at: https://en.wikipedia.org/wiki/2019_Lebanese_protests

12. The Egg. Photo: BATTA, Maram. 2019

13. Demonstration on Martyr's Square showing how surrounding parkings serve as an expansion of the square. BENOUFA, Jonie, Giovanni BÖWER and Cara HÄHL - PFEIFER, 2020, based on: Reference 2 and Figure 10

14. Graffiti in front of the Egg. Photo: BATTA, Maram, 2019

15. Correlation of protests and art interventions and privatised land. HÄHL - PFEIFER, Cara and Jonie BENOUFA, 2020, based on: Figures 05 and 10

01.

**120**

**Lena Karrer**
**Di Mu**
**Ondrej Sedlak**

# Higher, Bigger, Faster, More: Religious Buildings as Indicators of Power in Beirut

As one of the oldest cities in the world, Beirut looks back on more than 5000 years of history.[1] Due to its advantageous location between the east and the west, at the crossroads of maritime trading routes, it has always been an important place for exchange - exchange of goods as well as exchange of culture. Thirteen layers of history underneath Beirut Downtown bear witness to multiple civilizations[2] - and the rise of a new civilization often equally meant the rise of a new state religion. Regarding its geo-political location, it is no wonder that Beirut was constantly torn between the big religions of the east and the west: Islam and Christianity. While in one era the conquerors came from the east, they were removed by leaders of the west in the following time period. Consequently, some old religious buildings were transformed and some new ones added to shape city and society according to the rulers beliefs. Over time a total of 18 different recognised sects[3] acummulated, most of them belonging to either one or the other confession and therefore seperating the city into two bearings. While these sectarian differences have digged a deep trench through Beirut during the late Civil War,[4] the ongoing conflict has been subtly visible for ages: churches and mosques - as representatives of the religions to the outer world - were built to demonstrate power. But how did that manifest? And is it still true today?

01. Collage of various religious buildings in Beirut

02.

Lena Karrer, Di Mu, Ondrej Sedlak
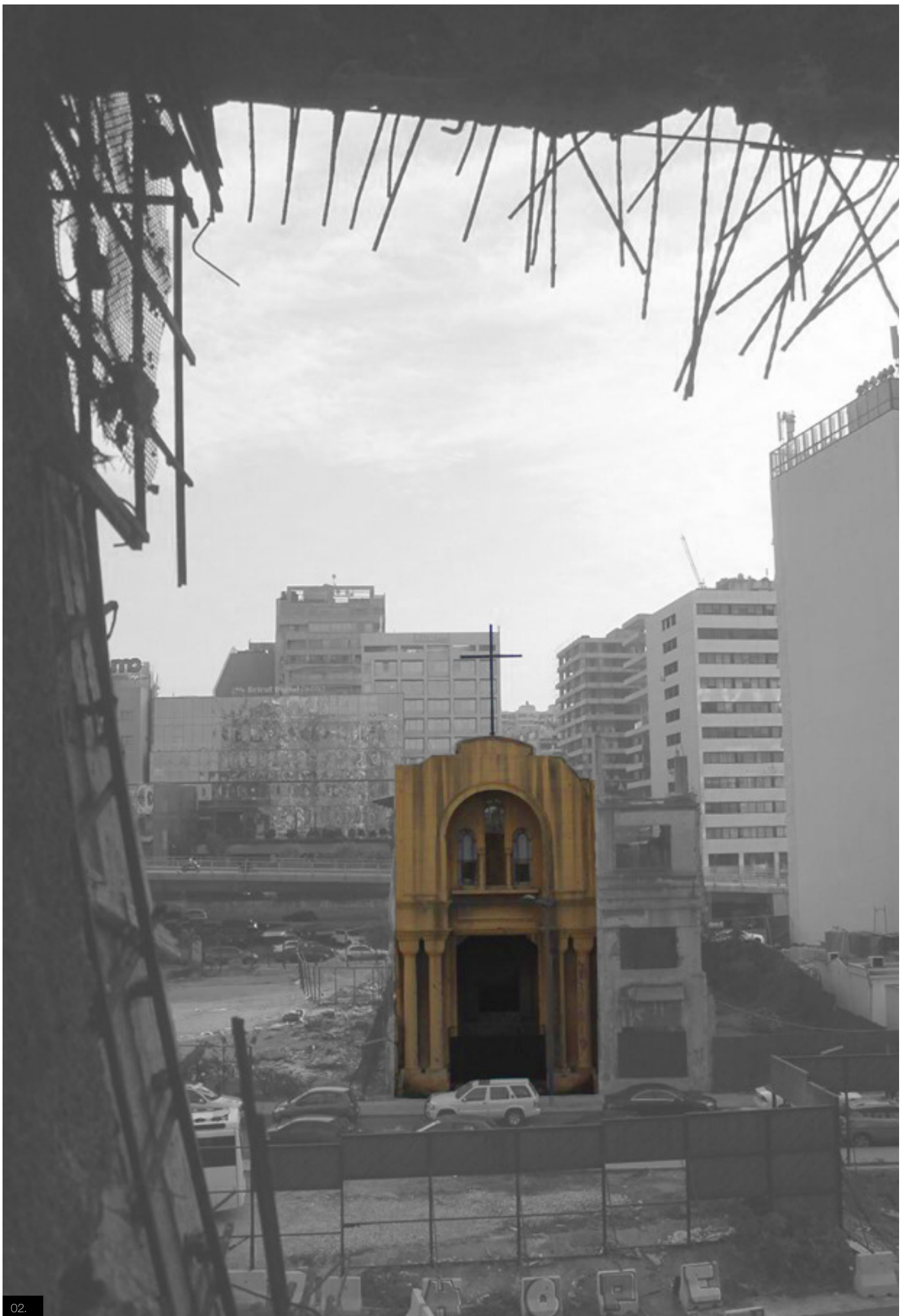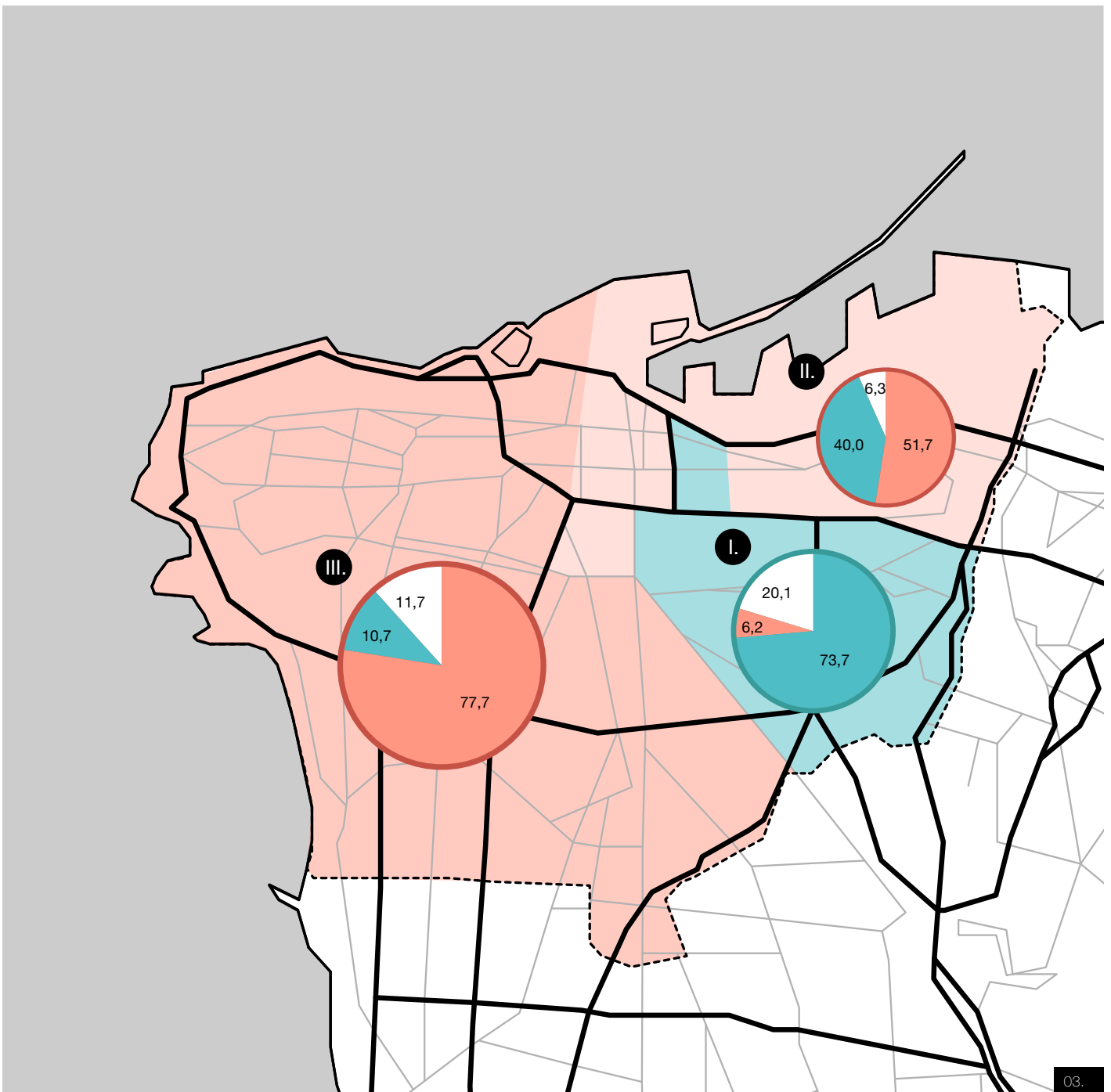
## Politics: a Mirror of Religion

With Lebanon's independence in 1943 came a new political system, which turned out to be confessionalistic. Therefore, religion and politics are closely linked in Lebanon. For the election of the parliament, Beirut was traditionally split into three different sectors (before the Doha agreement). Today, Beirut II has been distributed among Beirut I and III but voters from the three districts are still registered in official papers. The political map shows that west Beirut is mainly dominated by Muslims, while the Christianity makes the majority of society in the east. This resembles and reflects the distribution of the two bearings during the Civil War from 1975 to1989 - but also the distribution of religious buildings as seen on the following pages. All in all, the city fabric displays the religious attitude of society via their representative buildings - and in Lebanon, this also displays the political power.[4, 5, 6, 7]

**Percentage of People**

Christians in the area
Christian majority
Muslims in the area
Muslim majority

02. Photograph of a church

03. Political map. The former three voting districts, showing the percentage of people who voted for christian or muslim politicians

## List of Mosques

1. Rahman
2. Shatila
3. Aein Al Mrayseh
4. Al Majidyyeh
5. Khaled Ibn Al
6. Hamra
7. Tabbara
8. Al Kantari
9. Emir Munzer
10. Al Omari
11. Emir Assaf
12. Mohammad Al Amin
13. Al Khodr
14. Kouraytem
15. Al Kassar
16. Al Farooq
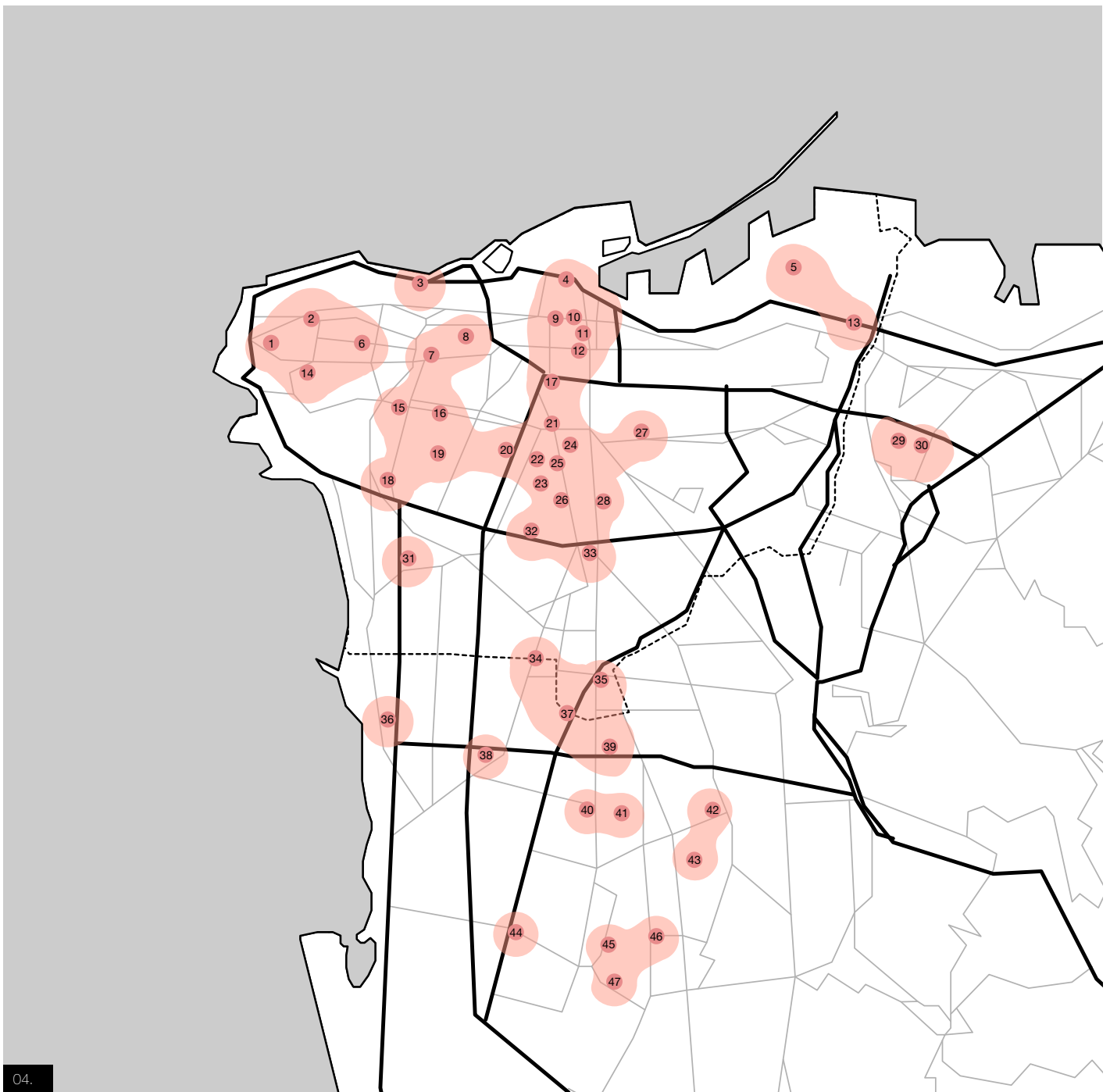
17. Al Imam Ali Bin Abi Taleb
18. Al Salam
19. Al Sultan Mohammad
    Al Fateh
20. Salim Salam
21. Al Basta Al Tahta
22. Burj Abi Haidar
23. Khalya Saudiya
24. Basta Al Fawqa
25. Khatam Al Anbiyaa
26. Ibad Al Rahman
27. Beydoun
28. Sidani
29. Farhat
30. Osrat Al Taakhi
31. Boubiss

32. Jamal Abdel Nasser
33. Al Arab
34. Al Dana
35. Imam Sadiq
36. Al Imam Al Sadek
37. Matar
38. Al Dawa Al Islamie
39. Al Mahdi
40. Al Hasanian
41. Sayeda Zeinab
42. Kazem
43. Al Qaem
44. Great Prophet
45. Sayyed Al Awseyaa
46. Al Radouf
47. Arab

## The Muslim World

■ Area of Islam influence

■ Locations of Mosques in the city

04. Names and location of various mosques

**124**                    Lena Karrer, Di Mu, Ondrej Sedlak
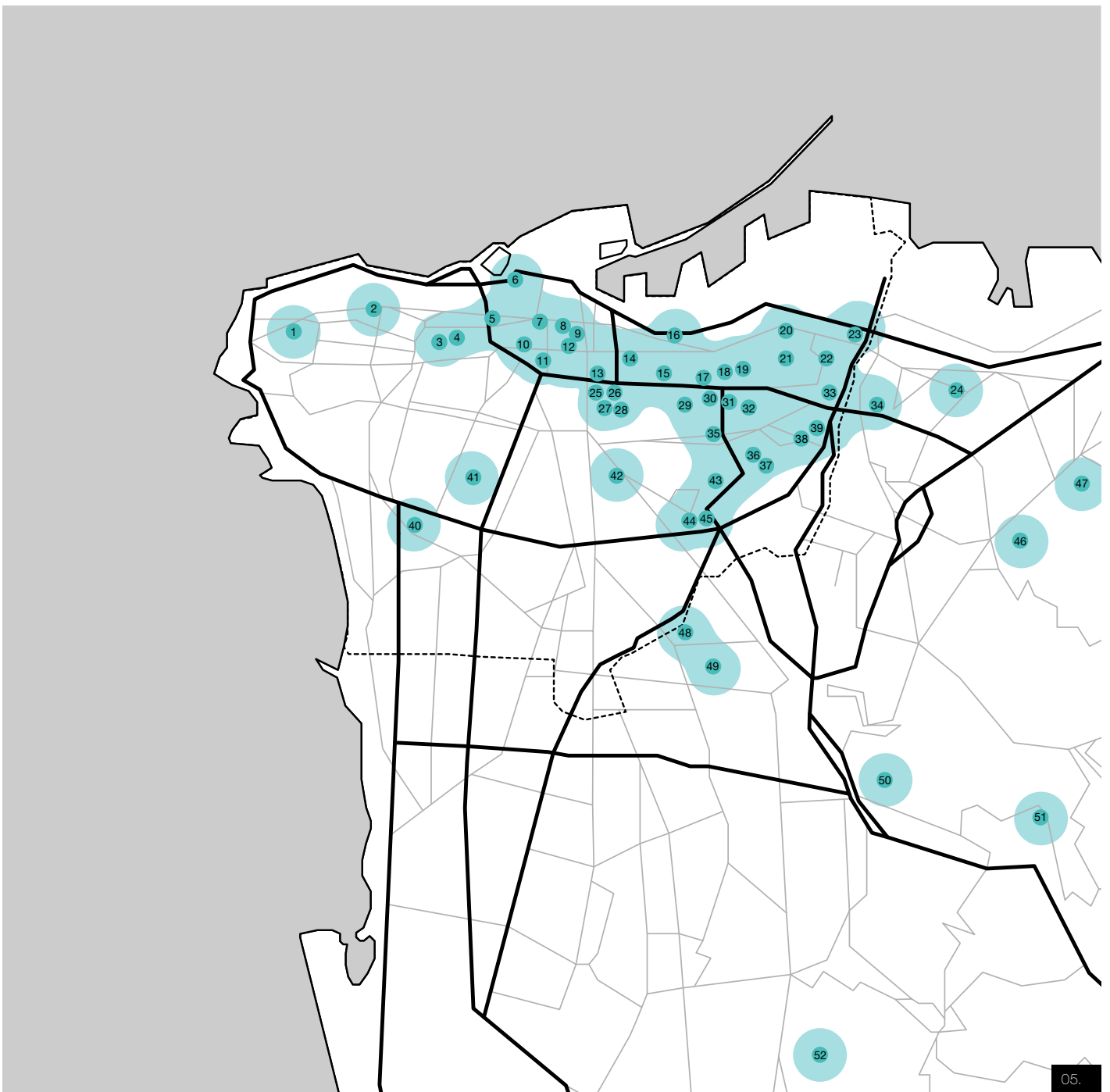
## List of Churches

1. St. Rita
2. Saint Mary's Orthodox
3. Ras Beirut Evangelical Baptist Church
4. First Armenian Evangelical
5. St. Elias Maronite
6. All Saints Internaional Congregation
7. St. Louis Cathedral
8. Saint George Greek Orthodox Cathedral
9. St. Elias Greek Catholic
10. St. Nshan
11. Evangelical Church
12. Saint Georges Maronite Cathedral
13. St. Elias & St. Gregory
14. St. Maroun Maronite Catholic
15. Saint Nicholas Greek Orthodox
16. St Antoine Catholic
17. Maronite archdiocese

18. St. Joseph
19. St George Rmeil Greek Orthodox Church
20. St Michel Maronite
21. St. Jacobs Armenian
22. St. Gregoir
23. Armenian Orthodox
24. National Evangelical Baptist Church
25. Jesuites Churche
26. St. Joseph
27. Beshara Church
28. Mar Mtanios Maronite
29. Notre Dame de Abrine
30. Our Lady of Lebanon
31. St. Dimitrios Greek Orthodox Church
32. Basilica of Our Lady of the Miraculous Medal
33. St Haroutyoun Church 34. Church of God
35. Sayidat Al Ataya
36. Saydet el Doukhoul

37. Sayidat Al Intical
38. St. Afram Syriac Orthodox Church
39. Beirut Nazarene
40. St Elie
41. Baptist Evangelical
42. Sayidat Al Najat
43. Assyrian Church
44. Notre-Dame de L'annuciation
45. Free Evangeligal
46. Holy Spirit Church
47. St. George Assyrian Church
48. Notre-Dame de Lourdes
49. Brethren Church
50. St. John
51. Alkiama Great Othodox
52. The National Ev. Church of Hadat

### The Christian World

Area of Christian influence

Locations of Churches in the city

05. Names and location of various churches

**Religious Buildings as Indicators of Power in Beirut**            **125**

NUMBER
OF MOSQUES

Al Omari
1291

Al Dabbaghah
1294

Emir Assaf
1594

Emir Munzer
1633

Al Khodr
1661

Al Majidiyeh
1844

| ROMAN ERA 51 BC - 635 AD | ARABIAN ERA 635 AD - 1110 | KINGDOM OF JERUSALEM 1110 - 1291 | MAMLUKEN ERA 1291 - 1516 | OTTOMAN ERA 1516 - 1920 |

St. George Greek Orthodox
500 AD

St. Elias Greek Catholic
1700

St. Dimitrios
1800

St. Louis Capuchin
1868

National Evangelical Church
1870

NUMBER
OF CHURCHES

## Beirut through the Ages

■ Christian dominated
■ Muslim dominated

06. Historic timeline of Beirut. Showing different eras and builings built

## Ancient Beirut

The ancient Beirut - or Berytus, as the Romans called it - had been known as an important seaside port since the Phoenician era. It was conquered and assimilated to the Roman Empire in the mid-first century BC, functioning as a base for veteran soldiers. Together with various architectural and structural interventions, the foundation of the first Christian temple in Beirut was laid. The Anastasis Church was first destroyed by an earthquake in the mid-sixth century AD. Built up again in the twelfth century, it was destroyed and resurrected several times again. Today, the Cathedral of Saint George Greek Orthodox is built on the exact same spot, making it the oldest extant church in Beirut.[6, 8, 9, 10]

## The Middle Ages

In 635 AD, Beirut was conquered by muslims for the first time. Though apparently no extant mosques date back to that period, it is the first change from Christianity to Islam Beirut undertook. About 500 years later, Beirut became part of the Crusader Kingdom of Jerusalem and the Christians prevailed again. The first mosques can be dated back to the 1290s, an era of muslim rule by the Mamluk Sultanate. However, the Al Omari Mosque was originally a romanesque cathedral from 1150. [2, 6, 8, 10, 11]

Lena Karrer, Di Mu, Ondrej Sedlak

Timeline labels (top, pink):
- Al Basta Al Tahta 1878
- Al Farooq 1890
- Basta Al Fawqa 1896
- Kouraytem 1909
- Al Kassar 1934
- Shatila 1962
- Ibad Al Rahman 1991
- Mohammad Al Amin 2008

Era bar:
- FRENCH ERA 1920-1940
- INDEPENDENCE ERA 1940 - 1975
- CIVIL WAR ERA 1975 - 1990
- UNSTABLE ERA 1990 - NOW

Timeline labels (bottom, teal):
- St. George Maronite 1884
- St. Elias Maronite 1907
- First Armenian Evangelical 1922
- St. Elias and St Gregory 1928
- St. Nicholas 1976

06.

