

BORDER CONDITIONS  
ALONG THE NEW SILK ROAD  
GRADUATION STUDIO



2020 — 2021



# **BORDER CONDITIONS ALONG THE NEW SILK ROAD GRADUATION STUDIO**

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## COVER IMAGE

Fouad Elkoury, No Present ,  
Beirut (1997), silver bromide  
print, 80 × 100 cm

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# INTRODUCTION

## BEIRUT

Inhabited since the Roman Empire, Beirut is a city built on ruins, continuously reborn from the ashes like a phoenix. In the sense that it has been demolished and rebuilt again seven times throughout its long history. Continuous religious conflicts have fragmented the city. The fragments give an impression of being detached and divergent while realising that it won't ever be possible to collect all the parts. As J.B. Jackson states in its article 'The Necessity for Ruins' "Ruins provide the incentive for restoration, and for a return to origins."<sup>1</sup>

Each student in the group of Beirut identified and chose a specific yet critical type of ruin. There was analysed four different deserted and forgotten pieces of the city Beirut.

The first analysis based on landscapes in a post-growth mindset and questions how the commodification of nature may differ within new economic scenarios. It focuses on Beirut Port District and looks for the methods that can inhabit and revive the position of pollution within Architecture.

The second one explores the image of Beirut as a ruin. It focuses on Beirut's pictorial images made by its contemporary artist society. Moreover, it investigates these photographs through the concept of Beirut's artist as its image-makers. That intends to analyse artworks and their relations to the city.

The third one analyses post-war reconstruction and looks for new approaches towards unfinished buildings in Beirut. It searches for the methods that transform existing structures and address and liberates real housing, infrastructure and public space issues.

The last one interest is in reviving the River Beirut that is abandoned and treated as sewage. It analyses

the current conditions and looks for River channelisation alternatives and methods to recover the ecological balance. Introduce a sensible approach towards its natural resources and heritage – soil, water, and natural landscape; make the river accessible to the public and restore cities cultural, social activities and engagement with water.

Each student presents an essay of theory research and the other visual and hard data, information related to the relevant project to understand the topic argumentation.

<sup>1</sup> A-Z Quotes. 'J. B. Jackson Quote'. Accessed 1 February 2021. <https://www.azquotes.com/quote/1020232>.



# COLLECTIVE RESEARCH

## STUDENTS

Ceren Kaya

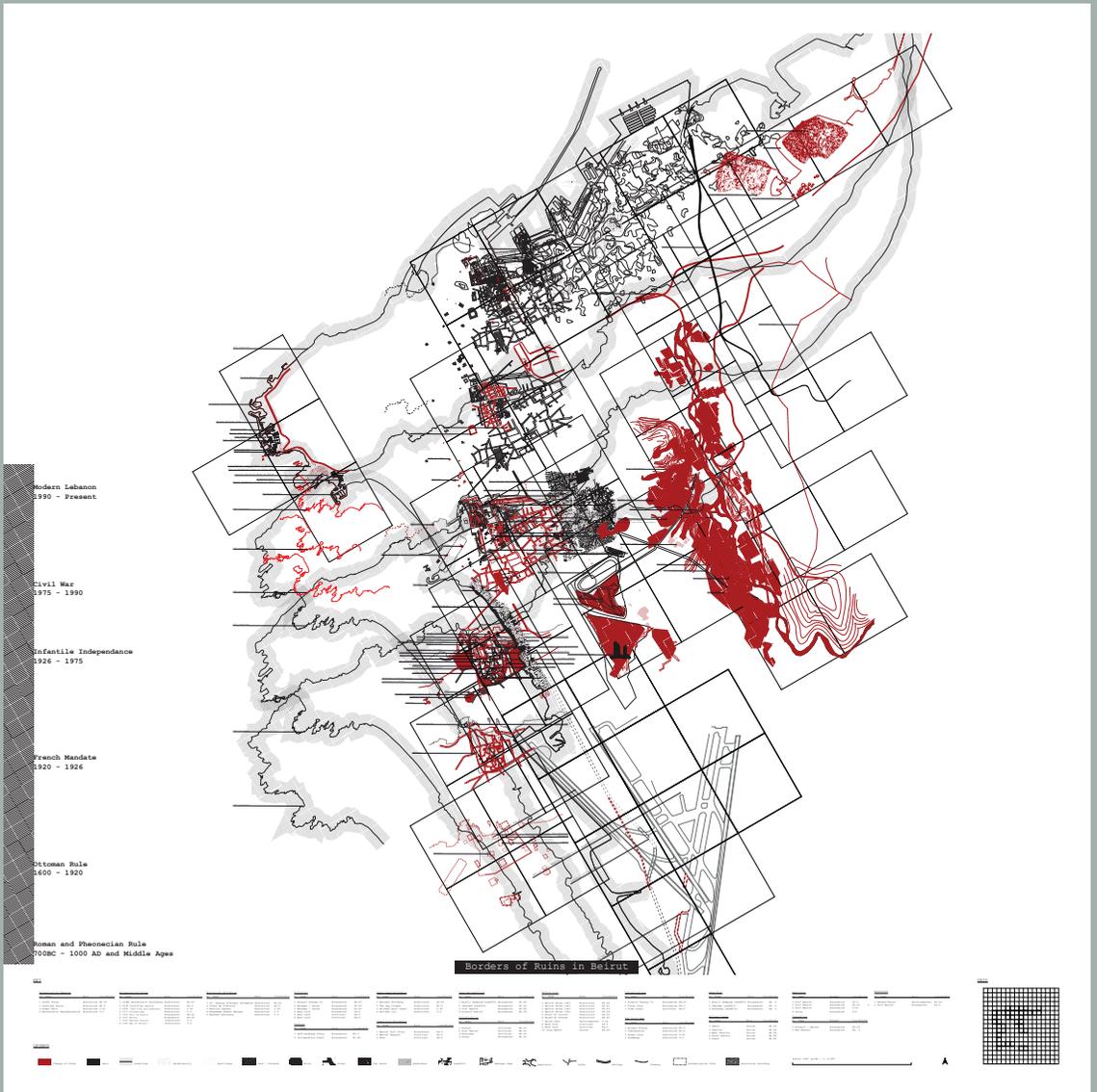
Katrina Hemingway

Marcus Grosveld

Stanislaus Ruff

Viktorija Useviciute

# BORDERS OF RUINS BEIRUT



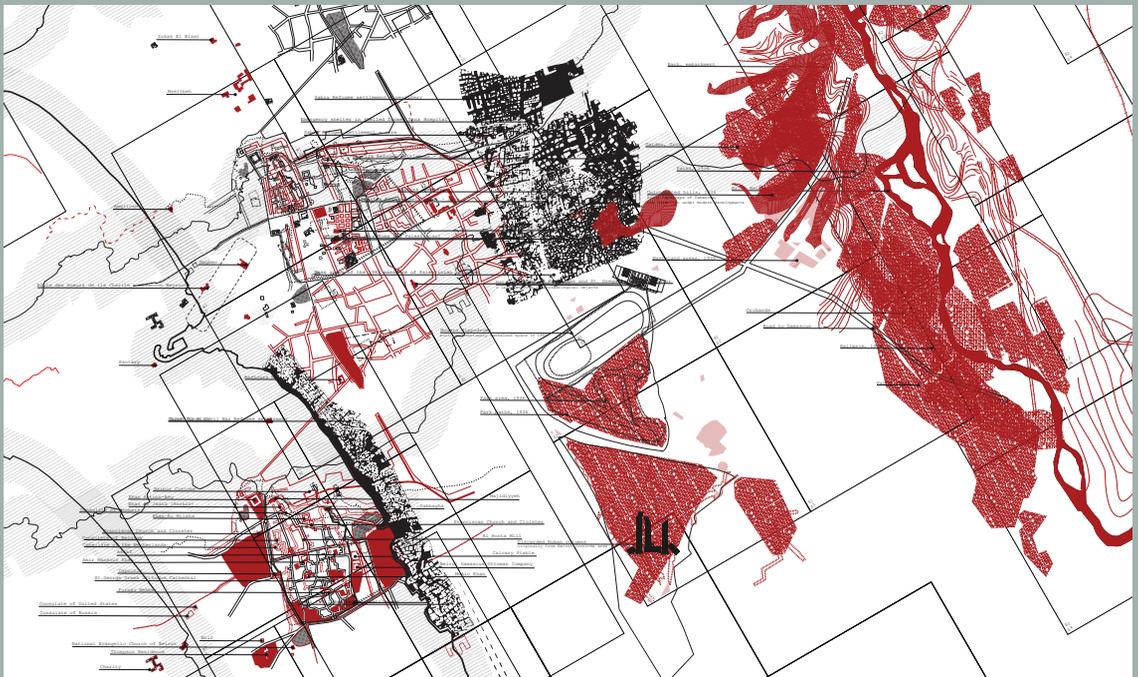
# INTRODUCTION

Inhabited since the Roman Empire, Beirut is a city built on ruins, continuously reborn from the ashes like a phoenix. Continuous religious conflicts have fragmented the city to the point that we can no longer see it as a whole.

The territory of Lebanon in turn was created as a gift to Arab Christians by the French in 1914, however, nowadays the country's population is predominantly Muslim. The state is so contested along such lines that the last census was in 1932.

The religiously aligned governmental protocols reduce the

ability of the state of Lebanon to function correctly, and therefore, Lebanon is hypothesized as a state with a broken infrastructure.



## THE BORDERS OF RUINS

Starting off with our borders map. We define the border as a change of state.

Now, considering the city of Beirut is described as a phoenix, in the sense that it has been demolished and rebuilt again seven times throughout its long history, we identify that this change of state could be tracked through the city's ruins.

Our hypothesis is that the Ruins found in Beirut also constitute the borders of the city. Therefore we began mapping 'Border's of Ruins in Beirut'.

As J.B. Jackson states in its ar-

title 'The Necessity for Ruins' "Ruins provide the incentive for restoration, and for a return to origins."<sup>1</sup>

We also believe everything that is neglected, that needs to return to its origins - is a ruin. Thus, we are not defining a specific type of ruin, but we are critically mapping the deserted and forgotten pieces of the city Beirut.

<sup>1</sup> A-Z Quotes. 'J. B. Jackson Quote'. Accessed 1 February 2021. <https://www.azquotes.com/quote/1020232>.







# THE ECONOMICAL INFRASTRUCTURE IN BEIRUT

In this map, we define the territories of Lebanon's socio-political and economic infrastructure and we focus on zones where there are disputes, or which contain an underlying disposition.

Lebanon has an extremely poor economy - high government spending and an ever-lasting financial crisis. Such layers of socio-economic crisis result in a fairly chaotic system. Hence, we decided to reduce our scope to focus only on the very parts of Lebanon's political and economic infrastructure, which are the most contested.

Infrastructure is defined as the basic structure of an organization

or system which is necessary for its operation.

Beirut is the capital of Lebanon, but it's main port, supplying 70% of all incoming goods and it also has the only international airport - therefore Lebanon relies heavily on Beirut for it's infrastructure seen as it is a country surrounded by war and turmoil.

It is hypothesised that there is a facade of formal infrastructure to the outward gaze and an informal normality in Lebanon.

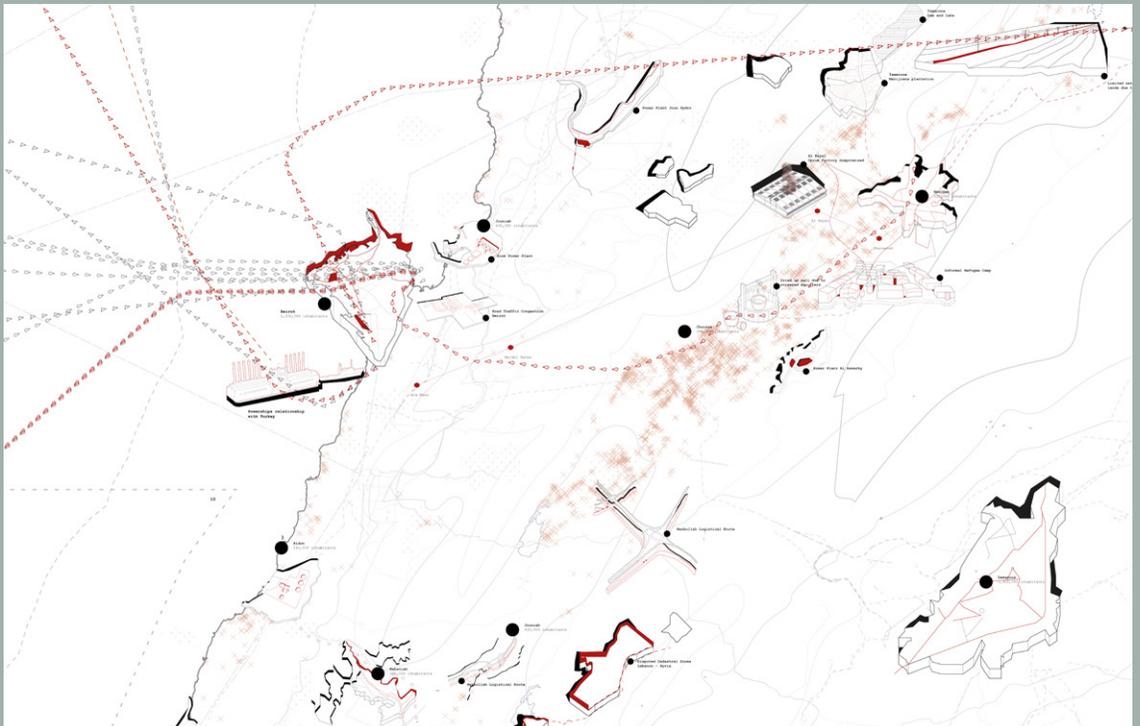
Map is cropped in such a way to see Lebanon as a whole, whilst acknowledging the context of the mediterranean, but to also show

these tensions that arise around the border, which we do not fully see as a stable entity, but rather a continuously shifting territory.

As Keller Easterling states 'infrastructure is now the overt point of contact and access between us all - the rules governing the space of everyday life'.<sup>1</sup>

In Lebanon, the state is no longer there converting the rules - subsequently, this is given over to the infrastructure

1 'Easterling - 2014 - Extrastatecraft the Power of Infrastructure Space.Pdf'. page 5. Accessed 1 February 2021. [https://www.konstfack.se/Page-Files/24768/Easterling\\_Extrastatecraft-Intro.pdf](https://www.konstfack.se/Page-Files/24768/Easterling_Extrastatecraft-Intro.pdf).



# TERRITORIES MAPPING METHODOLOGY

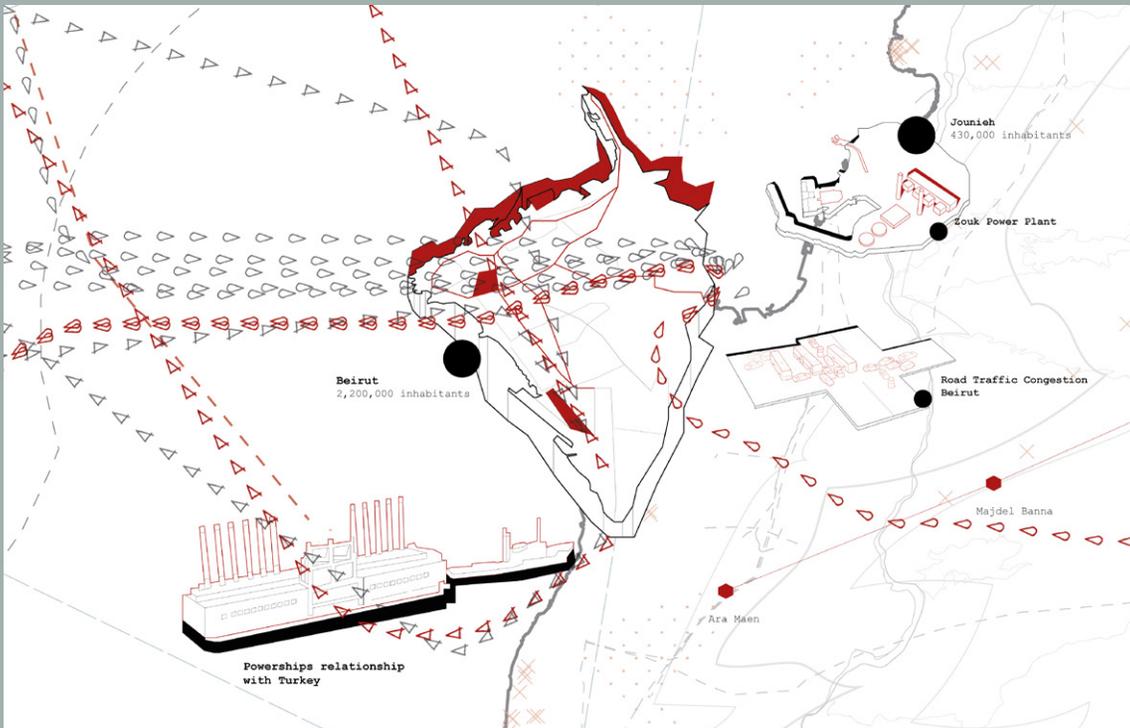
We define formal infrastructure as existing or planned infrastructure relating to the Lebanese state. These are the traditional infrastructure connections of Beirut such as airways, shipping routes and motorways.

The informal infrastructure or the disposition then reacts to this. The airways become the support that enables the Lebanese diaspora, and the highways and shipping gradually become infiltrated by the smuggling of drugs.

Furthermore, Lebanon has a certain reliance on other countries. Turkish powerships lay at the harbor of Beirut and provide a great deal of electricity. Lebanon

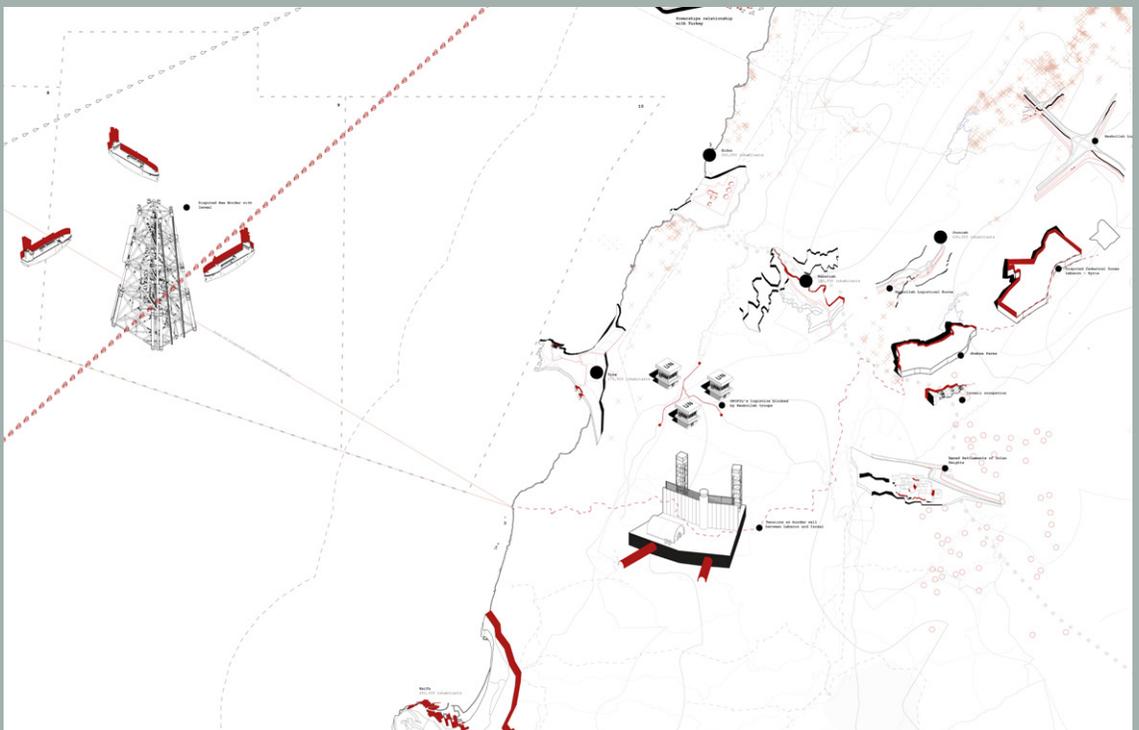
in turn provides shipping predominantly to Turkey and Italy. On the other hand, conflicts arise with Lebanon's close neighbours. The earlier mentioned tensions at the border, arise through the fact that this border, set by the French Mandate, has never truly been recognised by either Lebanon, Syria nor Israel. This resulted in the establishment of UNIFIL, that sought to regulate the tensions between Israel and both Hezbollah and Syria. Syria on the other hand, still lays claim to some of the cadastral zones bordering Lebanese territory. Additionally, through dispute between Lebanon and Israel, oil drilling causes disputes in between un-

recognised sea borders. As a group we were interested in the conflict zones which form the epicentres between the formal and informal infrastructure. These are the areas where two different types of infrastructure overlap, creating a tension between the two. This resulted in a variety of fragments which each show a contested scene.



Similar to the approach of the borders map, we analyzed the fragments of these contested zones and put them together in the map of the territories, taking precedent from Édouard Glissant's writing's on archipelagos.

To quote Hans Ulrich Obrist "with the exchange of other islands that identity becomes richer but because each object is an island it's identity does not disappear" - it is this exchange which is shown in the tension, framed in each scene exhibited in the map.





# MAPS AS A WHOLE

In the borders map we reconstructed the ruins via geographical tendencies. Therefore particular types of ruins are more clustered together. We also added the timeline on the vertical axis to deepen our understanding of this change of state as being the borders of Beirut.

In the territories map, the reconstructed islands are also geographically placed due to their larger scale, as trajectories, such as the smuggling routes, insisted the need for closer geographic guidances. A low opacity base map is placed underneath the islands, which enables for more

quantifiable elements, such as the zones of electricity outages, the great variety of geolocations of informal refugee settlements, and the razed settlements in the Golan Heights.

Together, the maps work to build a fuller picture of fragmentation, contest and tension within Lebanon and its capital of Beirut.



## CONCLUSIONS

What we see in the map of Beirut, is that its borders are now defined by the archeological remains and present historical buildings but also by its struggles with waste management, landfills and demolished buildings, only to name but a few.

We acknowledge some of the ruins are not visible anymore and have been erased from history. Our hypothesis is realised as ruins create borders and sections through Beirut, causing a fragmented whole. There is an emphasis on zones of neglect, but also on for instance zones like downtown Beirut, which forms a highly layered palimpsest due to its severe ruin density.

Regarding the territories map, we see the enumeration of contested zones in Lebanon which mostly appear to be inside the state, as Lebanon's very own infrastructure is highly infiltrated on many levels. We acknowledge that the issues of the infrastructure stem from large scale inabilities which create small scale reactions - such as occurrence of generators provided to rural villages by Hezbollah, responding to the failing electricity net.

As previously stated the state is no longer converting the rules - this is given over to the infra-

structure. The scenes created in this map allow us to grasp the multiplicity of tension, revolving around territory.

The fragmentation, both on the scale of Beirut, as in the whole of Lebanon, stems from systemic issues which the Lebanese people are confronted with, in everyday life.





# INDIVIDUAL WORKS



PALIMPSESTUOUS DRAWING  
THEORY PAPER

Kaya Ceren

## Abstract

The aim of this research paper is to investigate the notion of a palimpsest and how it relates to drawing theory. In order to do so, it uses literature research, etymology research on the word palimpsest and case study research on drawings that show either a palimpsestuous construction or process. Palimpsestuous constructions in drawings present multilayered characteristics of represented objects such as landscape or a design. Moreover, the act of drawing also presents a palimpsestuous aspect by being a continuous act evolving through the repetition of many drawings. And, if the technique/s used in the drawing also consist of multiple layers, the final product represents the palimpsestuous characteristic of its act through its palimpsestuous construction.

The paper discusses the notion of palimpsest by describing the actions in palimpsestuous drawings, explaining the different techniques that can be used in order to produce these drawings, and analyzing precedents. It introduces the theory of palimpsestuous drawing and explains the concepts of palimpsestuous construction in drawings, the act of drawing as a palimpsest, and finally the combination of both. Palimpsest relates to drawing theory in terms of both construction and as the act of drawing. However, even though these drawings show characteristics, palimpsest is not a notion that is explicitly expressed in drawing theory.

## Introduction

Palimpsest originates from the ancient Greek word παλίμψηστος (palímpsēstos), a combination of the words πάλιν (pálin, translated as 'again') and ψάω (psáō, translated as 'to rub smooth' or 'to scrape') and can be translated as scraped again<sup>1</sup>. Originally, palimpsest refers to a (partly) erased written text on a manuscript roll, a papyrus scroll for example, in order to re-use the material of the medium for a newly added text. The reason for doing so seems to be economic and originates in the scarcity of the material<sup>2</sup>. Fundamentally, a palimpsest is formed with two succeeding acts: writing and erasing. It keeps the traces of the previous writing act and thereby reveals the temporal relation of the different superposed layers. In addition to that, the word nowadays formally refers to the multilayered meanings that build onto the previous layers<sup>3</sup>.

The idea of palimpsest has been discussed within the spatial context of land and urbanism by Corboz<sup>4</sup>. "The land is not a given commodity; it results from various processes. On the other hand there is spontaneous transformation: the advance or retreat of forests and the ice cover, the extension

1 Oxford English Dictionary, 1AD, <https://www.oed.com/oed2/00169695>.

2 "Palimpsest," Encyclopædia Britannica (Encyclopædia Britannica, inc.).

3 "Palimpsest," palimpsest noun - Definition, pictures, pronunciation and usage notes | Oxford Advanced Learner's Dictionary at OxfordLearnersDictionaries.com.

"PALIMPSEST: Meaning in the Cambridge English Dictionary," Cambridge Dictionary.

4 Andre Corboz introduces the notion of palimpsest as he explains the multilayered characteristic of the land in 'The Land as Palimpsest'. André Corboz, "The Land as Palimpsest," *Diogenes* 31, no. 121 (1983): pp. 12-34, <https://doi.org/10.1177/039219218303112102>.

of swamp land or its drying up .... On the other hand, there is also human activity: irrigation, construction of roads .... turn land into an unceasingly remodelled space." Corboz also discusses the representations of the land in terms of mapping in his text. He moreover indicates that his definition of palimpsest is also visible in human nature because the land itself is a product of civilization and cultures. Corboz introduces the aspects of land or territory as a process, product and also a project. Consequently, the palimpsestuous construction of territory is coming from the palimpsestuous development of society. This idea also applies to the individuals as Sebastien Marot indicates in his lecture 'Palimpsestuous Ithaca' with a text from De Quincey's *In Confession of an English Opium Eater*; "What else than a natural and mighty palimpsest is the human brain? Such a palimpsest is my brain, oh reader is yours. Everlasting layers of ideas, images, feelings, have fallen upon your brain softly as light. Each succession has seemed to bury all that went before. And yet, in reality, not one has extinguished"<sup>5</sup> Individuals develop their ideas, societies evolve their cultures as a palimpsest, and the way they cultivate the land in each step of their progress result in palimpsestuous characteristics of lands.

The characteristics of palimpsest is also apparent in architectural design. In architectural drawings,

5 Sebastien Marot (2013) indicates in his lecture named 'Palimpsestuous Ithaca: A Relative Manifesto For Sub-Urbanism' that the notion of palimpsest has been introduced by writer Thomas De Quincey in his book 'Suspiria de Profundis, in Confessions of an Opium Eater'. Sebastien Marot, "The Berlage Center for Advanced Studies in Architecture and Urban Design Lecture Series," The Berlage Center for Advanced Studies in Architecture and Urban Design Lecture Series.

every change and development of ideas are partially erased, edited or redrawn, a process that is constantly repeated, and finally accumulated in the final product. Therefore, architectural drawings or representations also tend to present palimpsestuous characteristics. Thus, the notion of palimpsest is noticeable in architectural drawing in its construction, as the act itself or the combination of both. Drawings use a palimpsestuous construction for the palimpsestuous land idea of Corboz or in order to introduce different layers of spatiality. In these constructions, the different layers of the depiction are clearly drawn and put together in a way to show their temporal relationships. The aim of a palimpsestuous drawing is to represent different layers of an element and it evolves through a process of drawing and redrawing. Some of these drawings will reveal the traces from the preceding one. This could be very apparent in the final drawing in a way that the whole construct is the representation of a process rather than a final image, or it could be inevitable because of the technique used in the drawing itself.

There are four operations in the palimpsestuous drawing process; drawing, re-drawing, erasing and shifting. These types of drawings are multilayered representations created with at least one of these operations. The first one is drawing; which is basically the act of making itself. The second one is redrawing. This is drawing the previous drawing again, for example tracing. So, the redrawn drawing is different from the previous one but still carries the qualities of the previous drawing. Therefore, redrawing is an evolutionary process that is palimpsest by nature. The third action is

erasing, which might not necessarily be used in contemporary palimpsestuous drawings, since it was originally used because of the lack of paper. So it is only apparent as an act, where the drawing is re-drawn on the same paper or plate. The final act observed in palimpsestuous drawings is shifting. This is an in between act in order to show the different layers clearly or making the new drawing readable. As in the original notion of palimpsest, if the first text is written in the horizontal direction, the next writer will rotate the page 90 degrees in order to prevent overlapping and make their text visible. So the different layers of a palimpsest are never going to be completely original but include some determinative actions from the starting point. In the palimpsestuous drawing, shifting could be a method to differentiate different layers such as color coding. Or as the same idea of palimpsest, it could be used in order to make the 're-drawing' visible over the old one.

### Palimpsestuous Constructions in Drawings

A palimpsestuous constructed drawing is a drawing which represents the different layers of one element on the same canvas with their temporal relations. This construction is apparent in maps or spatial representations which introduces spatio-temporal relations of layers, because of the palimpsestuous quality of the land as Corboz discusses. The representation of a palimpsest<sup>6</sup> needs to indicate different layers and the relationships between the

<sup>6</sup> In this case, not only the drawing but the represented is also a palimpsest since it consists of multiple layers through time.

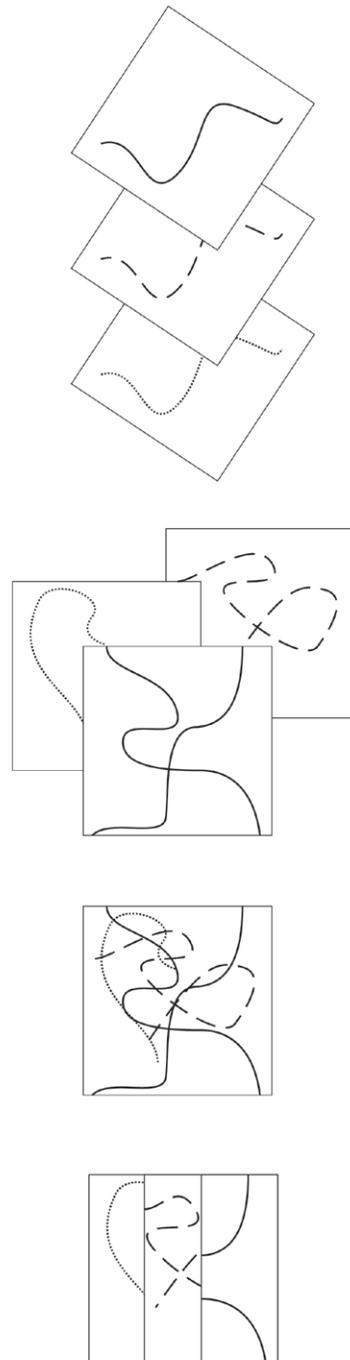


fig.1 : techniques that could be used in palimpsestuous constructions: from top to bottom, overlay, superposition, superimposition, juxtaposition

layers, thus the drawing also starts to illustrate these layers. However, the problem of drawing here would be to find a way to represent these different layers on the same canvas. Therefore, different representation techniques such as overlaying, superimposing or juxtaposing (fig.1) the layers could be seen in these types of drawings.

The method of overlaying the different layers could be one of the most common techniques in a palimpsestuous construction. These overlays could be projected onto various planes which are presented on top of each other or they can be presented in one plane one element coming to the

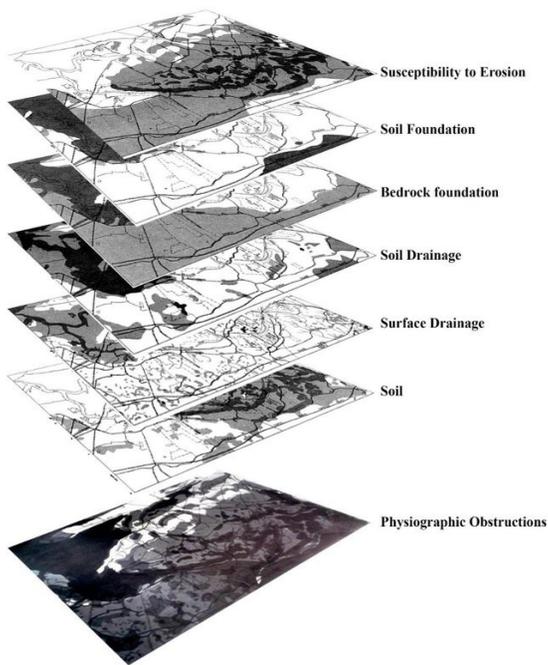


fig.2 : Composite “physiographic obstructions”:  
Ian McHarg, Design with Nature, 1969

other in a way to state the relation between different layers. The mappings of Ian McHarg (fig.2) could be an example of overlaying technique that can be used in a drawing of a palimpsest in which layers are projected in different planes. In order to describe the different layers of one element, he extracts each of them and maps them in a different layer. And in the final drawing, all these layers are superposed on top of each other in order to present the layers and their cartographical relationships. Another example is the map of Mississippi River Meander Map by Army Corps of Engineers from 1944 (fig.3), where the different times of the meandering river are mapped and layered on top

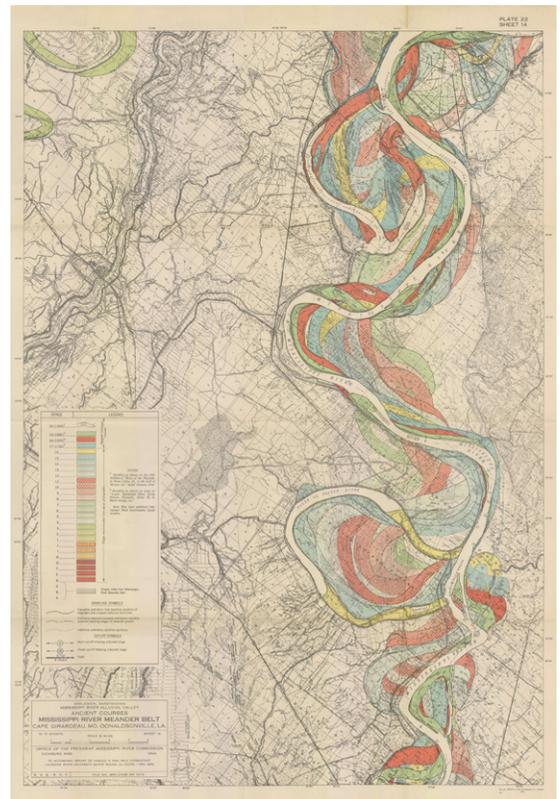
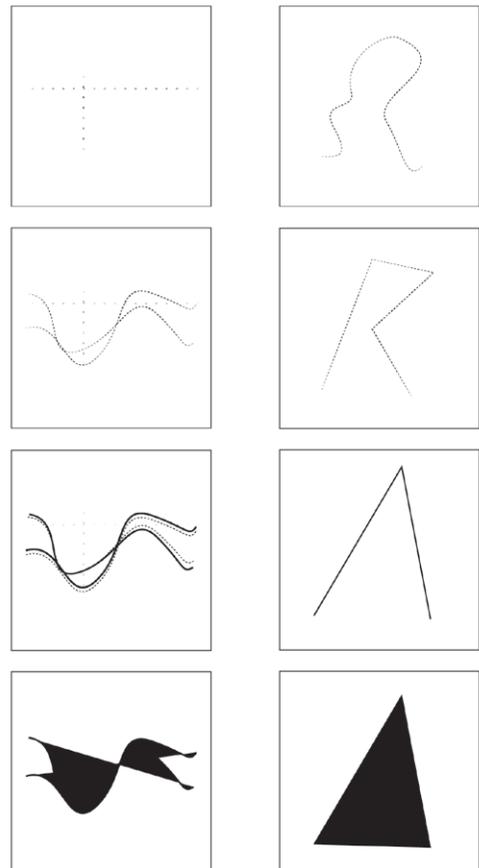


fig.3 : Mississippi River Meander Map by Army  
Corps of Engineers from 1944

of each other in a chronological order. Differently from McHarg's cartographical drawing technique, the temporal relation of the different stages of the meander are represented with a superpose in a way that the more recent meander is covering the older ones.