## Ottoman Era

The vast majority of mosques and churches that can be dated, were
constructed during the rule of the Ottoman Empire, a traditional
muslim civilization. This might be the reason mainly mosques were
built in the first 300 years of rule. Beirut was only a small town in
the extended Empire, but with the beginning of the 19th century, it
developed a closer trading relationship with continental Europe. Fur-
thermore, the city became a sanctuary for Maronite refugees during
the 1860 Lebanon conflict. Both circumstances and the fact, that
the Ottoman power declined, could explain the increase of building
churches during the second half of the 19th century. [2, 6, 8, 10]

## After World War I

With the downfall of the Ottoman Empire in 1918, the Christian-in-
fluenced era of the French Mandate began. It was the last time, one
religion clearly had the upperhand in Beirut. In 1943, Lebanon became
independent, but still religions remained part of the now parlamen-
tary system as it splits political and institutional power proportionally
between the different sects. Though equal on paper, the struggeling
for supremacy continued, resulting in the Civil War. [2, 3, 4, 6, 8, 10]

**1516**
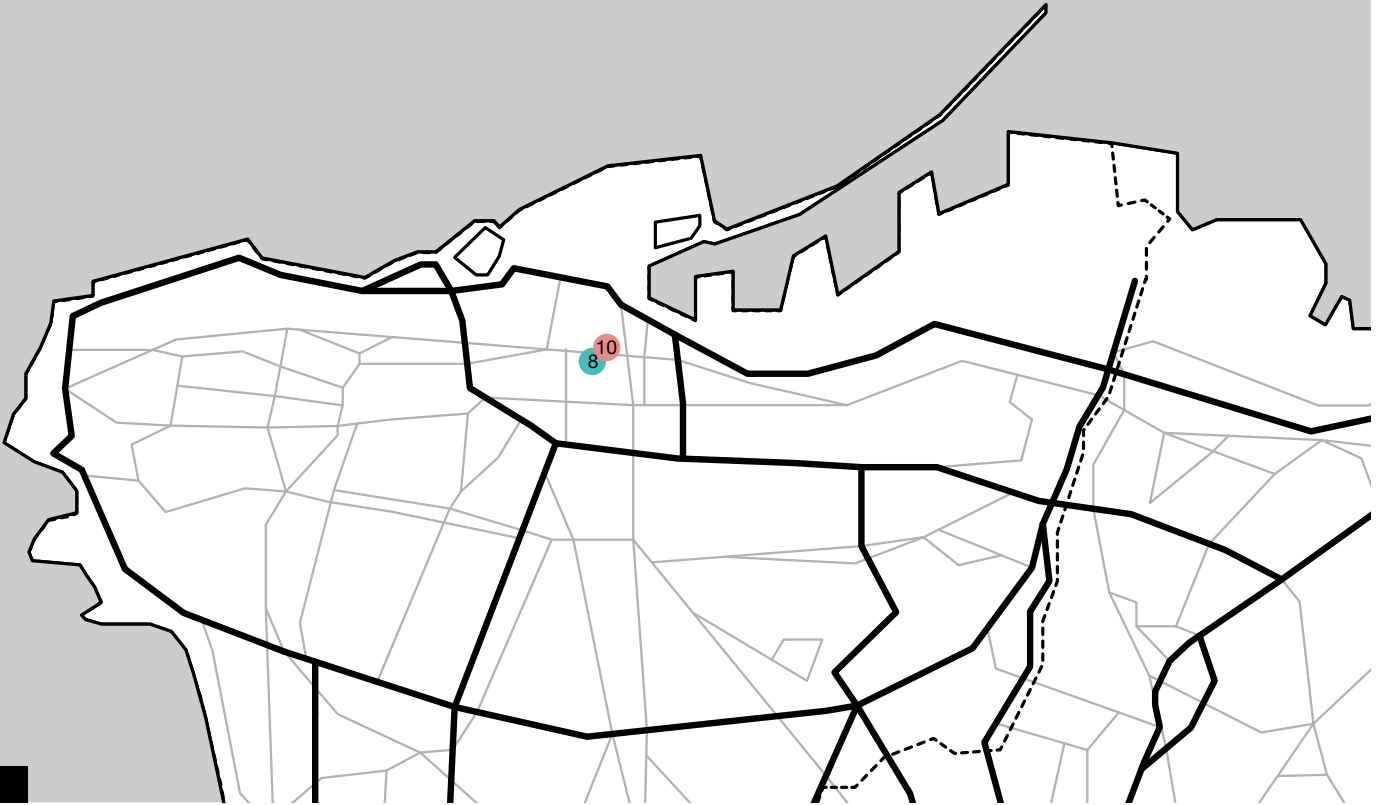
07.

**1800**
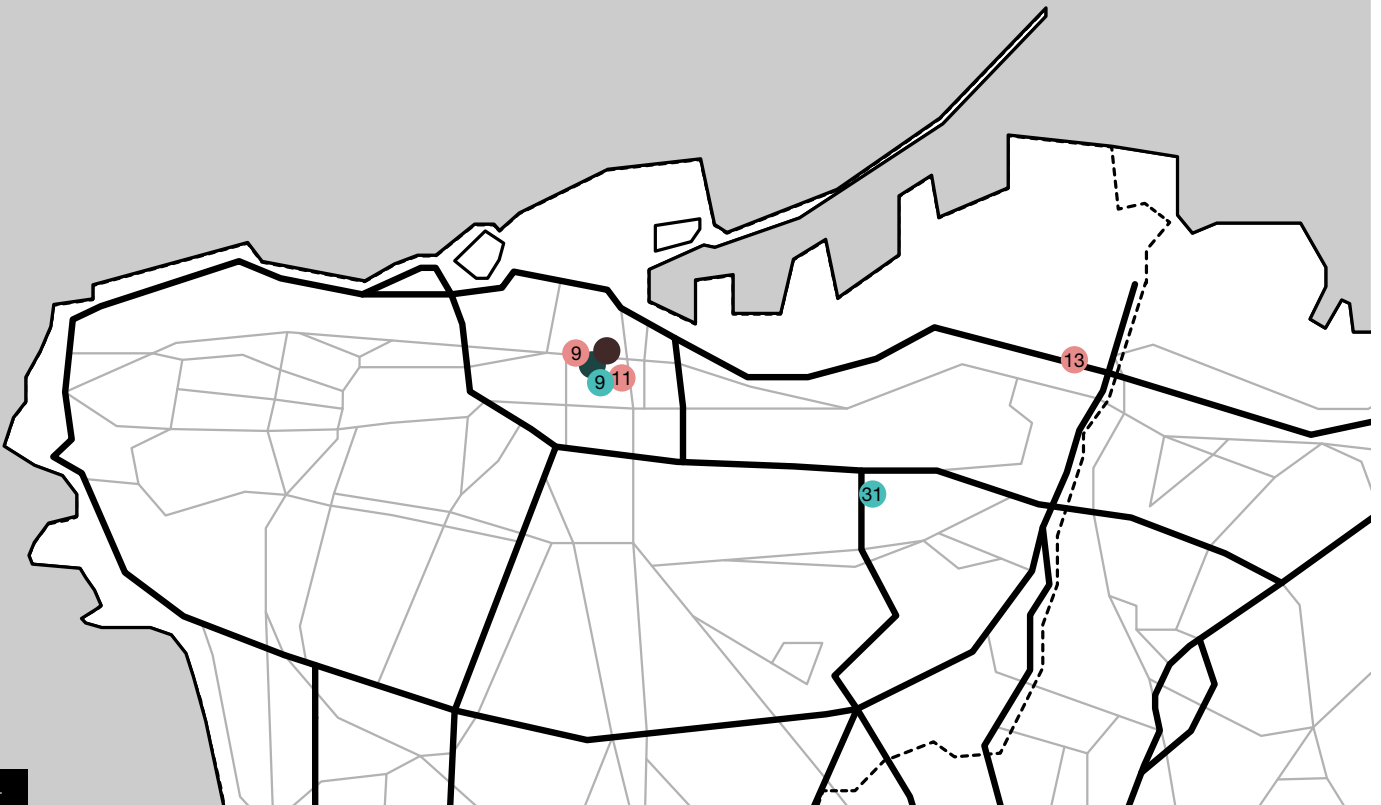
08.

07. Location of religious buildings built until 1516

08. Location of religious buildings built from 1516 until 1800

Lena Karrer, Di Mu, Ondrej Sedlak

**1920**

09.
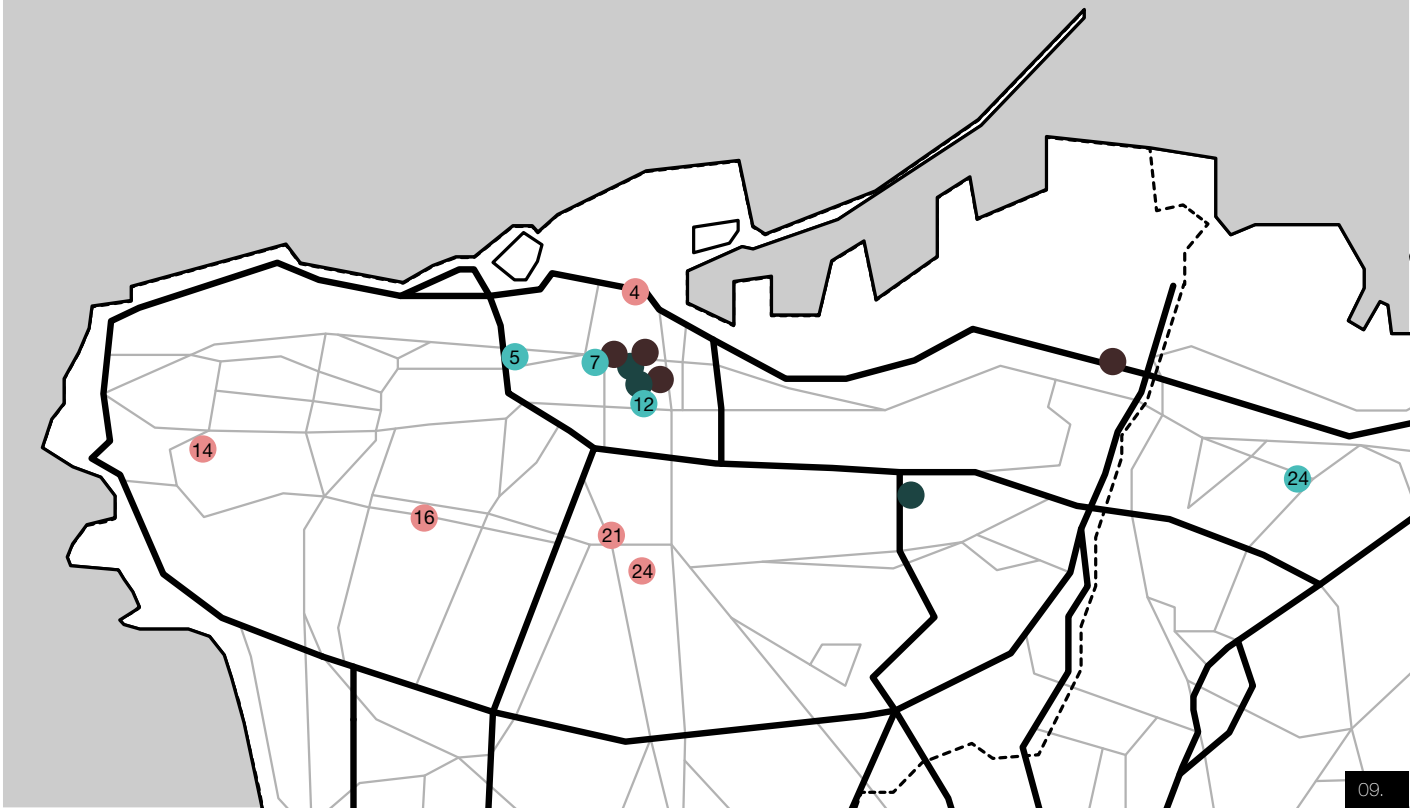


**2020**

10
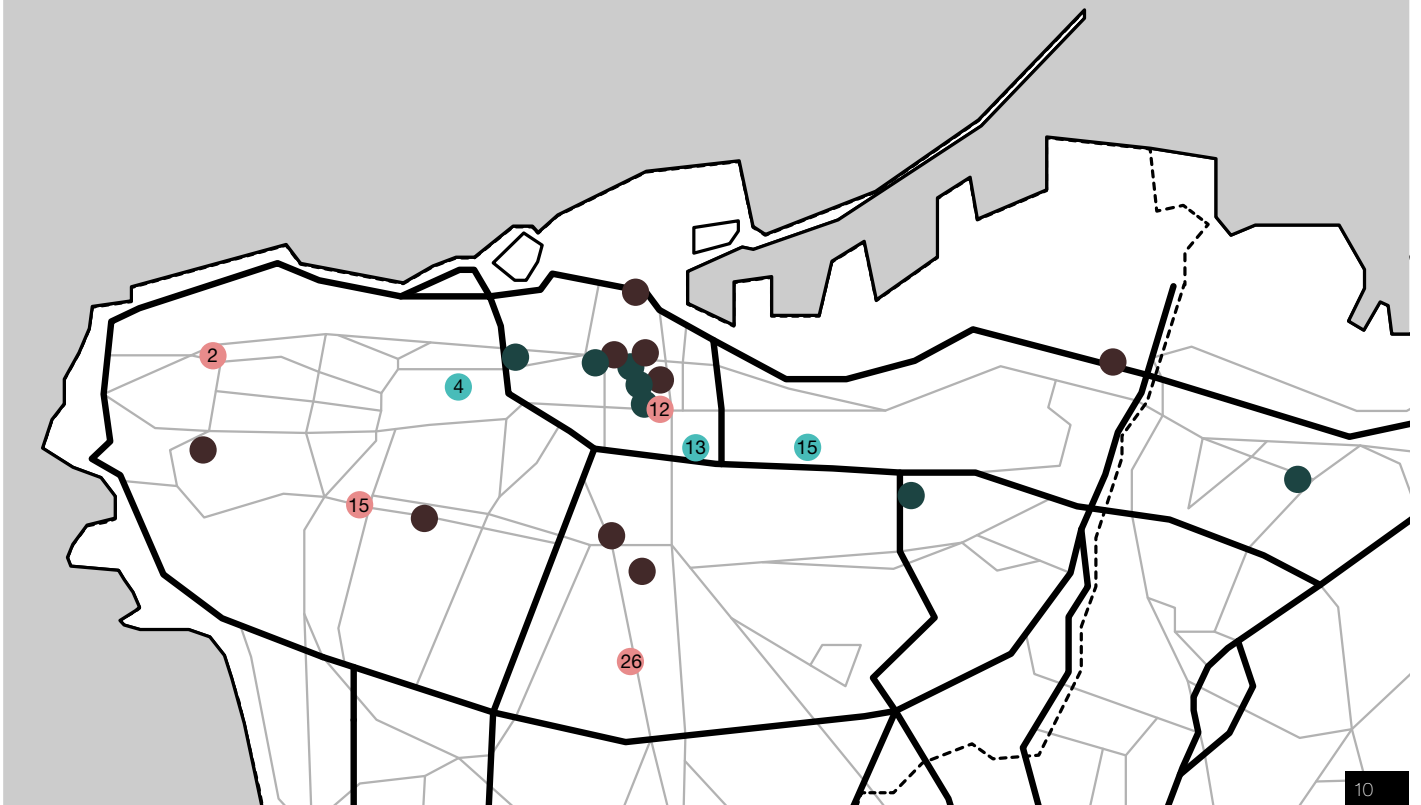
09. Location of religious buildings built from 1800
until 1920

10. Location of religious buildings built from 1920
until today

**Religious Buildings as Indicators of Power in Beirut**

**129**
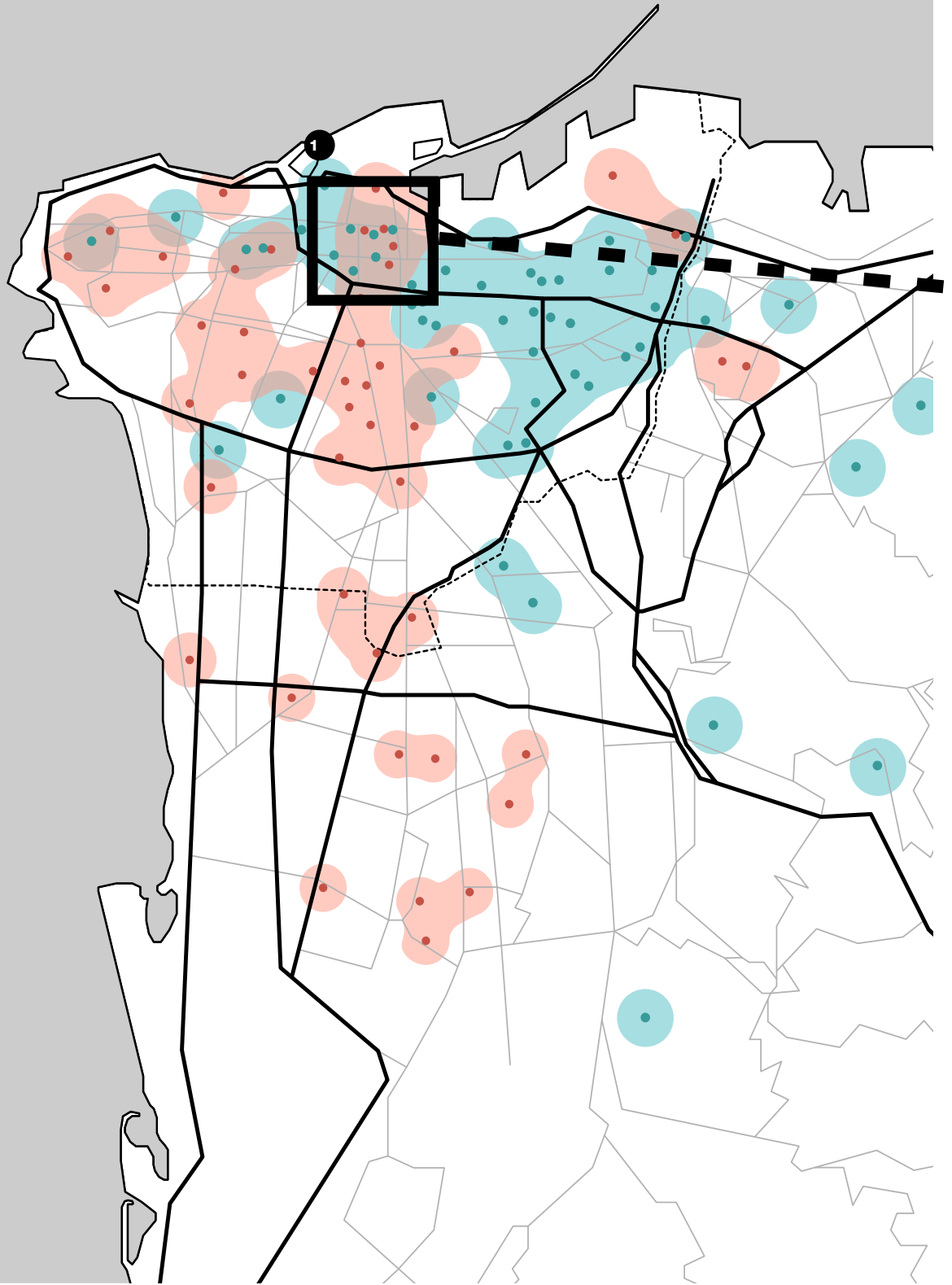
11.

**Beirut in Two Religions**

████ Area of Muslim influence

████ Area of Christian influence

████ Location of important mosques

████ Location of important churches

11. Location of mosques and churches
    and their estimated area of influence

Lena Karrer, Di Mu, Ondrej Sedlak

St. Louis Cathedral

Emir Munzer Mosque

Emir Assaf Mosque

Al Omari Grand Mosque

St. Elias Greek
Catholic Cathedral

Al Nourieh Shrine
(Lady of the Light)

Saint George Greek
Orthodox Cathedral

Mohammad Al Amin
Mosque

Saint Georges
Maronite Cathedral

12.

## Layers of a City

Looking at the map that shows churches and mosques all over the
Beirut region, this is the spot where the areas of influence overlap.
Furthermore, the density of religious buildings is extremely high,
oftentimes two or three right next to each other, which suggests that
they have to compete with each other for members and visitors. Tak-
ing further into account that the oldest mosque and the oldest church
as well as the newest mosque are found within 400m$^2$ - together with
several other mosques and churches - one can conclude that these
buildings function more as a representative symbol than as simple
place of worship.

**Downtown Beirut: where the
Highest Density and Mixture of
Religious Buildings is Found**

12.  Zoom In 1: Downtown Beirut and its important
     religious buildings (not in scale)

Lena Karrer, Di Mu, Ondrej Sedlak

13.

**Religious Buildings as Indicators of Power in Beirut**

Height

St. George
Greek
Orthodox

Al Omari

Emir Assaf

Emir Munzer

St. Elias
Greek Catholic

Al Majidyyeh

500 AD          1291          1594      1633      1700              1844
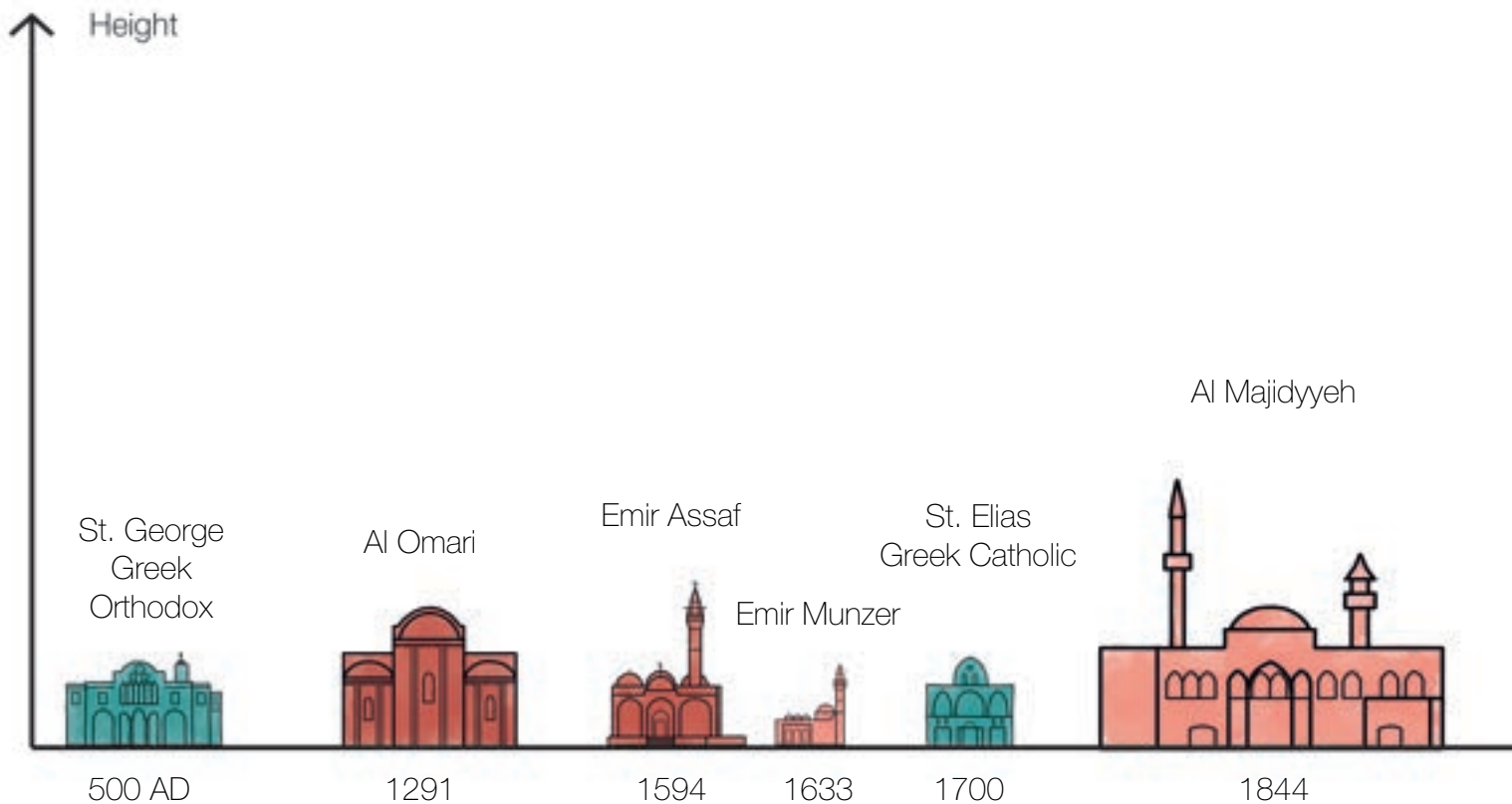
**From Low to High**

Comparing the mosques and churches of Downtown Beirut regarding their rise, it is striking that new buildings try to surpass the previous building of the opposite religion. This leads to an exceptional increase of height over time. And while the number of buildings is obviously increasing too, each religion equally tries to at least establish a proper balance in the area, if not turn it to advantage. In addition, facades get more complicated and detailed the younger they are, though this might be traced to the changing architectural styles.

**Increase of Height over Time**

■ Churches

■ Mosques

13. Photograph of Mohammad Al Amin mosque and
    St. George Maronite church

14. Timeline of Beirut. Showing religious buildings and
    their facades over time (in scale)

Lena Karrer, Di Mu, Ondrej Sedlak

St. Louis

National
Evangelical
Church

St. George Maronite

St. Elias and
St. Gregory

Mohammad al Amin

1868    1870    1884    1928    2008    Time
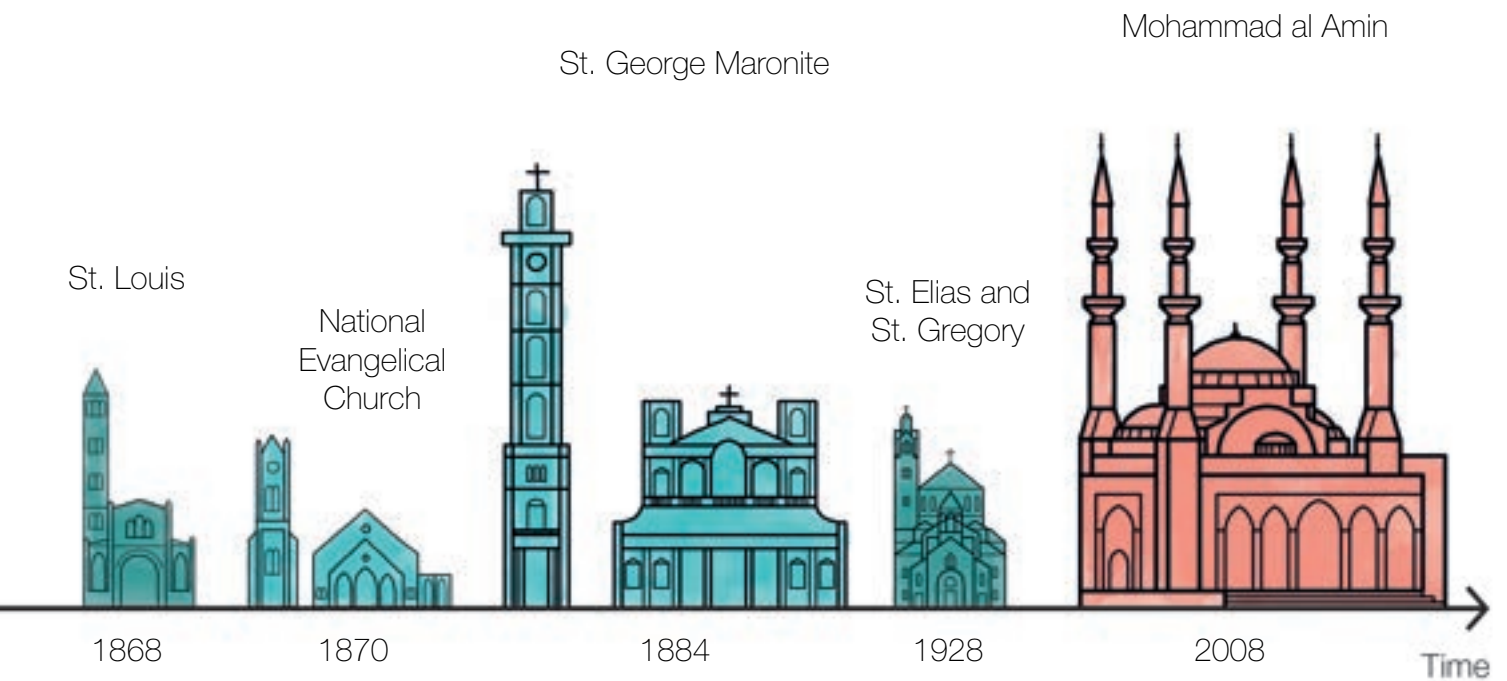
14.

**From Rivalry to Harmony?**

In 2016, the St. George Maronite cathedral finally got a bell tower. Originally planned to be 75 meters high, it now raises only 72 meters - exactly as high as the minarets of the neighbouring Mohamad Al Amin mosque. Archbishop Matar states that this "was a dream since construction" and now displays the "message of coexistence".[12]
But the fact, that the tower was only realised eight years after the construction of the Mohammad Al Amin mosque, points to the conclusion that it had something to do with the dominating appearance of the latter. While now both buildings appear equal, the question arises wether the ongoing religious conflicts might lead to a top up in the future. As space in the inner city is rare, the increase of already exiting buildings might be the new approach to demonstrate power.

## List of References:

1 JEHL, D., 1997. Under Beirut's Rubble, Remnants of 5,000 Years of Civilization. In: The New York Times [online]. 23.02.1997 [Access on: 21.01.2021]. Available at: https://www.nytimes.com/1997/02/23/world/under-beirut-s-rubble-remnants-of-5000-years-of-civilization.html

2 RAGAB, T. S., 2011. The crisis of cultural identity in rehabilitating historic Downtown-Beirut. In: Cities. Vol. 28. DOI: 10.1016/j.cities.2010.04.001. pp. 107-114

3 MADY, Christine and Angelique CHETTIPARAMB, 2016. Planning in the face of 'deep divisions': a view from Beirut, Lebanon. In: Sage Journals [online]. 17.03.2016 [Access on 21.01.2021]. Available at: https://doi.org/10.1177%2F1473095216639087 pp. 296-317

4 NAGLE, J., 2017. Ghosts, Memory, and the Right to the Divided City: Resisting Amnesiain Beirut City Centre. In: Wiley Online Library [online]. 49 (1). [Access on: 21.01.2021]. Available at: https://doi.org/10.1111/anti.12263. pp. 149–168

5 AN-NAHAR, 2018. Lebanon's draft new election law explained. In: An-nahar [online]. 03.06.2017 [Access on: 21.01.2021]. Available at: https://en.annahar.com/article/594740-lebanons-new-election-law-explained

6 WIKIPEDIA, 2020. Beirut [online]. 06.02.2020 [Access on: 21.01.2021]. Available at: https://en.wikipedia.org/wiki/Beirut

7 WIKIPEDIA, 2020. 2018 Lebanese general election [online]. 17.02.2020 [Access on: 21.01.2021]. Available at: https://en.wikipedia.org/wiki/2018_Lebanese_general_election

8 DOWNTOWN BEIRUT, 2017. About Beirut Lebanon. In: Downtown Beirut [online]. n.d. [Access on 21.01.2021]. Available at: https://www.downtownbeirut.com/about-beirut-lebanon/

9 MAKRIS, A., 2012. Greek Orthodox Cathedral of Saint George: The Oldest Church in the City of Beirut. In: Greek World Reporter [online]. 17.03.2012 [Access on: 21.01.2021]. Available at: https://world.greekreporter.com/2012/03/17/greek-orthodox-cathedral-of-saint-george-the-oldest-church-in-the-city-of-beirut/

10 BOUZEK, Jan, 2006. Czech Excavations in Beirut, Martyrs' Square. In: Wayback Machine [online]. 2006 [Access on 21.01.2021]. Available at: https://web.archive.org/web/20130723183833/http:/ukar.ff.cuni.cz/EN/proj-beirut.html

11 WIKIPEDIA, 2020. Al-Omari Grand Mosque [online]. 04.11.2019 [Access on: 21.01.2021]. Available at: https://en.wikipedia.org/wiki/Al-Omari_Grand_Mosque

12 PERRY, Tom, 2016. Beirut skyline captures religious rivalry and harmony. In: Reuters [online]. 23.11.2016 [Access on 21.01.2021]. Available at: https://www.reuters.com/article/us-lebanon-architecture-idUSKBN13I0WX

## List of Figures:

15   Photograph of the Mohammad al Amin mosque

15.

Diana Altounji, Maram Batta, Oumaima Belaadel

**Diana Altounji**
**Maram Batta**
**Oumaima Belaadel**

# Shopping in Beirut: Commercial and Social Evolution of Shopping Structures

All the Lebanese are aware of the changes of the im-
age and identity of their city since the civil war
(1975–1990). Since then, they are more touched by the
massive changes that transform Beirutis social life.
Beirut is a city of contrast. It is perceived by ev-
eryone as a succession of divided places around re-
ligions and social classes. We are specifically inter-
ested in the perception of the dwellers of their city
by having a closer look at the places where politics
and religions stay out of the door and divisions van-
ish, places of interactions between all social class-
es. Those places consist on the different shopping
typologies That Beirut offers which are:
1. Souks: A street market in Arabic countries where
people buy and sell goods.
2. Shopping malls: A specifically built covered area
containing shops and restaurants.
Our concern is to see how those places can polarize
society and how they can unite or divide Beirutis.

## Souks in Beirut: Hamra and Beirut Souks

In an oriental city like Beirut, nothing can bring people together like souks, especially in a city centre. The morphology of souks has an open character and it consists on a ramified structure that affects a big area in the urban fabric by having multiple commercial streets in the souk. Souks in Beirut can have different characters. It can be fixed or ambulant. Ambulant souks are called Bazar, and it's where they promote selling local products like souk Al-Ahad or souk Al-Tayeb.
In Beirut, Hamra street and Beirut Souks are part of Beirut's identity when it comes to shopping. Hamra which is a commercial centre of the city had complementary functions to Beirut Souks that knew a tragic past. Because of the fighting during the civil war, shops in the Souks were destroyed. Its destruction affected christian and muslim merchants alike.[1]
Today, a new project emerges on the ashes of the old Beirut Souks letting the Beirutis divided regarding the new social aspects that the commercial structure offers. Beirut witnesses a political instability which influences the security of the city and land prices. The first map shows the property prices in Beirut in relation with secured areas. Those secured areas are defined by the presence of visible security measures like barricades, roadblocks or army personnel.[2]
According to the map, we observed that the areas where the land prices are high, the streets are more secured. Also, the two main secured areas are Downtown and Hamra.[3] Because of their security, Downtown and Hamra are supposed to promote the access to all Beirutis from different backgrounds.



02.
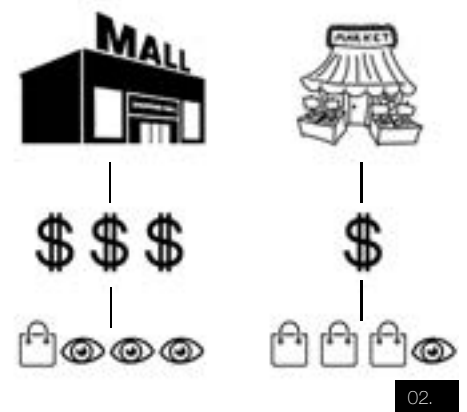
01. Beirut's identity: Despite the contrast, the sea and leisure places remains the magnets that converge Beiruties from differents backgrounds.

02. Shopping structures in Beirut.

Hamra District

Beirut Souks
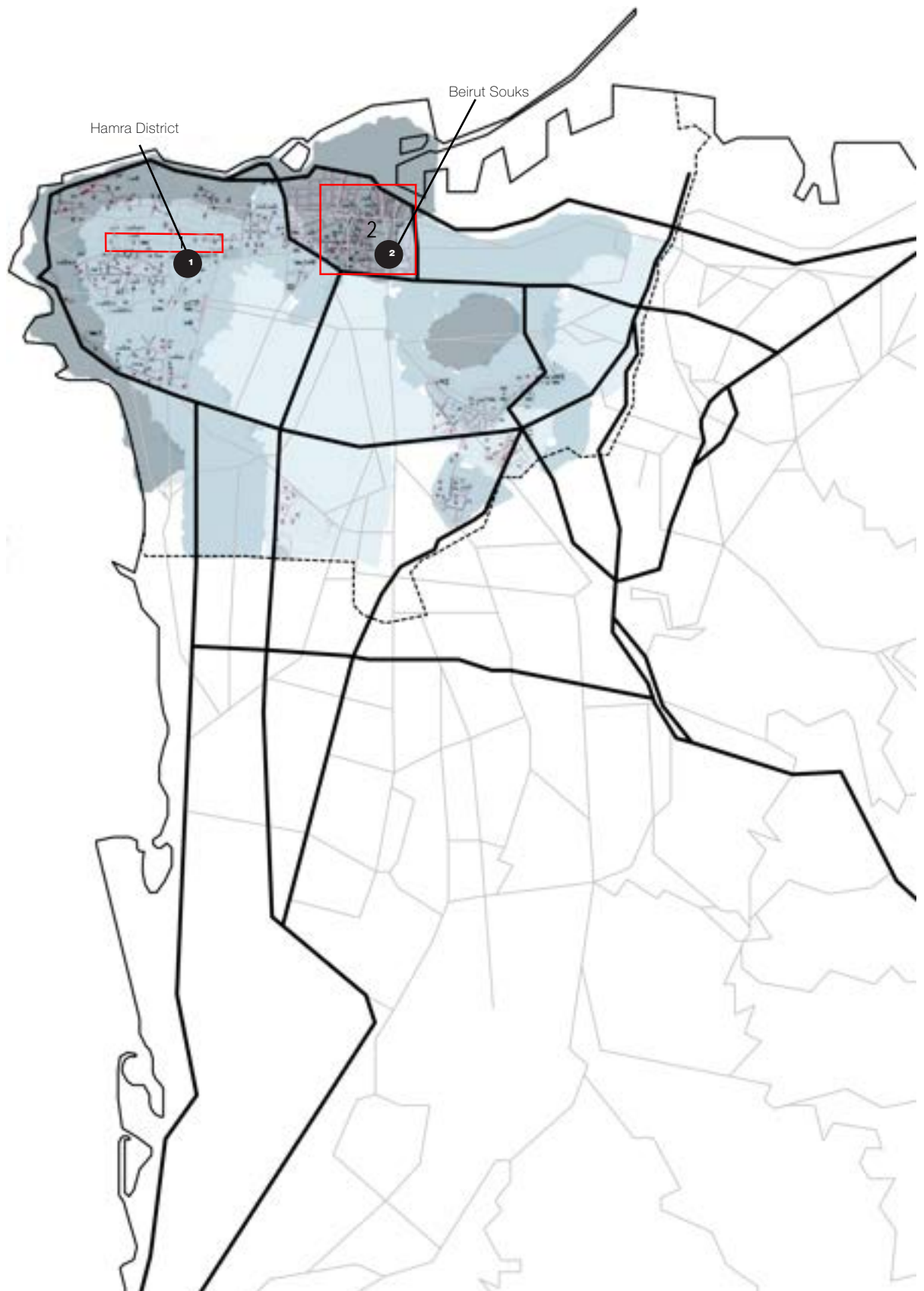
**Land Price and Security in Beirut**

- ⬜ > 6000 USD/m2
- 🟦 3000- 6000 USD/m2
- 🟦 < 3000 USD/m2
- 🟥 Secured landmark
- — Secured street

03. The areas where the land price is high are the most secured.

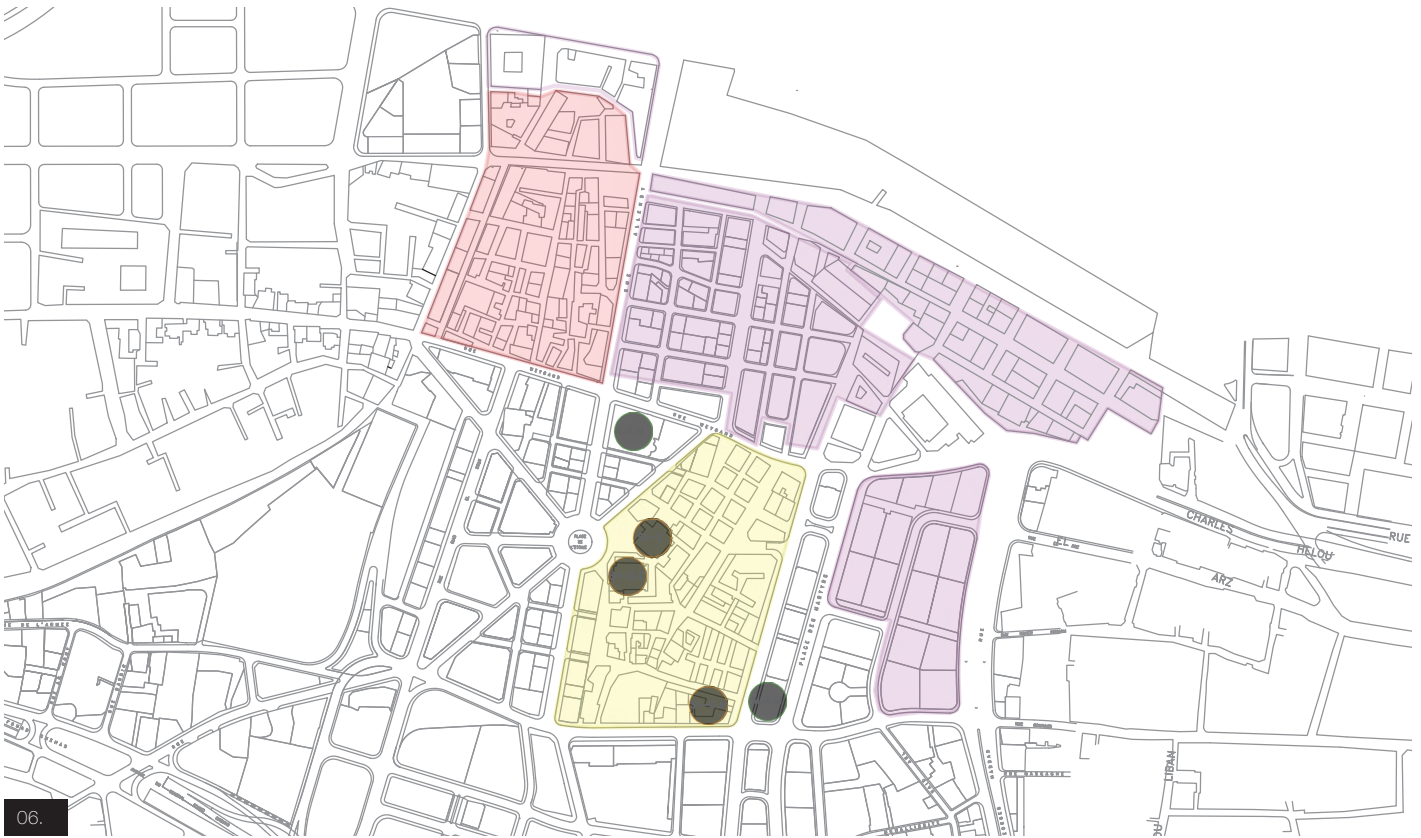Diana Altounji, Maram Batta, Oumaima Belaadel

**The Evolution of Hamra District**

The economic centrality of the Hamra district is an example of the geographical evolution of the commercial spaces of this city. Therefore, the Hamra district was a tourist, commercial and business district. It was the most visited street by the region's top intellectuals, artists, poets, writers, and singers.[4] The Hamra district has also benefited from this redeployment of activities. Following the destruction of the downtown souks, many commercial and service activities were established in Hamra. But from 1984, the massive influx of refugee populations from southern Lebanon, who illegally occupy apartments and offices, stopped the commercial development and changed the image of the neighbourhood. As a result, until 1990, Hamra was marginalized compared to other Beirut commercial spaces, which were then growing. Among Beirut's shopping streets, the Hamra district has regained a strategic place. In the agglomeration, it still represents one of the highest concentrations of commercial activities and services.[5] In addition, Hamra is a neighbourhood where various communities live side by side and offers a multitude of shopping possibilities ( clothes, food...).

**Commercial and Social Spots in Hamra**

Commercial center

Shops

Restaurant and cafe

04. Hamra: The commercial street's influence in the urban fabric.

| 1516 | | 1920 | 1943 | 1975 | 1991 1994 | 2009 |
|---|---|---|---|---|---|---|
| | Ottoman empire | French mandate | Independance | Civil war | Solidere | |



06.

## Souks Typologies in 1969

■ The old souk, "Souk al-Franj" functioned as Lebanon's biggest fruit, vegetable and flower market.

■ Wholesale Souk: Import and export (Fabrics,iron, tools,marine, carpets, food...)

■ The modern souk ( Souk al-Tawileh and Souk al-Jamil ) there were fashionable boutiques and haute-couture houses, (actual Beirut Souks).

■ Mosques:
M.A.M: Mohamad Al-Amin Mosque.
A.G.M: Al-Omari Grand Mosque

■ Churches:
St-E: Saint-Elijah
St-G.O: Saint George (Greek-orthodox)
St-G.M: Saint George Cathedral (Maronite)

05. The evolution of the urban morpholoy of Beirut Souks and Downtown.
06. The different types of souks before the civil war.

## Beirut Souks before 1975

In the historical center of Beirut, there was a souk like most traditional middle-eastern cities. These souks used to be a traditional Arab-style market. It is a public urban space characterized by a social and religious mix, concentration and multiplicity of activities. In 1969, the Souks of Beirut were divided into three sectors : the old souk, the modern souk, and the wholesale goods animated by the variety of trades with ownerships who represented various classes and groups that inhabited the city. In addition, they were framed by various churches, St. George (Greek-Orthodox), St. Elijah (Greek-Catholic), St. George's Cathedral (Maronite), and also two mosques including the Great Mosque of Beirut (Mohamad Al-Amin Mosque). This souk was therefore a place of great diversity.

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## Beirut Souks after 1990

During the war (1975-1990), the Souk was badly damaged. However even the 80% of the buildings and structures that survived the civil war were demolished and led to a Tabula Rasa. In 1994, Rafik Hariri confess that the city-center is his private land and real estate company, Solidere (Société Libanaise pour le developpement et de la reconstruction d). It takes charge of the reconstruction, without recourse to financial assistance from the state. The new complex Beirut Souks is built by Solidere on the site of the modern souk. The old souk has become an archaeological park while the wholesale souk has disappeared. The destruction of the souks and their contemporary reconstruction allow us to reflect on a new stage of reconstruction of the city. The memory of the place was radically erased to create a new one.

07. Beirut jewellers and goldsmiths market 1966

08. Beirut Souks 2019
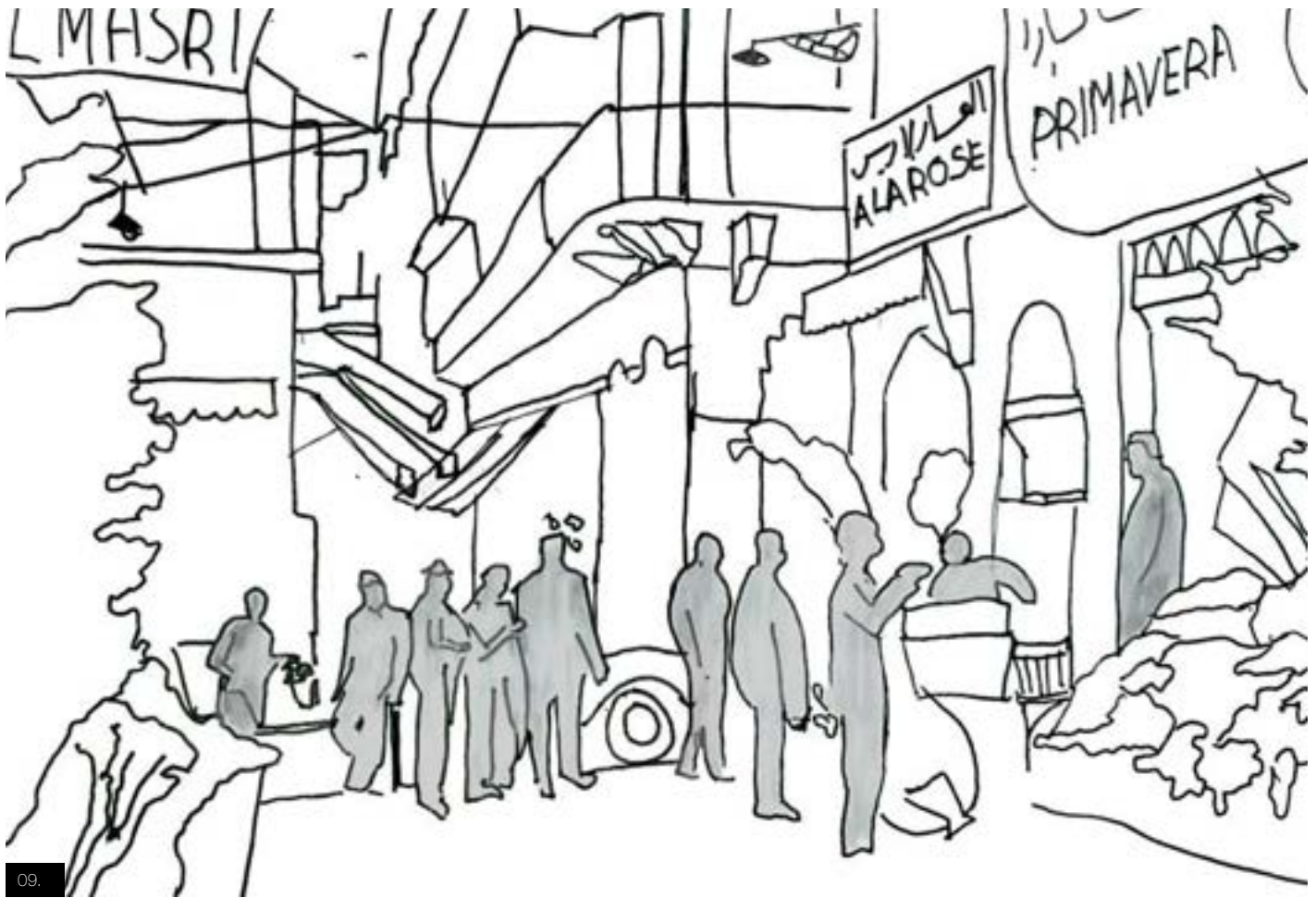
09.

### Social Evolution of Beirut Souks

The social connection changed, before the civil war, Downtown Beirut was a city-of-contrasts, which mixed together the clean and unclean, the ugly and beautiful, and the smelly and the perfumed.[6] It was a social urban centre that regroups a variety of activities, such as hotels, sidewalks cafes and souks. In the old souks the social life between the owner and the customer was intimate and guarantee trust. Moreover, the owner is generaly himself the producer, importer, vendor and also develops a friendship with his clients. Otherwise, after the Tabula Rasa, Solidere wanted to have a perfect picture of the downtown. Instead of being the gathering place of all Beirutis from all backgrounds, it is now an exclusive space for appropriate people only.[7]

Moreover, the Beirut Souks became the new units of retail rented by international companies and local distributors, their aims are the rich people because they offer luxury brands, this led to the changing of relationships between the customer and the vendor. But also, the Souks changed their character while being modernised. The new Souks follow the contemporary structure of globalization where there is no longer any relationship between the buyer and the merchant, due to many intermediaries processes of trade from production to selling point.[8] The character of the new Beirut Souks is more like a mall. One important difference between the pre-existing and the reconstructed souks is the increased scale and size of the new shops, which are more characteristic of the mall.