Corboz mentions the characteristics of land as juxtapositions and superpositions of different elements such as infrastructure or architecture<sup>7</sup>. Therefore, the representations of land are also mainly constructed in the same way in order to preserve these characteristics in the drawing. As juxtaposition introduces different layers side by side, superimposition shows different layers of the representations on top of each other by introducing transparency among them. So the main aspect of a palimpsestuous juxtaposition or superimposition is introducing the temporal relations between the different fragments of the drawing. Another aspect, especially in superimpositions is the act of shifting, since the increased transparency and number of layers could lead into an unintentional cacophony. Therefore, different methods of shifting such as use of colour, lineweights, brushes or shapes should be considered carefully in order to make the message of the drawing clear.



7 Andre Corboz writes in 'The Land as Palimpsest' (1983): "Heavy interventionist policies have created a multi-tiered land, not only because of the material superposition of these networks, but also by the differentiated systems of relation which they have instituted. Such a juxtaposition determining two unconnected realities and the scarcity of superhighway exits and rest areas emphasize it all the more." André Corboz, "The Land as Palimpsest," *Diogenes* 31, no. 121 (1983): pp. 12-34, <https://doi.org/10.1177/039219218303112102>.

fig.4: the act of drawing as a palimpsest through the number of canvases that are used the right column, drawing on one canvas; the left column, drawing with use of multiple canvases

## The Act of Drawing as a Palimpsest

Drawing is a continuous act including many progress drawings until it reaches the final result. Considering the nature of drawing as a repeated act emerging to its concluding outcome, the act of drawing is also palimpsestuous. As mentioned, De Quincey describes how his thoughts are a palimpsest as his ideas develop further by evolving from the previous ones. That is also the case for the act of drawing itself. A drawing is a conclusion of multiple ones transforming and maturing in each step. However, this progression might not be apparent in the final drawing itself. As some of the representations would preserve the traces of its processor drawings on the same canvas, others would use multiple canvases and it is the choice of the drawer to show or hide the previous ones (fig.4). Therefore, even if the construct of the drawing does not show palimpsestuous traces, the process or the act of constructing the drawing can be palimpsestuous.

Using only one canvas and establishing the drawing on it could lead to the expression of palimpsestuous nature of the act. Even though the previous layers of drawing might not be very clearly expressed or preserved, some traces could still be seen. As a sketch starting very fastly and simultaneously results in a very clear representation when conclusion is emphasized with a shifting; a highlight with a thicker pen or a different colour indicating the outcome. For instance, in order to draw a face one would start by introducing simple shapes such as a circle and a rectangular for the head, a triangle for the nose and the lines that

connect them. These abstract shapes work as the primitive guides for the next step. They lead to more guides for eyeholes, ears, nose, lips and in every step drawing approaches to its final result. Typically, the final result would cover or erase the previous drawings. Therefore, even though the final drawing seems to contain a single layer, the repetition of drawings on the canvas constituting the product is a palimpsestuous characteristic of drawing as the act.

On the other hand, a drawing could derive from drawings on multiple canvases. In this case, the traces of the previous layers would not be represented on the final canvas, though they might be introduced in the final drawing. Tracing is one of the palimpsestuous drawing techniques which uses various canvases. Starting with a blank canvas or an image, and tracing it repeatedly through different papers would filter the final result from the previous layers. Therefore, the construction of drawing is not necessarily palimpsestuous either, however the series of acts emerging from each other by tracing is a palimpsestuous act. Consequently, by placing the traces side by side in a chronological order, the act of shifting could easily be observed by means of revealing the evolution of the drawing and the ideas of the drawer. This type of operation is very common in architectural design. For instance, an architectural design typically starts with a drawing or a picture of the site, then introduces a series of tracings and drawings using different papers each time in order to analyze and alter the site, study the massing, detail the building until reaching the ultimate decisions. And even though the final drawing represents a clear image

of an architectural artifact, without presenting the previous traces, it is palimpsestuous in terms of its acts. In some cases, the architects also present their preliminary sketches besides the final design. And since the ultimate aim of producing these drawings is to react to the final design, the viewer would easily grasp the nature of architectural drawing and thinking.

## The Act and Construction of Drawing as a Palimpsest

There are also many drawings which are not only palimpsest as an act but also the final product displays a palimpsestuous construction. In these types of drawings, the technique/s that are used for the drawing consist of different layers. So, it includes drawing and redrawing and putting the layers on top of each other. Consequently, the steps are present with their temporal relations in the final result. Collage and *décollage* techniques could be used in order to show palimpsestuous construction of the drawing since they include the previous acts evolving to final drawing.

A collage<sup>8</sup> is one of the examples of these types of drawings in some cases. In a collage, the pieces, cutouts or drawings that are superposed or superimposed on top of each other reveal the temporal sequence of its operations. In other words, one piece is glued first to the paper and then for the

8 Collage is discussed in the paper in its general terms as a technique and how it could be used in palimpsestuous drawings. For further detail, Jennifer A. E. Shields analyzes and explains different methodologies of collage technique in her book called *Collage and Architecture*. Shields Jennifer A E., *Collage and Architecture* (New York: Routledge, 2014).

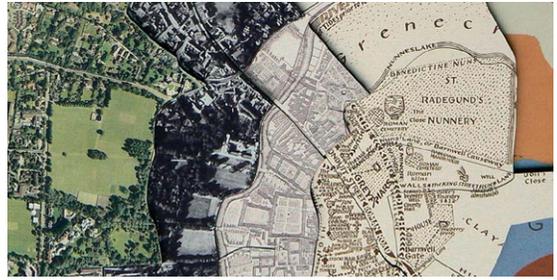


fig.5 : Cambridge Palimpsest by Issam Kourbaj:  
Kourbaj cuts the pieces of several maps of Cambridge and places the fragments on top of each other. From right to left, the pieces mask the next one, revealing not only the temporal relations of the maps but also the sequence of drawing construction.

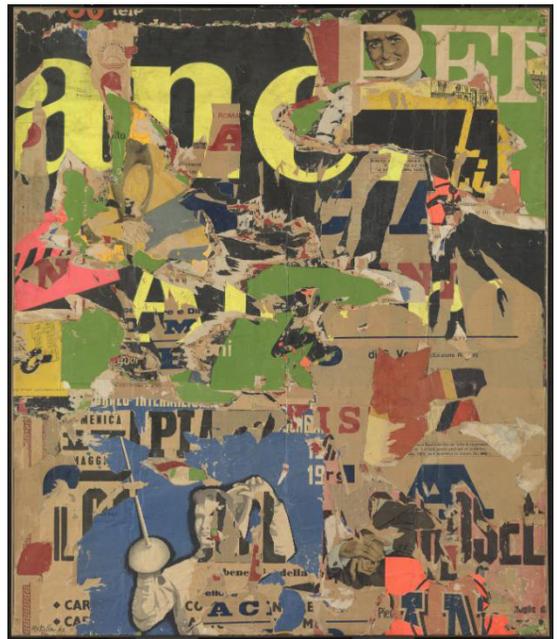


fig.6 : Mimmo Rotella, *With a Smile*, 1962: by tearing the pieces from the finished image, *décollage* technique reveals the temporal relations of posters and creates another image.

second cut out the drawer would check the position and the place of the first piece. At this point the drawer introduces the act of shifting and according to the placement of the first piece, they apply the second piece. The repetition of these actions constitutes a collage which is a palimpsest in terms of both the act and its final construction (fig.5).

Another drawing technique in both characteristics is *décollage*. A *décollage* drawing, firstly overlays different pieces, layers, canvases on top of each other and then it starts to detach some of the pieces by tearing or cutting out. Therefore, the final drawings reveal the temporal relationships of different layers and the actions that composed itself. Particularly, the technique of *décollage* first constitutes collage which is a palimpsest as an act, and then because of the second action of de-doing (detaching) a palimpsestuous representation is inevitable in a *décollage* drawing. Moreover, the act of detaching what has already been done requires a careful process of choosing what is going to be shown from the previous and how. Therefore, this act is not spontaneous nor coincidental. It is the point that the drawing starts to represent its palimpsestuous act, and how to represent it depends on the detaching process. Consequently, *décollage* is a critical drawing style in order to understand the steps, due to its representation of how the drawing understands and discovers things, and how it establishes the relations among its many pieces (fig.6).

## Conclusion

Palimpsestuous characteristics could be seen in drawings in its construction or the act itself. Drawings with palimpsestuous constructions are usually used in order to directly represent multilayered aspects of the represented which could be a landscape, a design, an object or an idea. The essential factor is that the layers should be represented through their temporal relations. Therefore, all of the drawings which have a multilayer structure are not considered as palimpsestuous, since palimpsest refers to the succession of these layers. On the other hand, the act of drawing is also palimpsestuous, since it is the combination of both drawing and redrawing. However, the preceding drawings are not always present in the final product. In the case of using the same canvas the previous sketches could be concealed by the following ones. If the drawing is constituted through multiple canvases, then the past sketches would disappear if they are not presented besides the concluding one. Moreover, if the technique of the drawing displays the previous layers of drawing, and also if the temporal relations are drawn within the fragments, then both of the palimpsestuous qualities in a drawing is apparent.

The natural and the man made landscapes consist of various layers. Moreover, as cities stop expanding they are constructed on top of the old one. Therefore the temporal layers in the landscape and even in most of the architectural projects are highly visible. However, drawings are only discussed as a palimpsest in the cases when the represented also has the quality of being a palimpsest without

talking about any palimpsestuous technique. Thus, architects, planners, cartographers or designers who are already aware of this characteristic of the land and the projects, should be more conscious of the drawings that they make in order to represent various components of one object.

It is crucial to understand for drawers what type of a drawing they compose or what they want to represent with their drawing. If one includes various layers to their drawing or the progress, they should be aware of the palimpsestuous characteristics of drawings or the techniques that provide these aspects that they could introduce. There are techniques that can be used (such as superimposition or overlay) or directly lead (collage or décollage) to a palimpsestuous construction. However, it is important to start and continue the drawing in consciousness of what one would like to present and how to represent it on paper.

## Future implementations of Palimpsestuous Drawing in Architecture

Architectural designs constantly consider how to remember the past, how to get inspired from it or what was on the plot of architectural design before. Whereas, they do not really discuss the past of themselves, the drawings that constitute the final products or design processes. Also, architectural designers usually do not really try to express their developments, maybe they simply do not find it inspiring or they just get lost in the process until

the final design result. However, the final result is just a final step and architectural designs should be much more aware of the steps that they are going through or what they are representing. Drawing operations should be made explicit instead of implicit. Therefore, architectural drawing should start to further consider design evolution and develop an awareness of palimpsestuous drawing.

Palimpsestuous drawing should not only be considered as a final drawing construction in general sense such as a representation of lands with maps etc. but also the architectural drawing as the act. In other words, the act of drawing is palimpsestuous by nature, as drawing and redrawing are always main actions of architectural production. Therefore, architectural drawing should reflect how its different elements are designed and constituted together, why the changes have been made through the process, and how the project developed instead of going through a complete amnesia at the final stage. For instance, this could be as if there was another person watching the designer and recording the steps with pictures or other mediums and has a full report of the design process at the end. Finally, there would be two main drawings; one belonging to the designer, the representations of the design, and the other belonging to the reporter; the representation of the architectural drawing. This also helps to increase the quality of designs by revealing how and why architects go through different steps through their design process. Consequently, understanding and discussing working patterns through drawings will further acknowledge architects about their design or even research.

## LIST OF FIGURES

Fig.1: Techniques that could be used in palimpsestuous constructions  
Illustrated by the author

Fig.2: Composite “physiographic obstructions”  
McHarg, I. L. *Design with Nature*. New York: John Wiley, 1995.

Fig.3: Mississippi River Meander Map by Army Corps of Engineers from 1944  
“Army Corps of Engineers.” *Mississippi River Meander Belt by Army Corps of Engineers (402CA) - Atlas of Places*. Accessed January 10, 2021. <https://www.atlasofplaces.com/cartography/mississippi-river-meander-belt/>.

Fig.4: The act of drawing as a palimpsest through the number of canvases that are used  
Illustrated by the author

Fig.5: Cambridge Palimpsest by Issam Kourbaj  
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fig.6: Mimmo Rotella, *With a Smile*, 1962  
“Mimmo Rotella 1918-2006.” *Tate Images*. Accessed January 10, 2021. <https://www.tate-images.com/preview.asp?item=T12854&item-w=4&itemf=0001&item-step=1&itemx=>.

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THE IMAGE OF BEIRUT AS A  
RUIN

THE PICTORIAL IMAGE OF  
BEIRUT THROUGH ITS ARTIST  
SOCIETY

Kaya Ceren

## SUMMARY

The research investigates the image of Beirut as a ruin; through its pictorial depictions by its artists from 20<sup>th</sup> and 21<sup>st</sup> century. Following the collective research and mappings on Beirut, the individual investigation continued with literature reading on construction of image and its components.

Since it was not possible to visit Beirut, the research focused on the representations of the city considering that representations are not only a tool to share and describe thoughts, but a necessity in the absence of reality.

The investigation focuses on the pictorial images of Beirut created by its contemporary artist society and analyses these images through the idea of Beirut's artist as its image-makers. In order to analyse the pictorial artworks and their relations to the city, the research started with literature reading

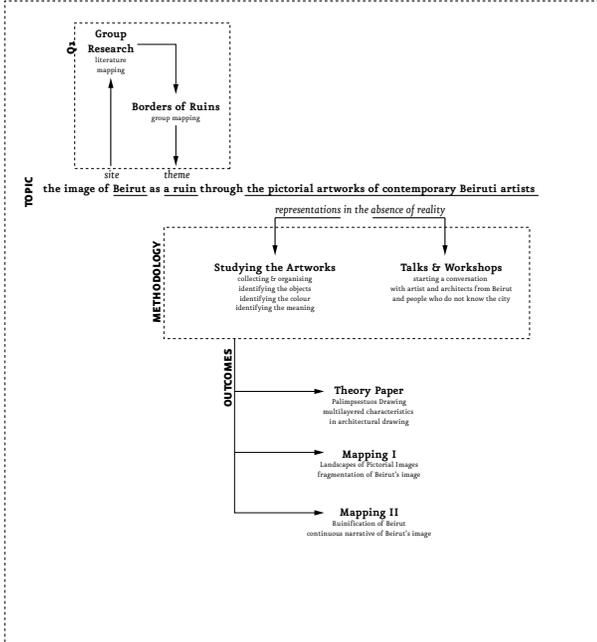
and collecting the artworks followed by series of critical mappings.

Moreover, as a part of the research, talks and a workshop have been organised in which different topics were introduced and discussed by architects from Beirut, followed by an open discussion.

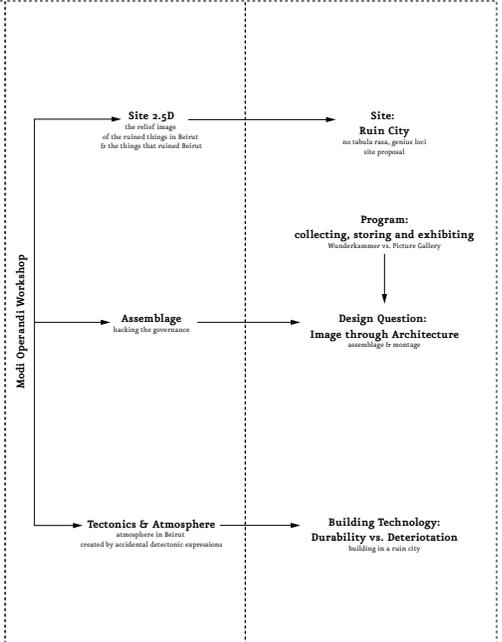
The research resulted in three main outcomes, a theory paper introducing the multi-layered characteristic of drawings, and two mappings investigating the fragmentation and continuation of Beirut's image.

Furthermore, with the Modi Operandi workshop, the research started to developed through different aspects of architectural design. Through the materialisation and experimentation of model making, first phase of my project was concluded by establishing the architectural design questions on the site, program, design question and building technology.

**RESEARCH**



**CONCLUSIONS**



## TOPIC

The city of Beirut is influenced mostly through its political issues. The change of political opinions, social conflicts, corrupted leaders, wrong policies caused and designed its demolition and rebuilding. On the other hand, this unstable situation of the city has been causing a big reaction from its citizens; many riots and protests have been taking place in Beirut.

Through these happenings the artists of Beirut play a significant role not only in the course of events, but also they are highly dominant in the domestic and international media coverage of the events. Therefore Beirut's artist society could be considered as Beirut's image makers.

Considering the current situation of the city; with the explosion, financial crisis so on, Beirut does not have a big chance to introduce itself by hosting people. How we know this city only depends on the information we collect from various channels including its past, present and even future.

Many artworks depicting Beirut could be seen on the white walls of world famous museums such

as MOMA, TATE Modern, Guggenheim NY and Stedelijk from famous Lebanese artists such as Walid Raad, Joana Hadjithomas, Khalil Joreige, Akram Zaatari. In that sense, artists of Beirut are highly influential on its image.

As also discussed in collective borders map of the Beirut group, Beirut has been a city of constant demolition and re-construction throughout its long history. Every time many ruins were left behind and naturally the city became a palimpsest of its ruins.

Not only physically, but also the idea of Beirut is a ruin. The memories from Beirut or the representations of the city are constantly pointing out these conflict times of the city such as the civil war, terrorist organisations or political problems. Demolition is repeated almost in a routine, that is only what is left in people's minds.

To sum up, the research investigates the image of Beirut as a ruin, a complete wasteland through the pictorial works of Beiruti artists who have been through these conflict times starting from 20<sup>th</sup> century, from the point of view of a person who has no experience of the city.

The research investigates the image of Beirut as a ruin, through the pictorial works of Beiruti artists from the point of view of a person who has no experience of the city.



"We decided to let them say, 'we are convinced' twice. It was more convincing this way."  
by the Atlas Group  
Credit: Agaton Strom for The New York Times



"I might die before I get a rifle,"  
Walid Raad at the Museum of Modern Art, NY  
Credit: Agaton Strom for The New York Times

## METHODOLOGY

The research has followed two parallel investigations; a literature and archival research developed into sequential mappings, and 'the image of Beirut as a ruin' talks and the workshop.

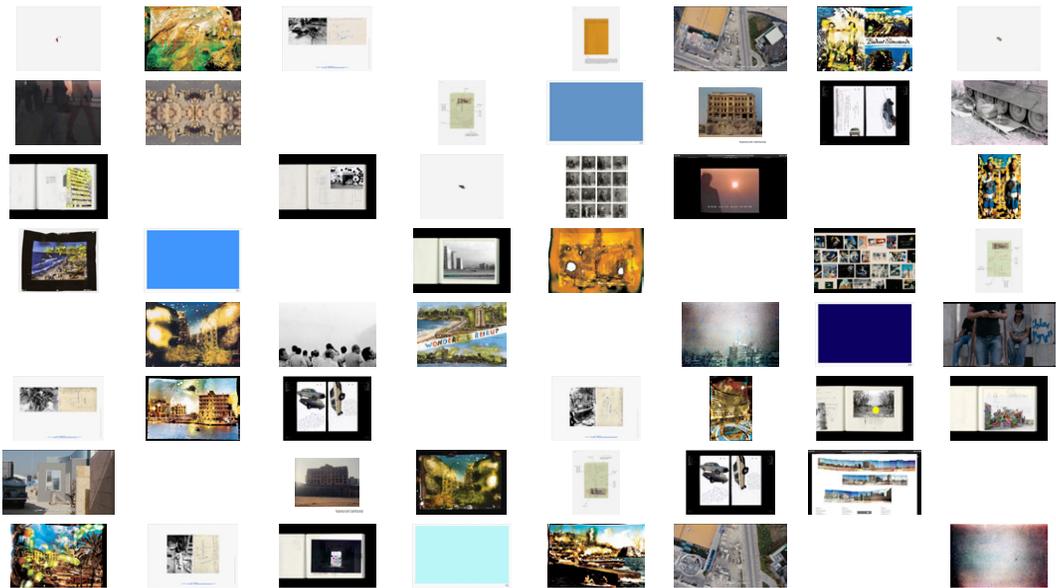
1. Collecting the artworks: Firstly, the research had started with literature reading in order to further understand and analyse the artworks, then collected the pictorial artworks from contemporary Beirut artists through an archival research.

2. Organising the artworks: Then, the artworks were mapped according to the geographical locations. In the first mapping, the artworks which did not indicate a certain location or an area in Beirut has been excluded from the collection.

3. Identifying the objects: Following the organisation, the artworks had been traced one by one in order to further analyse and identify the objects that are framed.

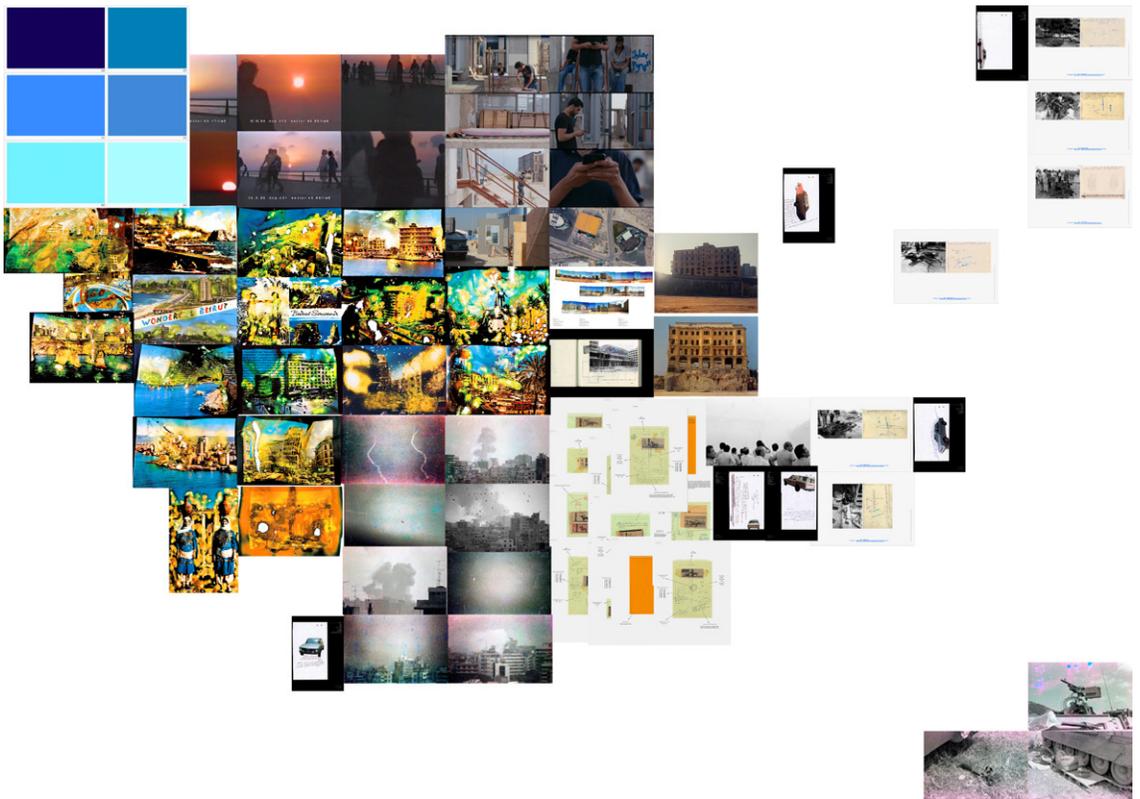
4. Use of colour: Since the act of tracing eliminated the colours, the research also included a series of watercolour paintings in order to understand the use of colour.

5. Deciphering the meaning: Finally, the investigation crosschecked the objects that are framed in these pictures with the explanations of artworks through literature readings and the talks or interviews of the artists in order to understand their meanings in the context of Beirut.

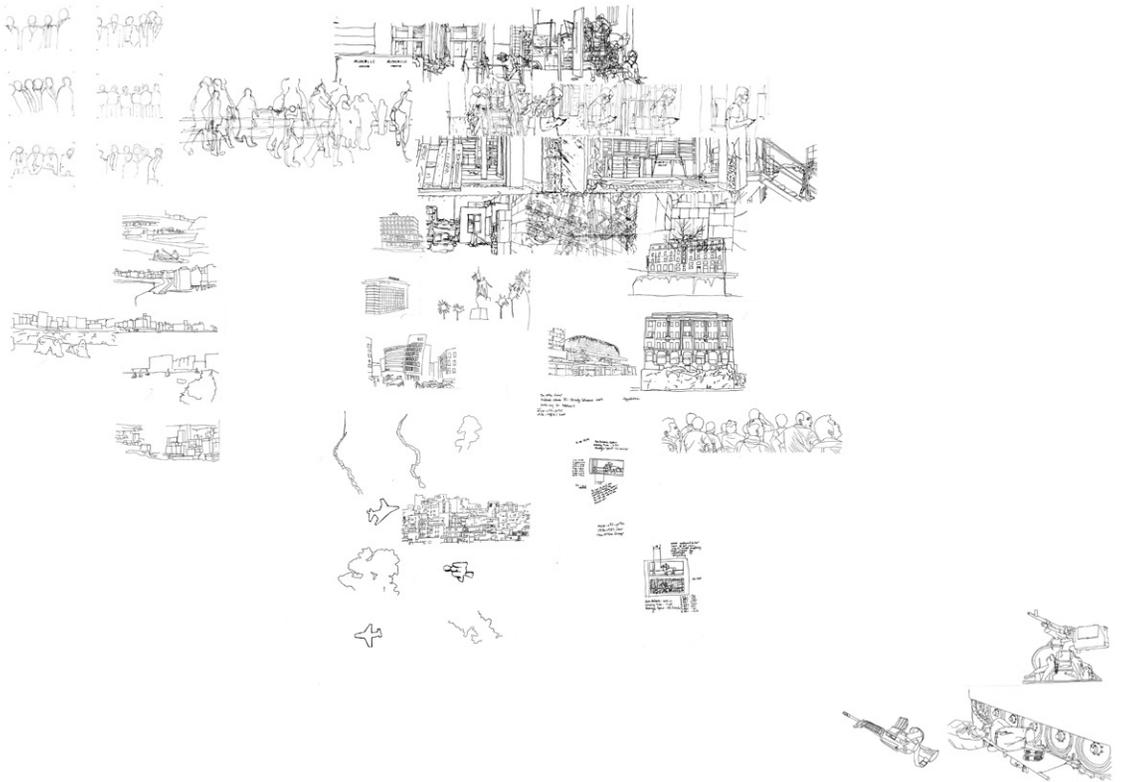


Collecting artworks; literature and archival research

Artists: Akram Zaatari, Joana Hadjithomas, Khalil Joreige, The Atlas Group, Walid Raad



Organising the artworks; mapping



Identifying the objects; tracing



Use of colour; watercolour painting

COLOUR BLUE COLOUR BLUE DEMOLISHED CAR ENGINE  
 COLOUR BLUE COLOUR BLUE PEOPLE PEOPLE DEMOLISHED CAR ENGINE  
 PEOPLE SUNSET CONSTRUCTION SITE DEMOLISHED CAR ENGINE  
 COLOUR BLUE COLOUR BLUE CAR DEMOLISHED CAR ENGINE  
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 SMOKE FIGHTER JET DEMOLISHED BUILDINGS DEMOLISHED BUILDINGS  
 CAR FIGHTER JET DEMOLISHED BUILDINGS

Deciphering the meaning; semantics

Talks & Workshop: In addition to the mappings, two talks and a workshop were organised under the theme of 'The Image of Beirut as a Ruin'.

In the first session called 'Places of Dissent in a Revolution' we discussed the infrastructure and public spaces of Beirut as ruins. Following the Civil War, Beirut has lost its public spaces one by one to privatisation and the infrastructure spaces were reclaimed by the citizens as the new public spaces during the recent protests. In this context, Jad Choucair talked over the photographs that he took during the revolution protests. Through the following discussion, we had talked about topics such as the unity of the citizens, evolution of the state, heritage, and come up to the conclusion that Beirut is an 'active ruin' which is a continuous ruin evolving from one to another.

The second talk was focused on memory and reality. Elias Soueidi, explained his theory on reality and ruin, that we have lost our realities and only live them in our minds. He stated that normally we

would expect to have the ruins in the past and our reality in the present, however, we have lost our realities in the past and we are living in the ruins now. Moreover, he introduced his case study on Martyr's Square. It is the main square of Beirut which has been constantly under construction after the Civil War. In his project, Elias collects and restores individual stories and memories in order to create collective stories. And he proposes his project called 'Ruin to Reality' which is the Audi Innovation 2018 Winner. His project aims to allow access to virtual 3D models to ruined historical buildings and landmarks by enhancing the relationship between people and their immediate surrounding. I have also organised a workshop with the VR-Lab, where me and my colleagues had the chance to experience the 1960's Martyr's Square which is a complete wasteland today.

The talks and workshop revealed the importance of memory in the city of Beirut, since that is all it has now.



Top left: images from talk #1, 'Places of Dissent in a Revolution' by Jad Choucair'  
 Top right: images from talk #2, 'Memory & Reality' by Elias Soueidi'  
 Bottom: images from 'Ruin to Reality' VR work by Elias Soueidi

## MAPPING I LANDSCAPES OF PICTORIAL IMAGES

The first mapping is called 'Landscapes of Pictorial Images'. Through the various mappings, it is realised that there was no intersection or centre in Beirut's image and it was consisted of different artworks describing different stories.

The mapping has constructed by superimposition of the pictorial artworks, their tracings, the names of the objects and their meanings. The order of superimposition presents the construction of the image, thus the development of the research. All these layers were glued on a foam board and then the drawing was split into pieces in order to identify the fragments.

One of the fragments consists of the artwork of Joana Hadjithomas and Khalil Joreige called Postcards of War. These postcards tell the story of

a fictional pyromaniac photographer who burns her pictures from pre-war Beirut, during the Civil War. The artists criticise the use of pre-war pictures of Beirut after the War, since the city looks completely different than these pictures. So, all the shops, sail boats, nature, hotels you see in the pictures actually point out the false propaganda that the government does.

Another fragment which writes horse racing on top, is from the Atlas Group. It is the notebook of a historian called Dr. Fakhoury, who documented the historians gambling and cheating on horse races every Sunday during the Civil War.

There are also artworks in pieces combined from two different collections of the Atlas Group; one is a notebook documenting the cars and the other is the pictures of the demolished car engines, both used for the bombings. These images do not come together in one point in the city but it is much more common in the East Beirut compared to west.





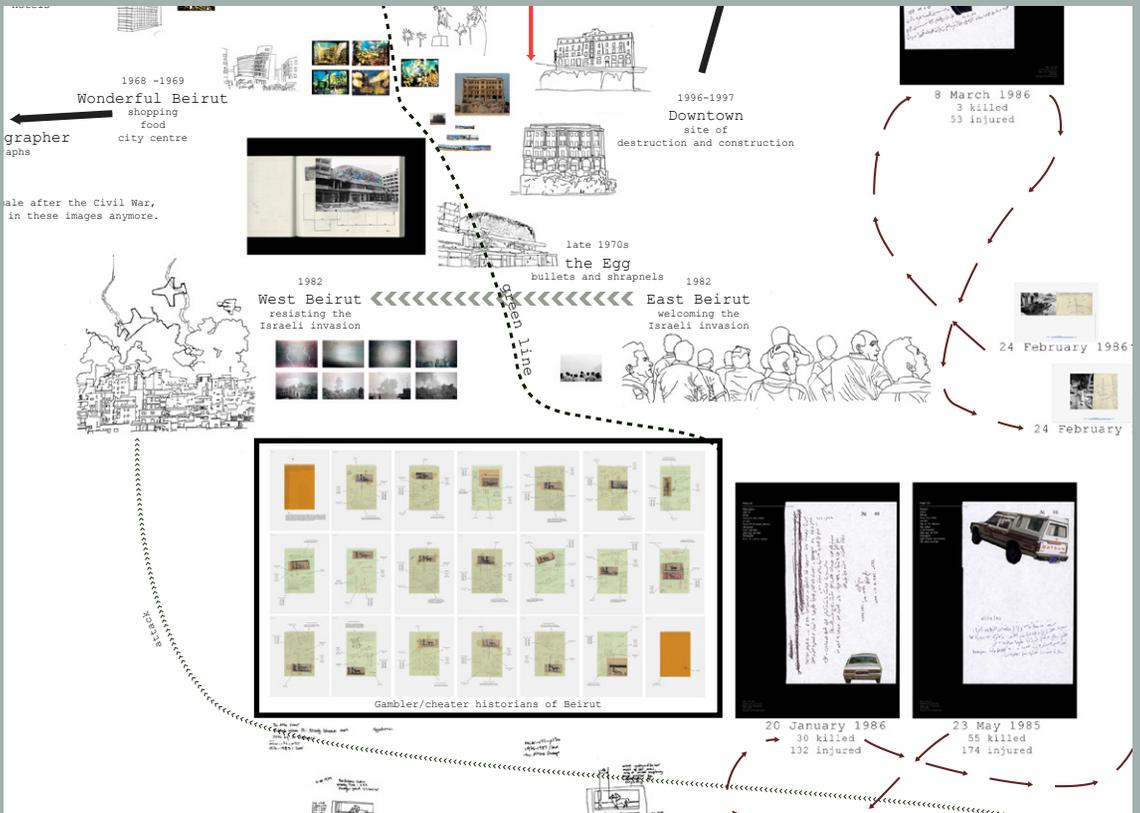


## MAPING II RUINIFICATION OF BEIRUT

The second mapping is called 'Ruinification of Beirut'. After the research established the fragments of Beirut, it is realised that the artworks were not just pictures but actually a documentation of history. And the act of art is not photography but collecting, archiving and exhibiting these documents. Therefore, even the image that they created are fragmented, their narrative, which is the history of Beirut, is continuous. Therefore, this mapping shrank the sizes of pictures keeping the scale of their original sizes, then juxtaposed them with their tracings and added the explanations. Finally, by using texts and arrows, the narrative that connects the pictures were re-constructed by mapping.