09. Franj Souk, 1970.

Diana Altounji, Maram Batta, Oumaima Belaadel
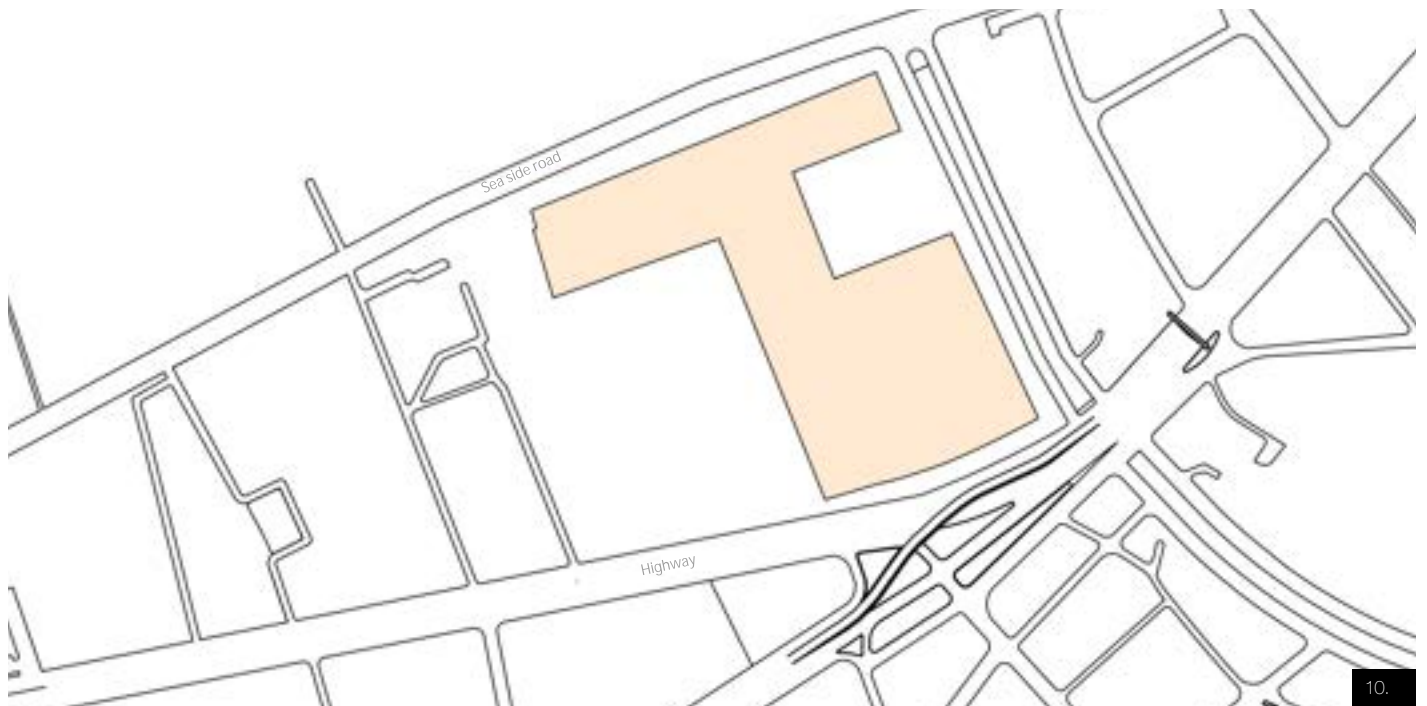
### The Mall: New Gathering Spaces

In 2003 the first mall (ABC Achrafieh) was introduced to the city
of Beirut. The mall is an urban shopping area containing various
shops. Due to the lack of public spaces the mall to become a popu-
lar gathering spot for Beirut's citizens. It guarantees a weatherproof
leisure place. Because of the problematic electricity situation that the
average Lebanese must face, people gather in malls when even their
homes become an incomplete place. In winter the mall will be heated
and in summer it will be cooled. WiFi and electricity are also available
for free.[9]
Activities such as meeting friends, doing sports, going for walks,
having a coffee, an argileh or simply relaxing are the main leisure time
activities in Beirut. All these activities are represented in malls. Beiruts
malls have an extended purpose through a lot of free time offers. A
study of ABC Mall users refers to this result: only 35% of the visitors
have the intension of purchasing anything,[10] whereas the actual pur-
pose of a mall is purchasing needed items. The rest of the visitors
have the intension to amuse in the mall.

10. City Center Mall: Sheltered
     1966.

Aishti Shopping Center
Beirut Souks
Gamazye
Al Hamra street
Mar Elias street
Sodeca
City Center Beirut
Towa Beirut
Concorde Bldg
Saifi Plaza
Achrafieh
Dunes
ABC Achrafieh
ABC Verdun
Verdun 730

11.
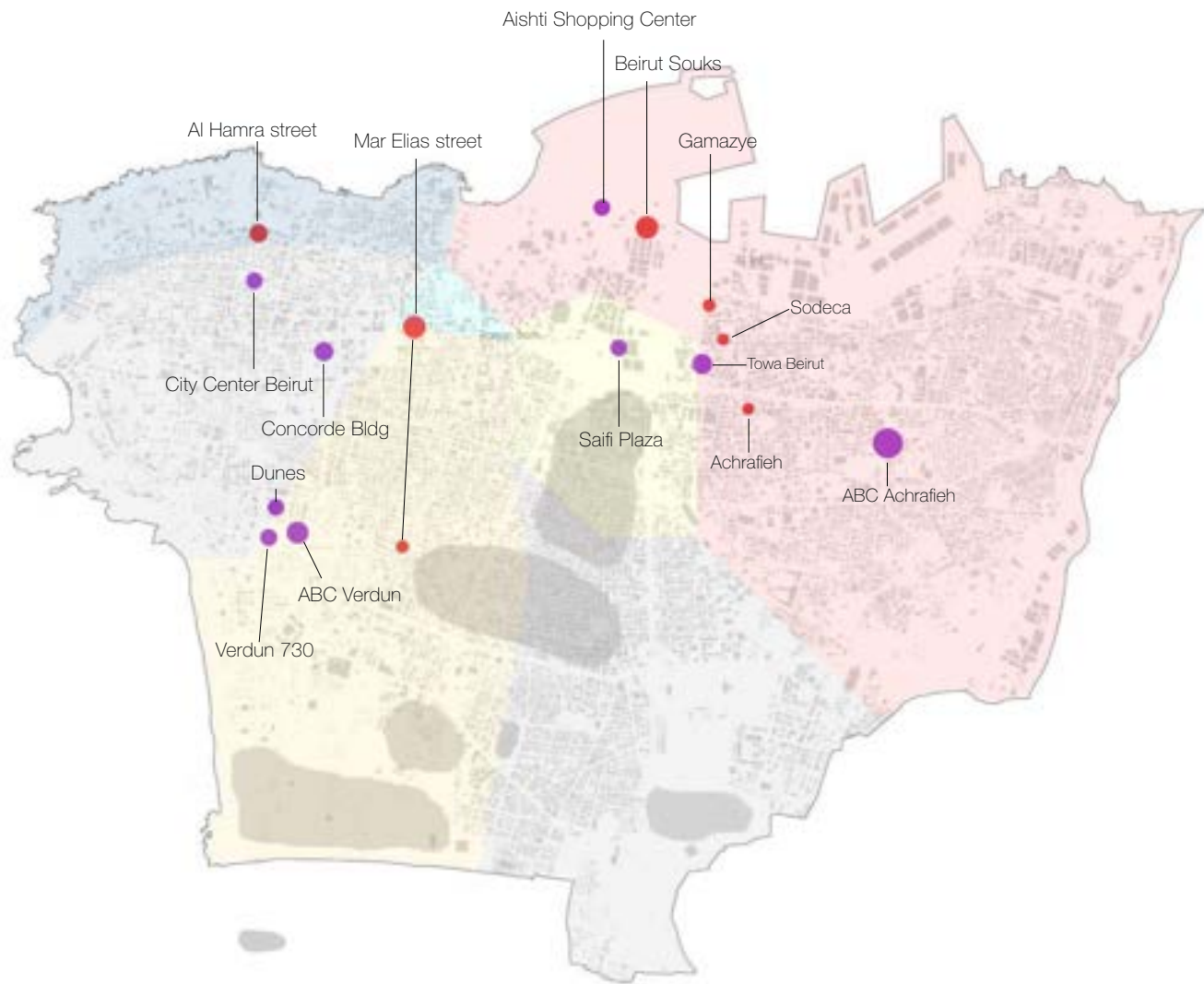
**Active Commercical Sites in Beirut in Relation to Political Areas**

- Mall center
- Commercial area
- restricted political areas

Parties:

- Lebanese forces and Kataeb
- Hezballah and amal movement
- Mostaqbal and amal movement
- Communist party
- Socialist party and mustaqbal movement
- Syrian socialist party and amal movement

11. Active commercial sites in Beirut in relation to political areas

**146**

**Main Commercial Sites in Relation to Political Areas**

The location of Beiruts malls is influenced by political areas. The map of the most active commercial sites in Beirut shows that these locations are not spread fairly in the city. Also, we can see that there are no active commercial areas with a lack of "security" (page 6). When superposed with the map of the most active commercial sites related to the political divisions, we can see that areas with a mixture of political parties represent the restricted political areas and cause some danger due to the clashes of different political views in certain areas. This means malls grant everyone security despite their political views and unite the people of Beirut. They are not only a leisure space for adults but also grant children fun places like i-Play,[11] a trendy indoor mall playground which keeps kids occupied in a fun yet educational way. While parents shop or sip a coffee their children face new adventures, daily activities and workshops.

Moreover, there are green parks inside the mall, that aren't covered with roofs, which are highly visited, because of their connection to the restaurants, cafes and the children's playgrounds. They are outdoor parks but still in the middle of the mall allowing all kinds of people to gather. The survey about the usage of the shopping mall[12] proofs that around 80% of the time Lebanese teenagers go to the mall with the intention of only having a walk knowing that they will not purchase anything. The mall becomes a new gathering and leisure space in Beirut, which is accessible for everyone, no matter which political view they support.

Diana Altounji, Maram Batta, Oumaima Belaadel

**Financial Affordability**

Most citizens can't afford the goods that are sold in the expensive and foreign shops of Beirut's malls. After the introduction of the malls in Beirut, people decided to invent new affordable Souks like Souk el Tayeb:[13] the market is held every saturday in Downtown Beirut at the Beirut Souks and wednesday in Clemenceau at the Gefinor Center. Their mission is selling local and affordable goods. Small-scale farmers and producers are supported. Also, the local community development initiatives are being pushed. The consumption of goods is connected to research, education about food traditions and heritage, organic and healthy lifestyle to produce valuable products and keep traditional recipes. That created platform is supposed to bring people of different regions, origins & beliefs together around a shared goal.

According to Souk el Tayebs website over 60 producers from all over Lebanon are being hosted by the market with their different food products as well as traditional and special handmade crafts every week. The target audience are all the people who want to support Lebanon's economy and learn more about different heritages and traditions. The market is also ideal for citizens who cannot afford shopping in malls. This Souk represents the opposite of the mall, that focuses on selling expensive foreign products and being distanced from the manufacturing process, eventhough the market is held around malls sometimes.

Souk El Tayeb's goal is celebrating the food and traditions that unite communities to bring people of different regions and beliefs together. The market protects the interests of the small farmers and producers to enable them to compete with industrial and globalized trading. Furthermore, a strong social relation between customer and producer arises; some customers even call the owners like members of the family as a gesture of trust and connection.

12. Bazar in Beirut.

OUTDOOR SOCIAL LIFE
Al-Hamra in 2011

STREET VENDORS
Al-Hamra in 1972
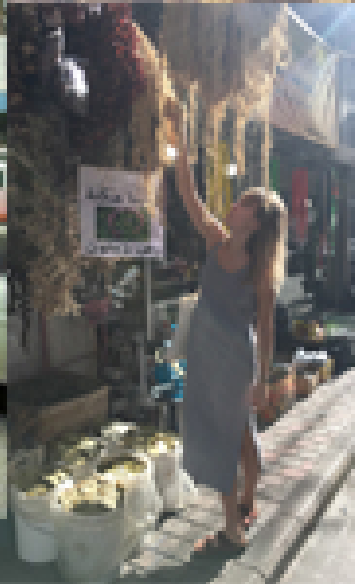
BAZAR
Burj Hammoud 2019
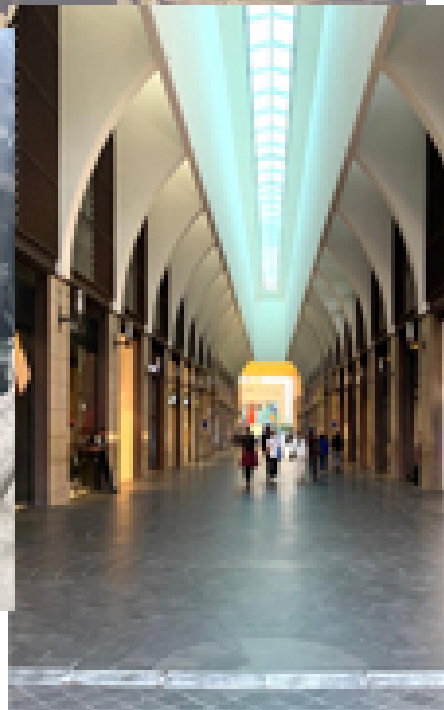
INDOOR SHOPPING
Beirut Souks 2019

Diana Altounji, Maram Batta, Oumaima Belaadel

INDOOR SOCIAL LIFE
ABC Verdun
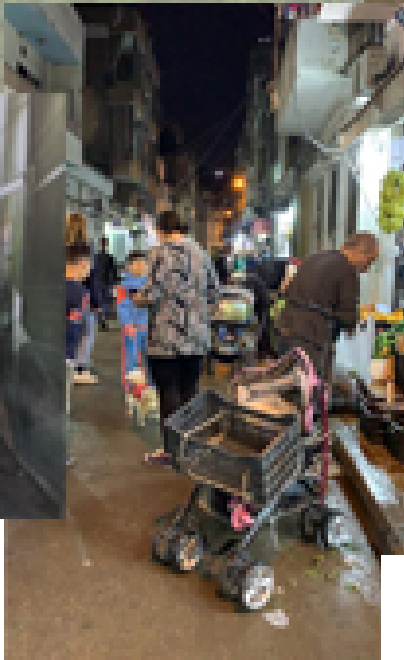


INFORMAL SHOPPING
Dawra, 2019

TRADITIONAL SOUK
Burj Hammoud, 2019

SHOPPING MALL
ABC Verdun, 2019

13.

Downtown
30.000 LL

Al-Hamra
5.000 LL

Armenia Street
15.000 LL

Verdun
25.000 LL

Bourj Hammoud
7.000 LL

Comparison:
A shisha costs about
10 Euro in Germany

14.

## Price Differences through Commercial Structures and Areas

Different places and different commercial structures in Beirut means the difference in prices. Commercial streets and small shops are more affordable than malls. This also affects the gathering places such as cafés and restaurants. In our map we are taking the example of Shisha as a social connector in Beirut to see how it can divide people when it comes to the price. Smoking shisha is a common activity in Lebanon and is practiced by all kinds of citizens: the rich and the poor, the young and the old, men and women.
The map shows that the prices depend on the different kinds of commerce. The commercial structures affect the area because of the different targetgroups, widening the gap between rich and poor.
It also shows how divided the city is, when it comes to prices and being able to afford products from different areas and different commercial structures.

## Price Differences of Shishas in Beirut

- Mall center
- Commercial area
  restricted political areas
- Mall center
  Commercial area

Diana Altounji, Maram Batta, Oumaima Belaadel

15.

**Social and Economical Aspects of the Lebanese Revolution**

The Lebanese revolution, which started in October 2019, affected the solidarity and the awareness about the economical situation and made markets like Souk el Tayyeb and Souk el Ahad more popular. Citizens want to support local producers and strengthen the failed economy.
After the recent Thawra 2019, mass demonstrations paralyzed central Beirut. Citizens have not only taken to the streets to air their displeasure with government corruption but also have established new public spaces. They gather to socialize on rare spaces. These spots not only become social and revolutionary but also commercial spots. People smoke shisha, drink coffee, eat corn on the cob, kaak and shawarma purchased from the food carts that have sprung up in the area for the occasion of the Lebanese revolution. New commercial spots arise, which unite the people. During the revolution, the Breirutis are claiming a city without corruption and takeover of politicians. With their acts, they are developing a different vision of the society that touches directly the citizen.

15.  Socializing during the
     Lebanese Thawra, 2019

**List of References:**

1 ELSHESHTAWY, Yasser, 2008. The evolving Arab city [online]. Tradition, modernity and urban development. Planning, history, and the environment series (illustrated ed.). Routledge. ISBN 9780415411561. p. 314

2 FAWAZ Mona, Ahmed GHARBIEH and Mona HARB, 2009. Beirut: Mapping Security. In: Social Design Notes [online]. 30.09.2010 [Access on: 07.12.2019]. Available at: https://backspace.com/notes/201%9/beirut-mapping-security.php#more

3 Ibid.

4 SALMAN, Ranim, 2019. This is what Beirut was like before the war. In: The961 [online]. 09.2019 [Access on: 17.12.2019]. Available at:  https://www.the961.com/this-is-what-beirut-was-like-before-the-war/

5 BOUDISSEAU, Guillaume, 1997. Hamra: nouveau centre ancien. In: Jean - Luc ARNAUD, Ed. Beyrouth,  Grand Beyrouth. Beirut: Presses de l'Ifpo, pp. 67 - 80. DOI: 10.4000/books.ifpo.3219

6 MAKAREM, Hadi, 2012. Downtown Beirut: Between Amnesia and Nostalgia. In: The London School of Economics and Political Science [online]. 17.10.2012 [Access on: 07.12.2019]. Available at: https://blogs.lse.ac.uk/mec/2012/10/17/downtown-beirut-between-amnesia-and-nostalgia/

7 Ibid.

8 EL CHAMI, Yasmina, 2012. From Multipli-City to Corporate City in Beirut Central District. In: Projective Cities [online]. 26.04.2012 [Access on: 10.12.2019]. Available at: http://projectivecities.aaschool.ac.uk/portfolio/yasmina-el-chami-from-multipli-city-to-corporate-city/

9 MONTE CARLO DOUALIYA, 2018. In: YouTube [online]. 25.05.2018 [Access on: 16.11.2019]. Available at: https://www.youtube.com/watch?v=8WxWHcj-ipU&list=PL 0ULZevQFe7mwyJGP8ijMZj2mTpW7jxQy&index=5&t=0s

10 MONDAIN, Marie, 2016. Les souks du Beyrouth: un projet commercial au service d'un projet urbain?. In: Semantic Scholar [online]. 20.03.2016 [Access on: 18.01.2020]. Available at: https://pdfs.semanticscholar.org/7373/fb0adec3bd8267c8ca5c78e391c93ba918be.pdf

11 ABC MALLS LEBANON, n.d.. iPlay [online]. Abc Malls Lebanon, n.d. [Access on: 20.01.2020].Available at: https://www.abc.com.lb/Directory/Achrafieh/1/IPlay

12 MONDAIN, Marie, 2016. Les souks du Beyrouth: un projet commercial au service d'un projet urbain?. In: Semantic Scholar [online]. 20.03.2016 [Access on: 20.01.2020]. Available at: https://pdfs.semanticscholar.org/7373/fb0adec3bd8267c8ca5c78e391c93ba918be.pdf

13 MEREATUR, Elisa, Kamal MOUZAWAK and Isabelle LACOURT, n.d.. Souk el Tayeb in Beirut: A farmer's marked in Lebanon [online]. ECADIM [Access on: 18.01.2020]. Available at: http://www.soukeltayeb.com/wp-content/uploads/2012/04/ECADIM-SOUK-EL-TAYEB-10.pdf

**List of Figures:**

01. Beirut's identity. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2019, based on: OLDBEIRUT.LB, 2019. Oldbeirut.lb. In: Instagram [online]. 06.04.2019 [Access on: 27.01.2021]. Available at: https://www.instagram.com/p/BxIbnK0grxl/?igshid=15vly8le7g8zq and www.discoverlebanon.com and https://www.instagram.com/p/B63kq2mn_ZM/?igshid=ogbbhpsekwsv and Diana Altounji. 2019

02. Shopping structures in Beirut. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2019

03. Land price and security in Beirut. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2019, based on:
FAWAZ, Mona, Ahmad GHARBIEH and Mona HARB, 2010. Beirut: Mapping Security. Visible security mechanisms in Municipal Beirut. In: Social Design Notes [online]. 30.10.2020 [Access on: 07.12.2019]. Available at: https://backspace.com/notes/201%9/beirut-mapping-security.php#more andGEBARA, Hayat, N Mona KHECHEN and Bruno MAROT, 2016. Mapping new constructions in Beirut (2000-2013). Real estate prices as of 2014. In: Jadaliyya [online]. 16.11.2016 [Access on: 12.12.2019]. Available at: https://www.jadaliyya.com/Details/33751

04. Hamra: The commercial street's influence in the urban fabric. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2019, based on: BONTE, Marie and Louis LE DOUARIN, 2014. In the footsteps of the night: Beirut's urban rhythms at night fall. Fig. 3: La ''revanche" des rues adjacentes à la rue Hampra Beyrouth, avril-mai 2013. In: Open Edition Journals [online]. 11.2014 [Access on: 02.12.2019]. Available at: https://journals.openedition.org/remmm/8899

05. The evolution of the urban morphology of Beirut Souks and Downtown. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2020, based on: AUB UNIVERSITY LIBRARIES, n.d.. Børre Ludvigsen Digital Archive [online]. Aub University Library, n.d. [Access on: 27.01.2021]. Available at:http://almashriq.hiof. no/lebanon/900/930/930.1/beirut/reconstruction/davie/Davie-text and EL CHAMI, Ysamina, 2012. From Multipli-City to Corporate City in Beirut Central District. In: Projective Cities [online]. 26.04.2012 [Access on: 27.01.2021]. Available at: http://projectivecities.aaschool.ac.uk/portfolio/yasmina-el-chami-from-multipli-city-to-corporate-city/?fbclid=IwAR2oRKHFQVU0YGnN_fm-p-be545-YwaRCOH_SzICEhZladR66e2vUCpOk_Y

06. Souks typologies in 1969. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2020, based on: EL CHAMI, Ysamina, 2012. From Multipli-City to Corporate City in Beirut Central District. In: Projective Cities [online]. 26.04.2012 [Access on: 27.01.2021]. Available at: http://projectivecities. aaschool.ac.uk/portfolio/yasmina-el-chami-from-multipli-city-to-corporate-city/?fbclid=IwAR2oRKHFQVU0YGnN_fm-p-be545-YwaRCOH_SzICEhZladR66e2vUCpOk_Y

07. Beirut Jewellers and goldsmiths market, 1966. OLDBEIRUTLEBANON, 2019. Beirut Jewellers and goldsmiths market, 1966. In: Instagram [online]. 21.02.2019 [Access on: 27.01.2021]. Available at: https://www.instagram.com/p/BuJPJvFAiSJ/

08. Beirut Souks 2019. ALTOUNJI, Diana, 2019

09. Franj Souk 1970. Sketch: ALTOUNJI, Diana, 2020

10. City Center Mall: Sheltered commercial life. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2019

11. Active commercial sites in Beirut in relation to political areas. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2020, based on: TOURTAUX, Jacques, 2017. Liban. Rapport des forces politiques et armées. In: Le Sanglier Rouge [online]. 19.12.2017 [Access on: 27.01.2021]. Available at: https://www.jacques-tourtaux.com/blog/liban/infographie-liban-rapport-des-forces-politiques-et-armees.html

12. Bazar in Beirut. BRÜGGEMANN, Felix, 2010. Souk El Tayeb, Beirut's first farmers' market. In: Monocle [online]. 07/08.2010. [Access on: 22.01.2020]. Available at: https://monocle.com/gallery/issues/35/expo-35-beirut/14/, photo by Felix Brüggemann

13. Different shopping possibilities in Beirut and their social aspects. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL based on: Oldbeyrouth, 2019. Oldbeyrouth. In: Instagram [online]. 19.02.2019 [Access on: 26.01.2020]. Available at: https://www.instagram.com/p/BuE997Dglky/?igshid=1hyzav1007nu, BONTE, Marie and Lois LE DOUARIN, 2014. In the footsteps of the night: Beirut's urban rhythms at night fall. In: Open Edition Journals [online]. 11.2014 [Access on: 26.01.2020]. Available at: https://journals.openedition.org/remmm/8899, 4B ARCHITECTS, 2020. 4b Architects [online]. Foch - Allenby District Rehabilitation. Beirut: 4b Architects, 2020 [Access on: 26.01.2020]. Available at: https://www.4barchitects.com/en/Projects/Foch-Allendy-District-Rehabilitation&cat=6 and THEGATHERINGBEIRUT, 2018. Night at the Gathering. In: Instagram [online]. 27.07.2018 [Access on 26.01.2020]. Available at: https://www.instagram.com/p/Blui7EHB7Ie/?igshid=1t482wxfvcm34

14. Comparing price differences through commercial structures and areas. ALTOUNJI, Diana, Maram BATTA and Oumaima BELAADEL, 2020

15. Socializing during the Lebanese Thawra. HAMMOUD, Mariam, 2019. Reclaiming Public Space During the Revolution: How We Are Reconnecting With Lebanese Cities. In: Beirut Today [online]. 20.11.2019 [Access on: 22.01.2020]. Available at: http://beirut-today.com/2019/11/20/reclaiming-public-space-revolution/, provided by Mariam Hammoud

# MODERNISM

# PRIVATISATION

# FENCES

# SEGREGATION

Tim Schönberger, Helen Schrettenbrunner

**Tim Schönberger**
**Helen Schrettenbrunner**
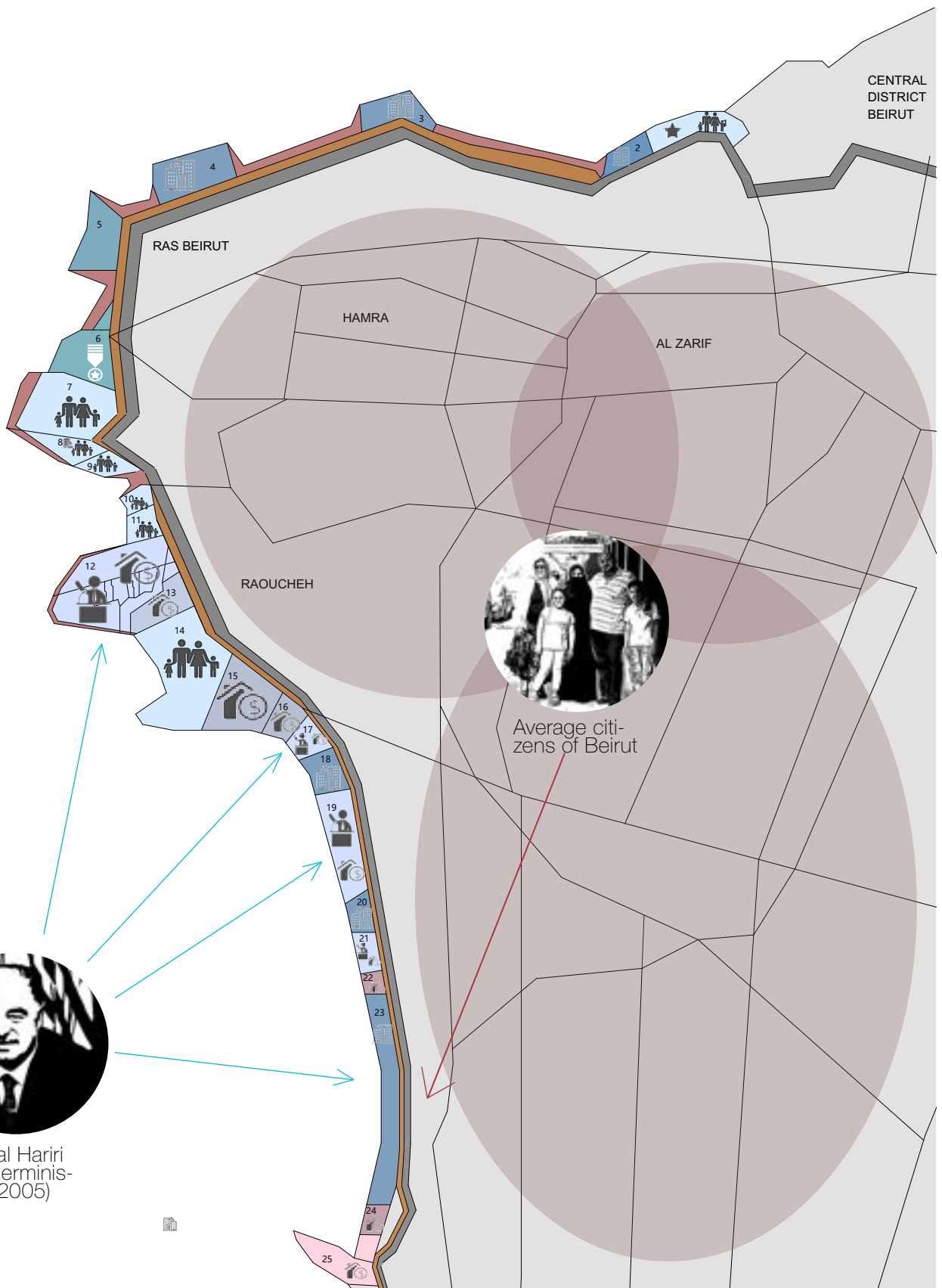
# The Coastline´s Privatisation: Status Quo and Development

Beirut is the capital of Lebanon, located on the eastern Mediterranean coast with a 22 km long coastline. Today, the natural rocky coast can hardly be used by the local population for recreation and leisure activities. This is a particularly serious shortcoming. About two million people live in Beirut, most of whom have only partial access to the coast. The main problem here is the ongoing and increasing privatisation of coastal land, which has been encouraged by various legislative changes. In addition, the use and size of coastal land has changed dramatically. This has historical and above all political reasons.

**Development of the Privatisation**

In 1889, the port of Beirut became one of the most important trade centers and transhipment point between Europe and the Middle East. To withstand this development, the port was modernised and expanded. This was carried on to the city during the Ottoman rule and extensive modernisation measures with a western orientation were carried out. In the course of this, traditional districts that did not meet modern standards were demolished. In their place, new projects emerged during the French colonial period. In addition, the ground was classified and registered for the first time. At that time the coastal plots belonged to individual families and there were no clear rules on accessibility and ownership of the beach, so everyone had free and unrestricted access to the coast.

Over the next decades there were several changes in the law and decrees that favoured privatisation and building. This situation worsened during the civil war as there was no stable government and especially politicians used their power to appropriate land. As a result, an unbelievable number of major construction projects have been approved and implemented along the entire coastal area, which to this day drastically limits accessibility. Meanwhile the majority of the coastal land has been privatised. Most of them belong to large international real estate companies, wealthy families, the military and municipal institutions such as the American University of Beirut.

01. Changing of the coast

CENTRAL
DISTRICT
BEIRUT

RAS BEIRUT

HAMRA

AL ZARIF

RAOUCHEH

Average citi-
zens of Beirut

Rafiq al Hariri
(Premierminis-
ter till 2005)

02.

## Parcellation of the Plots

| | | | |
|---|---|---|---|
| 1 | Ajram Beach | 9 | Dbaibo Cafe |
| 2 | Maison de l'Artisan | 10 | Abandined Structure |
| 3 | AUB Beach | 11 | Petite Cafe and Bay Rock Cafe |
| 4 | Riviera Beach | 12 | Al Dalieh |
| 5 | Manara Beach | 13-14 | Mövenpick Hotel and Resort |
| 6 | Bain Militaire | 15 | Grand Cafe and Bayt Ward |
| 7 | Long Beach | 15-23 | Ramlet al Baida |
| 8 | Sporting Club | | |

Tim Schönberger, Helen Schrettenbrunner

**Ownership of the Privatised Coast**

Many capital-owning politicians are (partly) owners of these real estate companies. Particularly noteworthy is the Bahr Real Estate Company, which was owned by Rafiq al - Hariri. He was prime minister at the time of the civil war. This business is continued by his son Saad al - Hariri, who was also Prime Minister until October 2019.

In 1925 Law 144 was passed, which grants every Lebanese citizen the right to use the coastal area freely and at any time. However, several laws and regulations have since been introduced which have enabled and even encouraged the acquisition and development of coastal land. The 1954 Master Plan prohibited any kind of construction work in zones 9 and 10 in order to protect the natural vegetation and public needs. Zone 9 stands for maritime public areas with natural rock formations. Zone 10 had been jointly owned by various families since 1920, each of which was allocated only very small plots of land in the coastal area. At that time there were no physical boundaries separating private from public and access was possible for all. Decree 4810 of 1966 allows for the large-scale development of these plots. It states that the land adjacent to the sea can be used privately, with the exception of zone 10 and some restrictions: „on condition that the government approves the nature of the tourism and industrial sectors of the economy.  Additionally, the decree allows any resort owner to use three times the surface area of the resort plot to construct a marina.“

In the same year, decree 4811 was issued, which amends the regulations for zone 10. This has allowed the development of private land throughout Zone 10, which stretches from Bain Militaire to Ramlet al Baida. After the civil war, investors are appropriating the families, plots and long stretches of beach belonging to the individual parties are being created, which are being extended further and further into the public areas. For example, 3 large real estate companies, all of which belonged to Rafiq al-Hariri, bought most of the land on the Al Dalieh coastal section. Al Dalieh was historically a cultural place of the Lebanese population where religious festivals and weddings were celebrated. used by Beirut families and fishermen for everyday activities.

In order to protect this important space for the public, this section of land was classified as non-building in 1940. In this case Hariri used his political power to buy up the land. This was done under the pretext that investors and wealthy tourists were needed to rebuild the city after the civil war. His vision was to develop Beirut into a modern metropolis with many resorts and other major construction projects. Why subsequent laws favour this. For example, Law No. 402, which multiplies the permissible building share for a hotel on properties with more than 20,000 m². As a result, land prices have risen many times over and projects have to be multi-million dollar to be successful. This favoured wealthy and large corporations and is carried out at the expense of the population and public space.

**Coastline Plot Owners**

City owned
Military owned
Family owned
Bahr Real Estate Company (REC) (Hariri)
Sakhrit al-Yamama REC
Merriland REC
Achour Holding
Kempinski Hotels
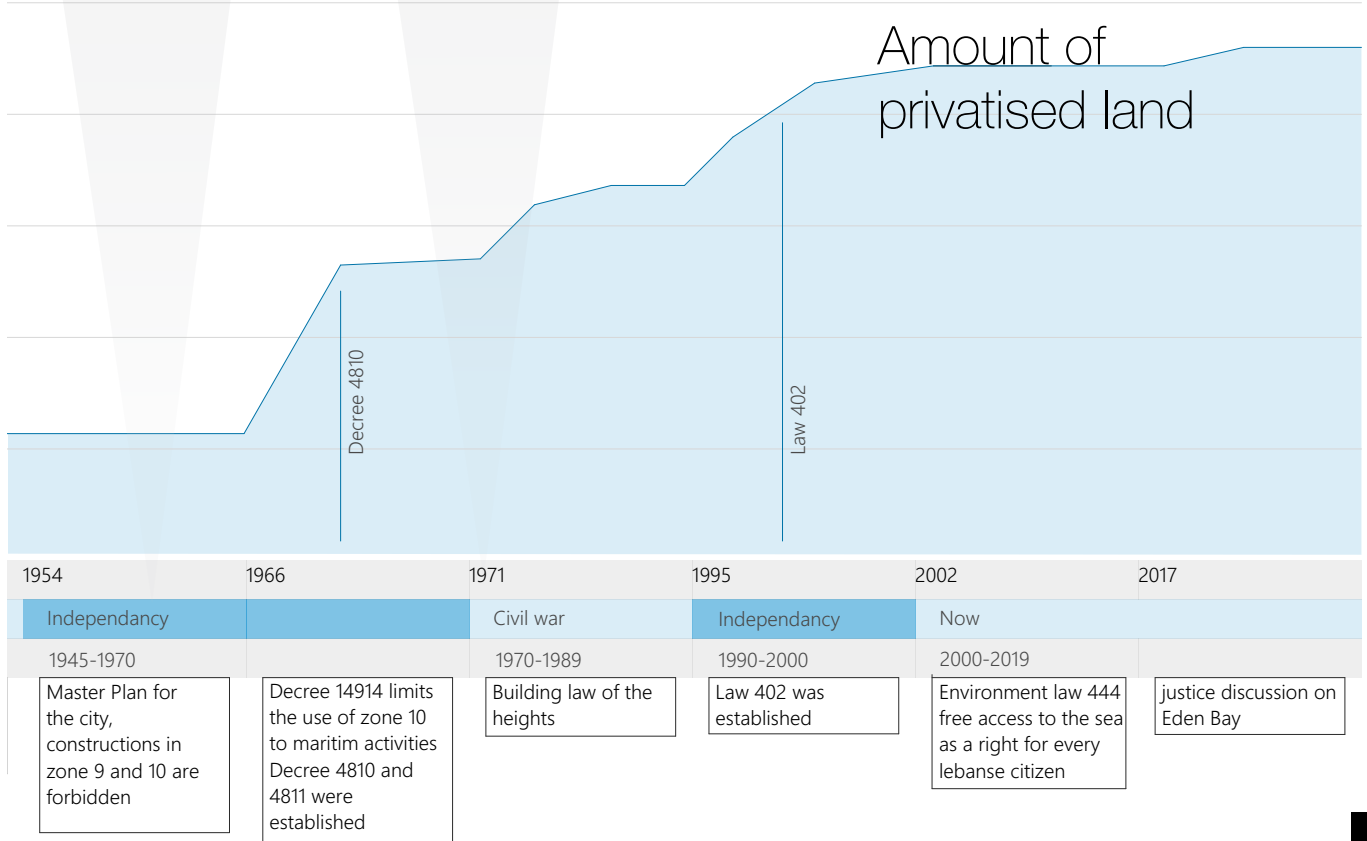Corniche
Avenue de Paris/ General de Gaulle

02   Distribution of the ownership at the coast

| | | | | | |
|---|---|---|---|---|---|
| Year of change | 1894 | 1894 | 1888 | 1920 | 1925 |
| Period of time | Osmanien period | Ottoman period | Vilayet | French colony | |
| Duration | 1517-1860 | 1860-1915 | | 1915-1943 | |
| Changes | | Modernization and renewal of the city | Beirut becomes a port city. Linking Europe to Greater Syria | First land registrations | Order No. 144 defines the beach as as public domain |

*Percentage of privatised ground at the coast*

**Judically Influences on Privatisation**

In 2002 the government passed the environmental law 444, which states that every Lebanese citizen is allowed to enter the beach. This is currently also possible in principle, but only on the last publicly accessible beach section, Ramlet al Baida. This is just over one kilometre long and on average about 70 meters wide, this seems to be quite a lot at first sight. However, if one takes into account the population of about 2,000,000 people, each would theoretically be left with 4. 2 cm² of the beach area.

In 2012 Abir Sasouk-Sasso explained how some decrees and laws have enabled and favoured their creation. The Bain Militaire site, which was used as a military base during the French colonial period, is also in Zone 10. After the withdrawal of the French, the site and buildings were converted into a resort with luxurious facilities such as a pool complex, restaurants including chalets and sports facilities.

03. Timeline on the development and influces of laws and decrees

Tim Schönberger, Helen Schrettenbrunner

## Amount of privatised land

| 1954 | 1966 | 1971 | 1995 | 2002 | 2017 |
|------|------|------|------|------|------|
| Independancy | | Civil war | Independancy | Now | |
| 1945-1970 | | 1970-1989 | 1990-2000 | 2000-2019 | |
| Master Plan for the city, constructions in zone 9 and 10 are forbidden | Decree 14914 limits the use of zone 10 to maritim activities Decree 4810 and 4811 were established | Building law of the heights | Law 402 was established | Environment law 444 free access to the sea as a right for every lebanse citizen | justice discussion on Eden Bay |

Decree 4810

Law 402

03.

However, only senior officers are permitted to use it. „This plot is located in Zone 10 of the 1954 Beirut Master Plan, where land use is specified for sporting, maritime, swimming,entertainment, and restaurant activities. The surface exploitation factor is limited to fifteen percent [...]. However, the Bain Militaire's complex is entirely constructed on maritime public domain. It thus cannot benefit from Decree No. 4810 and its amendments, which grant the right to exploit- within conditionsmaritime public domain to private property owners with plots adjacent to the sea. Consequently, bain militaire is an entirely illegal enterprise." Previously this area was farmed by families who lived nearby.

## Judically Influences on Privatisation

At the southern end of Al Dalyieh, a huge luxury hotel complex was built in the year 1988; the Mövenpick Hotel. A complex with pools, large rooms and other high quality facilities. During the civil war the military declared the area a military zone and expelled the local fishermen. The Al Daher family then bought the property under the name of Merriland Real Estate Company. Prime Minister Hariri grants certain privileges to the family and issues the building permit by presidential decree. This violates decree 14914 of 1966 which states that only 10% of the land may be built on. As well as against Decree 4810 and Decree 169 of 1998, which stipulates that 25% of the land must be made accessible to the public in the form of parks and gardens. Ramlet al Baida is currently the only publicly accessible sandy beach in Beirut and its surroundings. In 1940 the French decided that this part of the beach should not be built on. The master plan of 1954 states that everything on this section between road and sea should be made accessible to the public. The Bahr Real Estate Company illegally appropriated a large part of the beach properties of Ramlet al Baida. Since the real estate company is closely linked to leading politicians, there has always been a danger that this local recreation area will be further and further reduced.

The first step into this disquieting future is the construction of Lancaster Eden Bay at the southern end of Ramlet al Baida beach. The Achour Real Estate Company bought two adjoining plots of land to reach the necessary area of 20. 000 m² (Law 402) to build a higher or larger resort. During the construction period, eight violations of building and environmental regulations were identified.

Twice as much floor space was built on as approved. Furthermore, the hotel was brought to the waterline up to 2 meters instead of the allowed 20 meters. In the building applications, the lower two floors were designated as underground parking. In the finished state, however, there were more hotel rooms accommodated here, which suggests that this was planned from the beginning. A major campaign was launched against the construction of the hotel and a court case was filled, which initially brought about a halt to construction. This was circumvented under the pretext of renovation work. In 2017, a further construction stop was imposed, which would result in a fine of $100,000 per day if not complied with. In addition, a study of the construction project was requested. Without justification, however, the building permit is issued one month later.
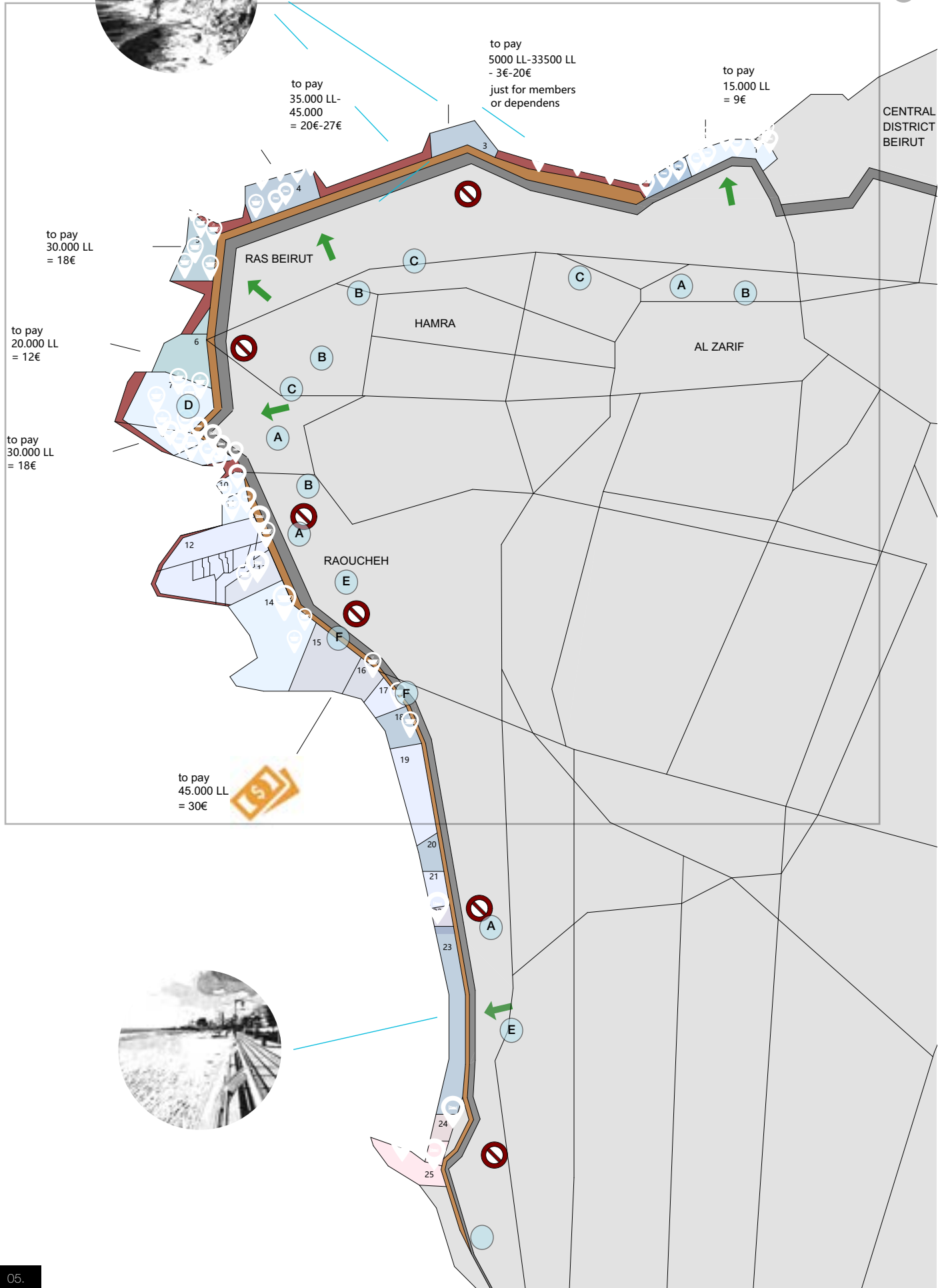
Since the construction of the hotel the police presence on the beach has increased. The policemen tear down small self-built huts, kiosks and umbrella and chair rentals, which deprive the local population of their livelihoods, and beach goers are forced to go to more expensive cafes and hotels. The politicians justified this measure by saying that the self-made stands were a security problem and destroyed the aesthetics of the beach.
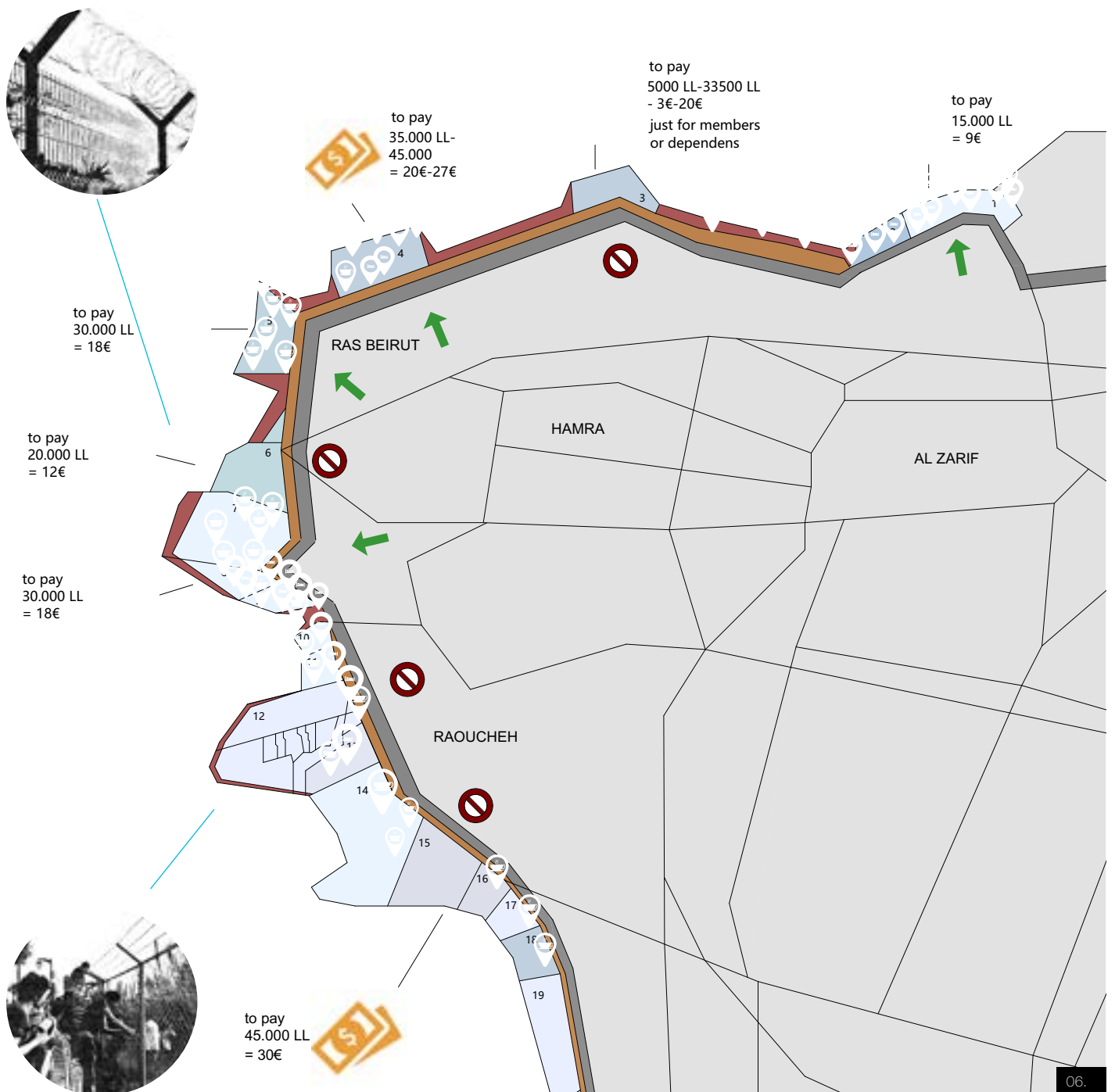
**Violation of the Law**