For instance, the dark brown arrows are connecting all the bombings that are documented in the mapping according to their temporal relations. And through the green arrows, you can see the Israeli Military attack, and the different results in East and West Beirut. And, naturally, after all the demolition of the Civil War, as you see through the pictures by Walid Raad in Downtown Beirut, the never ending constructions started. At the top you can see the frames from Akram Zaatari's film called 'Beirut Exploded Views' in which he documents the lives of migrant workers in Beirut Central District.









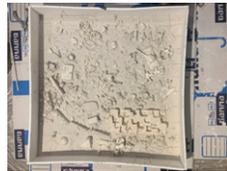
the Relief Image of the Ruined Things in Beirut & the Things that Ruined Beirut

## MODI OPERANDI WORKSHOP SITE 2.5 D

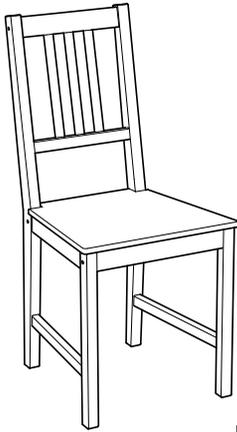
In the first modi operandi model, I developed the site to a 2.5 model by constantly repeating three main actions following the process of the image; First, I listed the objects and collected them from a toy store as we collect the images. Secondly, I started to establish relationships among them and adjust and re-adjust the things until they come together in coherence. Finally, I constructed the final image by amalgamating the things in plaster.

These series of acts ended up in my final model. The objects either gained new meanings because of their combination with other objects and the adjustments that have been made to them before the final construction, or they completely lost their identity and become unrecognisable.

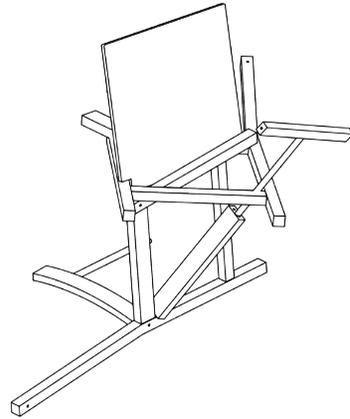
And, as it is seen from the final image, the site itself happened to have no flat surface which you can start to construct directly but became an amalgamation of various objects which are ruined during the process.



# STEFAN



# BEIRUT



## Hacking the Governance

### MODI OPERANDI WORKSHOP ASSEMBLAGE

Since the research mostly involved in the question of assemblage, in my second modi operandi model, in order to demonstrate the role of assemblage in construction I decided to disturb its governance. So, I bought a chair from Ikea, threw its manual away and mounted it without giving a thought to functions of the pieces.

The final result is far from being a chair which is also the problem with Beirut's image. All the pieces are there, the connection of the fragments are established, but there is no one who puts them together consciously. Therefore, it is incomplete and weak.



## **BEIRUT**

chair  
not meant for sitting

**€19,95**

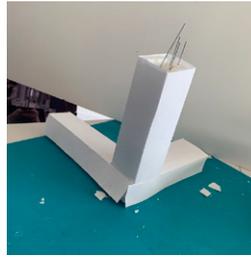
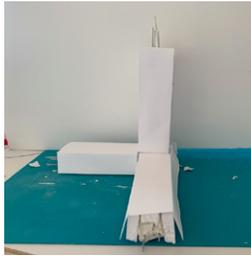
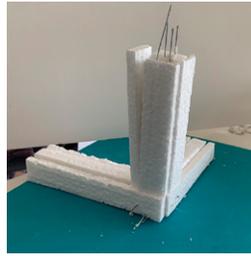




Atmosphere in Beirut Created by Accidental Detectonic Expressions

## MODI OPERANDI WORKSHOP TECTONICS/ATMOSPHERE

For the last Modi Operandi model, I followed the very basic construction of a tectonic; combination of structure, insulation and finishing in x,y,z axis. Then I brought it to the context of Beirut, and started to burn it in order to express its tectonic. The continuous ruinification of the city, thus the buildings causes a reverse process of building. Therefore, the atmosphere in Beirut is created by these accidental detectonic expressions.



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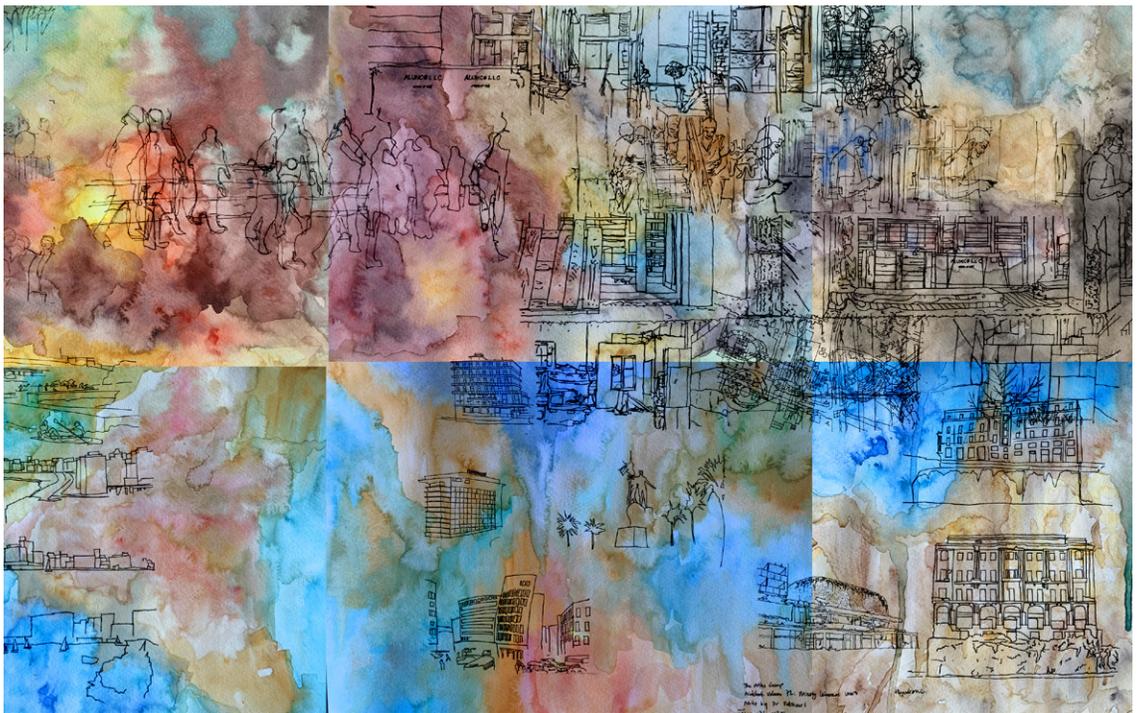
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THE COMMODIFICATION OF  
NATURE  
ANALYSING LANDSCAPES IN A  
POST GROWTH MINDSET

Hemingway Katrina

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## A NOTE ON THE COVER IMAGE

Danish photographer Mikkel Johnson toes the line between landscape and architecture photography, his industrial compositions address the impact of man upon the natural realm through the combination of real images to create fanciful scenarios.<sup>1</sup>

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1 Johnson, M, 2020, "Mikkel Johnsen"  
Artspace, <https://www.artspace.com/artist/mikkel-johnsen>

“Strategies  
identified  
include urban  
densification,  
post-industrial  
landscape re-use  
and more efficient  
productive  
technologies”

## ABSTRACT

The globalised desire for continuous economic growth has resulted in an undermining of sustainability goals. The form of cities is arranged by economic infrastructure in this paradigm. As we move from the Holocene to the Anthropocene the industrialised landscape far outweighs that of the perceived-to-be natural. Thus, it is of interest to imagine how such a commodification of nature may differ within new economic scenarios.

The scenarios focused on within this text are those which are affected by both growth and post-growth: one which will stall the continuous engine of production of capital on our finite planet. The analysis of such an event leads to the understanding of how we orientate ourselves, the objects and landscape around us within such a mindset. This critique restricts the use of greenwashing; the conveyance to the public that an endeavour is more environmentally sound than it is in reality, usually by misleading environmental imagery or labelling such as 'clean' diesel transport initiatives. Through this restriction the paper focuses on future landscape prospects which may alter our orientation in landscape. To further this investigation, depictions of wilderness in architectural literature are contrasted with that of urban planning efficiency principals to visualise economic impact in the environment, built or otherwise.

The theoretical form of landscape through differentiating landscape scenarios forms the backbone of this text, which intersects a critical analysis on economic and social theories of growth. Following this the text will frame possibilities for a new agenda regarding the positions of landscape in a post-growth mindset.

If we do not intentionally demand growth in cities it is hypothesised that the arrangement of landscapes will shift; our environment will not return to pre-industrial levels but morph further. Frequencies of occurrence of differentiat-

ing forms of landscape and their metabolisms will alter, in parallel with how we perceive the role of humanity within them. Strategies identified include urban densification, post-industrial landscape re-use and more efficient productive technologies re-connecting humanities lifestyle habits and the natural environment.

## WHAT DID WE GROW TO GET HERE?

Growth is the closely-guarded jewel of the capitalist mindset, the boisterous consumption of the world's resource for perpetual gain is the epitome of this dogma. Capital is defined as the factor of production which is conceptualised through growth, leading capitalism to form an economic system characterised by ownership of capital goods, distributed on a mainly free market<sup>1</sup>. Growth indicates progression, a societal norm that we have become accustomed to, rewarding more rather than better consumption pitting man-made against natural capital<sup>2</sup>. Thus, the conventional wisdom is that with growth comes glory and prosperity for our egocentric world, or does it? This thesis aims to categorically denounce the need for growth in cities as a means of measuring quality of both life and landscape. To investigate new economic principles which can steer humanity away from this calamitous course which capitalism drives; to break our addiction to growth. Upon such principles, new positions of landscapes can be examined in a post-growth mindset.

Our GDP affliction is at a cost to our environment. To quickly compare economic and climate change parameters, by 2100 the world's economy is predicted to be 20 times greater than today's at current growth rates<sup>3</sup>, endorsed by a multitude of factors such as exponential population rises. A greater economy is synonymous with a greater production volume, and thus harmful emissions. The indispensable guidelines for many protocols on this issue, the Paris Climate Agreement of 2015 set the target of staying below 2 degrees greater than pre-industrial levels by 2030<sup>4</sup>. This target would require

1 Merriam-Webster, "Capitalism Definition", 2020, np

2 Martínez-Alier et al. "Sustainable De-Growth: Mapping The Context, Criticisms And Future Prospects Of An Emergent Paradigm". *Ecological Economics* 69 (9): 2010, p.3

3 Jackson, 2016, *Prosperity Without Growth: Economics for a Finite Planet*, p.49

4 UNFCCC, 2015, "The Paris Agreement, 12 December Draft". UNFCCC <http://unfccc.int/resource/docs/2015/cop21/eng/l09>.

a global reduction in emissions by 10% per annum by 2025<sup>5</sup>. Such targets are evidently impossible if the economy grows at the current rate; being only achievable if we keep strictly within planetary boundaries<sup>6</sup>.

The highly renowned Club of Rome 'Limits to Growth' report of 1972 predated the Paris Climate Agreement by nearly 40 years, as arguably the first major documentation which stipulated the relationship between earth's material limits and consumption habits. Unfortunately this report failed to address the immanency with which such issues ought to be handled<sup>7</sup>. Eventually, the filtration of these ideas into the public consciousness, led the Dutch chemist Paul Crutzen to coin the term Anthropocene in early 2000. It's etymology violently announcing man as the protagonist in globalised ecological downfall, hence linking capital growth, production and the climate crisis.

De-growth was founded on this scientific awakening; as a result of the dual edged lineage of scientific advancement and development criticism<sup>8</sup> this phenom recognises that 'indefinite growth is impossible... it will not end without the total collapse of our civilisation'<sup>9</sup>. Conceived in France in 2006 as *decroissance*; the planned reduction of economic growth and hence productive output, many liberals in the west championed this theory as a desirable social movement to heal our ailing planet<sup>10</sup>. However, in present conditions, such a reduction of consumer demands could lead to mass unemployment, plunging society into

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pdf, p.3

5 Larkin et al. 2017, "What If Negative Emission Technologies Fail At Scale? Implications Of The Paris Agreement For Big Emitting Nations". *Climate Policy* 18 (6), p.691

6 Rockström et al, 2009, p.1

7 Jackson, 2016, *Prosperity Without Growth: Economics for a Finite Planet*, p.56

8 Latouche, 2010, "Degrowth." *Journal of Cleaner Production* 18 (6): p.520

9 Dumont, 1974, *À vous de choisir, l'écologie ou la mort, The choice is yours, ecology or death*, p.5

10 Latouche, 2010, "Degrowth." *Journal of Cleaner Production* 18 (6): p.520

the pits of recession<sup>11</sup>. Such is the dilemma in which we are cast; a dichotomy between the acknowledgment that growth is unsustainable but to forcibly decline it could harm the livelihoods of millions of innocent bystanders. To de-couple economics from planetary harmful practices is to bypass the inconvenient fact that by their very existence they cohabit, as alluded to previously. One of the greatest taboos of the 21<sup>st</sup> century, this failure of our existence is shrouded by frivolous pushes for the oxymoron of sustainable development<sup>12</sup> and governmental green growth targets however 'efficiency solves nothing while growth continues'<sup>13</sup>.

The proceeding chapters will focus on positions of landscapes of growth and post-growth through a series of scenarios to understand this dilemma. Post-growth encompasses an economic trajectory which is without the need for economic growth by definition, working with what is currently available through a symbiotic approach between oneself and the wider society<sup>14</sup>. Other economic scenarios focussed along similar themes such as de-growth and the steady state society (the consistency of capital and of population in society as a whole<sup>15</sup>) can be differentiated from post-growth theory by their reliance on generating new aids to combat what is lacking in our society as a means to success.

Landscape is bestowed as the product of the socio-economic case, a mirror of our environmentalist fashion. Such scenarios will begin with regarding the caste systems of pre-industrial society through post-war mass-

11 Jackson, 2016, Prosperity Without Growth: Economics for a Finite Planet, p.137  
 12 Latouche, 2003, 10  
 13 Monbiot, 2016, How Did We Get Into This Mess?, p.281  
 14 Hinton and Maclurcan, 2015 "A Post Growth Event: Free Money Day – What is the different between post-growth and degrowth?" <https://www.degrowth.info/en/2014/09/a-post-growth-event-free-money-day/>  
 15 Herman, D, 1980, Economics, Ecology, Ethics: Essays Toward a Steady-State Economy, p. 16

consumption to the globalised economy of the present day. The status of landscape as a shifting force is continuously alluded to throughout literature, as Easterling states 'landscape is not static but kinetic'<sup>16</sup> whilst Farley and Roberts use such a focus whilst discussing overlooked 'edgelands' in localised territories. They acknowledge, as does this paper, that such is the constant change of these zones that any writing such as this undertaking is a 'snapshot'<sup>17</sup> which texturizes our understanding of human inhabited and uninhabited spaces.

## INDUSTRIALISATION AND WILDERNESS

From a landscape perspective, such consumptive greed has led to the commodification of nature; wilderness choked by the hand of mechanisation. In our economic exploitation of the world, landscapes of industry are at the frontiers of technological debate. The industrial revolution of the 19<sup>th</sup> century resulted in vast swathes of the natural environment being plundered, catalysed by new technologies such as the steam engine. This machinery powered both large scale farming practices alongside factories and locomotion<sup>18</sup> increasing the distance between consumer and producer. As we centred our lives around productive systems, this territory of exploitation became a territory of resources<sup>19</sup> rather than that of its natural origins. This phenomena mobilised the modern day 'civilisation of labour'<sup>20</sup> under the reins of capitalism.

16 Easterling, 2005, Enduring Innocence : Global Architecture and Its Political Masquerades, p.63  
 17 Roberts and Farley, 2012, Edgelands, p.7  
 18 Wilkinson, 2020, "Industrial Revolution And Technology". National Geographic Society. <https://www.nationalgeographic.org/article/industrial-revolution-and-technology>, np  
 19 Viganò in Université de Luxembourg, 2018, p.137  
 20 Aureli, 2008, The Project of Autonomy : Politics and Architecture Within and against Capitalism. Forum Project p.83

In contradiction to this doctrine, wilderness conjures images of land untouched by the labourer; a pre-human territory. On the contrary, cultivation is everything since<sup>21</sup>, hence economic growth changes the lands status from wilderness to cultivation. This economic influence modifies the land in a practice of landscape morphology; 'the study of visible forms of human occupancy'<sup>22</sup>. In this instance the aesthetics of a zone or area can be analysed to demonstrate how a community connects to the land. In an industrialised scenario, the example of farming monoculture, the practice of continuously planting a single crop for ultimate efficiency, is seen an antonym to the ideology of wilderness. The landscape morphology of such a practice is indicative of capitalist behaviour due its supreme capital gain by human manipulation of the natural realm.

## THE EFFICIENCY OF LANDSCAPE

The search for another vision of ultimate efficiency by way of economic control over landscape led Walter Christaller to craft the Central Place Theory in 1933. This stemmed Europe's broken infrastructure following the first World War. Christaller used his theorem to reconcile topological relationships between settlements in respect to their productive and consummative activities and relative population<sup>23</sup>; Christaller understood that to produce economically viable landscapes requires the relationships between the activities to become synonymously competent. Such a reliance on a wider network is another feature of a capitalist economy, now evident in globalisation. In this network the distance between the consumer and producer increases which reduces the ability of tracing goods and private wealth; this theorem was later adapted by August Losch in 1954 to be more consumer

21 Sheppard, 1997, *The Cultivated Wilderness, or, What Is Landscape?* p.3

22 Cosgrove, 2004, "Landscape and Landschaft", *GHI Bulletin*, (Fall 2004) 35, p.64

23 *ibid*

orientated by taking in mind social systems<sup>24</sup>. As landscapes like the towns Christaller desired are overhauled by consumption, the act of living in such landscapes, as speculated by Tafuri, is a means of capitalist control, due to their status as solely productive entities<sup>25</sup>.

Such is the issue when the products of industrialisation become obsolete; their residue pollutes the efficiency of the landscape. The 'absurd machine' of the bourgeoisie city as prophesied by Piranesi<sup>26</sup> in which such sectors are often hosted, materialises as a metaphor for the selfishness of capitalism. The town of Flint, Michigan is such a case of capitalist decline. As a result of the closure of the towns foremost employer, the global automotive conglomerate General Motors, the city's economy was forcibly shrunk. This resulted in the forced alteration of the landscape which took the form of a 'shrink to survive' ministerial policy<sup>27</sup> with the violent bulldozing of 1000 homes leading to a 20% reduction in the cities size<sup>28</sup>; a hasty Elastoplast for financial viability. Interestingly in this example, the wilderness which once was a parasite to economic affluence took advantage of the misfortune of man and re-appropriated the towns polluted riversides and wasteland areas. As an antidote to the pollutants of the industrial regime of General Motors this economic 'decline seems to have become the progenitor of ecological regeneration'<sup>29</sup>. From a humanist perspective, such destruction of communities (let alone the physical cost of such work) seems a high price to pay for the re-emergence of the

24 Planning Tank, 2020, "Christaller's Central Place Theory | Urban Geography & Economics"; <https://planningtank.com/settlement-geography/central-place-theory> np

25 Tafuri, 1976, *Architecture and Utopia : Design and Capitalist Development*, p.116

26 Piranesi in *ibid*. p.42

27 Belanger, 2009, "Landscape as Infrastructure", *Landscape Journal* vol. 28, no. 1, p.7

28 Leonard, 2009, "US cities may have to be bulldozed in order to survive" *The Telegraph*. <https://www.telegraph.co.uk/finance/financialcrisis/5516536/US-cities-may-have-to-be-bulldozed-in-order-to-survive.html>, p.2

29 Belanger, 2009, "Landscape as Infrastructure", *Landscape Journal* vol. 28, no. 1, p.7

natural environment the world so greatly needs. A more gentle process may be taken in the form of the enablement of community assets and community based organisations in a Jane Jacobs approach which will revitalise the neighbourhoods empowerment<sup>30</sup> and hence their commitment to the natural environment not through erosion but through regeneration.

The selfishness of capital gain is akin to Nobel prize winning scientist Richard Dawkins' evolutionary biology theory of the Selfish Gene (first published in 1976) which, in simple terms, stipulates that human genes have an innate selfishness in order to perpetually self-replicate. Growth within capitalism is thus selfish, as capitalist theory controls modern society, ripping up the natural landscape in its wake. For like the selfish gene manipulates the movements of man through behaviour for its own advantage 'every attempt to change society through architecture is always absorbed by capitalism'<sup>31</sup>. This is a means of human domination over nature, the result being the Anthropocene highlighting our lack of economic decorum. This lack of altruism for the natural environment has manifested into a new being which has evolved to inhabit such an epoch, the economic man, homo economicus,<sup>32</sup> as coined by anthropologist Anna Lowenhaupt Tsing. The species of economy, which, due to our capture by growth and subsequent addition to it, we have become. It is therefore impossible to not acknowledge and to abstain from this fact in the very writing of this thesis in the capitalist sphere; under the grip of growth.

## SCENARIOS OF POST-GROWTH LANDSCAPES

However, the terminology of the Anthropocene

30 Florida, 2011, "How Not to 'Save' Neighbourhoods" *The New York Times* <https://www.nytimes.com/roomfordebate/2011/03/28/the-incredible-shrinking-city/how-not-to-save-neighborhoods>, np

31 Tafuri, 1976, *Architecture and Utopia: Design and Capitalist Development*, p.165-166

32 Tsing, A.L., 2015, *The Mushroom at the End of the World*, p.28

is contested by Tsing, who states that the mess is not a cause of our species biology<sup>33</sup> but that of the need for more resources than the planet can provide, a cause of growth as outlined prior. In essence, the Anthropocene terminology is a scenario of this mindset which moves with tunnel vision. To expand this blind singularity, the global economic sphere should morph into a multidirectional trajectory within a post-growth scenario. This trajectory ought to carry with it the contamination of our encounters from prior capitalistic experiences but have the fascination to explore with curiosity rather than the embedded need for progress by capital gain.

The threatened liveability of the planet is forgotten in our daily lives, there is vast chasm which divides our high intentions of behaving in an ecological manner from our realised occupations. As we drive our carbon-spewing automobiles to twenty four hour supermarkets to buy organic Himalayan salt, we complain at the cost of buying fans in summer and saying our graces in the winter as we no longer need such thick coats. We must be able to regard our life in the ruin of the home in which we have created, particularly in regard to the Northern Hemisphere and its impact on the South, and look in retrospect to our own livelihoods which rely upon capitalism for employment.

As scientific advancement allows planetary boundaries to be pushed further to the brink, so too could the same scientific advancement aid our predicament. One such scenario which prolongs the industrialisation of the planet is geo-engineering – a process of technologically manipulating planetary systems, and in particular it's temperature in order to deal with the climate crisis<sup>34</sup>. This super-anthropoc process highlights our dependence on technology, multiplying issues already with the same hand which feeds them, defying the rule of Occam's razor.

33 Ibid, 19

34 Cambridge, 2020, "Geoengineering" *Cambridge Dictionary* [https://dictionary.cambridge.org/dictionary/english/geoengineering\\_np](https://dictionary.cambridge.org/dictionary/english/geoengineering_np)

The world's most common vertebrate is the broiler chicken, a species created by humans for human consumption, the epitome of bio-engineering akin to geo-engineering. In 2005, 46 billion of such birds existed on the planet with an average lifespan of 5 weeks<sup>35</sup>. What is astounding is not merely the numbers involved in such a feat, but the technological advances which have clearly occurred to this once-natural species as a result of our incessant need for growth. The incredibly cheap meat feeds the workers of industrial plants, the bourgeoisie, and allows the rapidly increasing population of the world to feel closer to their goals of reaching the capital of the elite. This commodity once only possible for the rich disguises itself as a metaphor for the false fantasy of social mobility which capitalism sells.

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35 Turner et al, 2005, "The Welfare of Broiler Chickens in the European Union" Hampshire: Compassion in World Farming Trust, p.3

“consumptive greed has led to the  
commodification of nature”

“it is naive to  
de-couple  
economics from  
the climate crisis”

## LIFE WITHOUT HANDRAILS

How then may the world look in a state of post-growth, without the need for the 'handrail of capitalism'<sup>36</sup> and to what extent is this status is even possible? As the socialist author Upton Sinclair once stated 'it is difficult to get a man to understand something, when his salary depends upon his not understanding it!'<sup>37</sup>. The blissful ignorance of man is clear in its telling of the difficulties of the dichotomy outlined in the introduction. This ignorance of the taboo of growth addiction has led to a series of green growth initiatives set out by global bodies such as the Organisation for Economic Cooperation and Development (OECD). In which they aim to 'achieve economic growth, create green jobs, and protect the environment'<sup>38</sup> however such false pretences do little but sustain our lofty ecological intentions whilst continuing environmental turmoil; evidently we are trapped.

The greater shift which is evidently needed is resisted by most economic and political institutions, which are founded on traditional qualitative growth<sup>39</sup>. Such institutions present growth as the miraculous remedy for inequalities<sup>40</sup> through a preconceived vacuum in infinite space. Further then than the lens of landscapes in this paper, the economic scenario ought to be altered to specify less consumptive and growth orientated activities. These scenarios may be such as the demystification of GDP into the public sphere and participatory budgeting of public funds as practised in some South American societies. Further ideas like the 'slow revolution' and movements such as

36 Tsing, A. L. 2015, *The Mushroom at the End of the World*, p.2

37 Sinclair, 1935, *I, Candidate for Governor: And How I Got Licked*, np

38 OECD, 2020, "Towards green growth" <http://www.oecd.org/greengrowth/towards-green-growth-9789264111318-en.htm>, np

39 Daly, 1996, *Beyond Growth : The Economics of Sustainable Development*, p.1

40 Latouche, 2003, p.4

Cittaslow aim to reduce the speed of nature's commodification in civic centres, although man is still the protagonist in the goal of a 'healthier' holistic vision of the inhabitation of landscape<sup>41</sup>. More often landscapes of civic centres are also centres of financial gain; increasingly economic free zones contaminate the city as documented within *Extra-Statecraft* by Easterling<sup>42</sup>. Such landscapes are those of pure capital, a diverging trajectory to the Cittaslow movement. As referred to in the introduction, it is naive to de-couple economics from the climate crisis which the liberality of free zone resists. The fictitious vacuum of such areas creates a habitat for worker exploitation and tunnel vision;<sup>43</sup> feeding the growth machine.

Another suggestion may be to advocate to delink citizens revenue from wage employment<sup>44</sup> in such a form as universal basic income to reduce mass unemployment which worker exploitation feasts upon. Such a project would blur the lines of capitalism and socialism crafting a less-capitalist<sup>45</sup> landscape, which could see less infrastructural sites polluting our soil. Such a detachment may reduce capitalist driven jobs leaving citizens with more time to nurture both their own intrinsic values and the planet; however, this lofty assumption places much emphasis on trusting our own altruism and lacks credible tested sources.

Clearly, a post-growth landscape needs novel ideas; hence, the traditionality of the slow movement may come into question. The famed French economist Thomas Piketty has continuously expressed his concern that the future will retract to the past. Piketty hypothesises that wealth will grow faster than

41 Cittaslow, 2020, "The Association" Cittaslow, <https://www.cittaslow.org/content/association> np

42 Easterling, 2014, *Extrastatecraft : The Power of Infrastructure Space*, p.21-53

43 Ibid, p.22

44 Martinez-Alier et al, 2010, "Sustainable De-Growth: Mapping The Context, Criticisms And Future Prospects Of An Emergent Paradigm". *Ecological Economics* 69 (9): p.1742

45 Jackson, 2016, *Prosperity Without Growth: Economics for a Finite Planet*, p.301

economic output, potentially contributing to further economic and political instability let alone climate strife. In *Capital in the 21<sup>st</sup> Century* (2014) Piketty states that only the intervention of governments or advancement of growth from either technological progress or rising of populations can halt a return to patrimonial capitalism<sup>46</sup>. Patrimonial capitalism being the economic status prior to mechanised industrial growth in which private wealth was significantly greater than public wealth as a result of immobile class structures. Piketty marks a global wealth tax as being a possible intervention which would retaliate against control of the bourgeoisie by aristocrats. Landscapes inhabited by such a tax may see the rich-poor divide reduced, lessening private ownership of large land estates and a more balanced status of land ownership through community enterprise.

Less-growth could be assumed to equal a less productive society however it does not mean one which is less fortunate. A less-productive society would decrease the commodification of the natural environment through controlled technological advancement. This may curb the onslaught of industrialised landscapes, increasing the popularity of ecological restoration projects as shown in the ecological haven of Freshkills Park in Stanton Island, New York, formally the world's largest landfill.

Another form of landscape could result from more efficiency in the sites already attributed for production, re-appropriating such zones for more ecologically-viable production, like recycling plants, rather than dismantling them entirely as seen in Flint. Shrinking the sizes of our homes and cities would lead to less travel from home to work, reducing vehicle emission pollution. Reducing urban sprawl and densifying cities are akin to a post-growth mindset because of their smaller footprint on the planet in both a physical and pollution sense. Food and other essential production processes need to take place closer to the

consumer, which may lead to urban farming and more diverse agricultural practices such as laboratory grown crops, in turn heightening the public awareness of our dietary habits impact on the planet. These interventions will allow landscapes and wildlife to be nurtured without the oppression of industrialisation. Furthermore the journey to a post-growth world needs a multifaceted and gentle approach, unique to the context rather than the unforgiving clearances of the industrialisation period.

Novelty and tradition are in tension in this debate, highlighted in the cases of Piketty, both stems of interest are necessary in understanding how landscapes may be regarded in a post-growth mindset. To demonise novelty in society by returning to old traditions is an error<sup>47</sup> as both adolescent flexibility and the fostering of long-term interests are appropriate. On this continuum a further change in societal values to champion intrinsic values which prioritise relationships<sup>48</sup> and inter landscape-personal relations to reconnect with nature may aid this cause; rather than extrinsic values which concern capital gain and status.

## FOSTERING NOVEL LANDSCAPES

To foster the reduction of reliance upon growth and to nurture planetary systems we need to re-orientate our landscapes and humanities status within them. In essence, to alter relationships between nature and man in a multifaceted manner to see post-growth as beyond a middle-class fetish, unlikely to be paid heed to by governments who have few incentives to act on the views of activists. This text outlines some of the forms of landscape such a position could aspire to create; denser cities, shorter supply chains which encourage urban farming, reduction in private land estate ownership and more efficient and ecologically-viable restoration and renewal plans for industrialised zones. Much like reports that burnt forests will not necessarily grow back with the same

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46 RA, 2014, "Thomas Piketty's 'Capital', summarised in four paragraphs" *The Economist*, <https://www.economist.com/the-economist-explains/2014/05/04/thomas-piket-tys-capital-summarised-in-four-paragraphs>, np

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47 Jackson, 2016, *Prosperity Without Growth: Economics for a Finite Planet*, p.301  
48 Monbiot, G. 2016, *How Did We Get Into This Mess?* p.258-259

biology as before the fire<sup>49</sup> it is acknowledged that the landscapes we now inhabit cannot go back to the wild, untouched by the hand of man. However only as we begin to respect the boundaries of the Earth's systems within the use of landscape for human activities, can we harbour landscapes of conjoined prosperity without the polluting tyranny of excessive industrialisation.

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49 Pennisi, 2015, "When a forest is burned, what comes back may not resemble what was lost" Science Magazine, The American Association for the Advancement of Science np <https://www.sciencemag.org/news/2015/06/when-forest-burned-what-comes-back-may-not-resemble-what-was-lost>

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Cover Image: Mikkel Johnsen, 2015, "Anonymous Object 3" <https://foerstel.com/fictional-hollow-world/> (accessed 2 December 2020)





INHABITING POLLUTION  
AN ANALYSIS INTO BEIRUT  
PORT DISTRICT

Hemingway Katrina

## SUMMARY

Today Beirut relies heavily on its port, shown here. Here lies futile grasp to stabilise its recessive economy having been annexed from its neighbours Israel and the wore-torn Syria. Such a complexity of issues drives the key thematic of this research. An architectural manifesto to inhabit these ruins, the pollution our own making, in the context of the climate crisis.

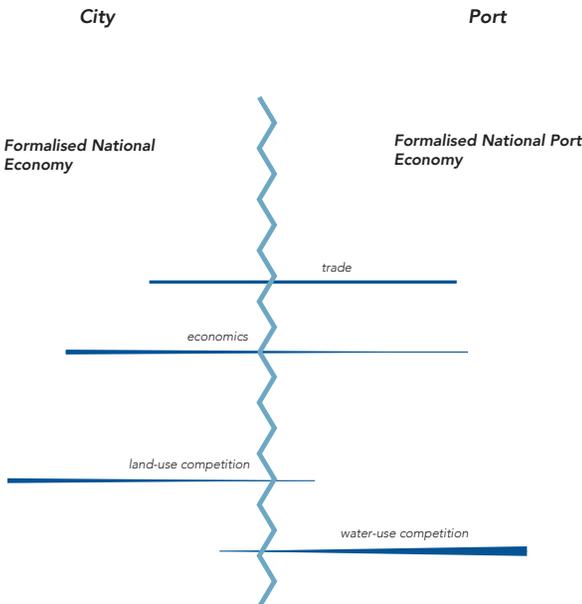
My theory paper, the commoditification of nature has shown the theoretical need for post-industrial landscape re-use. The research has taken my project through the need for circularity within port cities as a way to create a post-growth economy.

This research looks at tangible sources of pollution in cities as well as the socio-economic context of Beirut which means theirs is so volumous and consuming. My position is that

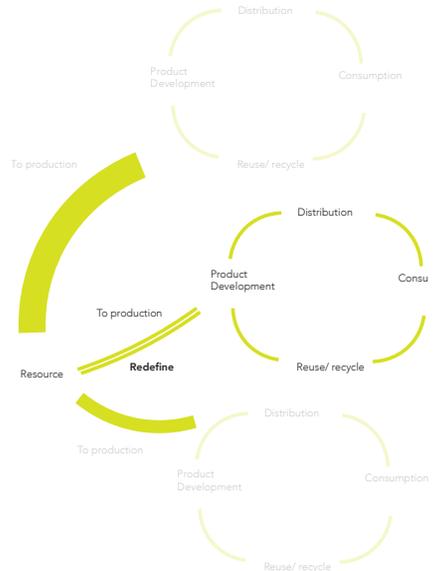
the pollution of Beirut is a symptom of the socio-economic failings which occur along the timeline shown in this research.

The findings show there is a need to re-conceptualise its position in areas like Beirut Port District of which architects have a role in playing. The statement of intent embraces this need to harness the waste we ourselves have created, most importantly to frame an alternative interface between pollution and inhabitation, between waste and city, in symbiosis.

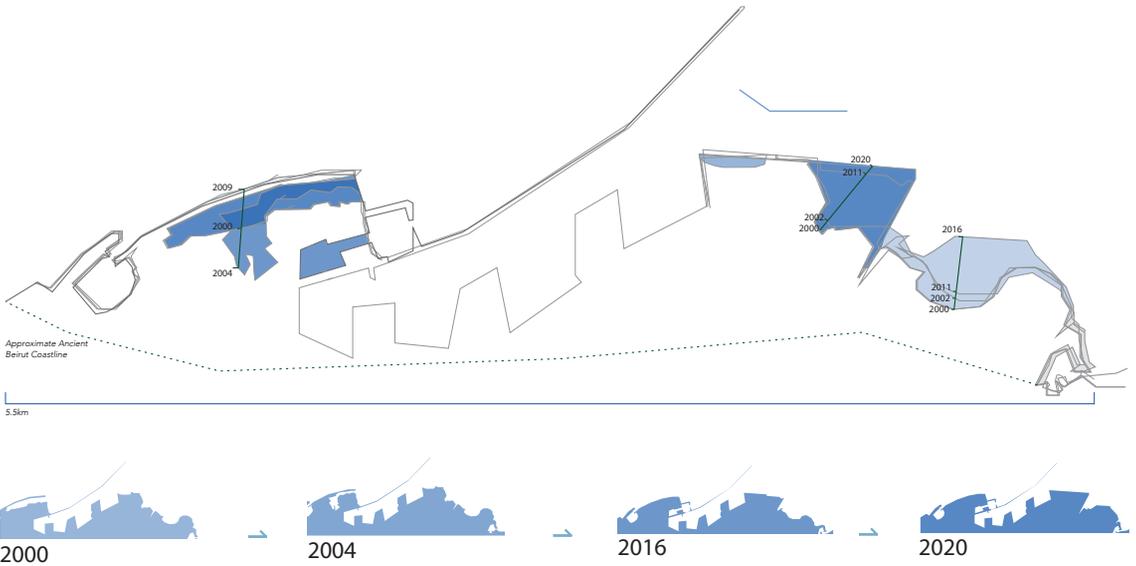
## How to inhabit and revive the position of pollution within Architecture?



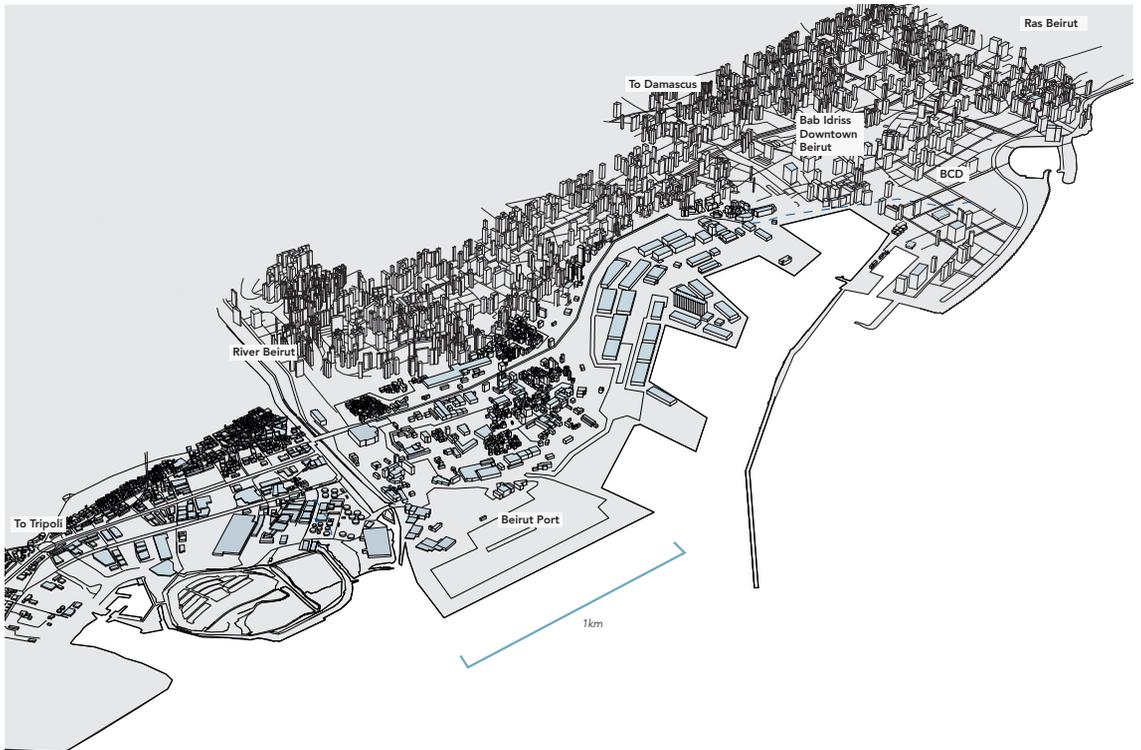
Theorising a city port relationship



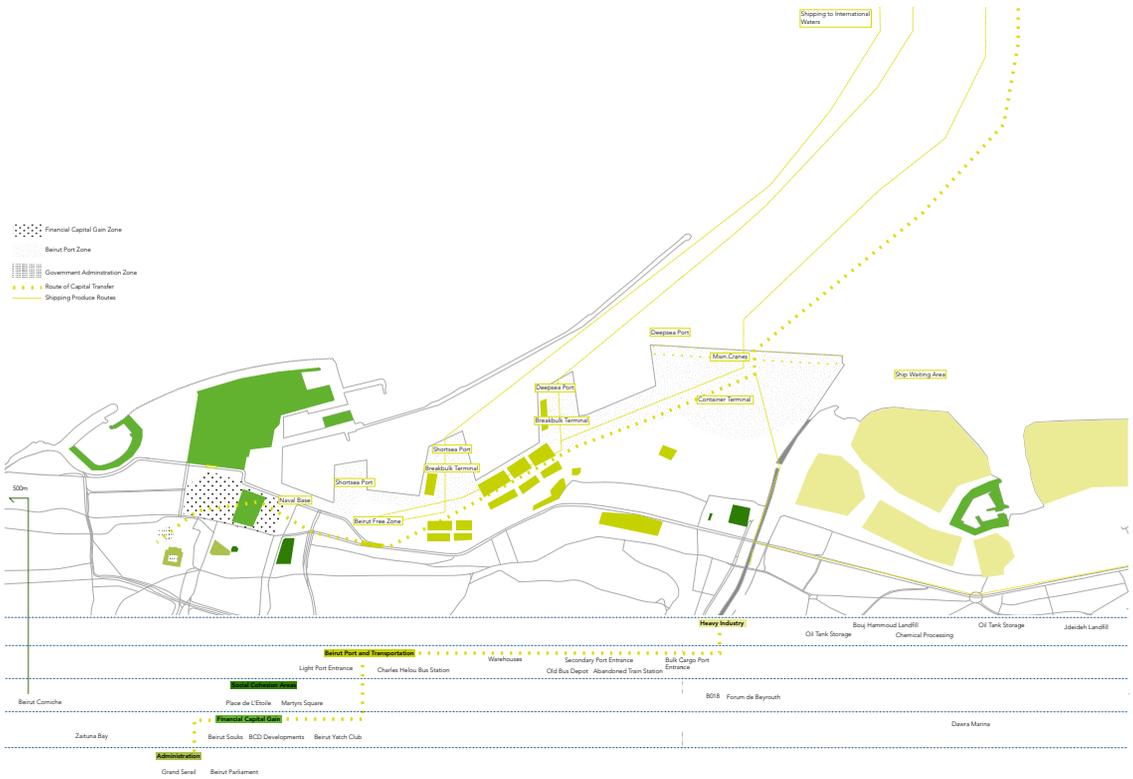
A closed system of circularity



Land reclamation of Beirut Port District



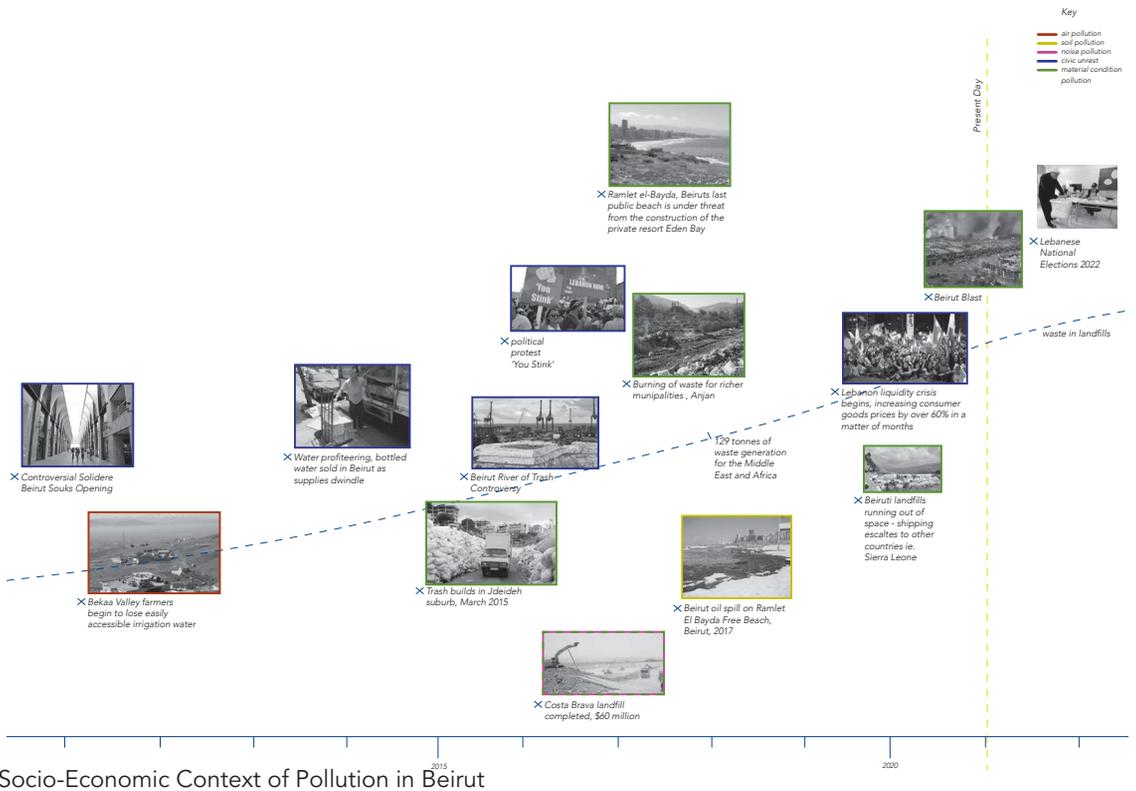
Beirut Port District



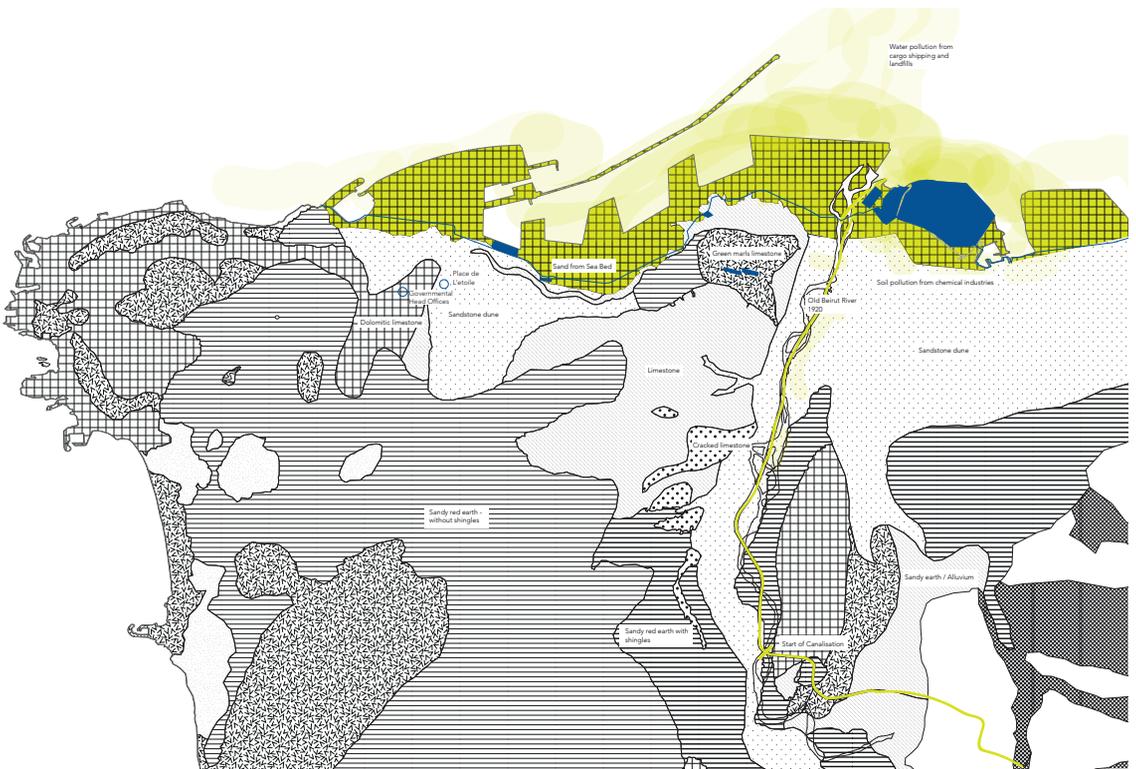
### Beirut's Economic Reliance on it's Port



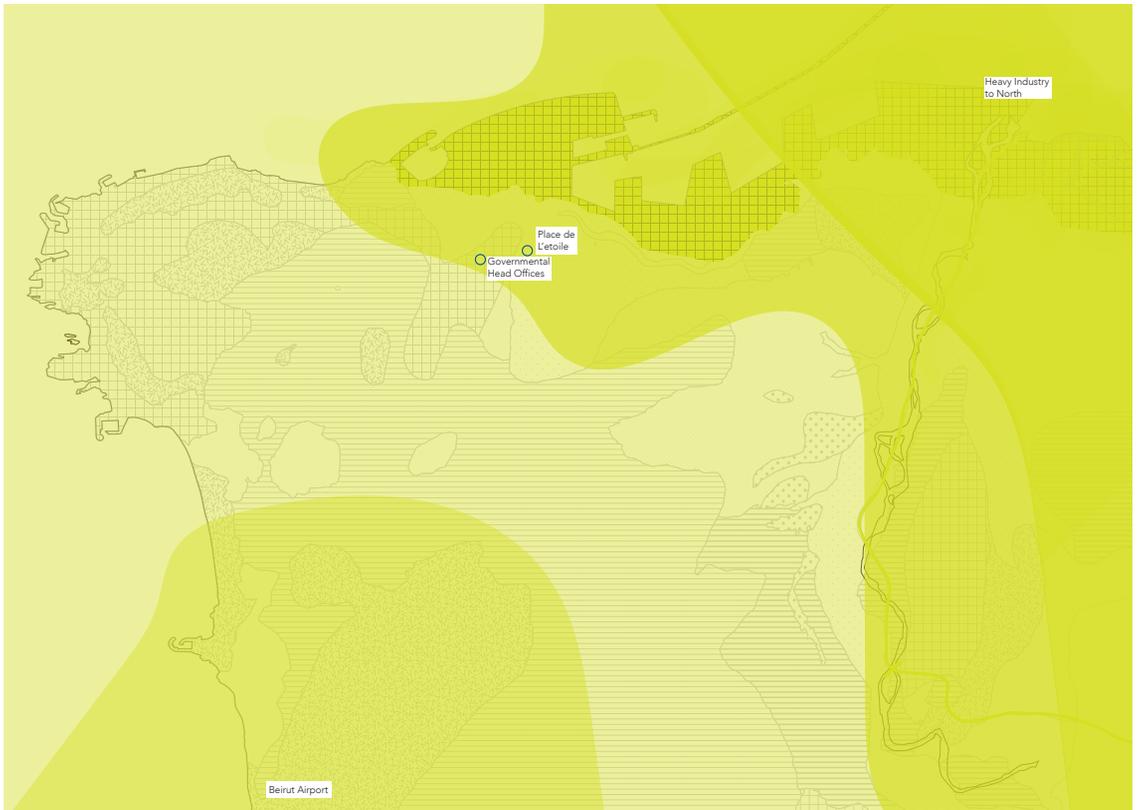
### Beirut's Port Industrial Processes - Civic Disconnect



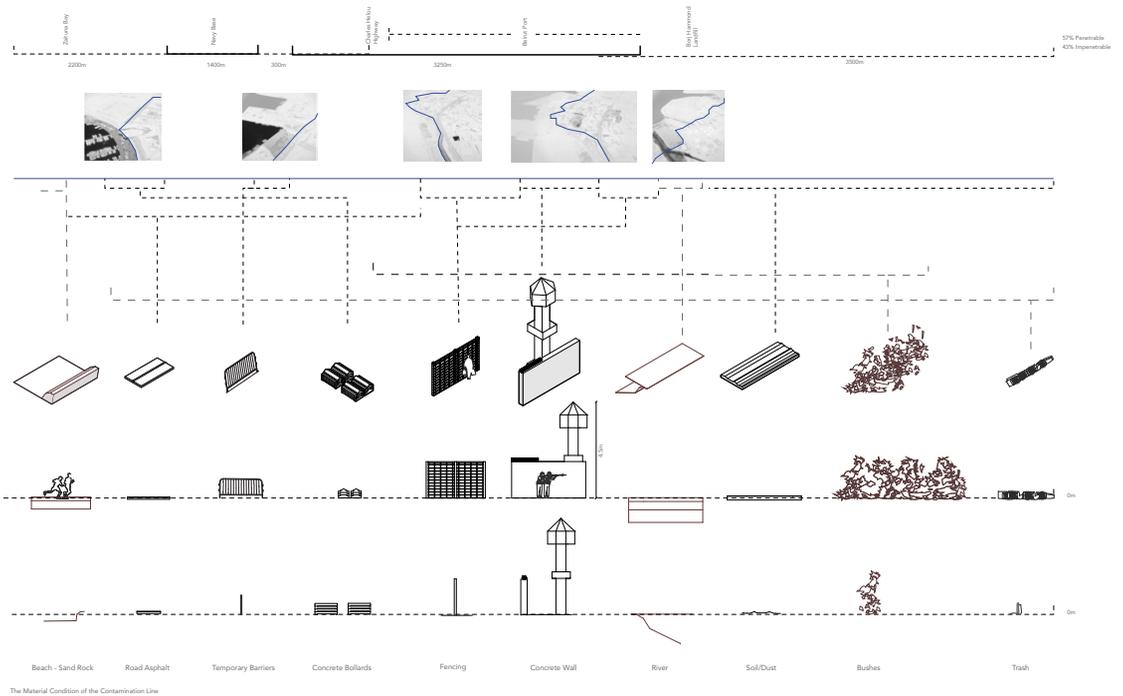
### Socio-Economic Context of Pollution in Beirut

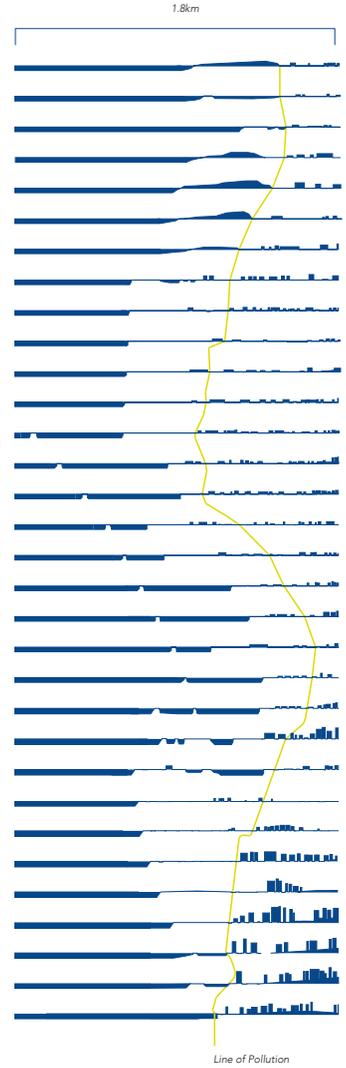


### Soil Composition of Beirut

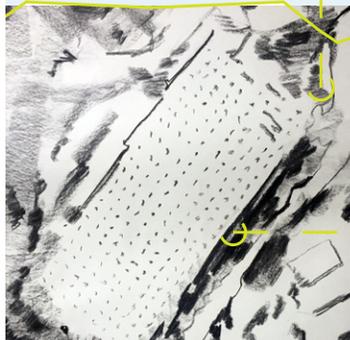
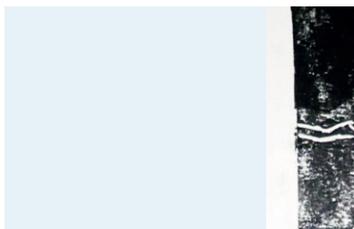
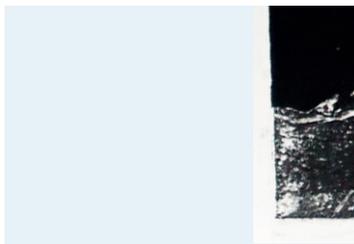
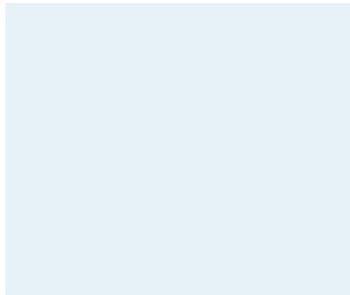


### Air Pollution Index of Beirut

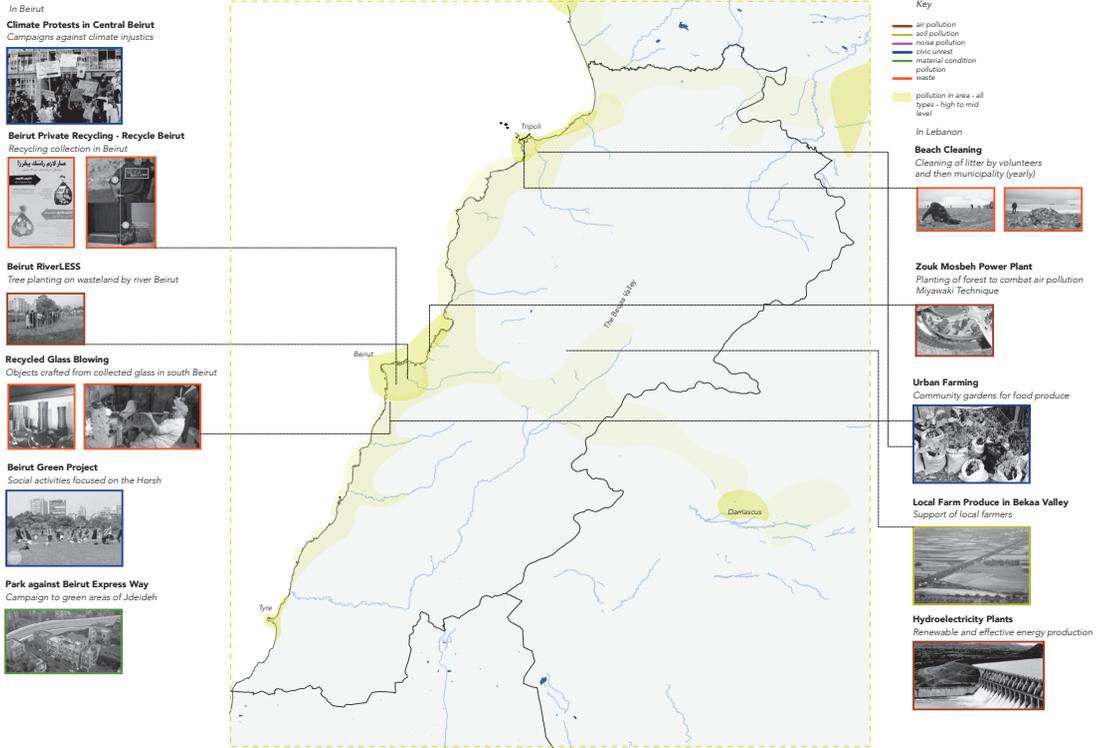




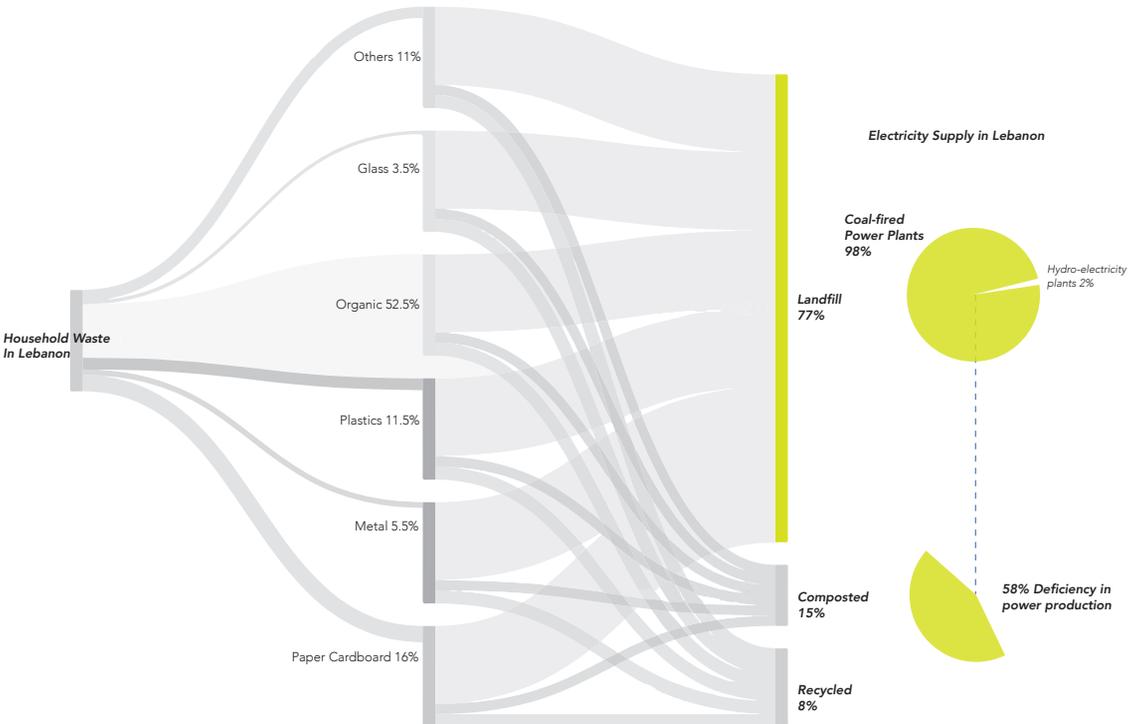
The Line of Pollution



The line of pollution transcends the artificial and the natural realms of Beirut Port District



## Mapping Cleaning Processes in Lebanon and Beirut

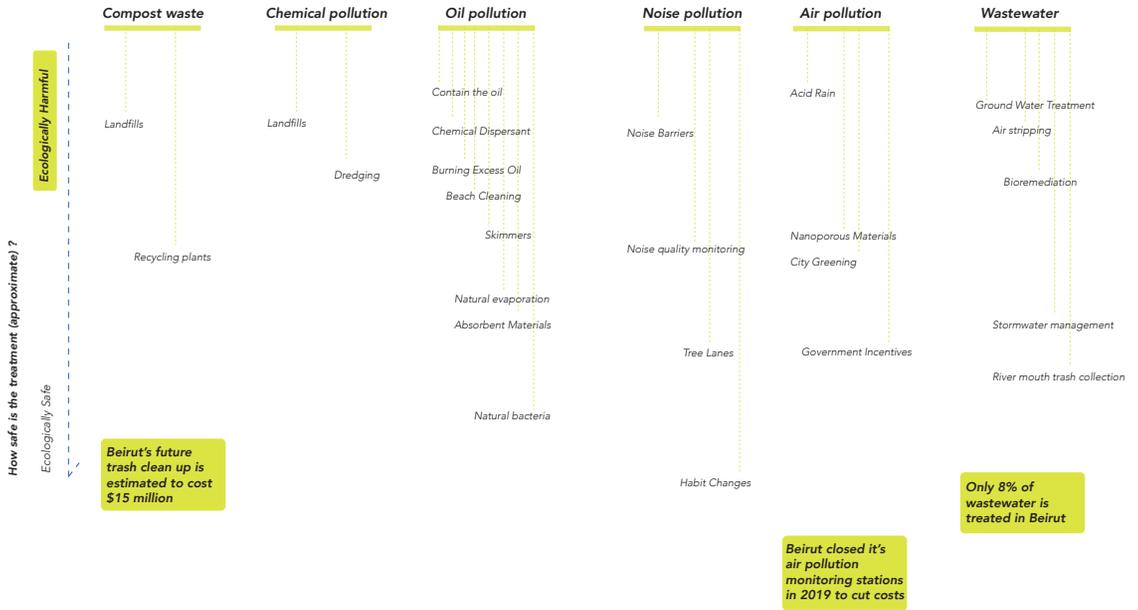


## Quantative Analysis of Lebanese Waste Habits

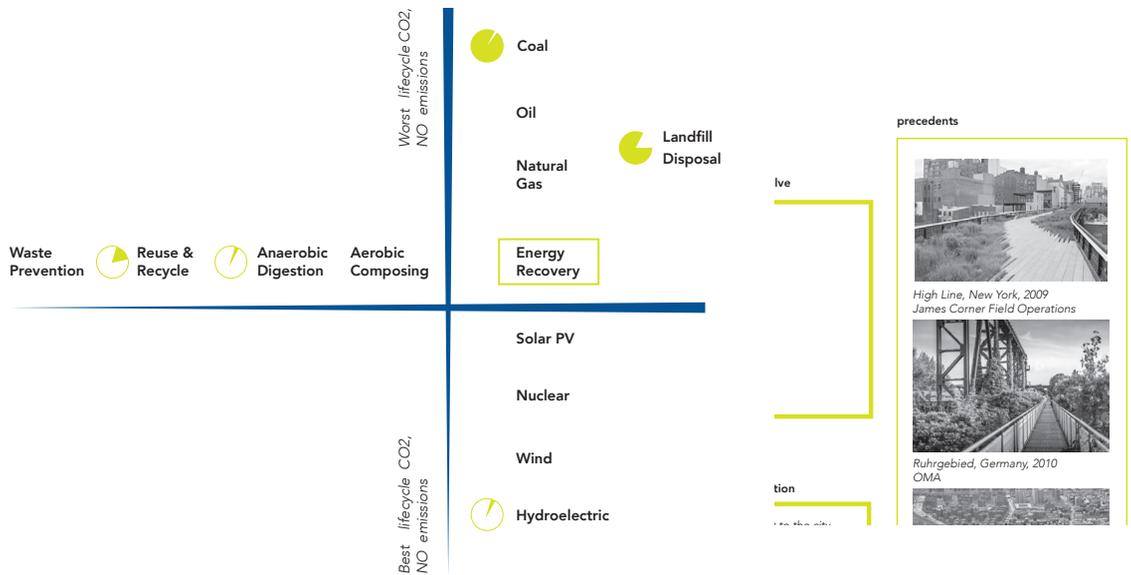
How often is this used per pollution type (approximate) ?