§   Violation of the publicly accessibility

§   Violation of the building law

§   Violation of the allowable build up area

§   Violation of order maritim public domain

⚖   Profits from Decree 4811

⚖   Profits from Decree 4810

04.  Violation of the laws and decrees

Tim Schönberger, Helen Schrettenbrunner

CENTRAL
DISTRICT
BEIRUT

RAS BEIRUT

HAMRA

AL ZARIF

RAOUCHEH

04.

**The Coastline's Privatisation** **161**

to pay
35.000 LL-
45.000
= 20€-27€

to pay
5000 LL-33500 LL
- 3€-20€

just for members
or dependens

to pay
15.000 LL
= 9€

CENTRAL
DISTRICT
BEIRUT

to pay
30.000 LL
= 18€

RAS BEIRUT

C

C

A

B

B

HAMRA

AL ZARIF

to pay
20.000 LL
= 12€

B

C

D

A

to pay
30.000 LL
= 18€

B

A

RAOUCHEH

E

F

F

to pay
45.000 LL
= 30€

A

E

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to pay
5000 LL-33500 LL
- 3€-20€

just for members
or dependens

to pay
35.000 LL-
45.000
= 20€-27€

to pay
15.000 LL
= 9€

to pay
30.000 LL
= 18€

to pay
20.000 LL
= 12€

to pay
30.000 LL
= 18€

to pay
45.000 LL
= 30€

RAS BEIRUT

HAMRA

AL ZARIF

RAOUCHEH

06.

## Development of Usage and Accessibility

Historically, the coastal area with its natural rock formations and beaches was a recreational area for the people of Beirut. Many fishermen with their families the area offered a home and livelihood. It was also an important area for wildlife with its reefs and breeding grounds. Over the last decades the population and animals have been displaced to make room for gigantic hotel complexes, which are run by leading politicians. Wealthy tourists now use the place that once belonged to the inhabitants of Beirut and so the use of the coastal area changed drastically.

When Beirut's port became more important and the government wanted to expand it, a large four-lane road was built along the entire coast for the transport of goods. This separated the city from the port, creating the first major barrier to the coast.

### Accessibility and Costs

- Entrance fee per day/person (2019)
- Location of Hotel/ Resort
- Location of Café/ Restaurant
- No accessibility
- Accessibility

05. Distribution of usage and costs for using

06. Zoom In 2: Distribution of usage and costs for using

(A) 30%
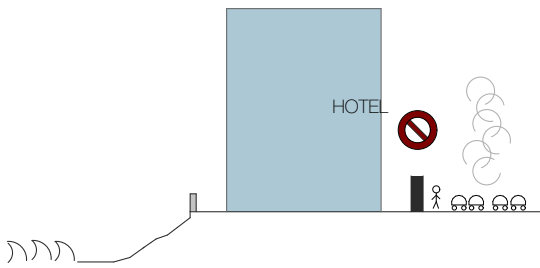
Walls or fences in front of hotels/cafes

(B) 40%
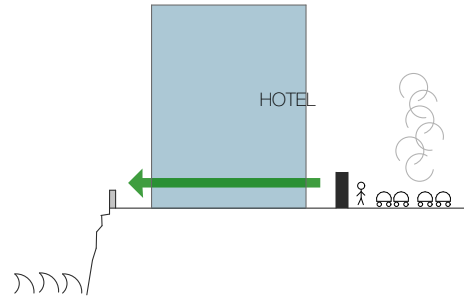
Fee to pay to go through the hotel to the cliffs

(C) 10%

Small fence and big street seperates the cliffs

(D) 3%
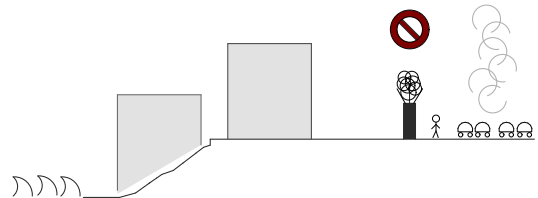
Walls or fences with barbed wire

(E) 7%
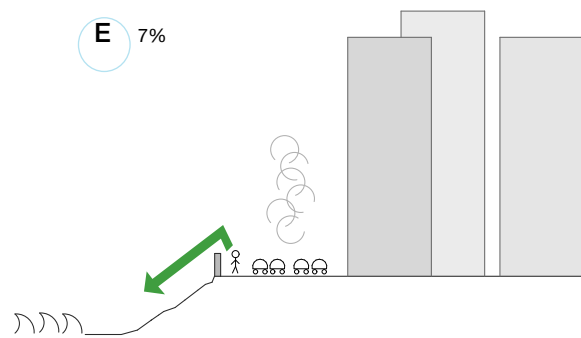
Small fence and big street seperates the sandy beach
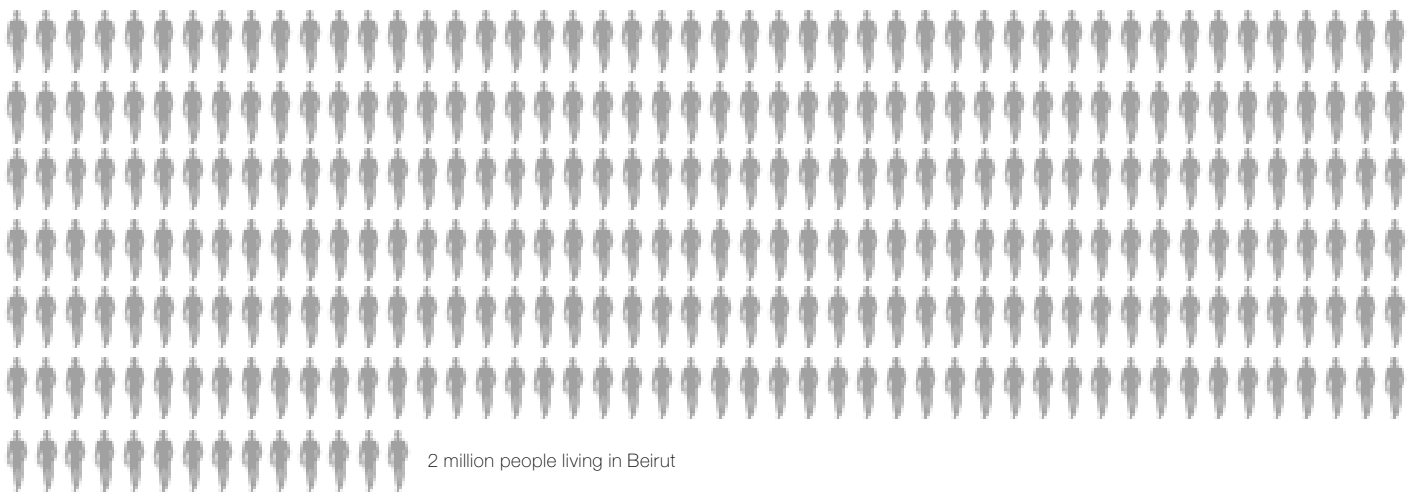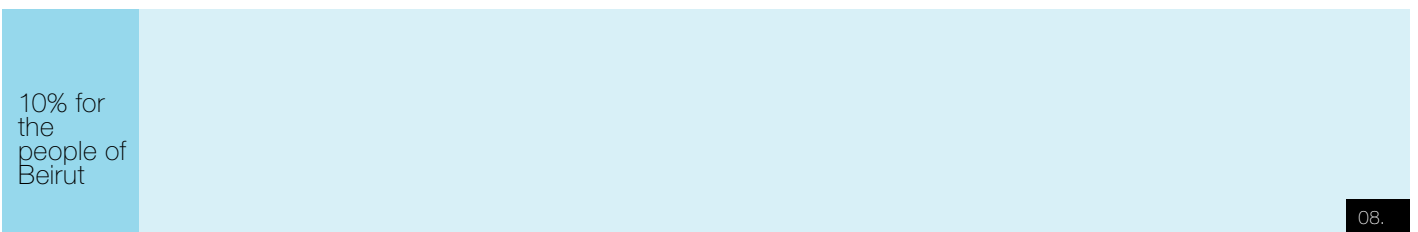
(F) 10%
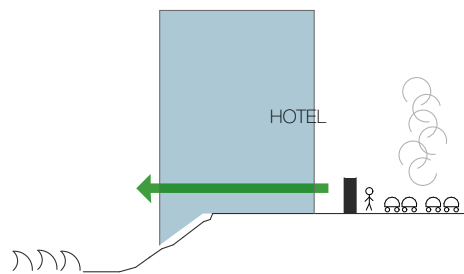
Fee to pay to go through the hotel to the beach

**Accessibility and Costs**

- Entrance fee per day/person (2019)
- Location of Hotel/ Resort
- Location of Café/ Restaurant
- No accessibilty
- Accessibility

07. Accessibilty of the beach

2 million people living in Beirut

4cm²/ Person

Beaches at the coast of Beirut

10% for the people of Beirut

08.

## Development of Usage and Accessibility

From the port to the beach Ramlet al Baida, is a promenade for pedestrians and cyclists, known as the Corniche. As a result of this measure, free access to the coast was largely blocked.

Along this promenade, huge hotel complexes, cafés and restaurants in an unbelievable density developed between the street and the coast, as mentioned above in the text. According to AUB Professor Abir Saksouk-Sasso, five illegally built resorts come within one kilo-metre of each other. These plants are each fenced in with wire mesh and partly with barbed wire or separated by high walls. They can only be entered or crossed for a fee. These developed plots are the only connection to the sea, which makes it practically impossible to reach the coast without paying for it. As a certain clientele is desired, the owners set the entrance fees extremely high.

08.  Distribution of sandy beach space

09.

**Development of the Outlines**

| | | | | |
|---|---|---|---|---|
| ■ | 1922 | ■ | 1992-2004 |
| ■ | 1922-1940 | ■ | 2004-2014 |
| ■ | 1940-1964 | ■ | 2014-2019 |
| ■ | 1964-1984 | | |
| ■ | 1984-1992 | | |

09. Developement of the artificial coastline

Tim Schönberger, Helen Schrettenbrunner

Map labels: CENTRAL DISTRICT BEIRUT, RAS BEIRUT, HAMRA, AL ZARIF, RAOUCHEH

RAS BEIRUT

HAMRA

AL ZARIF

RAOUCHEH

CENTRAL
DISTRICT
BEIRUT

08.

## Development of Usage and Accessibility

A fee of 20. 000LL (12€) up to 45. 000LL (30€) per day per person is charged to enter the facility. The majority of the population cannot afford this luxury. The average net income is just over €900 per month, whereby a monthly rent for a one-room apartment in a suburb is already around 450 €. This leads to more and more segregation and local recreation becomes a privilege of the rich.

The beach area accessible to the population is increasingly restricted, polluted and crowded. This has happened, for example, at the coastal area al Dalieh, where there is a 377-metre long fence with barbed wire and can only be crossed through a small hole. For years, a large number of breakwaters have been standing there, which were originally needed for the expansion of a port.

10.  Zoom In 1: The artficial coast in the center of Beirut

Traditional buildings were
demolished



Huge buildings
are placed at
the coast

Laws are
changed/
ignored

Destroys the livelihood of
the local fishermen

Politicians
are helping
them

They have
the money
and want to
buy ground
at the coast

Real Easte
Companies
are growing



Housings and kiosks were
demolished
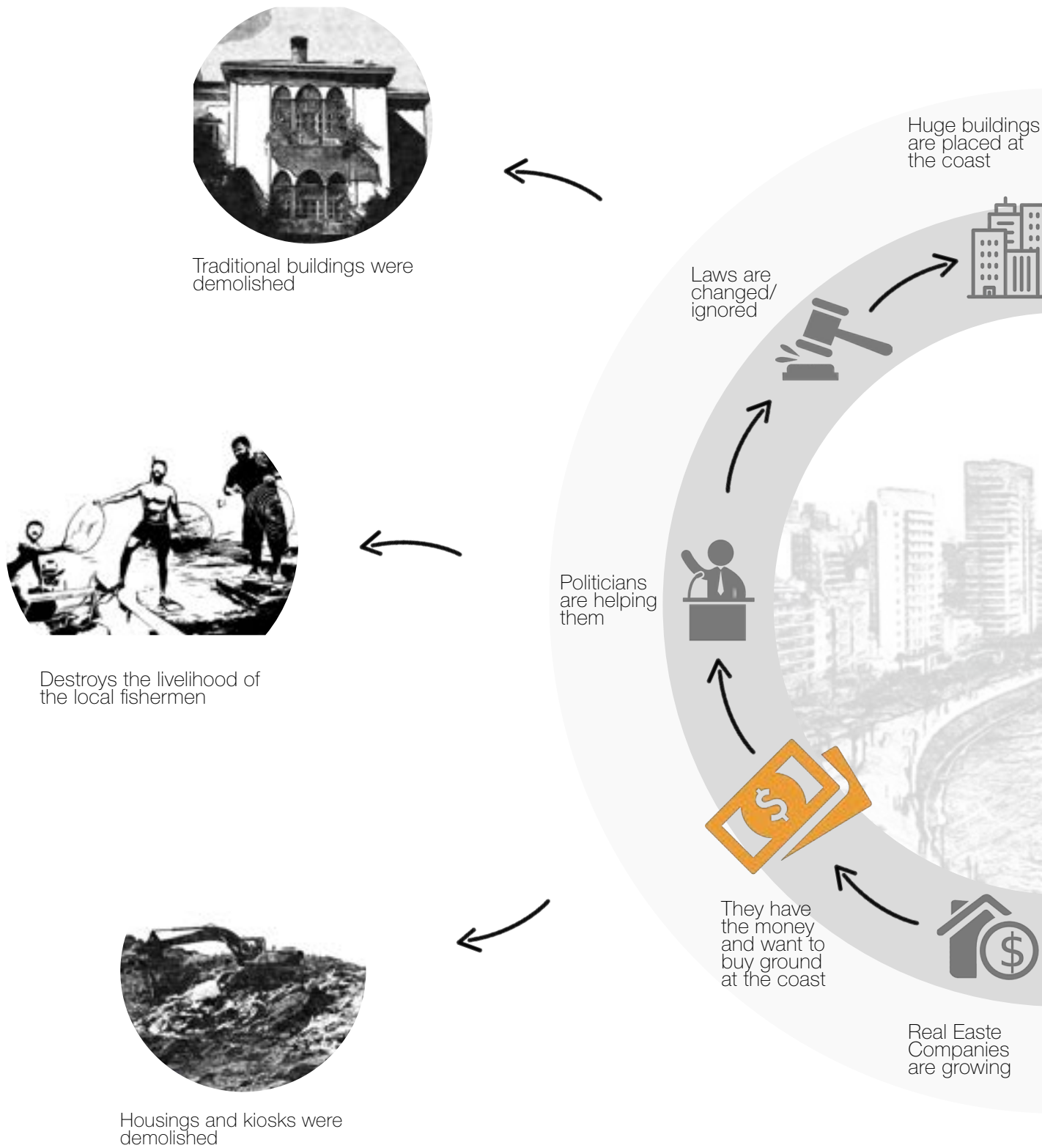
However, as the investors have withdrawn from this project, there is
no further use for them, so they have been stored in public space for
an indefinite period of time. The qualitative local recreation area is
also reduced by the increasing waste load. Due to this excessive and
incorrect waste disposal the water quality is decreasing and the habi-
tat for many marine organisms is destroyed.

11. Conclusion of the privatisation of the coast

Tim Schönberger, Helen Schrettenbrunner

Mostly hotel complex-es
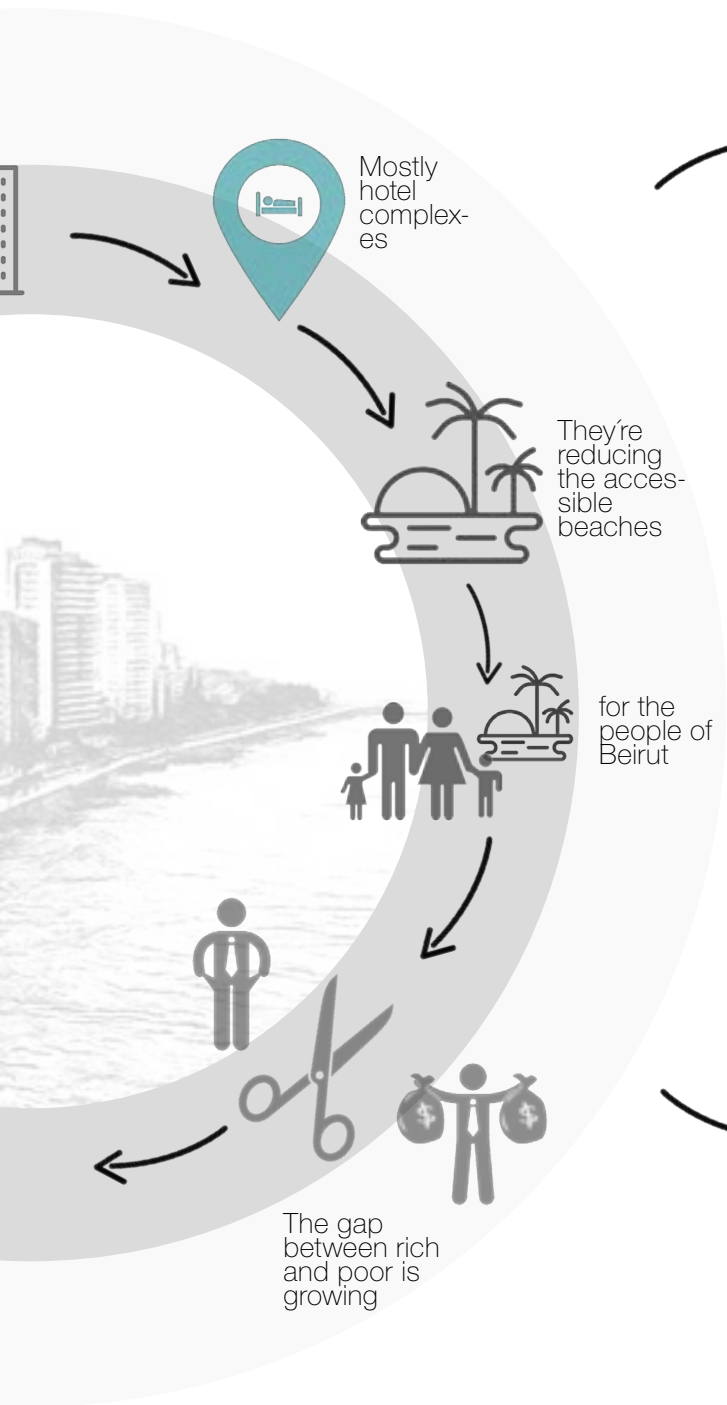
Destroys the livelihood of the animals in the sea

They're reducing the acces-sible beaches

Leads to inaccessible beaches

for the people of Beirut

The gap between rich and poor is growing

Destroys the plants in the sea

11.

In conclusion the consequences of the privatisation of the coast are the destruction of the tradition of Beirut with it´s buildings and local jobs. As well as the livelihood of animals and plants of the sea is drastically shrinking and the local population has one remaining opportunity to go to the beach without paying a high fee. The public spaces are more and more a privilege for the upper society.