Often

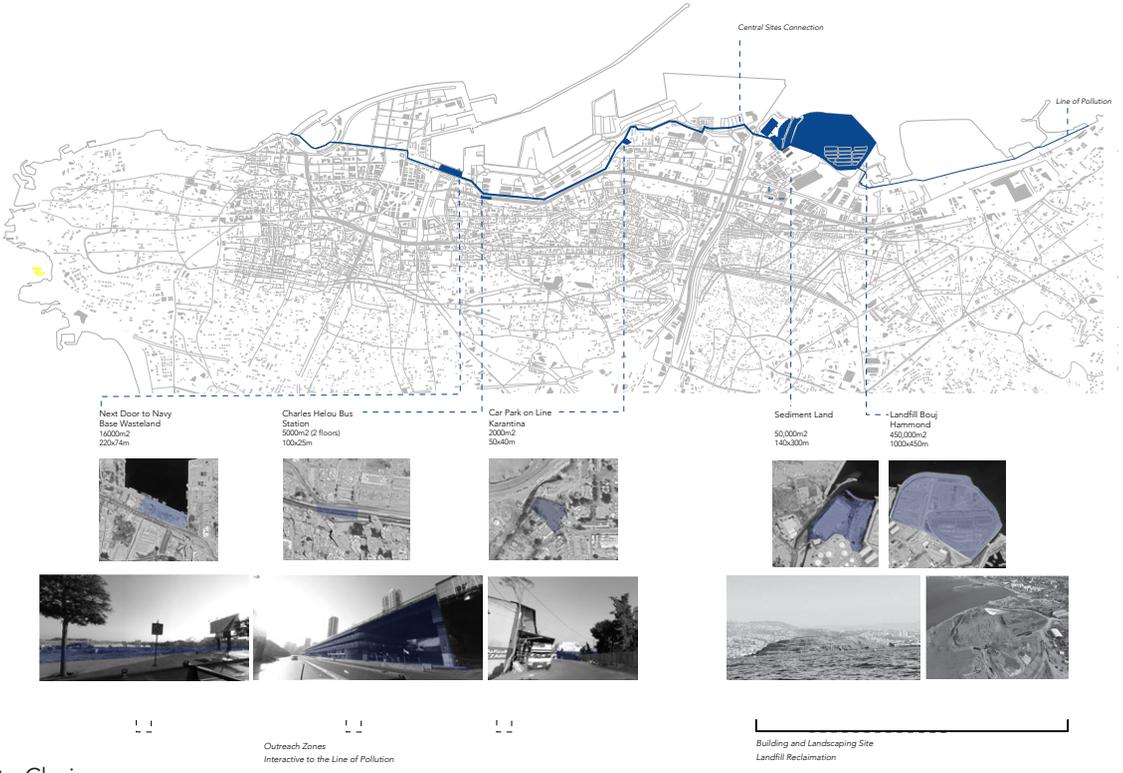
Hardly ever



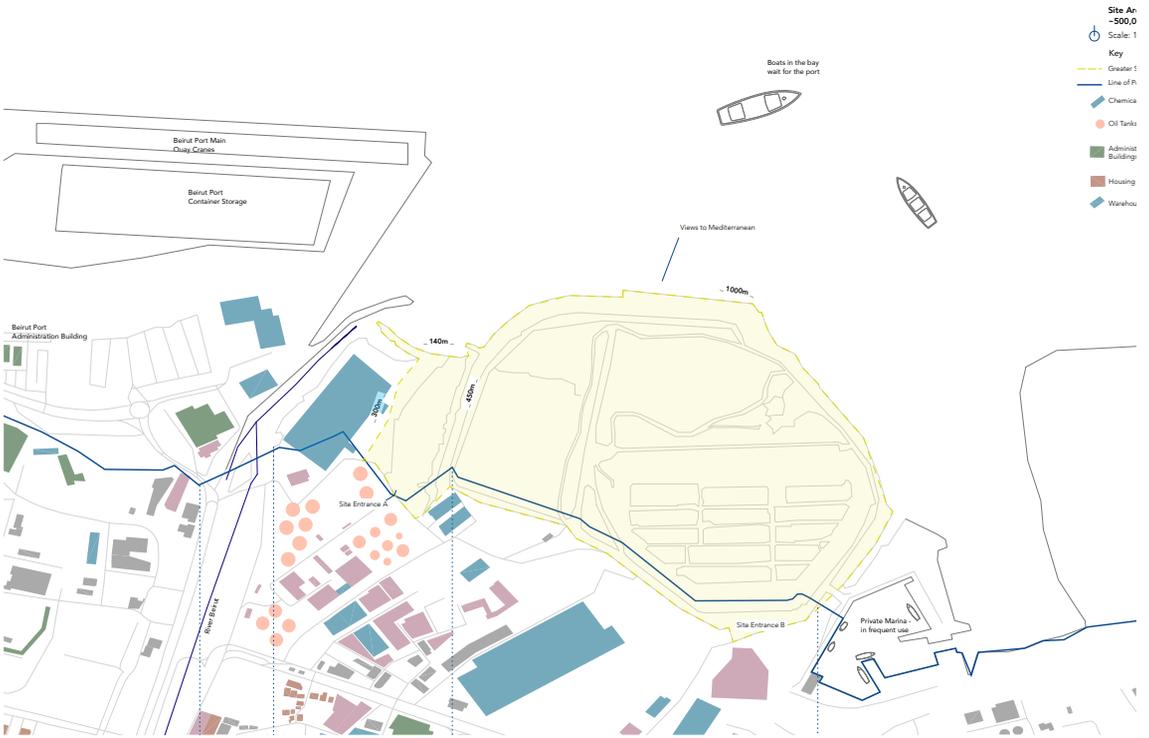
## Removing Pollution Matrix



## Best Principles of Waste Reduction



### Site Choice



### Site Context Analysis



1 | 2.5d  
Unrequited land soil section

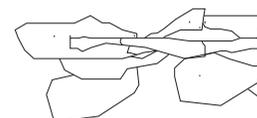
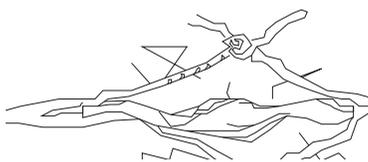
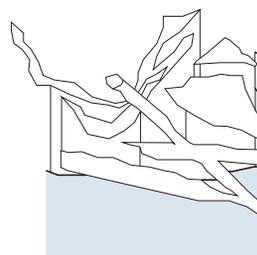
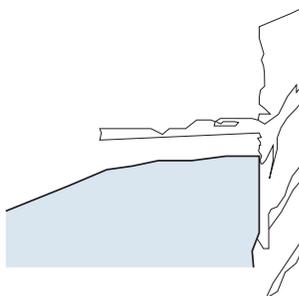
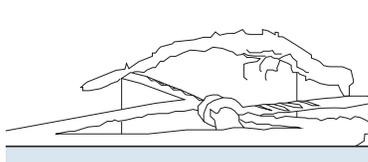
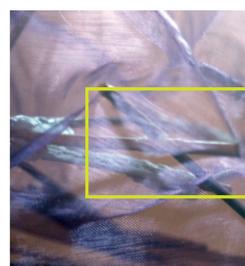
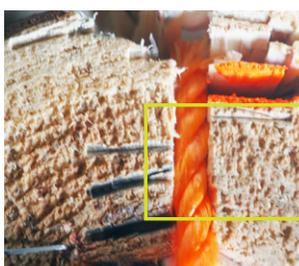
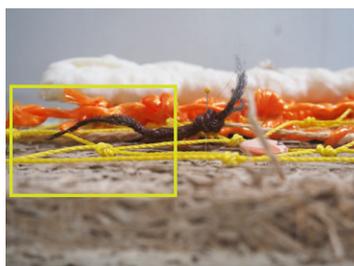


3 | Tectonics Atmosphere  
Program | Plasticity and  
machinery



2 | Assemblage  
Pollution and seepage

Modi Operandi Workshop



the act of digging,  
of dredging, a control over the landscape,  
and testing the ethereality of plasticity against the robust  
perception of a machine

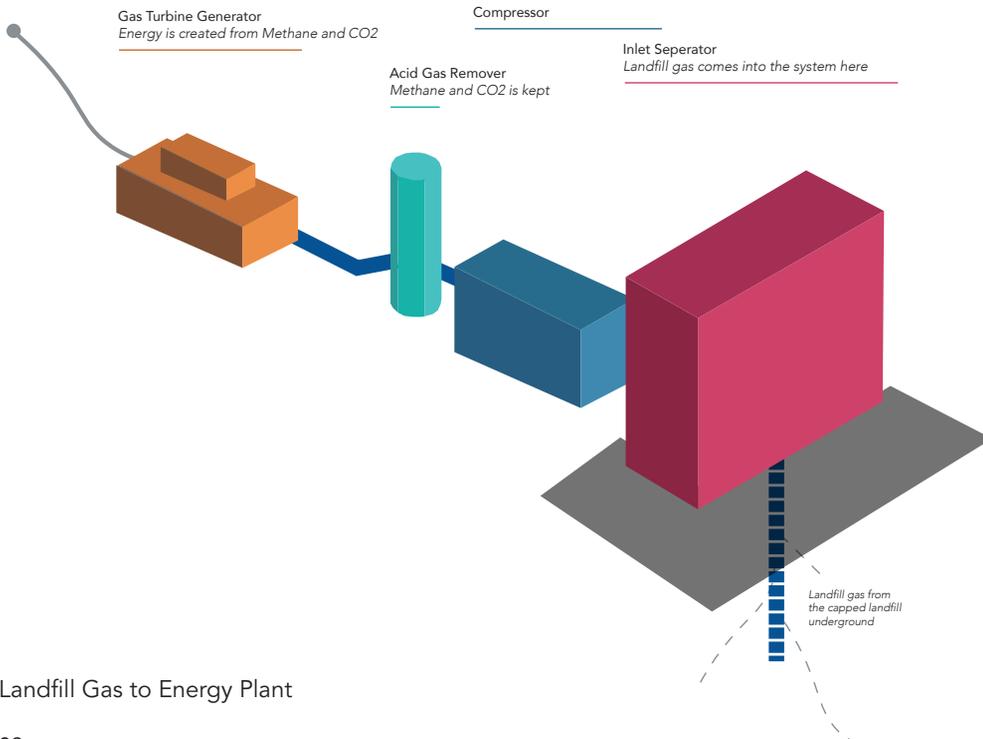
*We are inhabiting polluted land, purification is a myth.  
Cleanliness is futile, as is the act of cleaning.*

*Architecture should be used to make pollution useful.  
We should not shy from the waste we ourselves have created.*

*The proposal is a temporary and transitional machine to prepare the polluted ground for future generations amidst the climate crisis and the context of Beirut.*

*This machine is open to the public, harnessing energy to form an interface between pollution and inhabitation.*

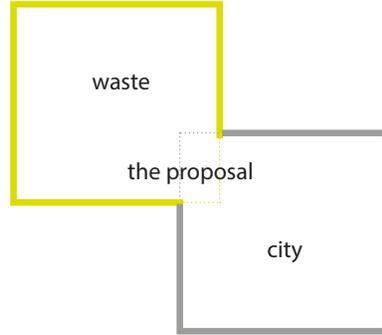
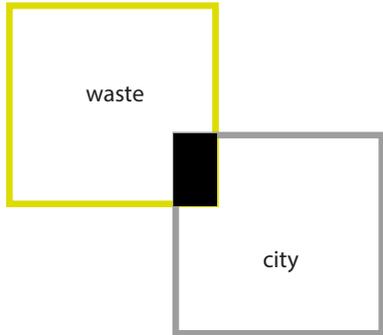
## Statement of Intent Manifesto



Landfill Gas to Energy Plant

The act of cleaning indicates that pollution is not useful portraying it negatively,

My preposition however is that architecture can assist to re-orientate this narrative



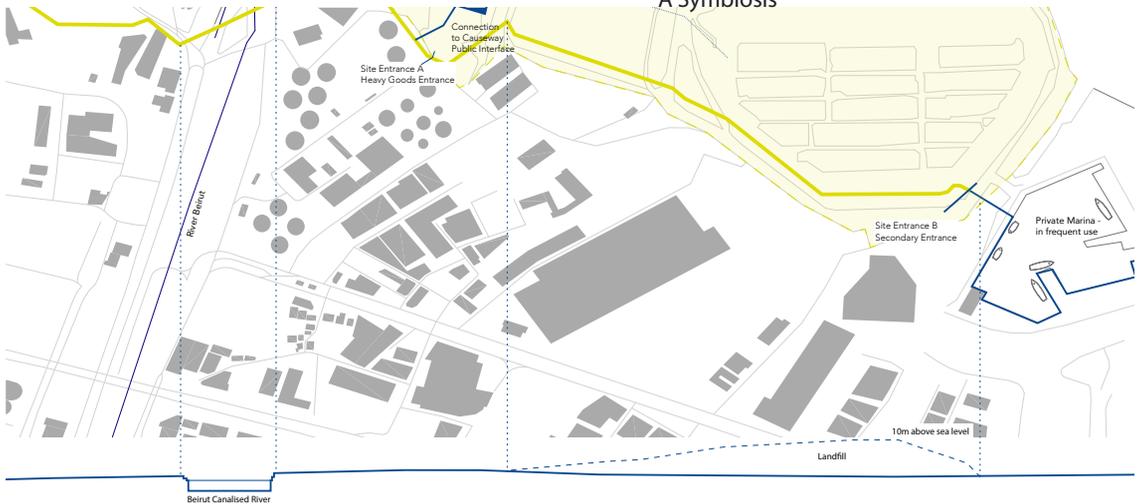
Current Process

Waste and pollution are shrouded from the city

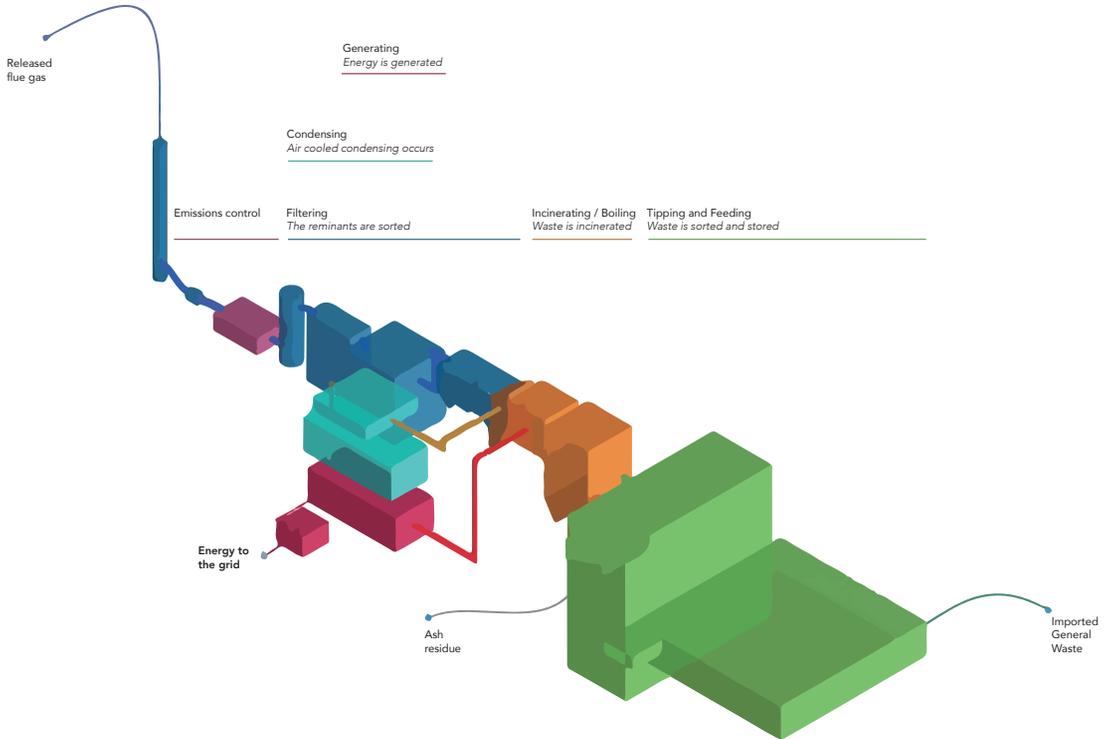
The Proposed - The Interface

Waste and pollution are of worth to the city

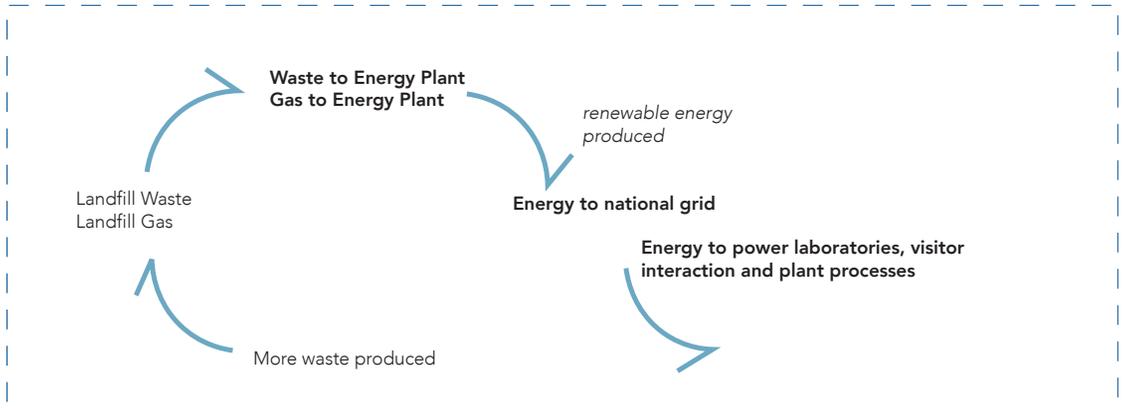
A Symbiosis



A Symbiosis of Waste and City



## Waste to Energy Plant



### Renewable Energy Production Circularity

definition:

materials of the plant can be decommissioned and re-used

#### Materiality

low embodied carbon materials ie. timber  
 more common connections to be re-used  
 recycled elements ie. insulation

### Semi Off-Grid

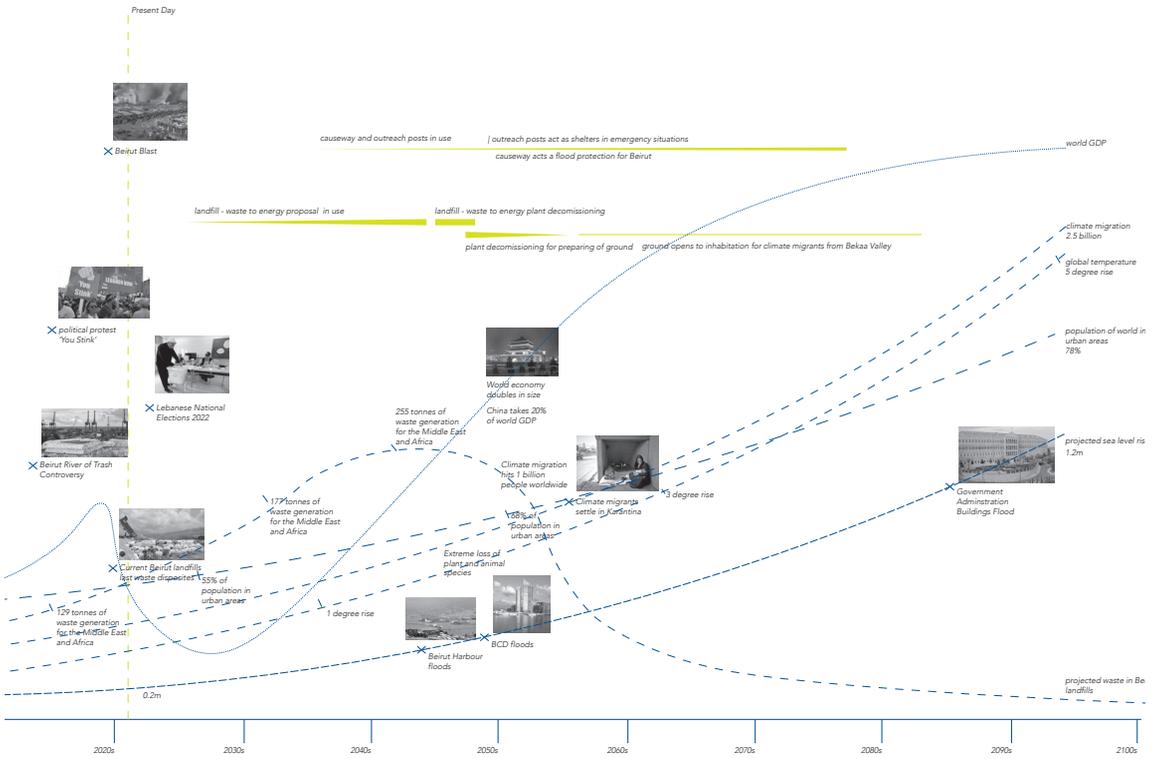
definition:

energy production  
 grey water recycling  
 rain water collection  
 passive heating/ventilation

### Flooding Attenuation

definition:

structures natural or artificial  
 which reduce the velocity and/or  
 turbidity of water



## Statement of Intent in a Climate Timeline



Landfill and Outreach Zones in the Port Context

RESEARCH PLAN:  
INHABITING POLLUTION  
AN ANALYSIS INTO BEIRUT  
PORT DISTRICT

Hemingway Katrina

the city and the way in which pollution and sustainable practices / issues arise as a result of fragmentation and tension in the context.

## PROBLEM STATEMENT

Beirut is a catastrophically polluted place; the foul-garbage piling up on the streets, high level of air pollution and rapid privatisation of green spaces are all causes of such a ill-treated palimpsestic city which has quickly declined into this condition. Each of these tangible attributes of Beirut can be traced back to failings of infrastructure, governmental or otherwise; leading to allegations of corruption, mistreatment of public assets and a lack of a sustainable agenda. Such a significant problem within the city and surrounding area has led to multiple public protests, like the 'You Stink' campaign of 2015 , which the government reconciled with the creation of even more land reclamation from the sea to act as landfills. This pushed the issues to the peripheries of the city but in such an act blinding the public interface from the city to Mediterranean even further. Needless to say, as the hastily built landfills cause waste to seep into the sea, damaging local fishing industries and the tourism which Beirut relies so heavily on.

Furthermore, the city relies heavily on the oil business of its neighbouring countries, who are now diversifying as the exasperated wells begin to dry up. However, the question remains as how Lebanon, which has no oil-tapping capacity itself, can forge a new agenda for its people as the unsustainable realities of this practice mount to the worlds surface. The need of perpetual economic and physical growth, is conceptualised as being fundamentally flawed in this statement. Beirut needs a multidirectional trajectory rather than the narrow mindedness of the selfish growth agenda which is a cause of its polluting issues. The post-growth mindset of the architectural proposal of this research will aim to stall the continuous engine of production of capital on our finite planet. This will aim to imagine new ways of inhabiting pollution and facing the taboo of our wasteful cities and the landscape

## PROJECT LOCATION

The location of Beirut in Lebanon is chosen for its deep history ranging from the Roman Empire, Phoenicians, Ottoman Empire, French Mandate and then ultimate independence in 1926. Beirut is seen as located in a prime position of importance on the Mediterranean sea forming a connection between the Middle East and Europe. The focus of this research is primarily on Beirut Port, it's influence on

such habits have created.

## RESEARCH QUESTIONS

- What are the major points of pollution within Beirut Port District?
- How does the role of economics and social life in Beirut and Lebanon play a role in such pollution?
- How can we inhabit the pollution of our past encounters and practices?
- What processes and interventions are currently taking place or have historically taken place which create pollution in and around Beirut?
- How do the polluted landscapes of the capitalist economic system of today fit into post-capitalist systems which may be in place in the future?
- How does the post-growth mindset look in Beirut?

## RESULTING DESIGN ASSIGNMENT

The resulting design assignment is in the form of a housing for a machine to produce energy from the landfill via a waste to energy plant and a landfill gas to energy plant. The energy will be fed back into the national grid of Lebanon and will be used to heat and power the proposed building.

This housing will also have a public interface with laboratories to look for further green energy and pollution mitigation scientific advancement which will be open for viewing and education of the public, such as local schools. The project will be supported by a landscaped walkway as part of this public interface in the form of a causeway above the ground on a portion of the pollution line as researched prior, to connect to the plant housing and the city of Beirut. This causeway will feature 3 outreach posts as

a vessel to study to city with minimal seating and steps to the walkway. The construction of each of these aspects should be as low-carbon as possible, using natural materials, preferably those which can be sourced within Lebanon. The construction will use sustainable recycled plastic bottle insulation and a timber construction which can be dis-mantled after the 30 year lifetime of the building.

Other sustainable aspects include grey water re-cycling and rain water collection to allow the building to be more self-sufficient. The construction should also be protected against rising sea levels so will be protected against flooding, which adheres to the sustainable focus of this graduation project.

The dimensions of the landfill site upon which this plant will be constructed are 500,000m<sup>2</sup>, with the building taking up approximately 1/20th of the size of this area. The causeway length is 2km and the outreach posts are 500m<sup>2</sup> each.

The proposal aims to be fully circular and temporary, to be decommissioned by 2050 as climate migrants from the Beqaa valley move to Beirut, using the materials of the plant to create dwellings in the area and new plants to create energy from as-yet untested energy sources. As the land on which the proposal has been cleared of the waste in the actions of the plant the climate migrants will be able to reside here with safety.

## METHODOLOGY OF RESEARCH

After a clear and concise research assessment into the history of the city of Beirut and it's socio-economical state via reading of literature of Beirut and Lebanon and group mapping exercises; this research proposal will assess qualitative and quantitative data to understand pollution. The starting point of this research will focus along a specified physical contamination line which has been identified within the city of Beirut, an interface between the port and the city, using this as an exemplary point as to understand pollution in Beirut and the surrounding hinterland. Qualitative data will

include researching narratives and testimonies of pollutions' cause, effect and clean-up efforts within the city and surrounding areas. This research will also contain assessments of theoretical ideas for post-growth and post-capitalist landscapes and inhabitations of polluted landscapes and wasteland space of which many are seen within the case study which are discussed through a theoretical paper. Research into the cleaning processes of pollution, such as oil spills, and the tangible objects and landscapes such processes create will continue the discussion through the use of precedents.

Quantitative data will be used to a lesser extent, to address the degree of pollution within the context of the project through mathematical data on usage and flow analysis of polluting substances within the case study to inform how these factors affect the livelihoods of the population of the city.

The physical representation of the research will take place through analytical diagrams of the processes of pollution and cleaning and through the cataloguing of the physical representation of polluting objects and landscapes in Beirut. Alongside more abstract modelling and drawing of these tangible effects of the failures of infrastructure through a methodology which is contaminating in itself, for instance, chemical dyes, corroding and staining of drawings as well as artificial representational materials like plastics.

## METHODOLOGY OF DESIGN

The design methodology will focus on providing a low-carbon solution to the proposed issues noted. The site is at risk of flooding and has a sandy soil profile therefore technological issues will arise from this point. The methodology will begin with spatiality diagrams of necessary connections between spaces in the proposal and relative sizes. From this point the design will progress to take into consideration the orientation and climate conditions of the site on the edge

# INDIVIDUAL WORKS



# LIBERATING THE UNSTABLE; A NEW APPROACH TO POST-WAR RE-CONSTRUCTION.

Out of the debate revolving around the reconstruction of post-war cities since the end of the Second World War in 1945, two main architectural approaches can be distinguished; namely the facsimile approach and the approach of the *tabula rasa*. With both methods, the traces and remembrance of times of turmoil are eradicated in an effort to heal the city. In order to ensure a better continuation of our identities, whilst responding to modern needs, a new approach should arise that embraces this notion. Contemporary interventions that incorporate remnants of war into a modern type of architecture are still widely seen as mere aestheticizations of violence, and need to be improved on by

redeveloping them to address real housing, infrastructure and public space issues. Consequently, the hypothetical architect applying the new approach, defined in this essay as the interceder-architect, challenges hegemonic architectural design based on the picturesque, and works to establish regenerative recreations of dilapidated buildings, in which their essence can live on.

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## keywords

war and architecture, destruction, memory, transition, continuation, transformation

# INTRODUCTION

In his lecture, Alexander Stanić came up with what he referred to as the Möbius strip<sup>1</sup> of Temporality.<sup>2</sup> With this principle he aimed to explain on a general level, how the notion

of temporality travels into the realm of architecture. He came up with nine steps, which are each located along the surface of the Möbius strip. These steps are the following:

- (1) We are all situated within space.
- (2) Time is the product of movement in space.
- (3) Movement produces events.
- (4) Events create experience.
- (5) Experience resides in memory.
- (6) Memory intertwines with meaning.
- (7) Meaning generates identity.
- (8) We attribute identity to certain spaces.
- (9) Architects design these spaces.

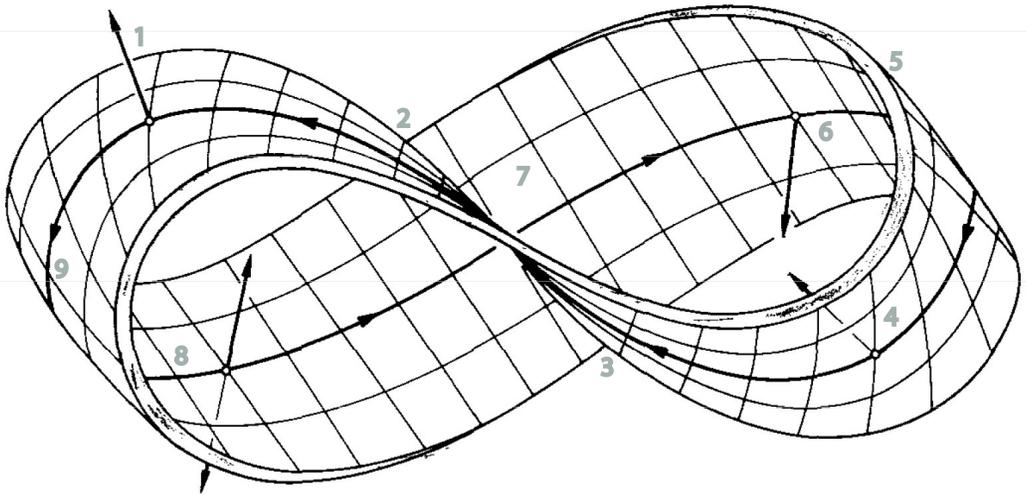


Figure 1 The Möbius strip of Temporality (own edit).

The twist, he then argues, is that all these steps are intertwined with each other, and

that they are all susceptible to change, tampering and **destruction**.

<sup>1</sup> The Möbius strip is a surface with both one side and one boundary. Therefore, it has the mathematical property of being non-oriented.

<sup>2</sup> Stanić, Aleksander. "Temporalities." Positions on Memories, Processes, Cycles and Ecologies. Lecture presented at the Positions: Delft Lectures on Architectural Design and Research Methods, September 26, 2019.

Essentially, every architectural creation is of ephemeral nature, since its material form is subject to continuous transformation, both through means of demolition as well as through catastrophes, such as natural disasters or wars. A building is a vividly permanent thing, since it is normally expected to outlast most our lives. This can then explain the evocation of, aside from the horror and trauma, a certain fascination when buildings meet an untimely end.<sup>3</sup> Bernard Tschumi infamously claimed that, by extension, there is no architecture without violence, because any relationship between a building and its users is one of violence, which is embodied by the intrusion of a human body into a given space, the intrusion of one order into another.<sup>4</sup> One could argue there is also no architecture without destruction, considering the toll on nature through the extraction of the required materials, but moreover the (severe) altering or displacement of land and possibly with any former buildings on it.

Through the means of armed conflict, architecture becomes most apparent the support that gives shape to time, because through its destruction, it comes to harness our traumatic memories. Relating back to Foucault's notion, our culture has transformed this idea of writing, as a tool to endlessly postpone death. An example would be the narrative of Scheherazade in the Arabian "The

thousand and one Nights", which aims to elude death and then renew itself each night in order to keep death outside of the circle of life.<sup>5</sup> Through the act of postponing death, we relinquish confronting our own mortality. One could argue, looking at the war-induced destruction of architecture, we are also forced to reflect on our own mortality and this has proven to be equally evaded as in writing, in the variety of post-war reconstructions that cities have undergone after the Second World War.

Out of the debate revolving around the reconstruction of post-war cities since the end of the Second World War in 1945, two main architectural approaches can be distinguished; namely the *facsimile* approach and the approach of the *tabula rasa*. The first approach aims to restore as much as possible of the pre-war condition, developing replicas in the process, whereas the latter approach is more modernistic, since it revolves around the notion of a complete new beginning, where structures are completely demolished and replaced with a radically new type of architecture.<sup>6</sup> With both methods, the traces and remembrance of times of turmoil are eradicated in an effort to heal the city. In order to ensure a better continuation of our history and identities, whilst still responding to modern needs, a new approach should arise that embraces this notion.

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<sup>3</sup> Bevan, Robert. *The Destruction of Memory: Architecture at War*. London, UK: Reaktion Books Ltd, 2016.

<sup>4</sup> Tschumi, Bernard. *Architecture and Disjunction*. Cambridge, MA: MIT Press, 2001.

<sup>5</sup> Foucault, Michel, Donald F. Bouchard, and Sherry Simon. *Language, Counter-Memory, Practice: Selected Essays and Interviews*. Ithaca, NY: Cornell Univ. Press, 1977.

<sup>6</sup> Charlesworth, Esther Ruth. *Architects without Frontiers*. London: Routledge, 2016.



Figure 2 Map showing the preserved buildings in black, buildings destroyed during the Civil War in the lightest gray and the buildings demolished by Solidere in the darker gray (edit).<sup>7</sup>

This essay will support the formation of this approach through two main chapters with each containing two subchapters. Firstly, the relationship between war and architecture is analysed. Then, the remembrance of conflict through architecture is elaborated. Thereafter, prevalent thought patterns which are relevant to post-war reconstruction are discussed. Finally, the new approach will be explained.

In relation to the *Emergent Border Conditions in Eurasia studio*, the case study of Beirut is specifically targeted with this theme, although its relevance is present on a global scale. In Beirut this theme is especially rele-

vant, since the city is referred to as the city of seven layers, having been destroyed and rebuilt seven times throughout its lifespan. Taking into account its more recent history of wars, conflict and destruction, it is known to greatly struggle with the preservation of its heritage. Nowadays, through the government the joint-stock company of Solidere is mostly responsible for the (re)construction of Beirut and its war-torn structures. However, the company has made a name for itself, particularly being known for supporting large-scale expropriation of public property and demolition of damaged heritage, shown in figure 1.2.<sup>8</sup>

<sup>7</sup> Schmidt, Heiko. *Demolition and Preservation in Central District (1982-98)*. Irvine: Scott Bollens, September 2019.

<sup>8</sup> Saliba, Robert. "Deconstructing Beirut's Reconstruction." Center for the Study of the Built Environment. Prince Claus Fund for Culture and Development, April 19, 2000. <https://www.csbe.org/material-on-water-conservation-1>.

## 1.1 WARCHITECTURAL THEORY

In the four years, dating from 1992 to 1996, the damage inflicted on the city of Sarajevo by the Bosnian Serb army was of catastrophic proportions. The warfare the Serbs conducted brought about a lot of human casualties, but, to their own account, they were mainly destroying individual buildings as either a means of 'military necessity' or through 'collateral damage'. However, the extent of the damage was on the scale of the entire city. Through academic discourse this has been described with the term *urbicide*, which translates to 'violence against the city'. Accounts of urbicide often attempt to generalise cities in a means to justify the violence committed against them. This generalisation is then based on either a particular cultural identity, or its great variety in cultures, which concludes in both cases the violence to be of ethnic origins. The prime goal of the Bosnian Serb army was to homogenize the space through the destruction of the architecture which resembled the 'other', which in this case was the Muslim majority of the Bosniaks.<sup>9</sup>

In his lecture, Stanić addresses that our attribution of identity to spaces is based upon the enculturation of their architectural atmosphere.<sup>10</sup> The influence of this enculturation then seems to be clearly linked to politics and power. A vivid example of the power of the structure are the 9/11 attacks on the Twin Towers, where the terrorist group Al-Qaeda

recognised that striking these towers, was to strike the 'West'. Nonetheless, due to the ever-changing political climate and consensus, this attributed culture or identity is also unstable, especially in places of heritage.

Hersher continues to describe that the domain of architecture-as-destruction works, unlike general consensus on this matter, analogously to the architecture-as-construction domain; for both these domains, subjects and objects emerge through architectural discourse, but with the architecture-as-destruction domain, the subjects are an enacted identity by the perpetrating group, and the objects constitute the 'ruinification' of buildings. In this instance, Hersher refers back to Appadurai's notion on the exploratory nature of the act of destroying, trying to define an otherness in the targeted architecture.<sup>11</sup> Subsequently, Hersher describes the following:

"The tenements of Dresden and paper and wood homes of Tokyo must become housing for workers in war industries for them to be firebombed; refugee camps in Palestine must become nodes of a terrorist infrastructure for them to be bulldozed; neighbourhoods in Baghdad must become breeding grounds of insurgency for them to be managed as war zones."<sup>12</sup>

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<sup>9</sup> Herscher, Andrew. "Warchitectural Theory." *Journal of Architectural Education* 61, no. 3 (2008): 35–43. <https://doi.org/10.1111/j.1531-314x.2007.00167.x>.

<sup>10</sup> Stanić, Aleksander. "Temporalities." *Positions on Memories, Processes, Cycles and Ecologies*. Lecture presented at the Positions: Delft Lectures on Architectural Design and Research Methods, September 26, 2019. f

<sup>11</sup> Appadurai, Arjun. *Dead Certainty: Ethnic Violence in the Era of Globalization*. India: Mary Martin, 1998.

<sup>12</sup> Herscher, Andrew. "Warchitectural Theory." *Journal of Architectural Education* 61, no. 3 (p42, 2008): 35–43. <https://doi.org/10.1111/j.1531-314x.2007.00167.x>.

Likewise, Bevan is able to elaborate on this war against architecture and defines it as destroying cultural artefacts of an enemy people or nation, through the means of dominating, terrorizing, dividing or eradicating it. In his book, 'The Destruction of Memory: Architecture at War', he looks at how architecture has become an intermediary, over which ethnic, ideological and nationalist disputes are fought to this day. Furthermore, he notes that the permanence and fixity of architecture make it such a good breeding ground for collective identities and traditions to be

## 1.2 TRAUMA, REMEMBRANCE AND IDENTITY

Developments that are aimed at incorporating remnants of a war-torn city into a modern type of architecture have been steadily rising to the scene since the Second World War. Yet, they are often met with scepticism, because these interventions would generally be deemed to be merely 'aesthetisations' of violence and exploitive of an humanitarian disaster. This had grown to such an extent that Becherer of the American University of Beirut described this architectural disposition

created, because these characteristics seem to be perceived as persuasive by the majority of people.<sup>13</sup>

What is to be drawn from the preceded theories of war and architecture, is that we should understand our contemporary built environment and heritage as either advancing or legitimating violence as much as to dispose of and resist it. The concept of 'warchitecture' in this case, attempts to build an interpretive framework in order to be able to dissect much better the destruction of architecture through violence.<sup>14</sup>

to glamorize physical ruins of post-war cities like Beirut as 'Trauma-glam'.<sup>15</sup> However, it would be short-sighted to completely forgo the experimentation of integrating physical ruins in modern types of architecture. Cities and their scars constitute useful laboratories for developing architecture that responds to the prevailing (geo)politics that caused conflict in the past in an effort to contribute to peace-building.

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<sup>13</sup> Bevan, Robert. *The Destruction of Memory: Architecture at War*. London, UK: Reaktion Books Ltd, 2016.

<sup>14</sup> Herscher, Andrew. "Warchitectural Theory." *Journal of Architectural Education* 61, no. 3 (2008): 35–43. <https://doi.org/10.1111/j.1531-314x.2007.00167.x>.

<sup>15</sup> Charlesworth, Esther Ruth. *Architects without Frontiers*.

In his publication 'War and architecture', an issue in the Pamphlet Architecture series, Lebbeus Woods explicates the analysis he conducted on the destroyed buildings in Sarajevo during the war in 1993. Woods' conceptual interventions, such as figure 3, showcase how he attempts to fill in damaged structures with scrap construction metals, which, apart from his excellent execution, give no further knowledge or tools to actuate design solutions that are concrete. Nevertheless, in one of his more recent articles, he reflects on his work in Sarajevo and attempts to provide a deeper understanding of the issue.<sup>16</sup> Consequently,

he derived three main principles, which to his knowledge could be implemented not only back in Sarajevo after the war, but in other conflicts that are playing out to this day as well. As an outsider, who is not inhibited by the emotional trauma of the annihilation of one's city, he tries to support local architects in critical areas in a conceptual way with these guiding principles. He argues that buildings coming out of war-induced destruction have the availability to be restored to their pre-war condition (1), to be demolished in order to make place for something completely new (2) or to become a new building which is yet

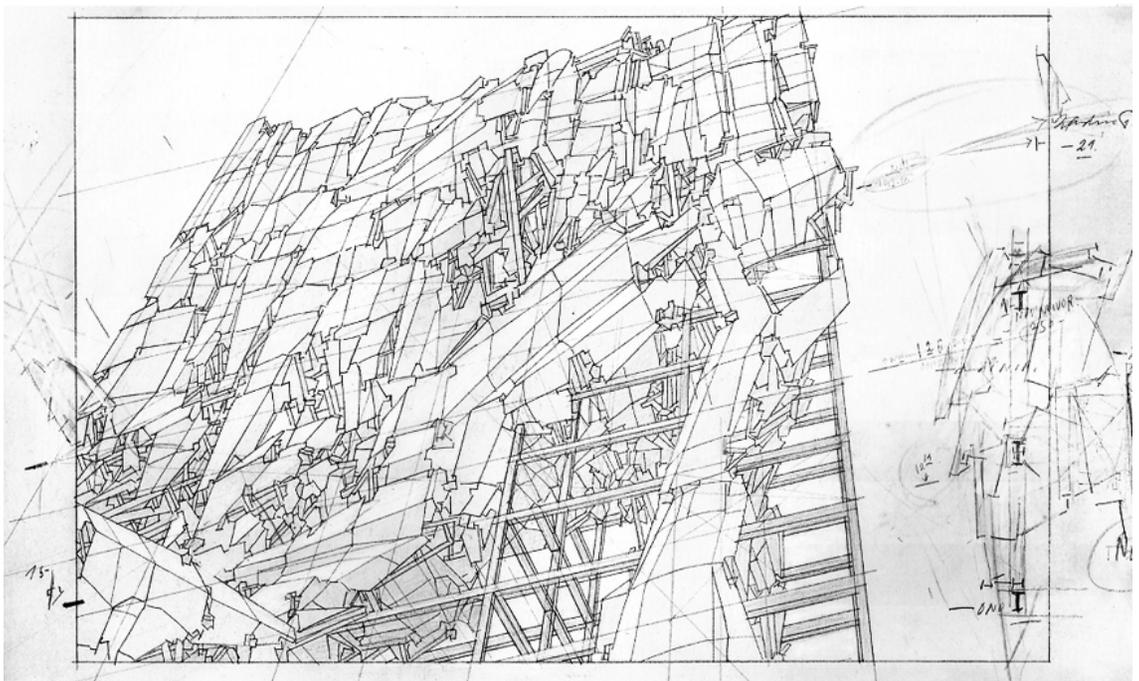


Figure 3 One of Woods' sketches of a possible new Parliament building of Bosnia and Herzegovina, integrating scavenged construction materials.<sup>17</sup>

<sup>16</sup> Woods, Lebbeus. "WAR AND ARCHITECTURE: Three Principles." LEBBEUS WOODS, December 16, 2011. <https://lebbeuswoods.wordpress.com/2011/12/15/war-and-architecture-three-principles/>.

<sup>17</sup> Woods, Lebbeus. The New Parliament. December 15, 2011.



Figure 4 Christian Phalange Gunmen in the Holiday Inn Hotel, Beirut.<sup>18</sup>

somehow derived from the damaged old (3). Through the principles one is able to conclude, that too often the desire is to resort to the first two options, which effectively prevent the exploration of new possibilities and forgo the remembrance of this trauma through the act of covering up.

Yet, one could argue it's vital to have this exposure to traumatic memories, in order to produce a continuity in knowledge for future generations. Our remembrance of destructive efforts can help us prevent them in the future. Additionally, Trüby states that war and destruction can serve as a blueprint on which evolutionary examinations of architectonic culture are based. He supports this, through arguing that it's through the discharge of strong collective emotions which are stress-induced, that architecture reaches

its most effective transmission of codes and values.<sup>19</sup> Moreover, the way we view and define destruction can determine our perception of it. According to Baudrillard, the idea of destruction can be positive, because it reveals the essence of something. It's a search for near nothingness, through the subtraction of elements, where the focus is adjusted to something very specific.<sup>20</sup> If we relate this for instance to The Holiday Inn in Beirut, it became the most dominant physical manifestation of the Lebanese Civil War, through being shelled and completely stripped down to its concrete structure, argued by Kenneth Morrison in his series of 'War Hotels'.<sup>21</sup> Thenceforth, its essence became the stark remembrance of the trauma suffered during the war, and it's through this remembrance that the true identity of the city is upheld.

<sup>18</sup> McCullin, Don. Christian Phalange Gunmen in the Holiday Inn Hotel, Beirut. 1976. Tate. [Photograph]. <https://www.tate.org.uk/art/artworks/mccullin-christian-phalange-gunmen-in-the-holiday-inn-hotel-beirut-ar01206>.

<sup>19</sup> Trüby Stephan. *Exit-Architecture Design between War and Peace*. Wien: Springer, 2008.

<sup>20</sup> Baudrillard, Jean, and Jean Nouvel. *The Singular Objects of Architecture*. Minnesota: University of Minnesota Press, 2002.

<sup>21</sup> Al Jazeera. "How the Holiday Inn Became a Symbol of the Lebanese Civil War." *Conflict News | Al Jazeera*. Al Jazeera, December 3, 2018. <https://www.aljazeera.com/program/episode/2018/12/3/how-the-holiday-inn-became-a-symbol-of-the-lebanese-civil-war/>.

## 2.1 THE VISIBLE TRANSFORMATION OF MATTER

“When architecture is destroyed, however, its ontological status also tends to be destroyed. Destruction usually displaces architecture from architectural discourse, if not the domain of culture more generally, and positions it in the domain of violence.”<sup>22</sup>

The instance of a post-war period arguably presents the opportune moment for architects to address the wreaked havoc in their plans for reconstruction, trying to come up with creative ways to salvage the remaining structures and transform them. As Hersher points out, in the majority of cases, architects forgo this opportunity. Besides, this condition is nothing new and its relevance has only grown, since Virilio was able to phrase this systematic loss of buildings losing their state of becoming thirty years back:

“Neo-geological, the “Monument Valley” of some pseudolithic era, today’s metropolis is a phantom landscape, the fossil of past societies whose technologies were intimately aligned with the visible transformation of matter, a project from which the sciences have increasingly turned away.”<sup>23</sup>

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<sup>22</sup> Herscher, Andrew. “Warchitectural Theory.” *Journal of Architectural Education* 61, no. 3 (p38, 2008): 35–43. <https://doi.org/10.1111/j.1531-314x.2007.00167.x>.

<sup>23</sup> Virilio, Paul, and Daniel Moshenberg. *The Lost Dimension*. New York, NJ: Semiotext(e), 1991.

Out of the two main approaches to post-war reconstruction, stated in the introduction, two major archetypes can be identified; the *historicist-architect* following the facsimile approach and the *colonialist-architect* following the approach of the *tabula rasa*.

The historicist-architect approach can be problematic when the social make-up of the city has drastically changed and the heritage buildings in question do not fully represent neither the people nor the necessities of new urban concepts aiming to revitalise the city. Furthermore, as Reinier de Graaf has observed, a bizarre condition within architecture exists, that constitutes the formidable inclination towards either mass preservation or mass demolition, and both are usually guided by arbitrary motivations.<sup>24</sup> This subjectivity goes to show, when a moral dimension is added to the choice, which buildings to preserve that are deemed ‘good’ and which buildings to be erased, as to erase a more unpleasant part of history.

The individualistic approach of the colonialist-architect in turn usually doesn’t have any further implications for the city as their proposals tend to be at the scale of the object; their interventions do not adhere to a deeper urban strategy or understanding of the city. “Like a hammer which can only see nails”, these types of architects do not enact urban

<sup>24</sup> Hyde, Rory. *Future Practice: Conversations from the Edge of Architecture*. New York: Routledge, 2013.

change. In some cases, the most suitable operation to an architectural problem is not necessarily to construct a building'.<sup>25</sup> Moreover, the dominant rhetoric of this archetype to 'solve' damaged or 'failed' pieces of a city through demolishing, disregards how armed conflict or social problems arise that in turn provoke vilification of certain areas of a city.<sup>26</sup>

The actor of the new approach (hereinafter the *interceder-architect*) urges to dispute the binary notion of architecture as simply a complete, unscathed building, or a ruin in heavy dilapidation that stands on its own. Consequently, it proposes to shift the focus to the spectrum in between; amidst a presence and a void, abandonment and demolition, demolition and reconstruction and a structure and a dwelling.<sup>27</sup> The *interceder-architect* attempts to mediate the efforts of conceptual interventions to dilapidated

or unfinished structures, with the purpose of establishing design methods that are realistic in implementation and true to their locations. The approach is rigorous in maintaining an exposure to the history of the structures, whilst having the new manifestation respond to modern needs, addressing real housing, infrastructure and public space issues. Instead of the static image that modernism tried to create, the approach tries to build on top of more contemporary discourse, which relays the significance of the becoming of cities, and tries to position itself in a politically unstable environment. After all, as mentioned before, in order to contribute to any efforts of peace-building, the intervention must be part of a calculated decision that takes into account the socio-political environment and the origins of its conflict.

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<sup>25</sup> *ibid*, p23

<sup>26</sup> *ibid*, p91

<sup>27</sup> Dadour, S., & Haidar, M. (Eds.). (2018). From the regulatory "un-built" to the unbuilt potentialities of Beirut. [http://sardasets.lau.edu.lb/arc\\_catalogs/the-place-that-remains.pdf](http://sardasets.lau.edu.lb/arc_catalogs/the-place-that-remains.pdf).

## 2.2 REGENERATIVE RECREATION

As stated in the introduction, architecture is widely expected to be a vessel for progress and hope, providing the world with designs through a utilitarian thought process. This then explains why architecture is tainted with passivity on its reaction to destruction, looking back on the past century. Consequently, in our current age of realism, this practice is under pressure, through the increased perception of the human condition as a destructive and fanatic force.<sup>28</sup> In turn, this forms another obstacle for architects to address decay and tragedy in a consequent manner.

The interceder-architect aims to challenge the tendency in hegemonic architectural design to create a screen, through rendering, supposedly portraying a perfected image, which caters most to a capitalist market. It arguably is the 'picturesque', which is based on general aesthetic codes and models, that produces a failed type of architecture.<sup>29</sup> In his talk with architect Jean Nouvel, published in 'The Singular Objects of Architecture', philosopher Baudrillard supports this notion, by stating:

**"A successful object, in the sense that it exists outside its own reality, is an object that creates a dualistic relation, a relation that can emerge through diversion,**

**contradiction, destabilization, but which effectively brings the so-called reality of a world and its radical illusion face-to-face."**<sup>30</sup>

Moreover, Nouvel concludes that true qualification of a space and its context can lie in the re-purposing of architecture, referring to an industrial building his office re-purposed in Marseilles. He claims that with his office he was able to produce a **regenerative recreation**, through the gradual process of changing the meaning of the building and restructuring it to cater to modern needs.<sup>31</sup> As the famous saying by Pablo Picasso goes, it is the use of restricted means, in this case a neglected building, that liberates invention.

Destruction as a creative tool, has been predominantly taken up by visual artists and theorists rather than by architects. A notable pioneer of this notion, was the painter, sculptor and theorist Fontana, who tried to create a sense of depth and illusion through the act of cutting his canvases. Another notable artist in this spectrum was Gordon Matta Clark. One could argue he was part of the early beginnings of Deconstructivist ideas, by his work on 'Anarchitecture'. What these artists shared was to drastically change the way we viewed the subjects and objects created by art and its

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<sup>28</sup> Bouman, Ole. "The Architecture of Destruction." Volume. Archis Amsterdam, January 1, 2007. <http://volumeproject.org/the-architecture-of-destruction/>.

<sup>29</sup> Baudrillard, Jean, and Jean Nouvel. *The Singular Objects of Architecture*. Minnesota: University of Minnesota Press, 2002.

<sup>30</sup> *ibid* p8-9.

<sup>31</sup> *ibid*, p42-43

how the interceder-architect relates to them. Accordingly, Lebanese architect Bernard Khoury perverts the image of his architecture in order to fundamentally transform our point of view. He combats the relatively simplistic definition of what most architects deem to be context, and urges for a more honest confrontation with the things that make our cities 'toxic'.<sup>32</sup> Two of his transformations, which are established through the exposure of dilapidated facades, are shown in both figures 5 and 6. They imply a different reading of their exterior; implying the fragility and instability of the situation that preceded them.



Figure 5 PLOT # 749, rendering.<sup>33</sup>

<sup>32</sup> Imanova, Aidan, and Name. "Lebanese Architect Bernard Khoury on Using Architecture as Resistance." *identity*, June 12, 2020. <https://identity.ae/interview-lebanese-architect-bernard-khoury-on-using-architecture-as-resistance/>.

<sup>33</sup> Khoury, Bernard. PLOT # 749. Beirut: DW5, 2012.

It takes time to objectively assess when the identity of a city and its people is at stake through denial, by rampant demolition and selective preservation, much like it did before the occurrence of for instance Jewish Egyptologists; any former trauma or resentment needs to be bridged.<sup>35</sup> Yet, through the act of critically transforming dilapidated buildings, their *essence* can live on.



Figure 6 Centrale, detail of facade.<sup>34</sup>

<sup>34</sup> Khoury, Bernard. *Centrale*. Beirut: DW5, 2001.

<sup>35</sup> Virilio, Paul. *Bunker Archeology*. New York: Princeton Architectural Press, 1994.

## CONCLUSION

Through the means of armed conflict, architecture becomes most apparent the support that gives shape to time, because through its destruction, it comes to harness our traumatic memories.

Out of the debate revolving around the reconstruction of post-war cities since the end of the Second World War in 1945, two main architectural approaches can be distinguished; namely the facsimile approach and the approach of the tabula rasa. With both methods, the traces and remembrance of times of turmoil are eradicated in an effort to heal the city. In order to ensure a better continuation of our identities, whilst responding to modern needs, a new approach should arise that embraces this notion.

The concept of 'warchitecture' attempts to build an interpretive framework in order to be able to dissect much better the destruction of architecture through violence. It concludes that we should understand our contemporary built environment and heritage as either advancing or legitimating violence as much as to dispose of and resist it.

However, developments that are aimed at incorporating remnants of a war-torn city into a modern type of architecture are often met with scepticism, because these interventions would generally be deemed to be merely 'aesthetisations' of violence and exploitive of an humanitarian disaster.

Yet, one could argue it's vital to have this exposure to traumatic memories, in order to produce a continuity in knowledge for future generations. Our remembrance of destructive efforts can help us prevent them in the future. Therefore, these 'traum-glam' interventions need to be improved on by redeveloping them to address real housing, infrastructure and public space issues.

Consequently, the hypothetical architect applying the new approach, defined in this essay as the 'interceder-architect', attempts to mediate the efforts of conceptual interventions to dilapidated or unfinished structures, with the purpose of establishing design methods that are realistic in implementation and true to their locations. The approach is rigorous in maintaining an exposure to the history of the structures, whilst having the new manifestation respond to modern needs, addressing the very issues mentioned before, that are neglected in the majority of 'Trauma-glam' designs by architects and students from around the world.

Finally, the interceder-architect aims to challenge the tendency in hegemonic architectural design to create a picturesque and utilitarian screen. True qualification of a space and its context can lie in the repurposing of architecture and its image is meant to change our point of view; it means to expose its conflictual past in order for its essence to live on.

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Figure 2: Schmidt, Heiko. Demolition and Preservation in Central District (1982-98). Irvine: Scott Bollens, September 2019.

Figure 3: Woods, Lebbeus. The New Parliament. December 15, 2011.

Figure 4: McCullin, Don. Christian Phalange Gunmen in the Holiday Inn Hotel, Beirut. 1976. Tate.[Photograph].<https://www.tate.org.uk/art/artworks/mc-cullin-christian-phalange-gunmen-in-the-holiday-inn-hotel-beirut-ar01206>.

Figure 5: Khoury, Bernard. PLOT # 749. Beirut: DW5, 2012.

Figure 6: Khoury, Bernard. Centrale. Beirut: DW5, 2001.



# TRANSFORMATIVE RECONSTRUCTION

## THE APPLICATION OF A NEW APPROACH TOWARDS DILAPIDATED OR UNFINISHED BUILDINGS IN BEIRUT

The conflictual past of Beirut is being erased by the company of Solidere, which has a strong will to modernise, through a highly destructive reconstruction, in an effort to heal the city. With this project, a new approach is researched, that aims to transform a case study out of the great variety of dilapidated and unfinished buildings that have characterized Beirut's urban landscape for decades. It urges to improve on contemporary 'trauma-glam' interventions that incorporate remnants of war into a modern type of architecture in Beirut, and are still widely seen as mere aestheticizations of violence. Through *typological / morphological* analysis, Beirut's critical condition is analysed. Thereafter, a re-

generative recreation is meant to be created, which transformations come forth out of a process of *simulation* and *material analysis*.

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### keywords

destruction, reconstruction, memory, identity, transition, transformation

## PROBLEM STATEMENT

Out of the debate revolving around the reconstruction of post-war cities since the end of the Second World War in 1945, two main architectural approaches can be distinguished; namely the facsimile approach and the approach of the tabula rasa. The first approach is historically orientated, and aims to restore as much as possible of the pre-war condition, developing replicas in the process. However, the latter approach is more modernistic, since it revolves around the notion of a complete new beginning, where structures

that carry traumatic memories generally are demolished and replaced with a radically new type of architecture. With both methods, the traces and remembrance of times of turmoil are eradicated in an effort to heal the city.<sup>1</sup>

The reconstruction of the city center of Beirut, being implemented by the company of Solidere, has been shaped by a strong political will to modernise, resulting in a predominantly destructive reconstruction. The destruction carried out by Solidere, as shown in figure 1.1, has been much more prevalent



Figure 1.1 Map showing the preserved buildings in black, buildings destroyed during the Civil War in the lightest gray and the buildings demolished by Solidere in the darker gray (edit).<sup>7</sup>

<sup>1</sup> Charlesworth, Esther Ruth. *Architects without Frontiers*. London: Routledge, 2016.

<sup>3</sup> Schmidt, Heiko. *Demolition and Preservation in the Central District (1982-98)*. Irvine: Scott Bollens, September 2019.

than the destruction that occurred during the Lebanese Civil War. Subsequently, over the years this destruction has expanded to the scale of the whole city.<sup>2</sup>

Beirut has a very rich history, as layers of Canaanite, Phoenician, Hellenistic, Roman and Ottoman civilization have been uncovered in the city, taking us back 5000 years. However, besides the rampant demolition of Beirut's built environment, the preservation of its heritage is also a controversial topic, as Medieval Beirut already has been wiped out by the modernization of the late Ottoman and French Mandate period. Should the colonial townscape be embraced, or even more recent in time, the post-independence Lebanese modernist architecture? The gradual disposal of buildings scarred by conflict, leaves Beirut with no identity, because it's past is being erased.

A new approach should therefore arise, that ensures the continuation of Beirut's identity. Over the years Beirut has become a laboratory for developments that are aimed at incorporating remnants of a war-torn city into a modern type of architecture. However, these interventions are often met with scepticism, as on the one hand they usually do not address real housing, infrastructure and public space issues, and on the other hand they are

generally deemed to be merely 'aesthetisations' of violence and exploitative of the humanitarian disasters that have plagued Beirut over the last decades. This had grown to such an extent that Richard Becherer, an academic of the American University of Beirut described this architectural disposition to glamorize physical ruins of post-war cities like Beirut as 'Trauma-glam'.<sup>5</sup>

Consequently, an architectural approach that maintains an exposure to a traumatic past can be challenging. Hegemonic architectural practice generally focuses on creating a picturesque screen, through rendering, supposedly portraying a perfected image, which caters most to a capitalist market. Yet, it arguably is the 'picturesque', which is based on general aesthetic codes and models, that produces a failed type of architecture.<sup>6</sup> Architecture is widely expected to be a vessel for progress and hope, providing the world with designs through a utilitarian thought process. This then explains why architecture is tainted with passivity on its reaction to destruction, looking back on the past century. Consequently, in our current age of realism, this practice is under pressure, through the increased perception of the human condition as a destructive and fanatic force.<sup>7</sup> In turn, this forms another obstacle for architects to address decay and tragedy in a consequent manner.

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<sup>3</sup> Saliba, Robert. "Deconstructing Beirut's Reconstruction." Center for the Study of the Built Environment. Prince Claus Fund for Culture and Development, April 19, 2000. <https://www.csbe.org/material-on-water-conservation-1>.

<sup>4</sup> "Under Beirut's Rubble, Remnants Of 5,000 Years Of Civilization (Published 1997)": 1997. Nytimes.Com. <https://www.nytimes.com/1997/02/23/world/under-beirut-s-rubble-remnants-of-5000-years-of-civilization.html> MA: MIT Press, 2001.

<sup>5</sup> Charlesworth, Esther Ruth. *Architects without Frontiers*. London: Routledge, 2016.

<sup>6</sup> Baudrillard, Jean, and Jean Nouvel. *The Singular Objects of Architecture*. Minnesota: University of Minnesota Press, 2002

<sup>7</sup> Bouman, Ole. "The Architecture of Destruction." Volume. Archis Amsterdam, January 1, 2007. <http://volumeproject.org/the-architecture-of-destruction/>.

Architect and theorist Lebbeus Woods was a notable contributor in targeting the excessive violence and destruction committed against the built environment, through his work, 'War and Architecture'. on providing Sarajevo's destroyed buildings with conceptual transformations.<sup>8</sup> However, his work gave

a lot of implications for further research on the implementation of architecture in the realm of destruction, since his interventions, apart from being very well executed, give no further knowledge or tools to actuate design solutions that are concrete.

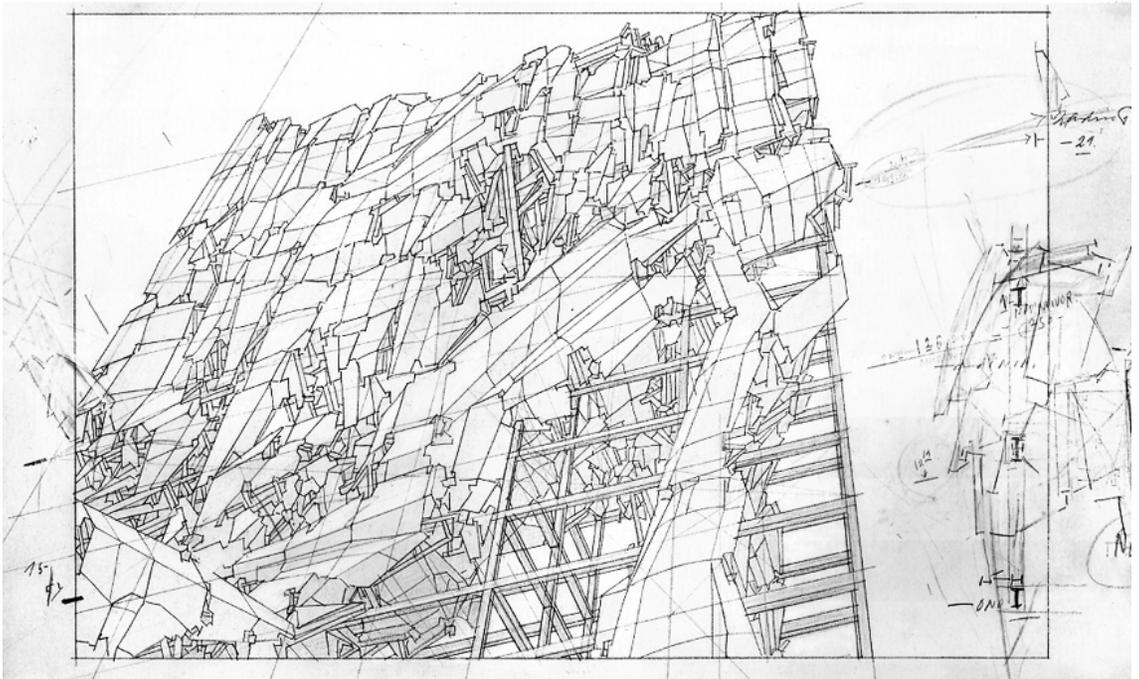


Figure 1.2 One of Woods' sketches of a possible new Parliament building of Bosnia and Herzegovina, integrating scavenged construction materials.<sup>9</sup>

<sup>8</sup> Woods, Lebbeus. War and Architecture = Rat i Arhitektura. 5th ed. Pamphlet Architecture 15. New York, NY: Princeton Architectural Press, 1997.

<sup>9</sup>Woods, Lebbeus. The New Parliament. December 15, 2011.

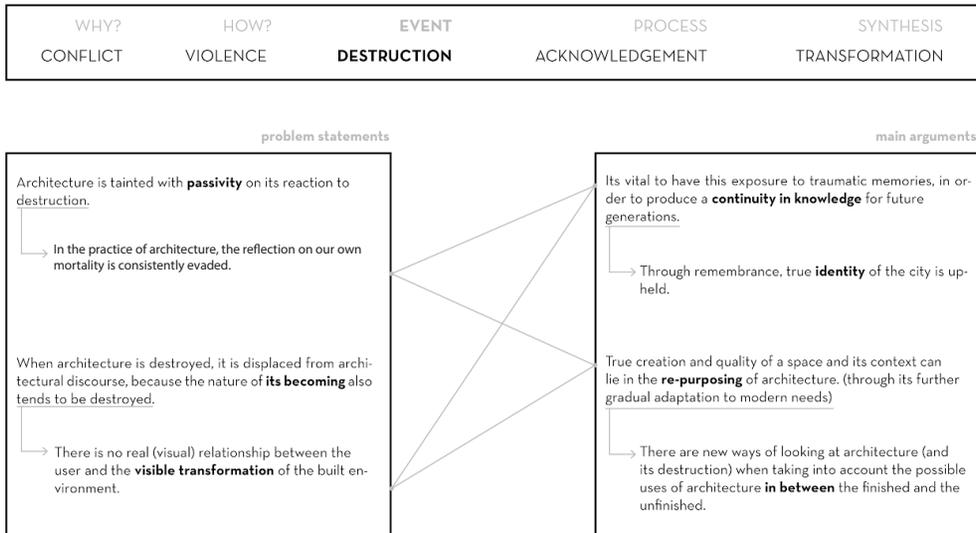


Figure 2.1 Diagram stating the structure, problem statements and main arguments of the theoretical framework (self made).

In figure 2.1, the main problems and arguments are displayed, which have come forth out of the developed theoretical framework by the author for the **Emergent Border Conditions in Eurasia studio**. The theoretical framework makes a plea for the creation of a new architectural approach to reconstructing the dilapidated built environment of Beirut. This approach will be carried out by a hypothetical type of architect, namely the **interceder-architect**. The ground principles that this approach emphasizes on, will be adhered to and thereby tested in the design project. The principles of the interceder-architect, generate the following research questions:

- What are the potentialities of the state of architecture amidst a presence and a void, abandonment and demolition, demolition and reconstruction and a structure and a dwelling?
- How can a transformation of a damaged or unfinished structure implement principles of creative destruction and / or reverse engineering?
- Where does the architectural manifestation that comes out of this method exactly position itself in between the historicist and modernist rhetoric?
- Is it able to effectively respond to the urgency of Beirut's critical condition, through the method of the interceder-architect?
- Is the transformation of an existing structure inhibiting or liberating in addressing real housing, infrastructure and public space issues?

## METHODOLOGY

Mass destruction and rapid rebuilding have caused the dilapidated and the unfinished to characterise the urban landscape of Beirut, causing discontinuities that are present within the urban fabric of Beirut. Firstly, in order to frame this discontinuity, the decision is made in the individual design research to attain the architectural research approach of the case studies. Four sites, shown in figure 3.1 on the next page, have been identified to contain a diversity of objects or site conditions that characterise and make up the dilapidated built environment of Beirut. Then, the data collected from these sites will be reduced according to the notion of data reduction, where data is reduced to fragments that become manageable.<sup>10</sup> The objects and site conditions in question will be analysed through typological / morphological research, re-drawing the existing conditions in order to support the diagnosis of Beirut's condition, claimed in the literary research.

Consequently, one of the four sites will be chosen to elaborate on. An existing building within one of the sites will be

picked, which position enables the exposure of the tension, created by the discontinuity of Beirut's built environment. The transformations, applied to the structure in question, will be done through both digital simulation as through a series of material sampling, prototyping and making, relating to the locality of Beirut, its environment and its industry.

The possibility to engage in a qualitative approach, predominantly conducting interviews, can't be used due to the inability to visit Beirut. Unfortunately, this will have some implications for the design research, as Charlesworth states that architectural projects can be used to bring conflicting parties into a process of mediation, where the architectural plan can serve as a basis for negotiation, rather than an object that evades the discourse. One could argue, dialogue with local actors is essential to try and prevent an outsider from creating interventions, based on their inherent bias, to be non-compatible with the situation at hand in Beirut.<sup>11</sup>

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<sup>10</sup> Groat, Linda, and David Wang. *Architectural Research Methods*. Hoboken: Wiley, 2013.

<sup>11</sup> Charlesworth, Esther Ruth. *Architects without Frontiers*. London: Routledge, 2016.