## List of References:

1 SAKSOUK, Abir. 2015. Where is Law? Investigations from Beirut [online]. Beirut: American University Beirut. 20.01.2020 [Access on: 10.12.2020]. Available at: https://www.aub.edu.lb/Neighborhood/Documents/aubAbirNIReport.pdf, p.2

2 SALIBA, Robert, 2005. Städtebauliche Entwicklung. In: Tec21. 24.01.2005. Nr. 131/33-34. ISSN: 1424-800X. p. 7

3 DICTAPHONE GROUP, GOETHE INSTITUTE and AFAC, 2013. The sea is mine [online]. Beirut. Goethe Institute [Access on: 01.11.2019]. Available at: https://dictaphonegroup.com/portfolio-item/this-sea-is-mine/, p.3

4 Ibid. p.12-17

5 Ibid. p.12-17

6 WIKIPEDIA, 2015. Rafic Hariri [online]. Wikipedia. 27.01.2020 [Access on: 01.01.2020]. Available at: https://en.wikipedia.org/wiki/Rafic_Hariri

7 WIKIPEDIA, 2020. Saad Hariri [online]. Wikipedia. 27.01.2020 [Access on: 01.01.2020].Available at: https://en.wikipedia.org/wiki/Saad_Hariri

8 DICTAPHONE GROUP, GOETHE INSTITUTE and AFAC, 2013. The sea is mine [online]. Beirut. Goethe Institute [Access on: 01.11.2019]. Available at: https://dictaphonegroup.com/portfolio-item/this-sea-is-mine/, p.8-9

9 SASOUK - SASSO and Abir. Bekdache, Nadine. 2015. Private interest closing social space? A critical analysis of Lebanon's real estate sector  [online]. London: International Alert. 25.11.2019 [Access on: 07.12.2019]. Available: http://www.international-alert.org/news/towards-peace-economy-lebanon. p.8

10 Ibid. p.9

11 SAKSOUK, Abir. 2015. Where is Law? Investigations from Beirut [online]. Beirut: American University Beirut. 20.01.2020 [Access on: 10.12.2020]. Available at: https://www.aub.edu.lb/Neighborhood/Documents/aubAbirNIReport.pdf, p.4

12 DICTAPHONE GROUP, GOETHE INSTITUTE and AFAC, 2013. The sea is mine [online]. Beirut. Goethe Institute [Access on: 01.11.2019]. Available at: https://dictaphonegroup.com/portfolio-item/this-sea-is-mine/, p.3-4

13 SASOUK - SASSO and Abir. Bekdache, Nadine. 2015. Private interest closing social space? A critical analysis of Lebanon's real estate sector  [online]. London: International Alert. 25.11.2019 [Access on: 07.12.2019]. Available: http://www.international-alert.org/news/towards-peace-economy-lebanon. p.9

14 DICTAPHONE GROUP, GOETHE INSTITUTE and AFAC, 2013. The sea is mine [online]. Beirut. Goethe Institute [Access on: 01.11.2019]. Available at: https://dictaphonegroup.com/portfolio-item/this-sea-is-mine/, p.8-9

15 WIKIPEDIA, 2020. Beirut [online]. Wikipedia. 25.01.2020 [Access on: 01.01.2020] Available at: https://en.wikipedia.org/wiki/Beirut

16 DICTAPHONE GROUP, GOETHE INSTITUTE and AFAC, 2013. The sea is mine [online]. Beirut. Goethe Institute [Access on: 01.11.2019]. Available at: https://dictaphonegroup.com/portfolio-item/this-sea-is-mine/, p.14

17 Ibid. p.14

18 Ibid. p.20

19 Ibid. p.20

20 SAKSOUK, Abir. 2015. Where is Law? Investigations from Beirut [online]. Beirut: American University Beirut. 20.01.2020 [Access on: 10.12.2020]. Available at: https://www.aub.edu.lb/Neighborhood/Documents/aubAbirNIReport.pdf, p.4-5

21 CHEHAYEB, Karem and Lara BITAR, 2019. Beirut's last public beach faces creeping privatisation [online]. After losing a large chunk of seafront to a five-star resort, activists fear further encroachment at Ramlet el-Bayda. In: Jazeera News [online]. 09.07.2019 [Access on: 10.12.2020]. Available at: https://www.aljazeera.com/indepth/features/beirut-public-beach-faces-creeping-privatisation-190702053122250.html

22 PRESTON, Scott. 2018. The untouchable hotel. Urban activists view Eden Bay as a symbol of dysfunction. In: Executive [online]. 24.12.2019 [Access on: 11.12.2020]. Available at: https://www.executive-magazine.com/real-estate-2/the-untouchable-hotel

23. CHEHAYEB, Karem and Lara BITAR, 2019. Beirut's last public beach faces creeping privatisation [online]. After losing a large chunk of seafront to a five-star resort, activists fear further encroachment at Ramlet el-Bayda. In: Jazeera News [online]. 09.07.2019 [Access on: 10.12.2020]. Available at: https://www.aljazeera.com/indepth/features/beirut-public-beach-faces-creeping-privatisation-190702053122250.html

24 HAYDEN, Sally. 2016. Barricades on the beach: Beirut residents fight for their waterfront. In: Thomson Reuters Foundation [online]. 01.01.2020 [Access on: 09.12.2020]. Available at: https://www.reuters.com/article/us-lebanon-landrights-beach/barricades-on-the-beach-beirut-residents-fight-for-their-waterfront-idUSKBN13R1OT

25 HOMSI, Nada. 2018. A Sea of Trash on Lebanon's Beaches. In: New York Times [online]. 08.12.2019 [Access on: 08.12.2019]. Available at: https://www.nytimes.com/2018/01/23/world/middleeast/trash-lebanon-beach.html

26 SALIBA, Robert, 2005. Städtebauliche Entwicklung. In: Tec21. 24.01.2005. Nr. 131/33-34. ISSN: 1424-800X. p. 7

27 SAKSOUK, Abir. 2015. Where is Law? Investigations from Beirut [online]. Beirut: American University Beirut. 20.01.2020 [Access on: 10.12.2020]. Available at: https://www.aub.edu.lb/Neighborhood/Documents/aubAbirNIReport.pdf, p.6-7

28 LUNDE, Kelly Lynn. 2016. A precious, threatened slice of Beirut's coastline. Private development is endangering the rocky outcrop of al-Dalieh, one of the city's last public waterfronts. In: Al Jazeera News [online]. 09.07.2019 [Access on: 10.12.2020]. Available at: https://www.aljazeera.com/indepth/inpictures/2016/08/clone.of.precious-threatened-slice-beirut-coastlin.html

29 Ibid.

30 Ibid.

31 Ibid.

32 HOMSI, Nada. 2018. A Sea of Trash on Lebanon's Beaches. In: New York Times [online]. 08.12.2019 [Access on: 08.12.2019]. Available at: https://www.nytimes.com/2018/01/23/world/middleeast/trash-lebanon-beach.html

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04. Timeline on the development and influces of laws and decrees. CHRETTENBRUNNER, Helen and Tim SCHÖNEBERGER, 2019, based on: Reference 3, p. 2-20, Reference 9 and Reference 1

05. Distribution of usage and costs for using. CHRETTENBRUNNER, Helen and Tim SCHÖNEBERGER, 2019, based on: Reference 3 Reference AFAC, Goethe Institute. 2013. The sea is mine [online]., LIBANESE ARMY COMMAND, n.d.. The Central Military Club - Beirut [online]. Lebanese Army Command - Directorate of Orientation, n.d. [Access on: 28.01.2021]. Available at: https://www.lebarmy.gov.lb/en/content/central-military-club-%E2%80%93-beirut and GOOGLE, 2019. Google Maps [online]. Google, 2019 [Access on 28.01.2021]. Available at: https://www.google.de/maps

06. Zoom in 1: Distribution of usage and costs for using. CHRETTENBRUNNER, Helen and Tim SCHÖNEBERGER, 2019, based on: Reference 3 Reference AFAC, Goethe Institute. 2013. The sea is mine [online]., LIBANESE ARMY COMMAND, n.d.. The Central Military Club - Beirut [online]. Lebanese Army Command - Directorate of Orientation, n.d. [Access on: 28.01.2021]. Available at: https://www.lebarmy.gov.lb/en/content/central-military-club-%E2%80%93-beirut and GOOGLE, 2019. Google Maps [online]. Google, 2019 [Access on 28.01.2021]. Available at: https://www.google.de/maps

07. Accessibilty of the beach. CHRETTENBRUNNER, Helen and Tim SCHÖNEBERGER, 2019, based on: Reference 3, Reference 9 and Reference 1

08. Distribution of the sandy beach space. CHRETTENBRUNNER, Helen and Tim SCHÖNEBERGER, 2019

09. Developement of the artificial coastline. CHRETTENBRUNNER, Helen and Tim SCHÖNEBERGER, 2019 based on: FAOUR, Galeb. 2005. Changes in the lebanese coastline between 1962 and 2003. In: Research Gate [online]. 07.2005 [Access on: 10.12.2020]. Available at: https://www.researchgate.net/publication/266558542 and GOOGLE, 2019. Google Maps [online]. Google, 2020 [Access on: 10.12.2020]. Available at: https://www.google.de/maps

10. Zoom in 2: Developement of the artificial coastline. CHRETTENBRUNNER, Helen and Tim SCHÖNEBERGER, 2019, based on: FAOUR, Galeb. 2005. Changes in the lebanese coastline between 1962 and 2003. In: Research Gate [online]. 07.2005 [Access on: 10.12.2020]. Available at: https://www.researchgate.net/publication/266558542 and GOOGLE, 2019. Google Maps [online]. Google, 2020 [Access on: 10.12.2020]. Available at: https://www.google.de/maps

11. Conclusion of the privatisation of the coast. CHRETTENBRUNNER, Helen and Tim SCHÖNEBERGER, 2019

01.

Vivien Kind, Theresa Klingler, Carolin Thomas

**Vivien Kind
Theresa Klingler
Carolin Thomas**

# Where Does the Trash Go? Solid Waste Management in Beirut

In Beirut every few years a subliminal smouldering problem finds its way to public awarness and becomes a full-scale crisis. Then overloaded landfills definitely reach their limits, trash piles up in the streets and random dumpings in the city and the urban hinterland become more frequent. In short: the country is shaken by a trash crisis.
In Lebanon there is no sustainable governmental treatment of waste. Therefore the population has to worry, in varying intensity, about a question we are not confronted with in our daily lives.
-Where does the trash go?-
To comprehend and debate this topic we have to consider the origin of the problem, its characteristics and the possibilty for Beirut to overcome this periodical crisis.

## Origin of the Problem: Corruption

Nowadays Lebanon is listed the 138th least corrupt country in the world out of 180[1], this has a history back to the second world war. After Lebanon became independent in 1943, the economy was built on about thirty families who had enriched themselves during the period of the merchant republic. Those families held monopolistic control over a big part of the countries economy. During the civil war between 1975 and 1990 corruption increased[2] and public institutions were subverted and became spheres of control of warlords. Hence many institutions in Lebanon act without governmental or parliamental checks and balance. Besides, the two major institutaions, managing the post-war restoration of Lebanon, were and are strongly conected to single ministers, taking their private benefit.[3]

01.  Child standing near garbage

closure of the Bourj
Hammoud landfill[20]

opening of the Bsalim
and the
Naameh landfill[21]

unsolved

garbage problem

the Bourj Ham-
moud dump
became an offical
landfill[18]

uncontrolled
dumping in the
district
Bourj Hammoud[17]

solved

lebanese civil war

1975

1990

1997
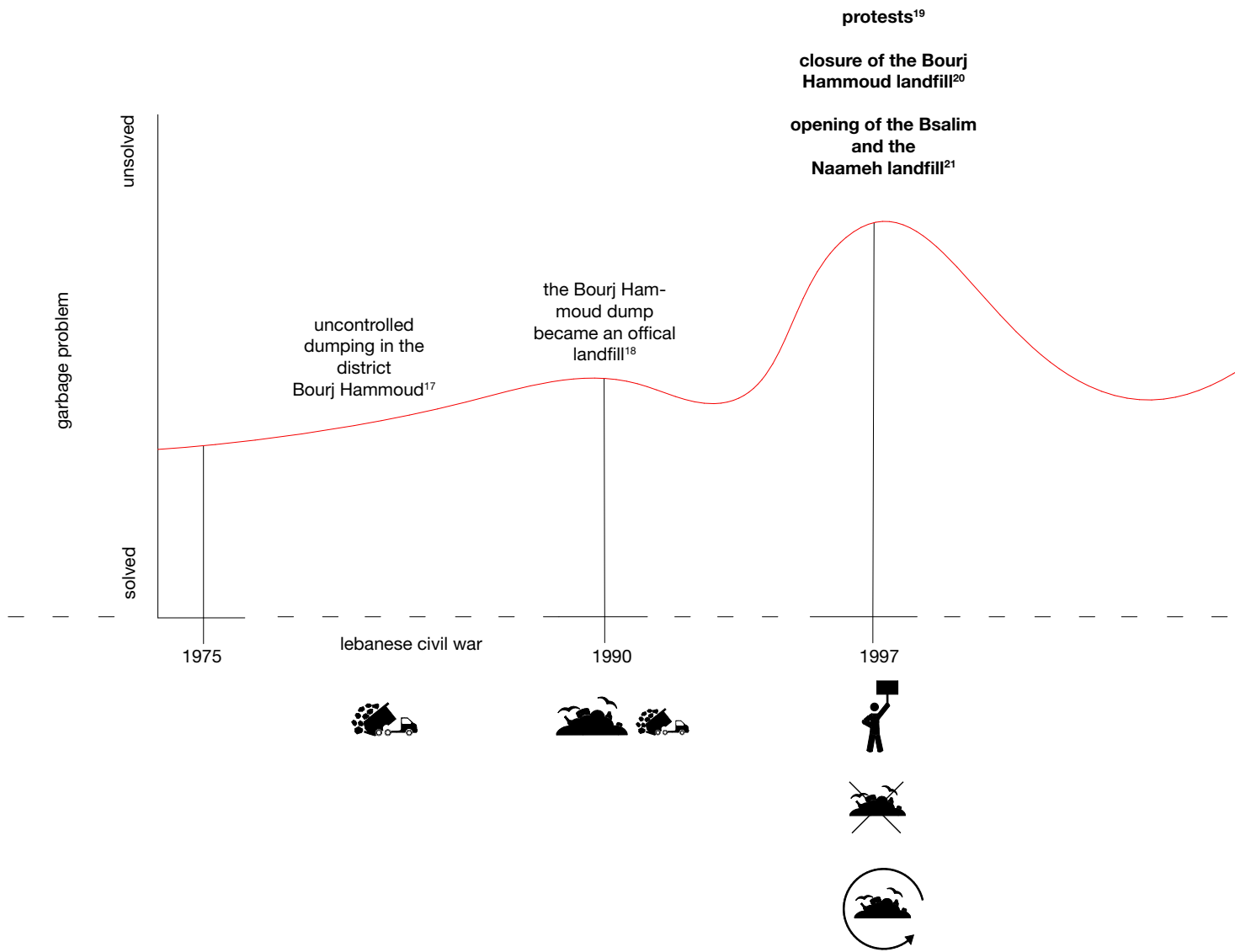
**Historical Development of Waste Management in Beirut**

The origins of the waste crisis started while the Lebanese civil war, from 1975 to 1990.[4] One of the most affected areas is the district Bourj Hammoud, where governmental agencies and other groups started dumping garbage on a spot really close to the residential area.[5] The ecological impact of this site was drastically heightened by accepting the dumping of toxic waste shipped by European countries.[6] By the end of the war, tons of waste had piled up there and the uncontrolled dumpsite started being used as an official landfill. By 1997, the dumpsite had far exceeded its capacity and had become an environmental and public health risk.[7] In May 1997 the Cabinet advised the closure of the landfill, but the government delayed the implementation.[8] After protests, the government responded due to pressure from the communities and the Cabinet, therefore the Bourj Hammoud landfill was closed in July 1997.[9]

Instead of developing a sustainable solution to the waste management crisis, the government opened a new landfill as a temporary short term site, the Naameh-landfill.[10] 18 Years later, in 2015, the Naameh landfill was finally closed, after reaching its capacity multiple times.[11] Even after this closure, no efforts were made to rehabilitate the landfill or to recreate an integrated waste management plan for Lebanon. This is why it ultimately led to the eruption of the garbage crisis.[12]

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closure of the
Naameh landfill[22]
garbage crisis[23]
„You Stink" pro-
tests[24]
founding of
Recycle Beirut[25]

Reopening
of the Bourj
Hammoud and
the Costa Brava
landfill[26]

founding of
Live Love Recycle[27]

waste
master plan[28]

2015          2016                    2018         2019

The former waste disposal company Sukleen had no place to put the tons of garbage and was forced to halt operations. For months the rubbish was mounting in streets and especially in the suburbs huge piles of rubbish developed. This led to mass demonstrations that quickly escalated into riots. The demonstrators were calling for an ecological solution and the downfall of the political system under the slogan "you stink". The waste crisis became an uprising, which led the government to promise to come up with a four-year plan to develop a working waste management system for Lebanon. However, this plan is still not existing.[13] Tired of the government's failure, many commercial recycling initiatives and NGOs were founded to improve the waste issue.[14] Recycle Beirut und Live Love Recycle are part of it. In 2016, the landfills Bourj Hammoud and Costa Brava, both directly to the sea, were opened again as a temporary solution, operating until today.[15] In 2019 the new Minister of the Environment presents a waste master plan for Lebanon. Nevertheless it still does not seem to be an eco-friendly solution. The talk is about converting some of Lebanon's 960 illegal dumps into sanitary landfills and which of the 1,370 illegal quarries can be converted or used as landfills.[16] But there is no talk about recycling, let alone reuse and reduction.

02. Timeline of waste development

Bourj Hammoud
Landfill

Jdeideh Landfill

04. Bsalim Landfill

05.
Costa
Brava
Landfill

06.
Naameh Sanitary
Landfill

Landfill

Population density people per m²

80k+
40-80
28-40
22-28
18-22
15-18
2-15

03.

Vivien Kind, Theresa Klingler, Carolin Thomas
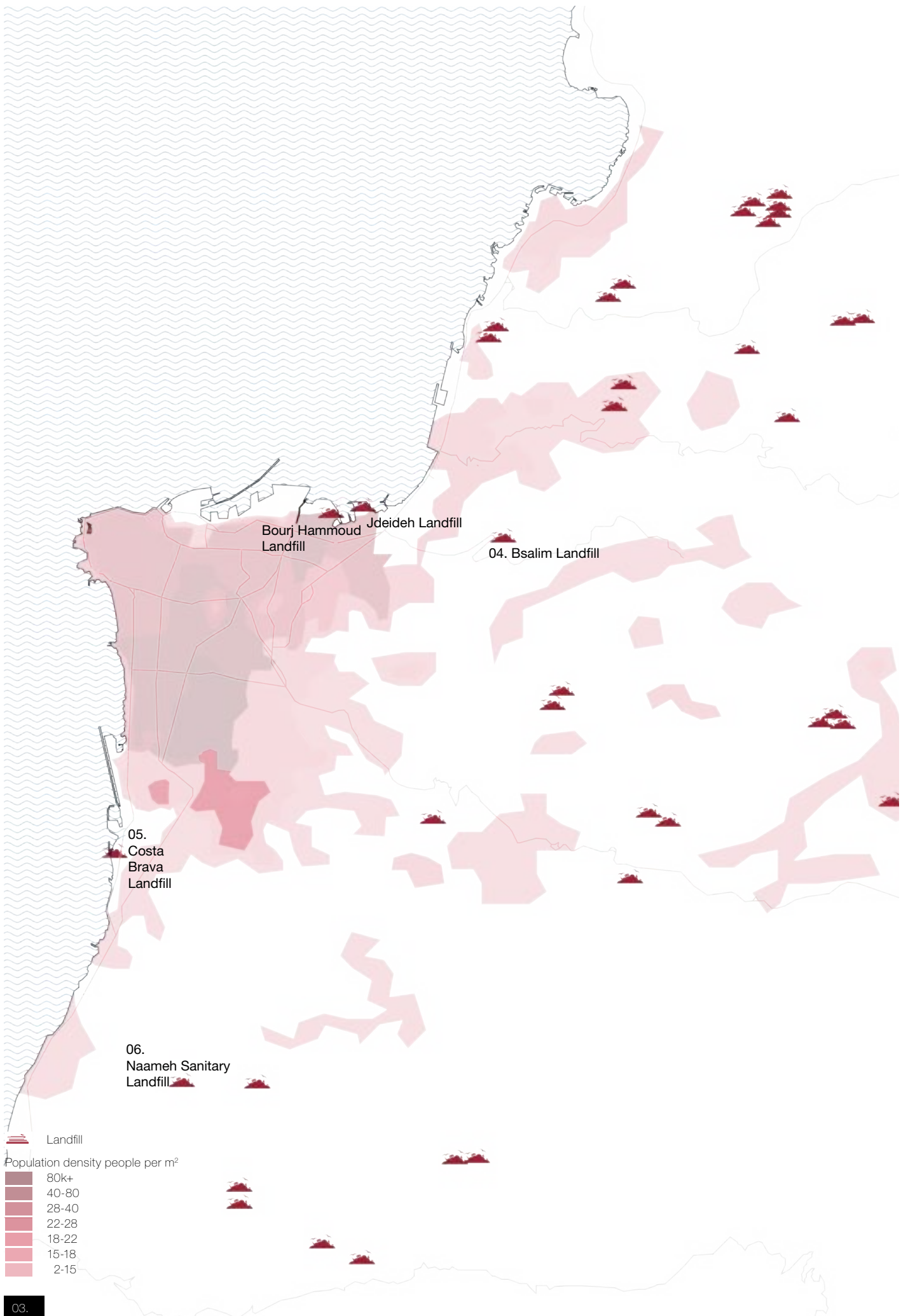
Bsalim Landfill for inert waste is located a couple of kilometre east from Beirut on the northern side of Nahr El Mot valley. The Landfill opened up in April 1998 and coveredan area of about 45,000 m². Its volume capacity consists of 1 million m³ and itwas expected to accommodate about 730.000 tons of waste.[17]
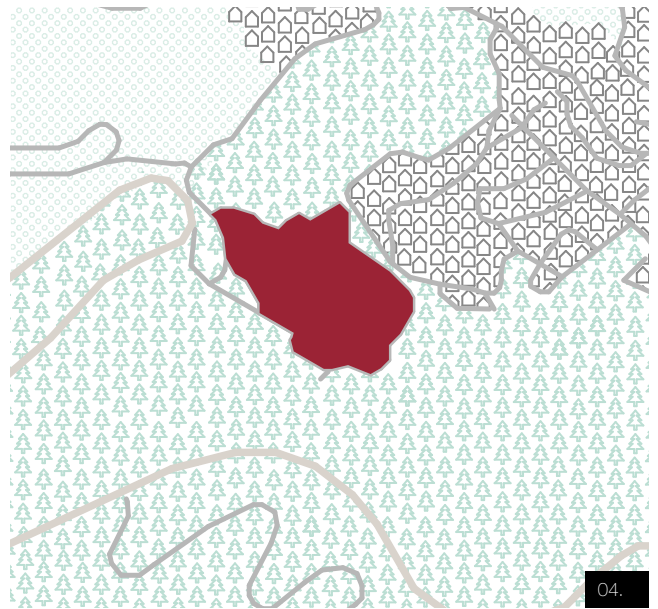


The Costa Brava landfill was opened in April 2016, it is one of the two landfills that have been advertised by the Lebanese government as a solution to the trash crisis that lebanon went through in 2015. It was a temporary alternative to the Naameh landfill which was closed 2015. The landfill has a size of 16.3 hectares and rises up to 55m above sea level. The waste is estimated at 6 million m3 and consists of municipal solid waste, industrial waste, and hospital waste.[18]
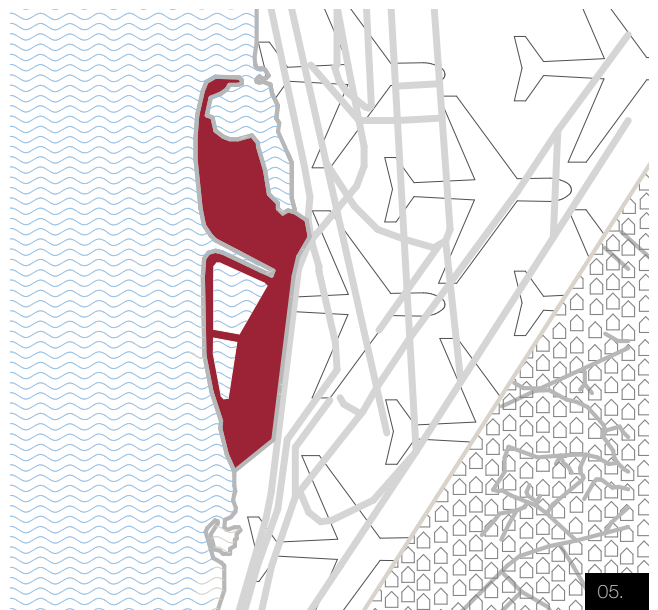


Naameh Sanitary Landfill is located about 15km south of Beirut and 4km from the coastline of Lebanon. Since it came into operation in 1998, the Naameh Landfill has been receiving much more waste than originally planned.Initially the landfill covered 120,000m² and received 2 million tons of waste in two cells. In 2001 Cell 3 was build with 62.000m² and in 2006 expanded by an additional 25.000m². The Landfill received on average 1,955 t/d and 2,300 t/d in 2010.[19]
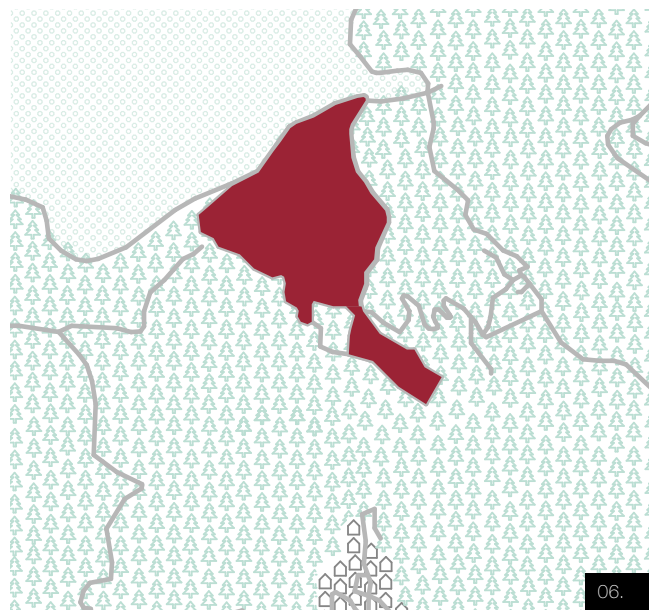