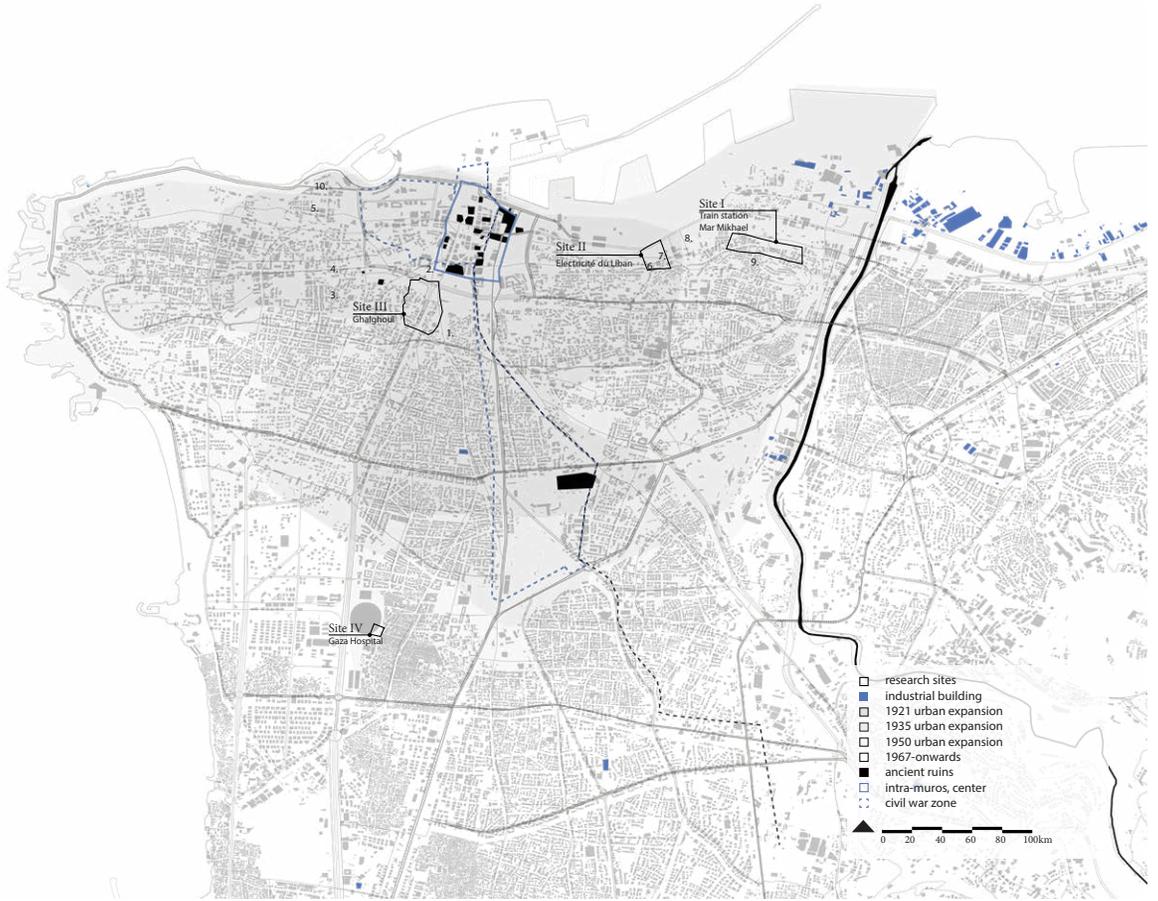


Figure 3.1 Map of Beirut showcasing the four sites of research (self made).

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Woods, Lebbeus. *War and Architecture = Rat i Arhitektura*. 5th ed. Pamphlet Architecture 15. New York, NY: Princeton Architectural Press, 1997.

## LIST OF FIGURES

Figure 1.1: Schmidt, Heiko.  
Demolition and Preservation  
in Central District (1982-98).  
Irvine: Scott Bollens, September  
2019.

Figure 1.2: Woods, Lebbeus.  
The New Parliament. December  
15, 2011.

Figure 2.1: Diagram stating the  
structure, problem statements  
and main arguments of the theo-  
retical framework (self made)

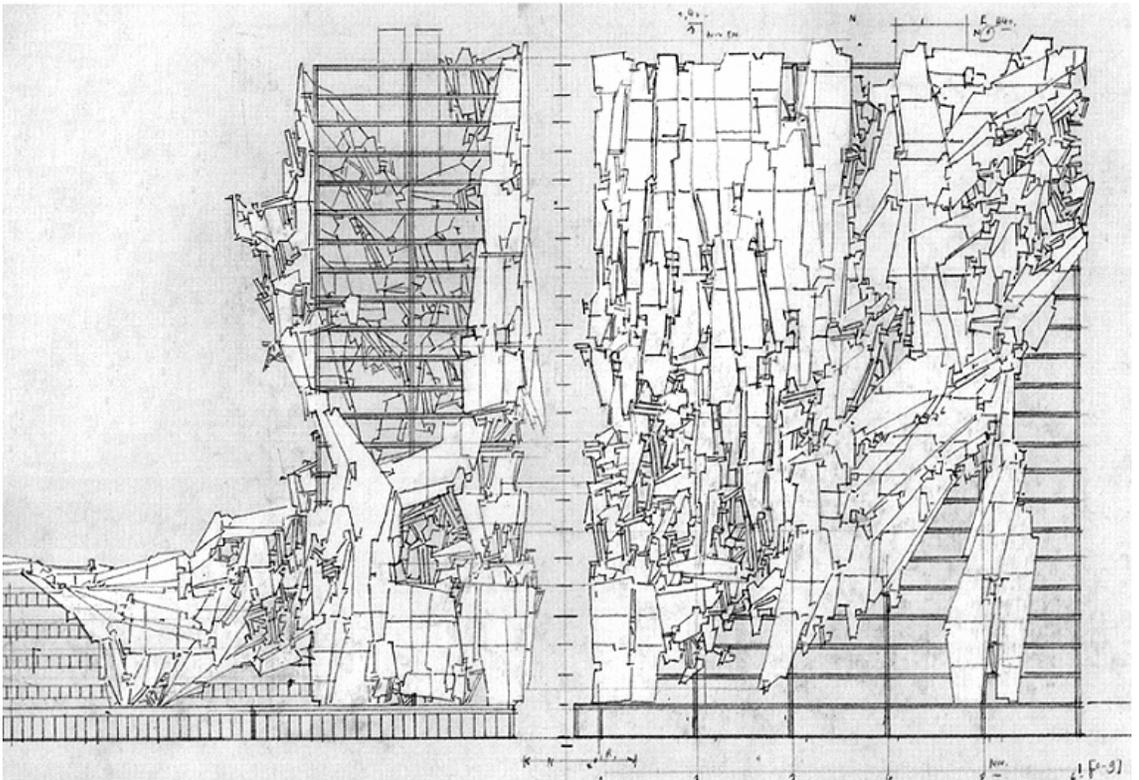
Figure 3.1: Map of Beirut show-  
casing the four sites of research  
(self made).

TRANSFORMATIVE RECONSTRUCTION  
THE APPLICATION OF A NEW APPROACH  
TOWARDS DILAPIDATED OR UNFINISHED  
BUILDINGS IN BEIRUT

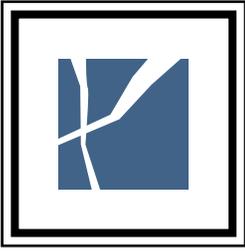
M.J.H.M. Grosveld

“Forcing yourself to use restricted means is the sort of restraint that liberates invention. It obliges you to make a kind of progress that you can’t even imagine in advance.”

Pablo Picasso



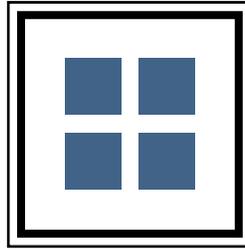
New Parliament Building of Bosnia and Herzegovina (1993), Lebbeus Woods



tabula rasa

modernist-architect

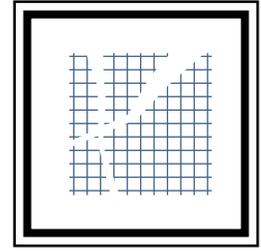
aims to demolish  
create the radically new  
acontextual



fascimile

historicist-architect

"as it was, how it was"  
aims to replicate  
selective



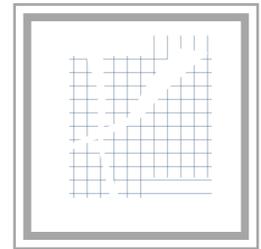
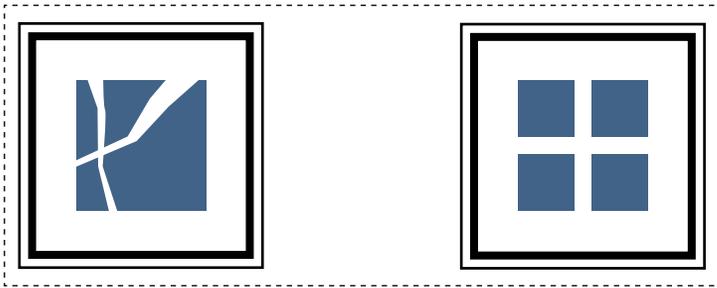
continuation

interceder-architect

aims to transform  
critical intervention  
confrontational

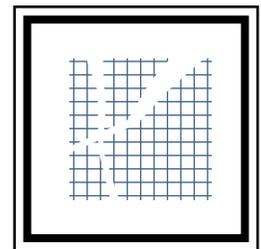
erasure of traces, that hold this remembrance and identity

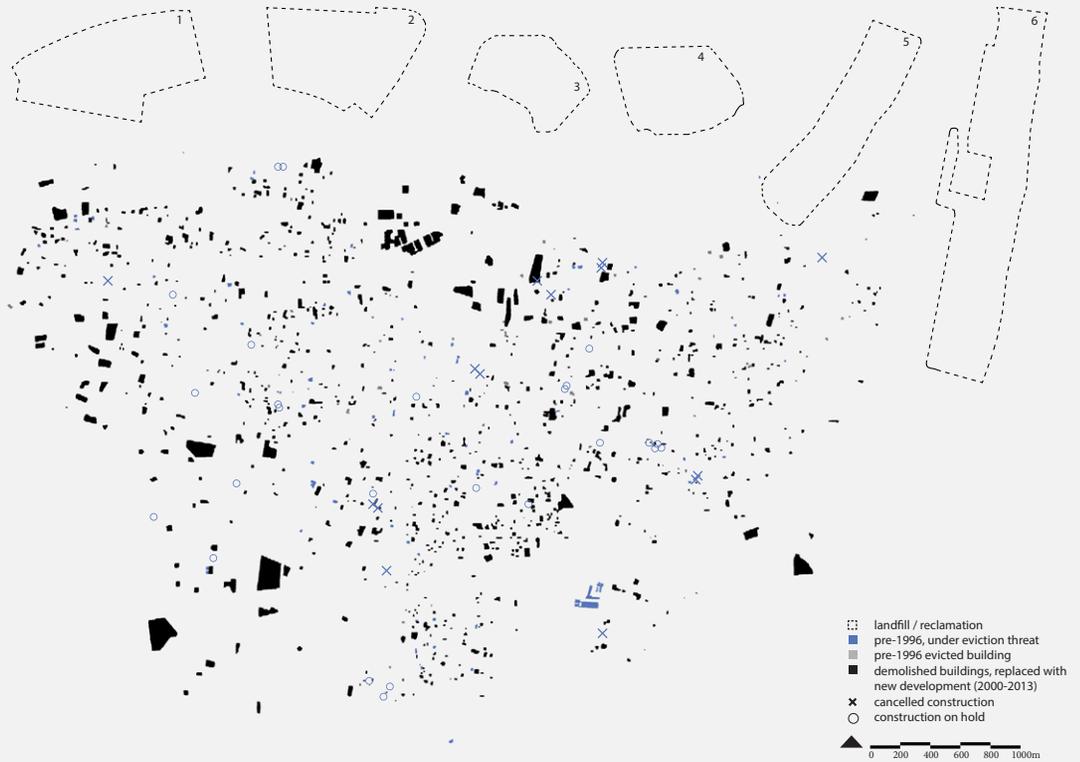
↳ awareness of a conflictual past, through its physical exposure, can provide a continuation in knowledge and possibly its through this ~~awareness~~ conflict can be prevented in the future



The interceder architect..

- urges to dispute the binary notion of architecture as a either complete building or a ruin, to be demolished.
- promotes conceptual interventions that establish design methods that are realistic in implementation and true to the location.
- builds on top of more contemporary discourse, which relays the significance of the becoming of cities.
- challenges hegemonic practice of creating a utilitarian, perfected image.

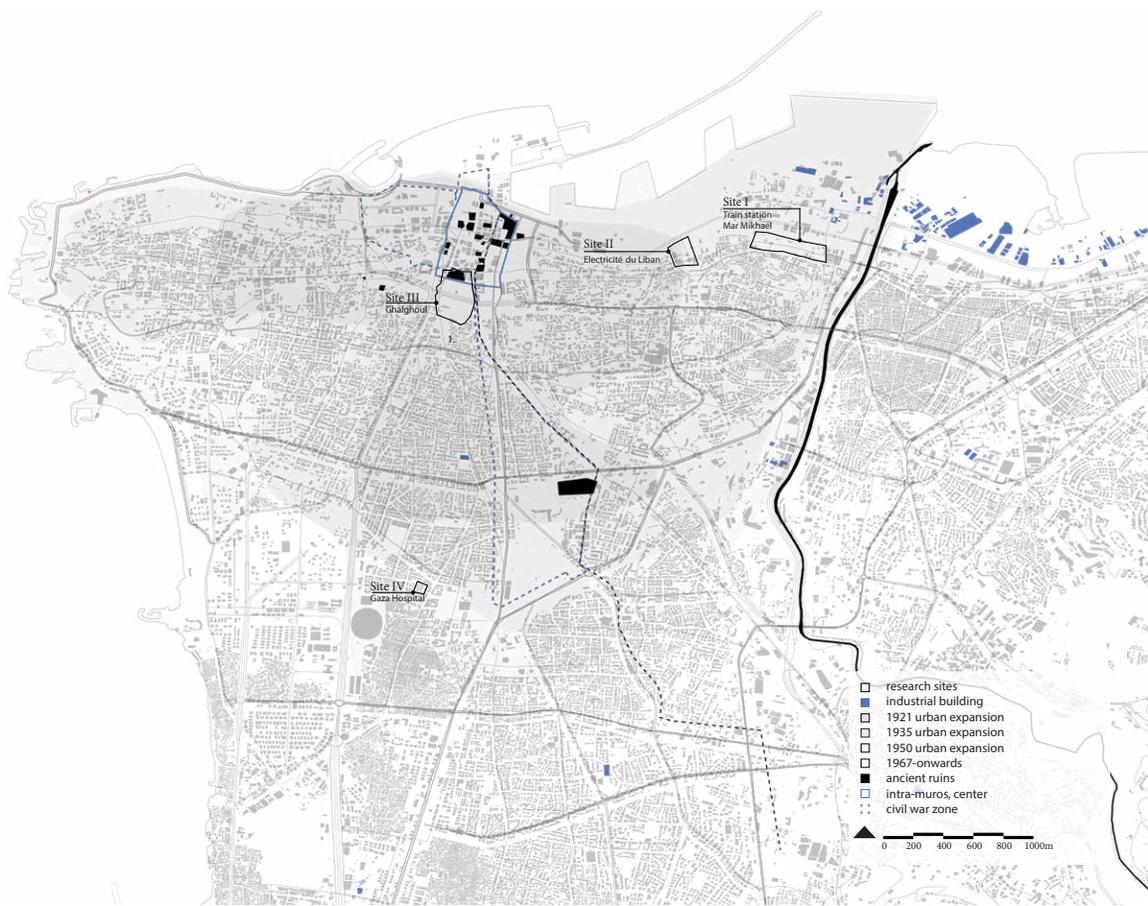




(1) Normandy, 1991-2011 // (2) Port extension, 1991-2014 // (3) Bourj Hammoud landfill, 2016-2018 // (4) Jdeideh landfill, 2016-2018 // (5) Planned landfill, 2018-present // (6) Joseph Khoury Marina, 1985-1998

## A HISTORY OF DEMOLITION

This map shows the past demolition (2000-2013), present construction sites either on hold or cancelled, and the prospected demolition through eviction processes of buildings dating before 1996. Above the fragments the landfills situated on the coast of Greater Beirut are loosely geographically placed, which origins are found in the very debris / buildingwasteaccumulatedthroughtheconducted demolition.



## SITES OF INVESTIGATION

In combination with the previous map, this map helped to locate and identify four sites, in which a more thorough investigation is conducted of the urban symptoms of the destructive forces that pass through the built environment of Beirut.



THE UNFINISHED  
CONSTRUCTION



THE HISTORICAL  
EXCAVATION SITE



WASTELANDS



RECLAMATION BY  
NATURE



CEMETERIES / MASS GRAVES

## SYMPTOMS OF DESTRUCTION

The symptoms have been narrowed down to five main ones, which are most prevalent in city. In each of the sites, multiple symptoms co-exist, creating an urban patchwork of different spatial conditions.

01 THE UNFINISHED CONSTRUCTION



Unfinished construction at Bashoura Cemetery

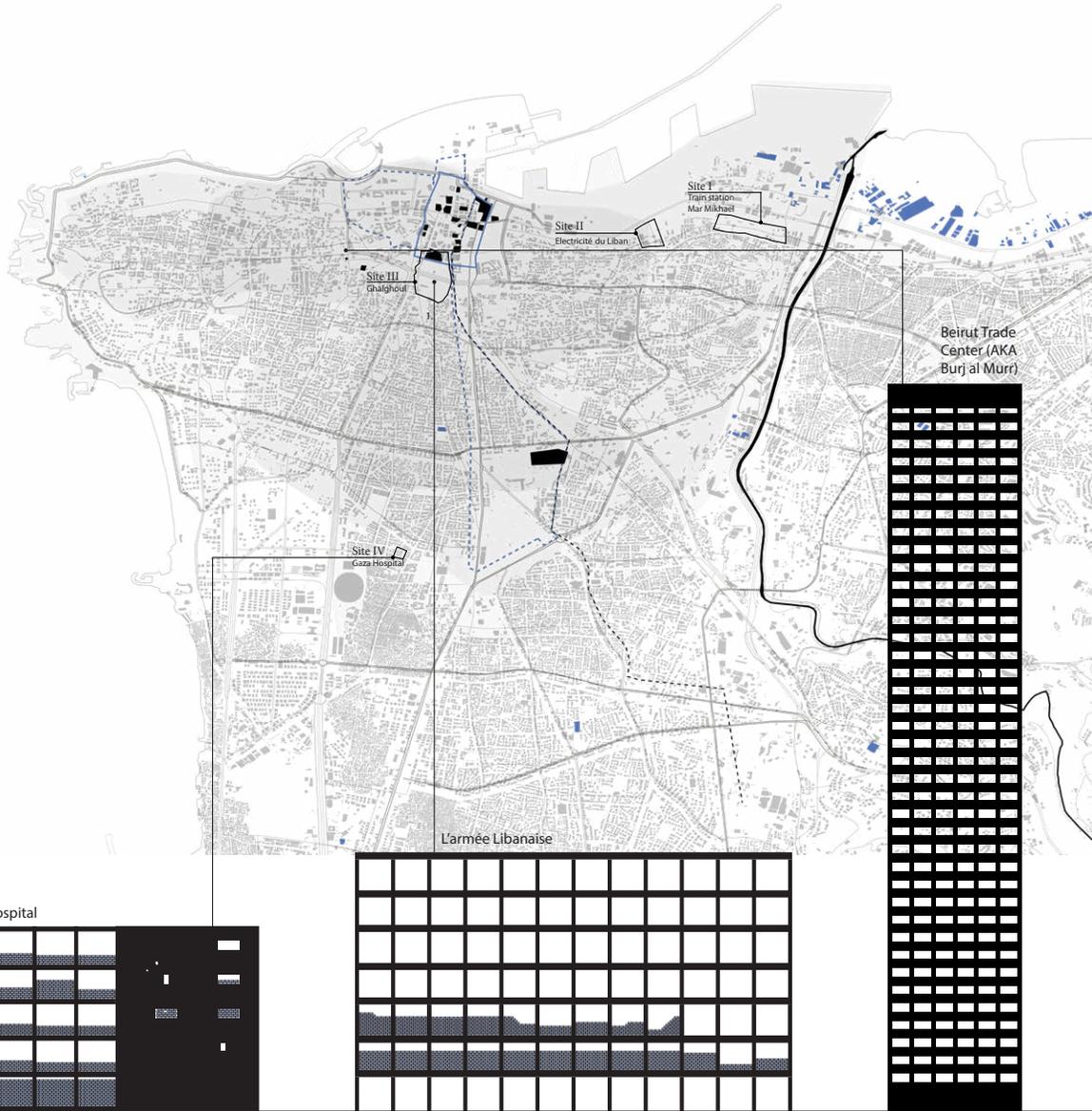


Gaza Hospital



Beirut Trade Center (a.k.a. Burj el Murr)

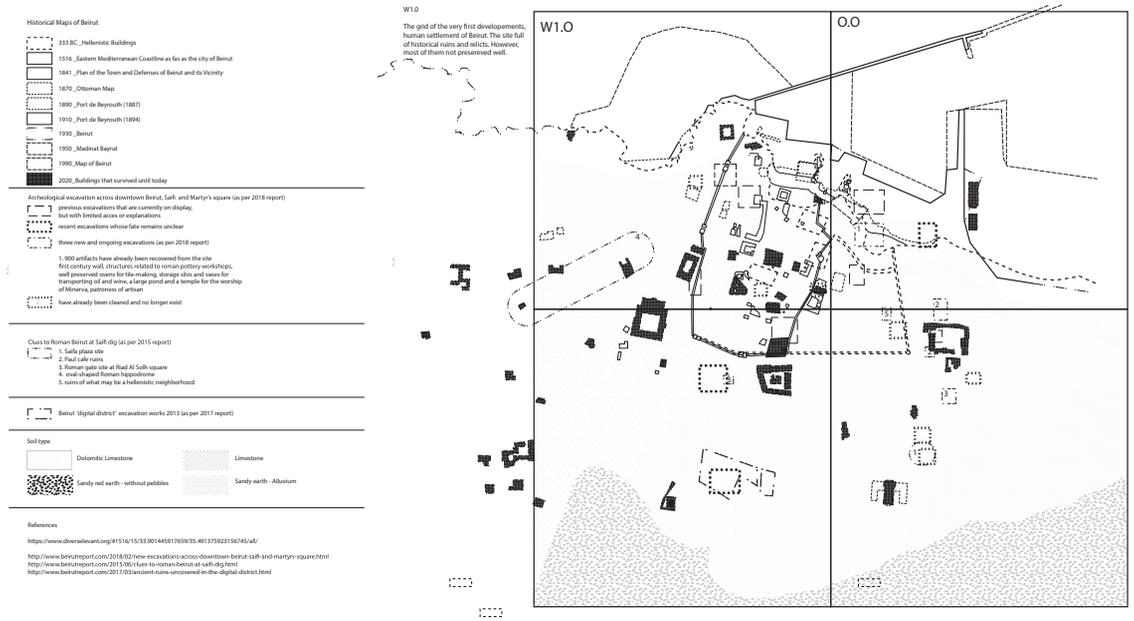




In these elevations you can see that some of these structures show more recent fragmentary bricks infills.

All buildings have been or are still owned by the military at this point, since they are seen as strategic assets.

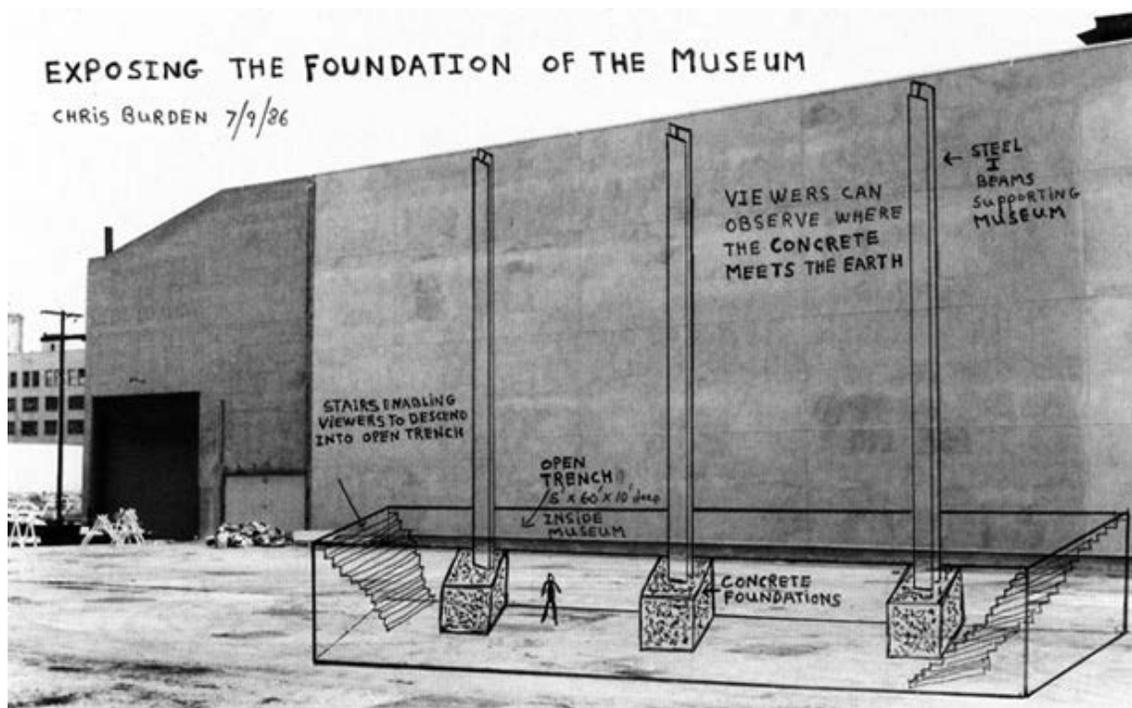
## 02 THE EXCAVATED HISTORICAL SITE



In this map that came out of the collective work, you can see a rich variety of buildings and structures, that trace back to the diverse collection of civilisations that inhabited Beirut. However, shown in the lower scheme, a struggle revolves around these historical layers, which are gradually exposed, and disposed of to make room for new developments.



Is there another usage for these excavation sites, what some may consider, voids in the urban fabric?

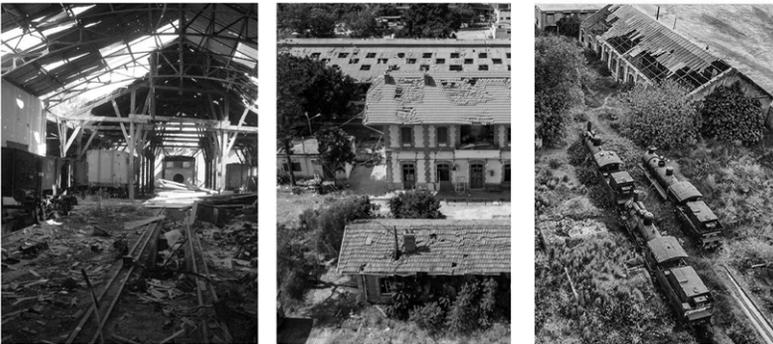


Exposing the Foundation of the Museum (1986), Chris Burden

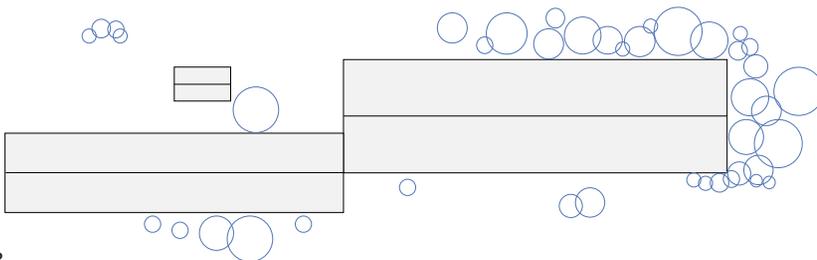


Years after the Civil War, vegetation started to overgrow along the Green line, which was the border between West and East Beirut.

Old train station of Mar Mikhael

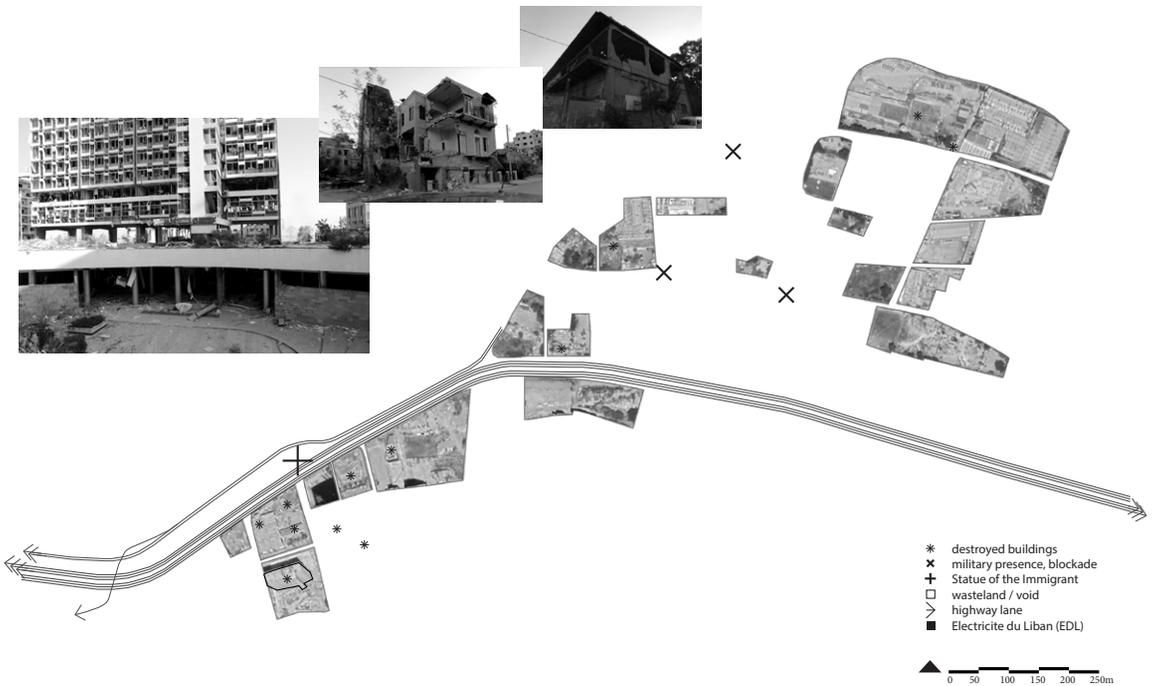
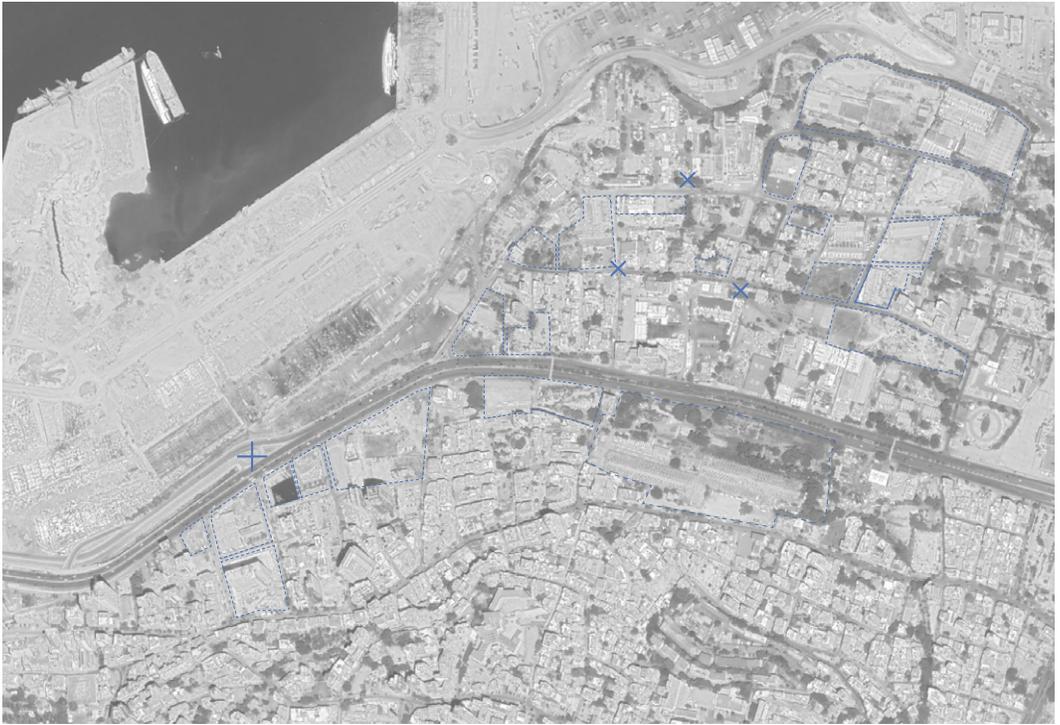


Could the overgrowing of vegetation ever be integrated in an architectural concept?



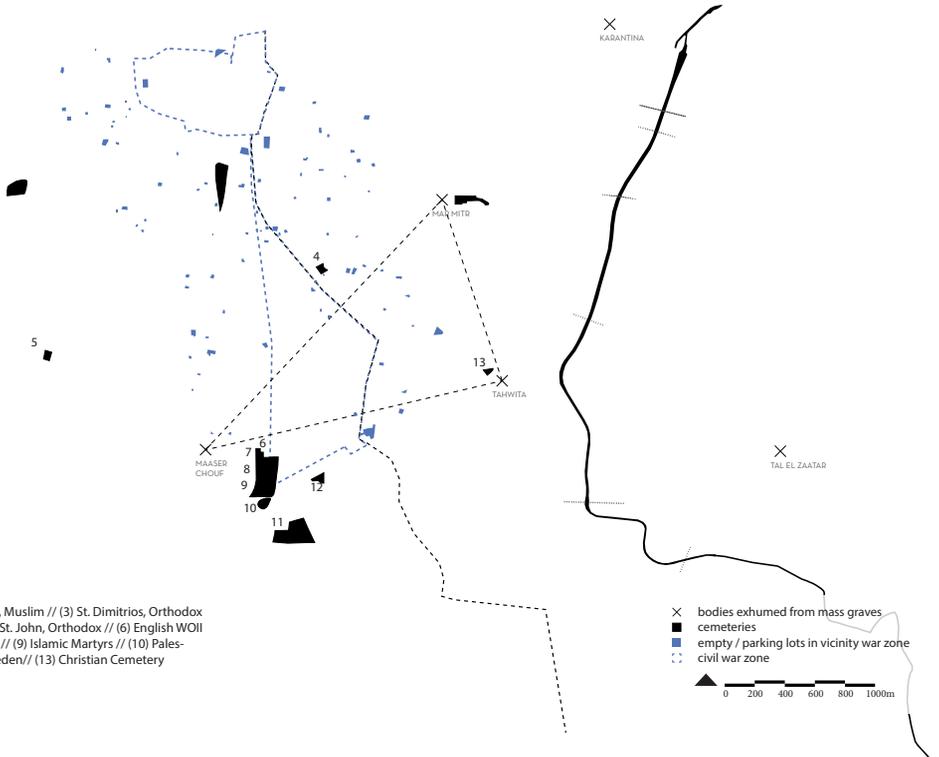
## 04 WASTELANDS

The districts of Mar Mikhael and Karantina are characterised by wastelands and military presence.