03. Landfills in Beirut region

04. Zoom In 1: Bsalim Landfill

05. Zoom In 2: Costa brava Landfill

06. Zoom In 3: Naameh Landfill

Recycling companies

Recycling and Reducing

Sorting          Composting

Composting

1 %

35 %

Disposal controlled

50 %

Beirut river    Open burning    Mediterranean Sea    Open dumping
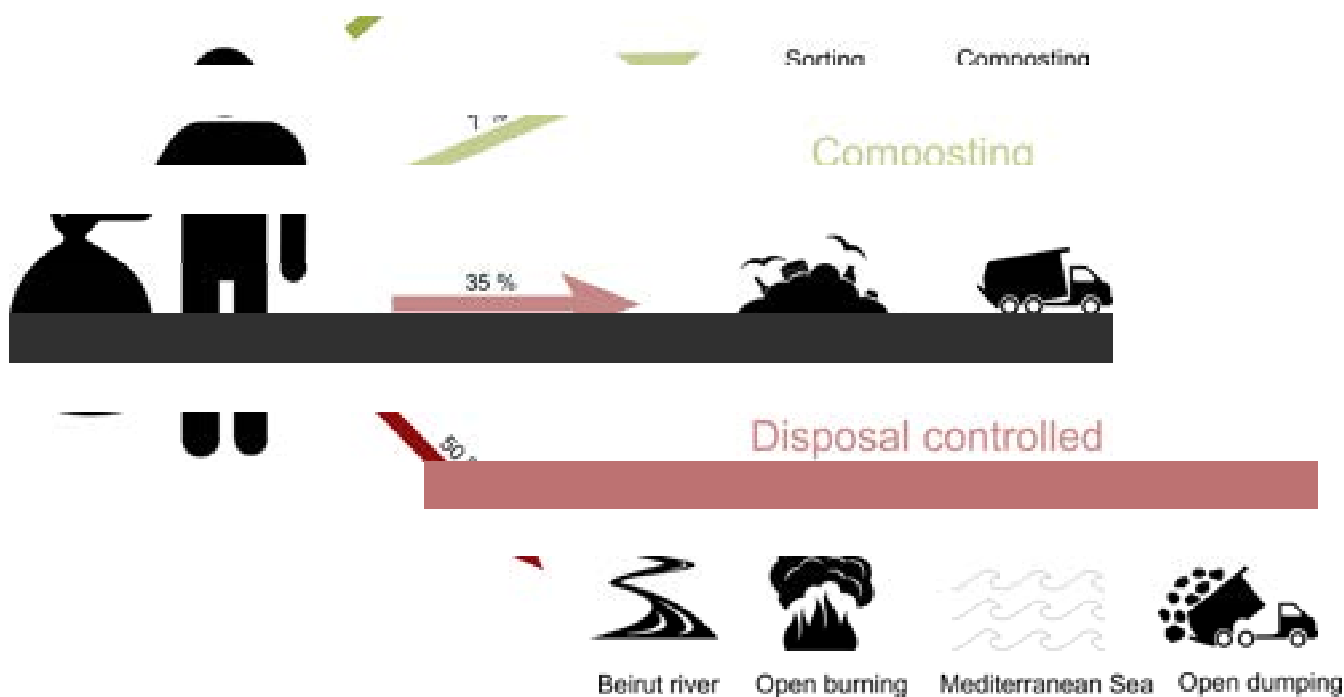
Disposal uncontrolled

07.

**Where does the Trash Go?**

According to researchers from the American University of Beirut, 77 % of Lebanon's waste is either openly dumped or sent to landfills even though the reasearch shows that more than 80 % could be composted or recycled. It is everony`s personal choice to whether treat waste or to dispose it in other ways. Not all trash can be burned, for example metals, glass and other inert materials. The Failing to burn the proper materials will lead to the production of excess volumes of toxic fluid and ash which will be released into the atmosphere and therefore inhaled by inhabitants within a radius of four kilometers. A campaign launched by Human Rights Watch hopes to raise awareness about the serious public health crisis. „Where did the trash go?" is asked by billboards for the campaign and then comes the ominous response: „It's in the air you breath."[20] 2015 the government began collecting rash from streets only to dump it in the sea. Political activists estimate that about 850 million tons have beendumped [status june 2019].[21] Libanon has more than 60% organic waste and more than 15% inert waste, but if it is not seperated from the rest of the trash it often ends up in a landfill.[22]Progress can be made through active sorting to increase the quality of possible compost derived, and recycling in order to decrease the amount of unusable waste.

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08.
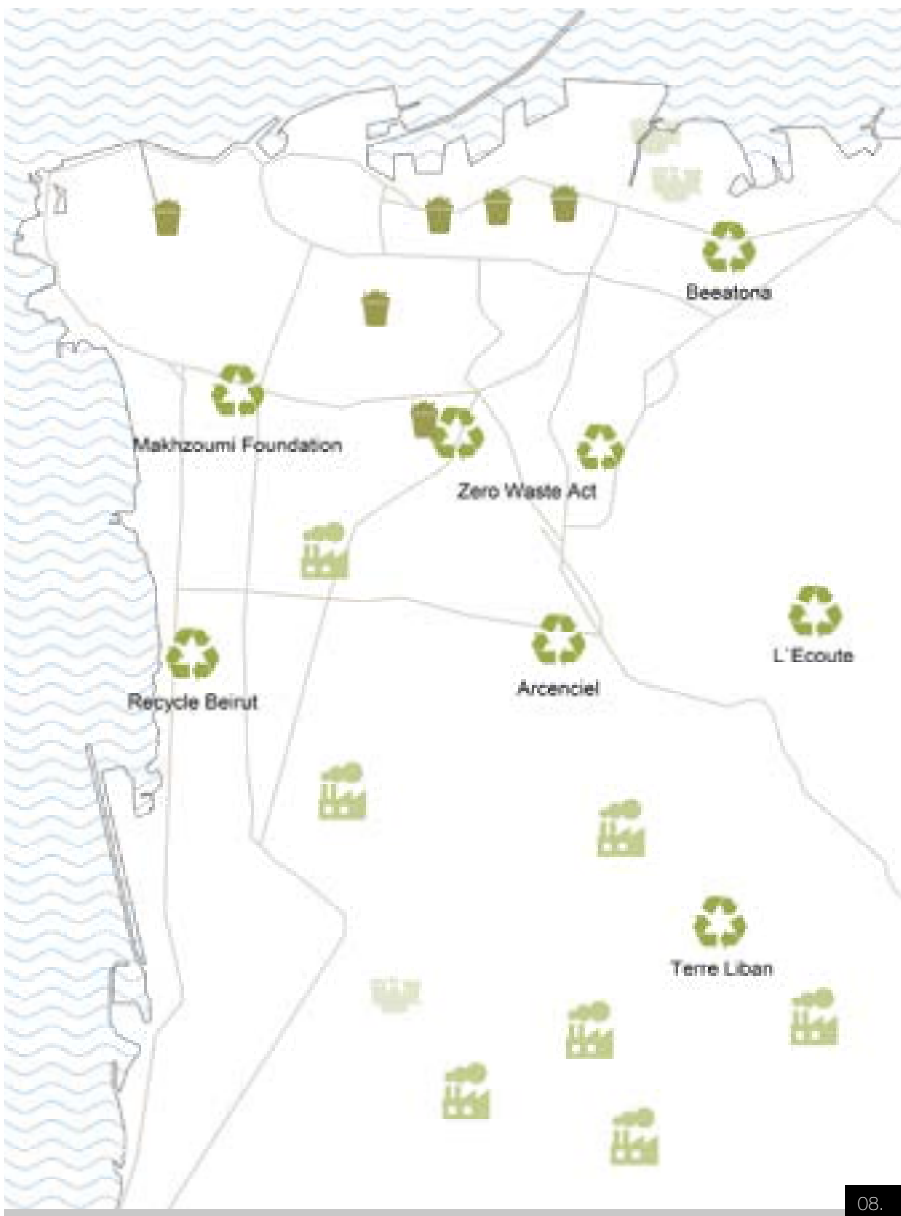
Beeatona:
Founded in 2008
Beeatoona has launched a project for battery recycling in schools of Lebanon, Jordan and Tunisia. Their aim is to engage students of 50 schools in each country in the sorting and collecting of household batteries and raising awareness on environmental health risks associated with disposal of batteries.[23]

Zero Waste Act:
Founded in 2011
Zero Waste Act promotes an waste management hierarchy emphasizing the six R's - Reduce, Reuse, Recycle, Respect, Responsibility and Recognition. Their program especially encourages students to separate their daily waste and become active and responsible citizens of their communities.[24]

Arcenciel:
Founded in 2010
Arcenciel developed its own rooftop garden and opened sorting centers for recyclable waste. They are known for running hospital waste treatment centers and their products produced on their dairy farm.[25]

Recycle Beirut:
Founded in 2015
Recycle Beirut are merging two problems, the waste crisis and the refugee crisis, into one solution. They employ refugees at a living wage to pick up, sort, and process recyclables for the Beirut area.[26]

Ganatch:
Founded in 2015
Ganatch set up a sorting facility and offer a subscription-based collection service throughout Beirut and Mount-Lebanon.[27]

**Recycling in Beirut**

After the garbage crisis' peak, several NGO's started to run their business to collect and recycle the rubbish. One of the first was Recycle Beirut, which established in 2015.[28] The garbage was collected, separated and sold to recycling factories as recyclable parts. However, a lebanese blogger, Gino Raidy, claimed that Recycle Beirut is just another corrupt and profit oriented company. Workers, mostly syrian refugees, sort the rubbish without proper protection. The cost for a single collection is about 10 $, which is too much for many lebanese people[29].
The EU and UN seem to be Raidy's opinion and didn't fund Recycle Beirut, but other organisations, such as Live Love Recycle.[30] Live Love Recycle started as a kickstarter project. Now it is employing over 400 people. They developed an app in which households can order a collection of their already sorted rubbish.[31] At first the service was free, now in order to become self-sustainable Live Love Recycle is charging 2 to 3 $ per collection.[32] The collected rubbish is transported to Arcen Ciel. It's a NGO which has created a national strategy for waste management and opened two sorting centers in Lebanon.[33]

Recycling bins
Recycling companies
Recycling industries
Sorting points

08. Recycling in Beirut region

Beirut                                          Hamburg

area

🕐
10 km
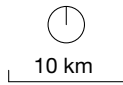
population

metropolitan area: ca. 2.200.000              city: ca. 1.850.000
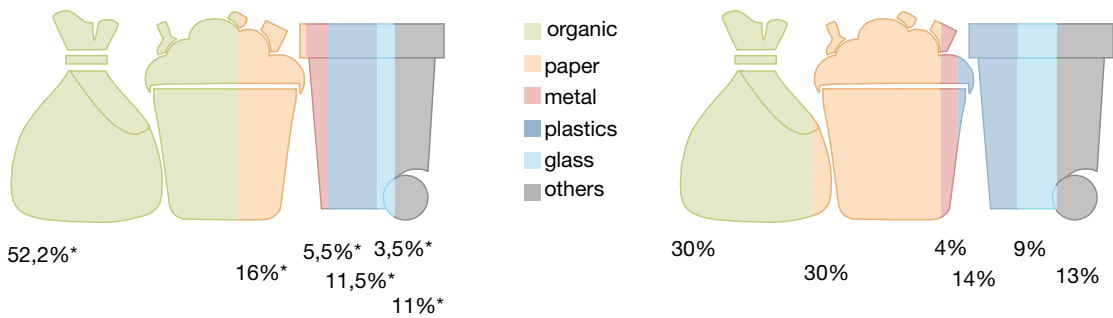[city: ca. 361.000]

waste per capita

0,95-1,2 kg per day                            1,27 kg per day

recycling**
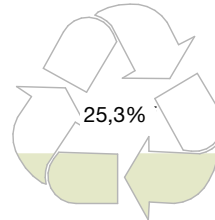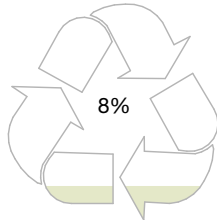
8%                                             25,3%

waste composition

organic
paper
metal
plastics
glass
others

52,2%*                30%

16%*        5,5%*  3,5%*        30%      4%    9%
            11,5%*                       14%   13%
            11%*

09.

**180**                    Vivien Kind, Theresa Klingler, Carolin Thomas

**Beirut´s Waste Compared to Hamburg´s**

With a view to making this far-off topic more tangible the following paragraph compares several aspects to a place better known to us. Due to the comparable population figures of the city of Hamburg (about 1.850.000[34]) to the region of Beirut (about 2.200.000[35]) Hamburg is appropriate for this aim.

The fundamental difference regarding solid waste treatment is the role of sustainability for the government. Whereas in Germany there are statutory recycling goals based on European Abfallrahmenrichtlinie 2008/98/EG,[36] in Lebanon there are none. The only regulation the Lebanese law knows came in 2018 turning open dumping and burning illegal.[37] As we learned in the paragraph about recycling the work in this sector in Beirut is almost exclusively done by private camps.

Therefore, the large difference of the recycling rates is not surprising. In Hamburg the recycling rate is 25,3%,[38] disproportionally low in the German average[F], but vice versa compared to Beirut, having a recycling rate of only 8%.[39] Looking at the composition of the waste this rate seems irritating noticing that the share of easily treated organic waste is about 60% higher than in Hamburg.[40,41] In Hamburg the highest share of the waste composition is equally made by organic waste and paper and cardboard,[42] which are both considered easy to recycle. In one aspect the condition for proper waste treatment in Beirut is even better then in Hamburg. The total waste consumption per capita, with a figure between 0,9 and 1,2 kg per day,[43] is slightly lower than the generated waste per capita of 1,27 kg per day[44] in Hamburg.

**Conclusion: Perspective for a Future Waste Management**

Recapitulatory one can say that despite the large effort of a small part of the population, consisting of private, buisness and NGO initiatives, to establish a more sustainable waste treatment, there is no long-term overcoming of the problem on the horizon. A change this big cannot be made without governmental action following those who started to initiate inspiring change. Without a serious strain to overcome the current practice of solid waste management, the cyclic historical development suggests the repetition of another critical phase. Hopefully the work of the population can give the impetus to the government.

**List of References:**

1 WICKBERG, Sofia and TRANSPARENCY INTERNATIONAL, 2012. Overview of corruption and anti-corruption in Lebanon. In: Transparency International [online]. 15.10.2012 [Access on: 27.01.2020]. Available at: https://knowledgehub.transparency.org/helpdesk/overview-of-corruption-and-anti-corruption-in-lebanon

2 THE LEBANESE TRTANSPARENY ASSOSIATION, n.d.. Corruption in Lebanon. In: The Lebanese Trancparency Assosiation [online]. n.d. [Access on: 27.01.2020]. Available at: http://www.transparency-lebanon.org/En/Corruption/52

3 DEVRE, Gulsen, 2011. Corruption in post-war Lebanon: public means for private benefit [online]. Beirut:  Gulsen Devre [Access on: 27.01.2020]. Available at: http://www.liberainternational.eu/wordpress/wp-content/uploads/Ordine%20tematico_doc/corruption/Corruption%20in%20post-war%20Lebanon,public%20means%20for%20private%20benefit_Devre_march2011.ENG.pdf

4 MOUGHALIAN, Catherine, 2016. Bourj Hammoud Garbage Mountain, Lebanon [online]. Environmental Justice Atlas [Access on: 06.01.2020]. Available at: https://ejatlas.org/conflict/bourj-hammoud-garbage-mountain

5 Ibid.

6 BROOM, Fiona, 2018. Fighting the big burn: Lebanon's waste dilemma. In: New Internationalist [online]. 27.11.2018 [Access on: 28.11.2019]. Available at: https://newint.org/features/2018/11/01/lebanon-trash

7 MOUGHALIAN, Catherine, 2016. Bourj Hammoud Garbage Mountain, Lebanon [online]. Environmental Justice Atlas [Access on: 06.01.2020]. Available at: https://ejatlas.org/conflict/bourj-hammoud-garbage-mountain

8 Ibid.

9 Ibid.

10 Ibid.

11 MOUGHALIAN, Catherine, 2016. Naameh Landfill, Lebanon [online]. Environmental Justice Atlas [Access on: 06.01.2020]. Available at: https://ejatlas.org/conflict/naameh-landfill-lebanon

12 Ibid.

13 FITT, Elizabeth, 2019. How composting is solving Lebanon's waste crisis and benefiting the environment and economy. In: Recycling and Waste World [online]. 01.03.2019 [Access on: 14.01.2020]. Available at: http://www.recyclingwasteworld.co.uk/in-depth-article/how-composting-is-solving-lebanons-waste-crisis-and-benefiting-the-wider-environment-and-economy/212660/

14 Ibid.

15 NEUMANN, Julia, 2019. Müllproblem im Libanon: Sand sieben zur Gesichtsrettung. In: taz [online]. 24.07.2019 [Access on: 08.01.2020]. Available at: https://taz.de/Muellproblem-im-Libanon/!5610410/

16 THEBUISSNESSYEAR, 2018. Getting straight to work [online]. Lebanon: thebusinessyear, 2018 [Access on: 14.01.2020]. Available at: https://www.thebusinessyear.com/lebanon-2019/getting straight-to-work/interview

17 JADAM, Joy, 2011. 8 Solid waste. In: Research Gate [online]. 07.2011 [Access on: 21.01.2021]. Available at: https://www.researchgate.net/publication/277957794_State_of_the_Environment_Report_SOER_2010_Lebanon_-_Solid_Waste

18 Ibid.

19 Ibid.

20 LEMON, Jason, 2018. Where did Lebanon's trash go? It's in the air ... . In: stepFeed [online]. 20.01.2018 [Access on: 20.01.2020]. Available at: https://stepfeed.com/where-did-lebanon-s-trash-go-it-s-in-the-air-2797

21 MAKSAD, Firas and Sarah LORD, 2019. Greetings From Trash Mountain. Argument. In: Fp [online]. 28.06.2019 [Access on: 14.01.2020]. Available at: https://foreignpolicy.com/2019/06/28/greetings-from-trash-mountain/

22 KAVALER, Tara and THE MEDIA LINE, 2019. Trash Piles Up as Lebanon Waits for an Answer. In: The Jerusalem Post [online]. 17.07.2019 [Access on: 25. 01.2020]. Available at: https://www.jpost.com/Middle-East/Trash-Piles-Up-as-Lebanon-Waits-for-an-Answer-595897

23 BEEATOONA, 2020. Beeatona [online]. Dora: Beeatona, 2020 [Access on: 21.01.2021]. Available at: http://beeatoona.org/#

24 ZERO WASTE ACT, 2011. Zero Waste Act React [online]. Zero Waste Act, 2011 [Access on: 25. 01.2020]. Available at: http://www.zerowasteact.com/about

25 ARCENCIAL, 2016. Agricultre and Environment [online]. Arcencial, 2016 [Access on: 25. 01.2020]. Available at: https://www.arcenciel.org/agriculture-environment/

26 RECYCLE BEIRUT, 2019. The Process [online]. Recycle Beirut, 17.07.2019 [Access on: 25. 01.2020]. Available at: http://www.recyclebeirut.com/

27 GANATACH [online].[Access on: 25. 01.2020]. Available at: https://www.ganatch.ngo/about-us

28 RAIDY, Gino, 2018. Recycle Beirut. When Greed Masquerades as Activism. In: Medium [online]. 04.09.2018 [Access on: 14.01.2020]. Available at: https://ginos-blog.com/recycle-beirut-when-greed-masquerades-as-activism-a9b2818a82e1

29 Ibid.

30 Ibid.

31 SPARKNEWS TV, 2018. Live Love Recycle – a 100% social solution to waste crisis in Beirut. In: YouTube [online]. 21.06.2018 [Access on: 16.12.2019]. Available at: https://www.youtube.com/watch?v=qSmQ7Qe2w20

32 LIVLOVE, 2019. Live Love Recycle. Let's Reduce Lebanon's Waste Crisis. In: Kickstarter. 10.04.2019 [Access on: 12.01.2020]. Available at: https://www.kickstarter.com/projects/livelove/live-love-recycle-lets-reduce-lebanons-waste-crisi?lang=de

33 ARCENCIAL, 2016. Agricultre and Environment [online]. Arcencial, 2016 [Access on: 25. 01.2020]. Available at: https://www.arcenciel.org/agriculture-environment/

34. STATISTISCHES AMT FÜR HAMBURG UND SCHLESWIG-HOLSTEIN, 2019. Statistik informiert... [online]. Nr.108/2019. Hamburg: Statistisches Amt für Hamburg und Schleswig-Holstein –Anstalt des öffentlichen Rechts [Access on: 17.01.2020]. Available at: https://www.statistik-nord.de/fileadmin/Dokumente/Presseinformationen/SI19_108.pdf

35 WORLD POPULATION REVIEW, 2019. Beirut population 2020 [online]. Walnut: World population review [Access on: 17.01.2020]. Available at: http://worldpopulationreview.com/world-cities/beirut-population/

36 UMWELTBUNDESAMT, 2020. Abfallrecht [online]. Rechtsgrundlagen. Dessau-Roßlau: Umweltbundesamt [Access on: 22.01.2020]. Available at: https://www.umweltbundesamt.de/themen/abfall-ressourcen/abfallwirtschaft/abfallrecht

37 HUMAN RIGHTS WATCH, 2020. Lebanon: Burning Trash Poses Serious Health Risk [online]. New York: Human Rights Watch [Access on: 22.01.2020]. Available at: https://www.hrw.org/video-photos/video/2018/10/18/lebanon-burning-trash-poses-serious-health-risk

38 STADTREINIGUNG HAMBURG, 2019. Daten und Fakten 2018 [online]. Hamburg: Stadtreinigung Hamburg [Access on: 17.12.2019].  Available at: https://www.stadt-reinigung.hamburg/Konzernbericht_DatenFakten_2018/#6

39 DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT, 2014. Country report on the solid waste management in Lebanon [online]. Bonn and Eschborn: Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH [Access o:: 26.11.2019]. Available at: https://www.retech-germany.net/fileadmin/retech/05_mediathek/laenderinformationen/Libanon_RA_ANG_WEB_Laenderprofile_sweep_net.pdf

40 HAMBURG BEHÖRDE FÜR UMWELT UND ENERGIE, 2019. Abfallstatistik Siedlungsabfälle [online]. Hamburg: Behörde für Umwelt und Energie [Access on: 17.12.2019]. Available at: https://www.hamburg.de/contentblob/12793290/21203ad-2f414c96e53b9bb27539c4b33/data/d-statistik-siedlungsabfall-2018.pd

41 DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT, 2014. Country report on the solid waste management in Lebanon [online]. Bonn and Eschborn: Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH [Access o:: 26.11.2019]. Available at: https://www.retech-germany.net/fileadmin/retech/05_mediathek/laenderinformationen/Libanon_RA_ANG_WEB_Laenderprofile_sweep_net.pdf

42 HAMBURG BEHÖRDE FÜR UMWELT UND ENERGIE, 2019. Abfallstatistik Siedlungsabfälle [online]. Hamburg: Behörde für Umwelt und Energie [Access on: 17.12.2019]. Available at: https://www.hamburg.de/contentblob/12793290/21203ad-2f414c96e53b9bb27539c4b33/data/d-statistik-siedlungsabfall-2018.pd

43 DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT, 2014. Country report on the solid waste management in Lebanon [online]. Bonn and Eschborn: Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH [Access o:: 26.11.2019]. Available at: https://www.retech-germany.net/fileadmin/retech/05_mediathek/laenderinformationen/Libanon_RA_ANG_WEB_Laenderprofile_sweep_net.pdf

44 HAMBURG BEHÖRDE FÜR UMWELT UND ENERGIE, 2019. Abfallstatistik Siedlungsabfälle [online]. Hamburg: Behörde für Umwelt und Energie [Access on: 17.12.2019]. Available at: https://www.hamburg.de/contentblob/12793290/21203ad-2f414c96e53b9bb27539c4b33/data/d-statistik-siedlungsabfall-2018.pd

## List of Figures:

10. Waste River

10.

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