05 CEMETERIES AND MASS GRAVES

Locating the sites of memorial and death.



- (1) Druze Cemetery // (2) Bashoura, Muslim // (3) St. Dimitrios, Orthodox
- // (4) Jewish Cemetery Beirut // (5) St. John, Orthodox // (6) English WOI1
- // (7) Polish WOI1 // (8) French WOI1 // (9) Islamic Martyrs // (10) Palestinian refugees // (11,12) Al Shaheedeen // (13) Christian Cemetery



Some mass graves have been exhumed, through collectives such as The Act for the Disappeared. How many more graves remain undiscovered?

Map of Memory, The Act for the Disappeared



Bashoura Muslim Cemetery

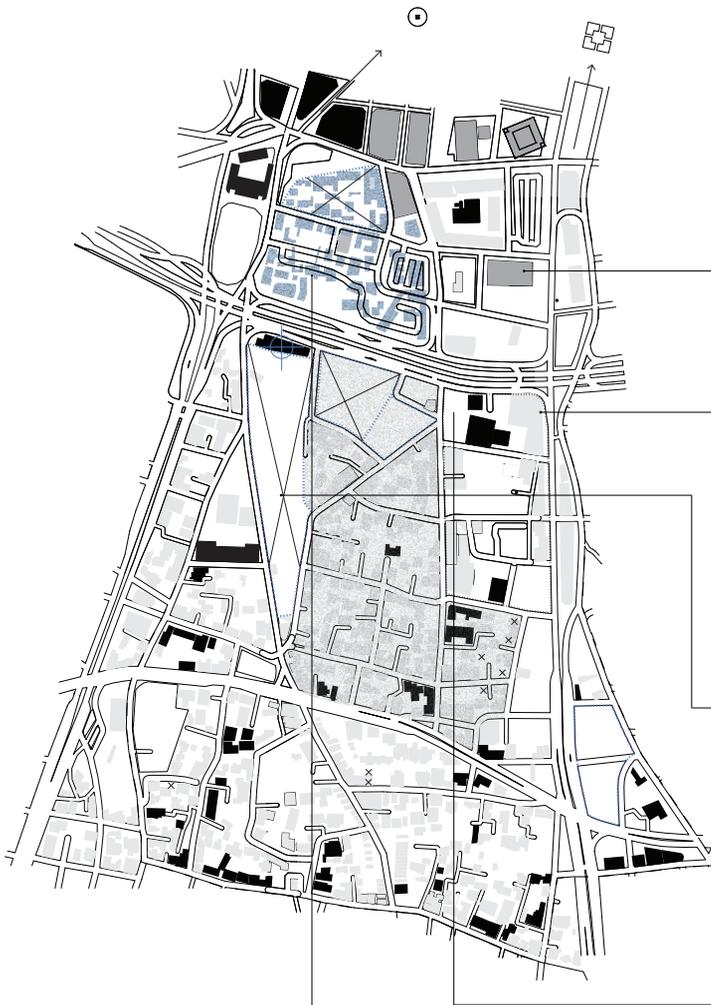
“Mass destruction and rapid rebuilding have caused the dilapidated and the unfinished to characterise the urban landscape of Beirut, causing discontinuities that are present within the urban fabric.”

Stéphanie Dadour & Mazen Hairdar

# BASHOURA DISTRICT

MAPPING THE PREVAILING DISCONTINUITIES IN THE URBAN GRAIN

Taking a closer look, allows for the identification of a patchwork of various spatial conditions.



proliferation of 'The Egg' as war memorial



urban art on a dilapidated building



bashouracemetery, overcrowded and cramped between buildings

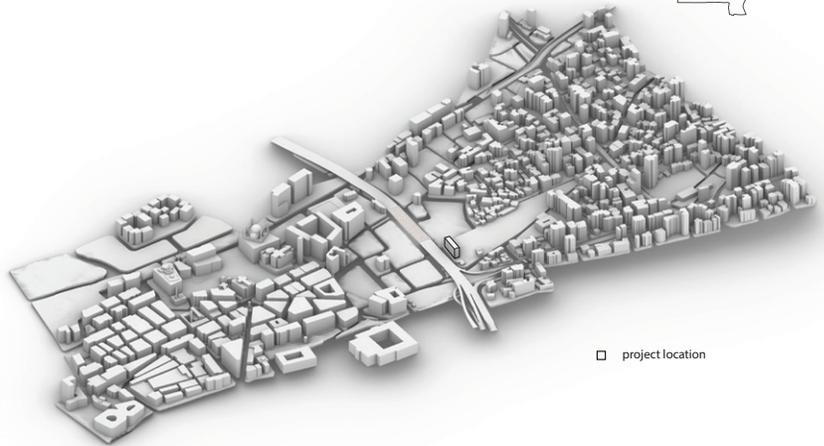


protest of the tent city against rampant demolition



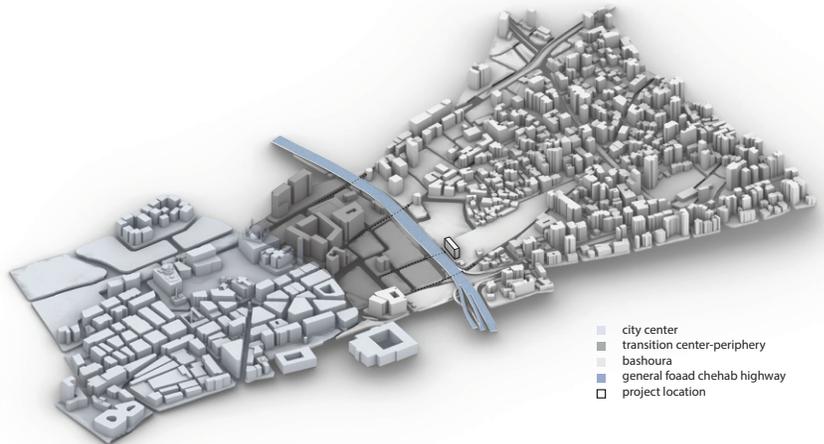
new construction gradually replaces old ruins in Beirut Digital District

ISOMETRIC -  
BASHOURA DISTRICT AND THE CITY CENTER



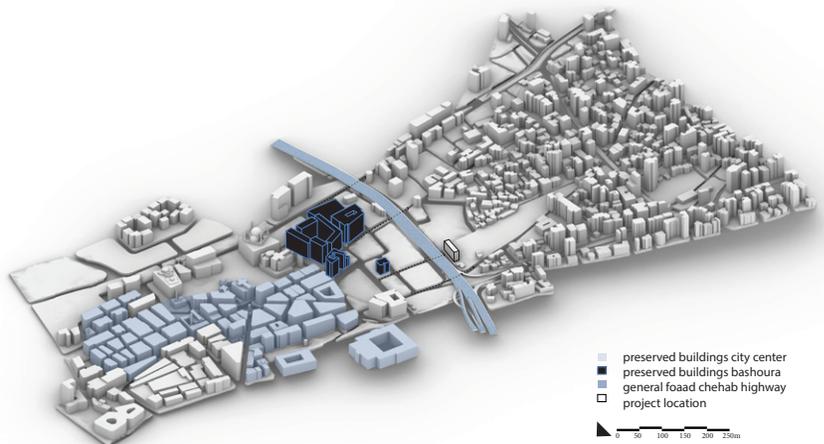
□ project location

TRANSITIONING FROM THE CITY CENTER  
TO ITS PERIPHERY - RECONSTRUCTION  
STRATEGY USED IN THE CITY, EXPANDING  
FURTHER INTO BASHOURA



■ city center  
■ transition center-periphery  
■ bashoura  
■ general foaad chehab highway  
□ project location

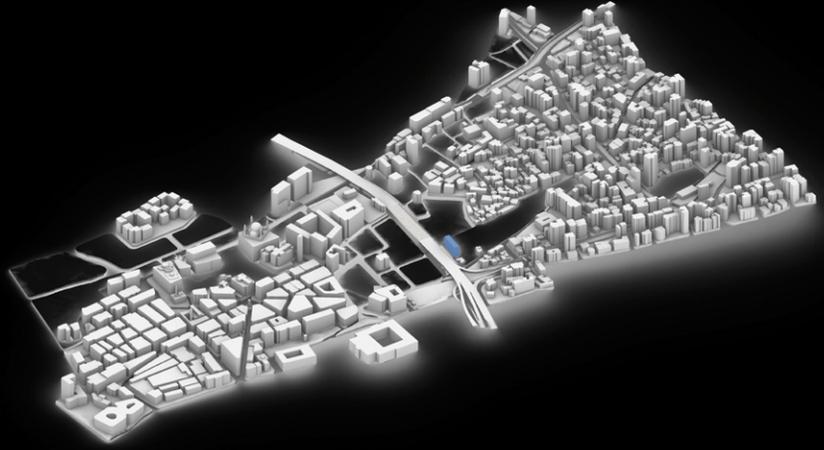
SELECTIVE PRESERVATION IN THE CITY  
CENTER AND BASHOURA DISTRICT, LEAVE  
THE NEIGHBOURHOODS SOUTH OF THE  
HIGHWAY ELIGIBLE FOR EVICTION AND  
DEMOLITION



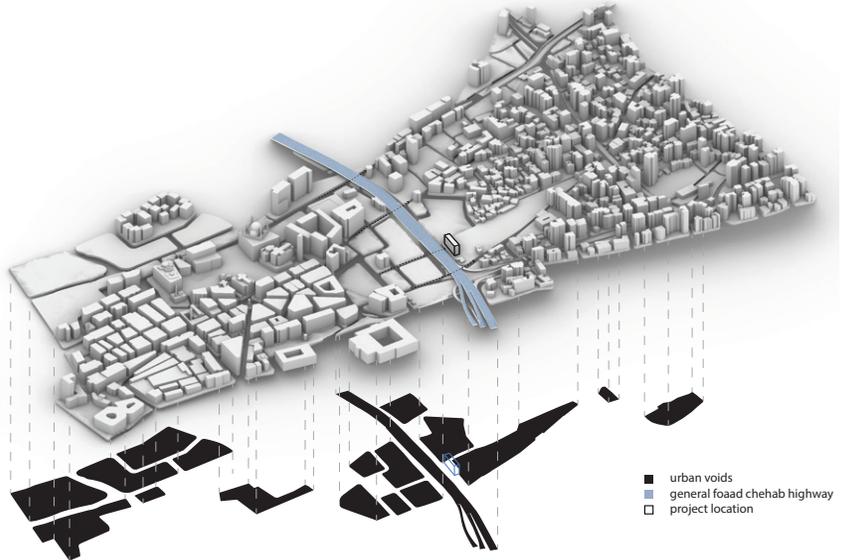
■ preserved buildings city center  
■ preserved buildings bashoura  
■ general foaad chehab highway  
□ project location



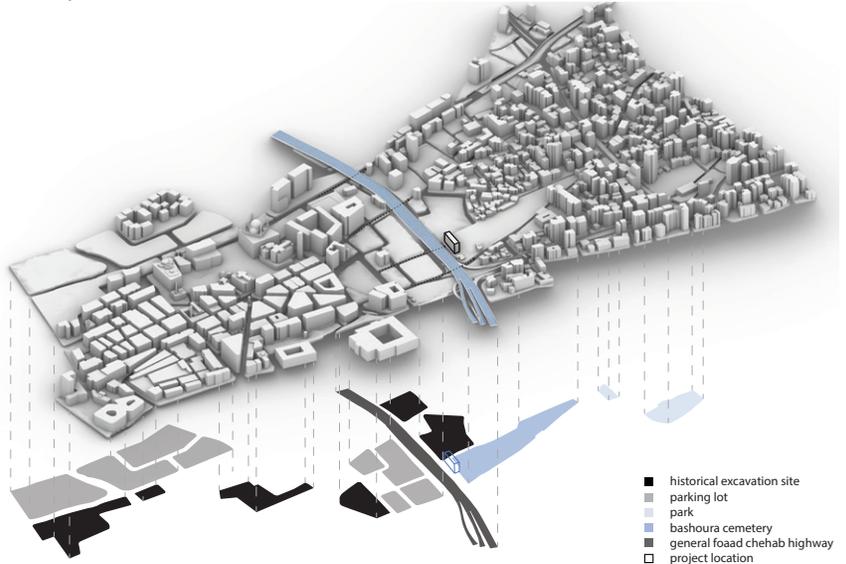
IDENTIFICATION OF THE URBAN VOIDS  
 AGGLOMERATING THROUGH THE CITY  
 CENTER AND BASHOURA DISTRICT



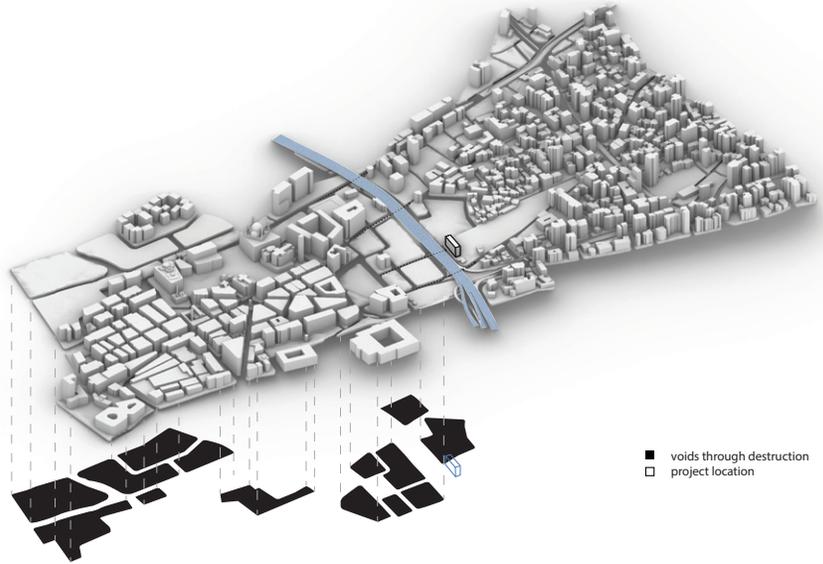
EXPLODING THE URBAN VOIDS DOWN-  
 WARDS, EXPOSING THE SCATTERED PAT-  
 TERN THROUGH THE REGION



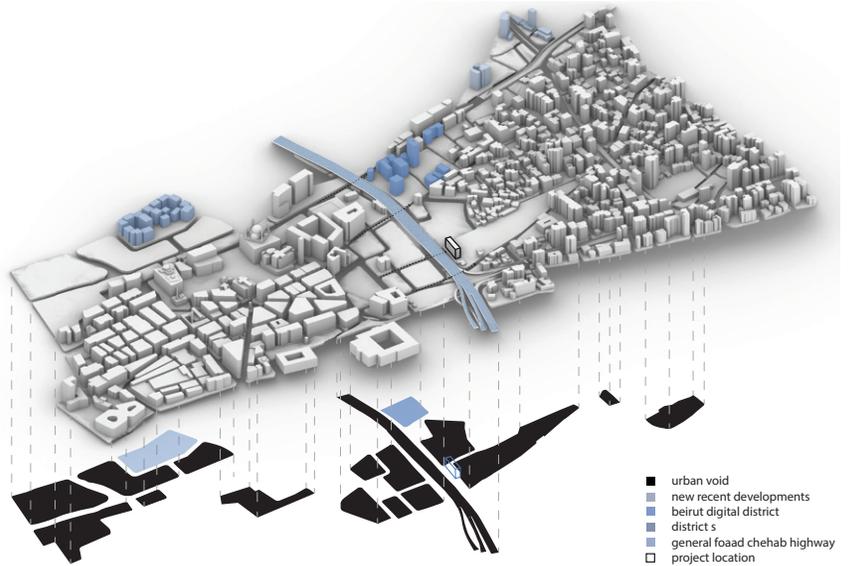
ASSESSING THE CURRENT USAGE OF THE  
 URBAN VOIDS



CONCLUDING THE MAJORITY OF THESE URBAN VOIDS FIND THEIR ORIGINS THROUGH THE DEMOLITION OF NEIGHBOURHOODS



NEW DEVELOPMENTS, ON THE SIDES, ARE CLOSING IN ON THE OLD NEIGHBOURHOODS IN BASHOURA DISTRICT, GRADUALLY CONFISCATING THE VOIDS AND DISPOSING OF ANY FORMER STRUCTURES OR HISTORICAL REMAINS FOUND ON SITE



# THE BUILDING IN QUESTION



## SPECIFICATIONS:

- THE CONSTRUCTION OF THE BUILDING PRESUMEABLY STARTED DURING THE CIVIL WAR.
- CURRENTLY THE LEBANESE ARMY OWNS THE PROPERTY AS A MEANS OF A STRATEGIC ASSET.
- THE BUILDING IS MARKED BY THE WAR, CONTAINING GUNSHOTS IN ITS CONCRETE STRUCTURE.
- THERE ARE MORE RECENT ADDITIONS, WHICH CONSTITUTE FRAGMENTARY BRICK INFILLS



## CONTINUITY VERSUS DISCONTINUITY

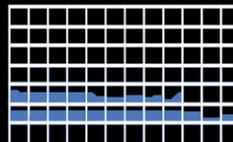
COUNTERING THE URBAN DISCONTINUITY THROUGH PROMOTING CONTINUITY IN THE ARCHITECTURE; RECREATING THE CHARACTERISTICS OF THE DILAPIDATED AND UNFINISHED STRUCTURE



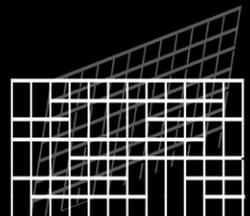
historical layer



configuration modules



fragmentary infill



distortion

## MODI OPERANDI EX01 2,5D // SITE

GHALGHOUL: THE VANISHING OF AN ENTIRE NEIGHBOURHOOD

THREE SITE CONDITIONS:

- The building pit / exposed foundation of a cancelled construction
- The excavated site of historical ruins
- Uncovering of mass graves dating back to the Civil War period



# MODI OPERANDI EX01 2,5D // SITE

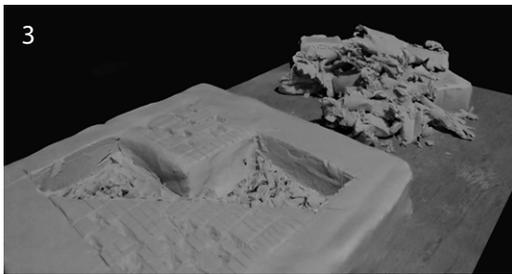
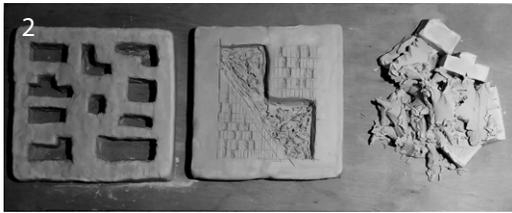
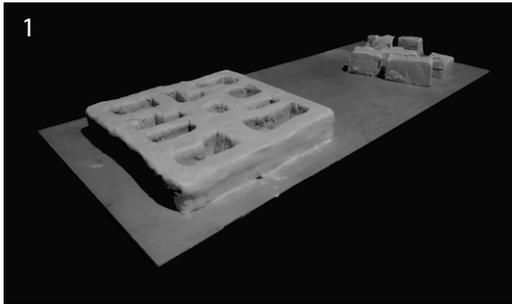
ASSESSING THE GROUND CONDITIONS OF CONFLICT AND DESTRUCTION

The first tablet (1) displays the uncovering of the foundations of demolished buildings (relating to the case study of Ghalghoul).

Then, the second tablet (2,3) attempts to display a historical excavation site, with graves situated at its sides.

The synthesis (4,5,6) of this exercise becomes the remaining negative of the two tablets.

A hypothetical square is created consisting of an enumeration of slanted surfaces. Relating to the study done by Parent and Virilio on the instability of the slope, the slanted surfaces cause an instable relationship with the horizontal ground.



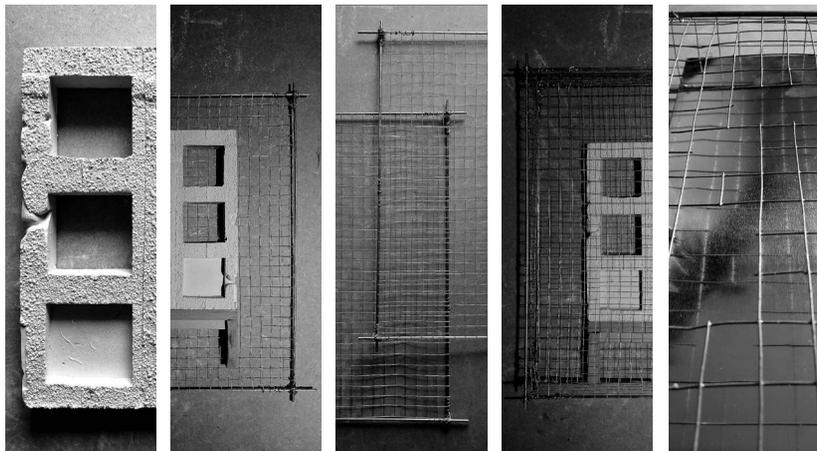
# MODI OPERANDI

# EX02 2,5D // ASSEMBLAGE & FORM

ASSESSING THE DISCONTINUITIES THAT OCCUR WITHIN THE URBAN MAKE-UP OF BEIRUT, THROUGH VAST DESTRUCTION, RAPID REBUILDING AND UNFINISHED CONSTRUCTION

Starting off the exercise with a facade fragment and a grid.

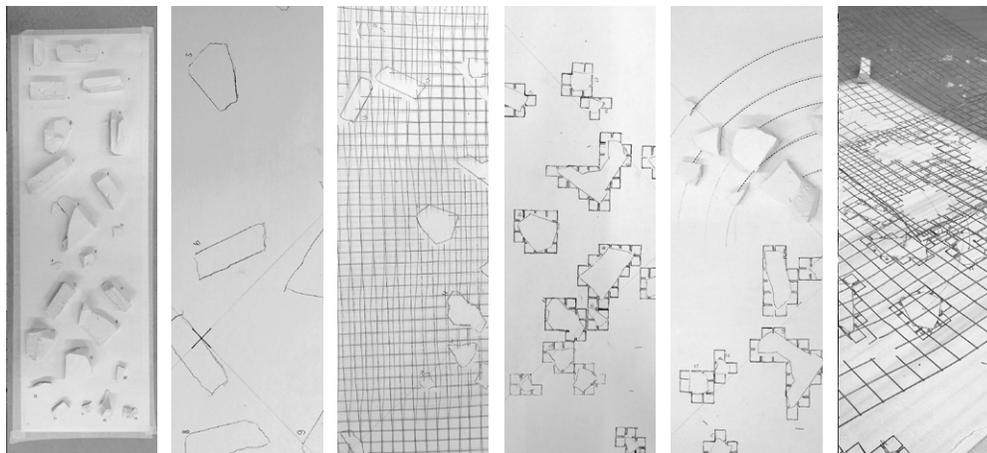
Going into the destruction / fragmentation of the facade and cutting of the mesh.



IMPACT // STRIKE

IMPACT // RESONANCE

CARING



DESTROYING - FRAGMENTING THE FRAGMENT

TRACING / ACKNOWLEDGING THE DESTRUCTION

CUTTING / DISFORMING THE GRID ACCORDING TO THE TRACES

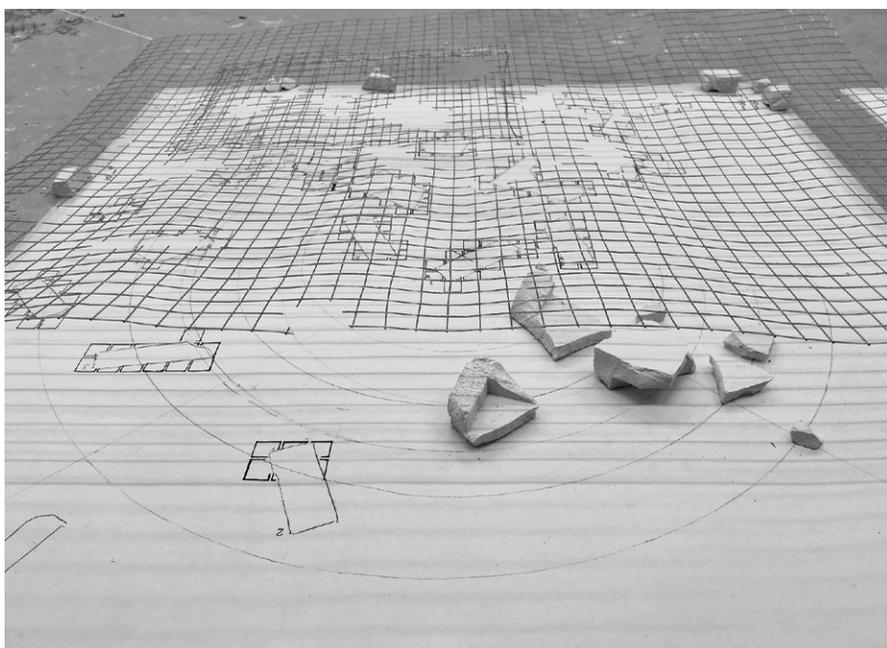
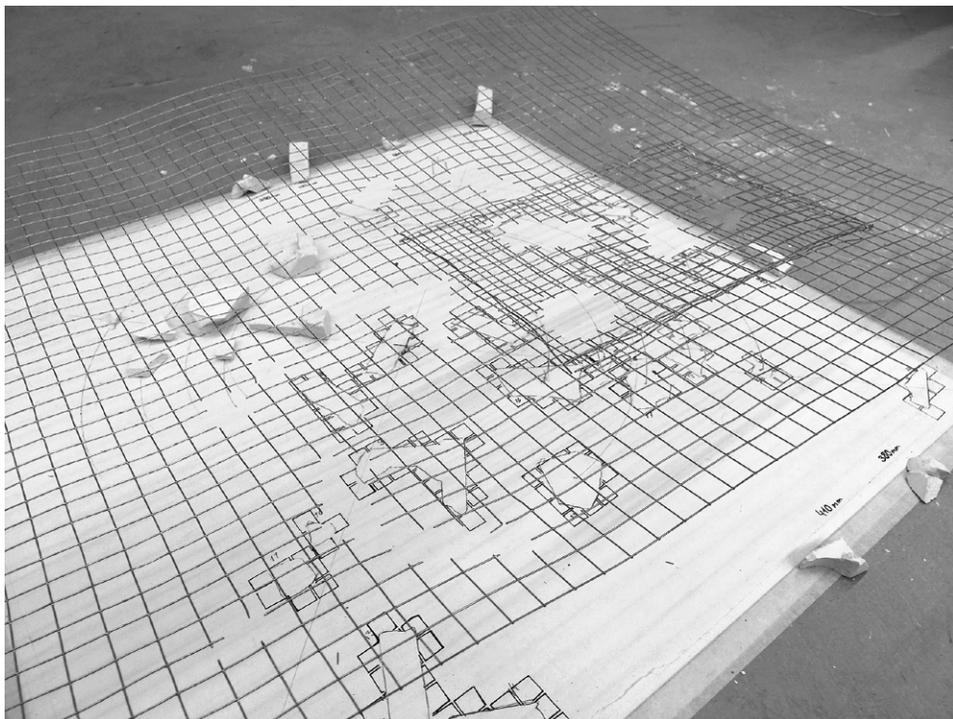
TRACING THE RESONANCE OF THE IMPACT ON THE GRID

DISPLACING THE FRAGMENTS

SUPERIMPOSING ALL THE DIFFERENT LAYERS, WEAVING AROUND THE VOIDS

THE VOIDS IN THE MESH HAVE BECOME DISPLACED FROM THEIR TRACINGS; THE VOIDS BECOME GHOSTS OF THEIR FORMER FRAGMENTS..

..AS BUILDINGS ARE DEMOLISHED AND THEIR TRACES ARE ERADICATED FROM THE SITE



MODI OPERANDI

EX03 TECTONICS / ATMOSPHERE & PROGRAM

REDEFINING THE SYMPTOM OF THE SHELLED FACADE, TRANSLATING IT INTO A NEW CREATION THROUGH THE (RE)USING OF VARIOUS DEBRIS, CAUSED BY DESTRUCTION



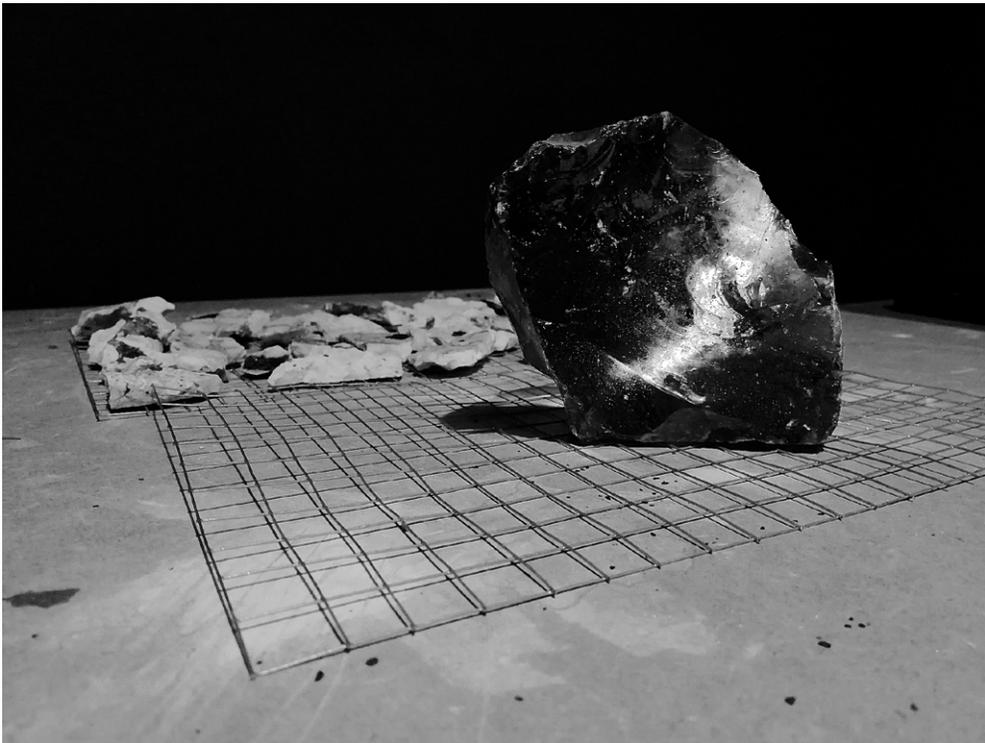
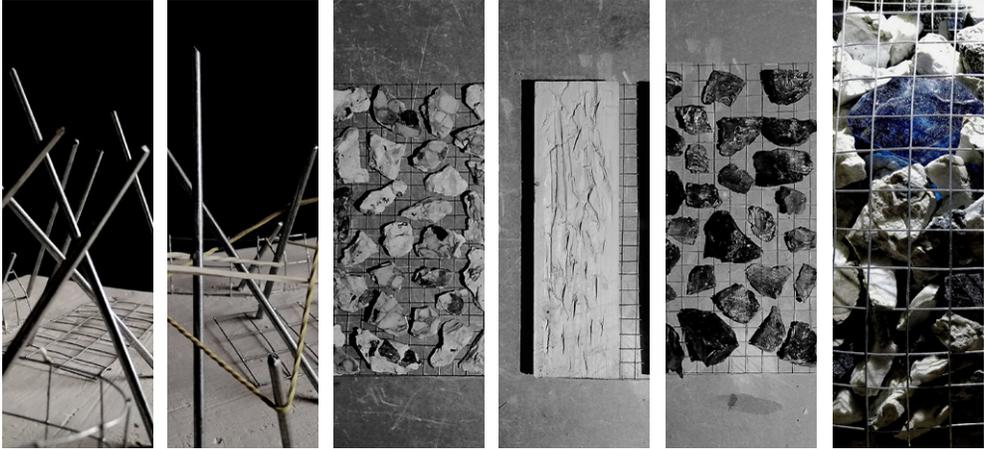
GAZA HOSPITAL,

THE RETURNING SYMPTOM OF THE SHELLED FACADE, WITH THE INTERIOR LAYERING OF BRICKS AND STRUCTURE BEHIND IT

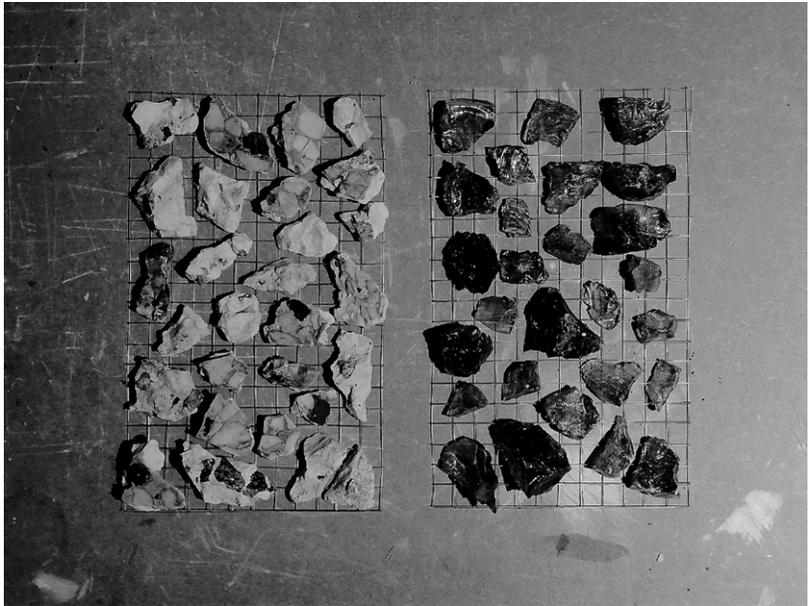
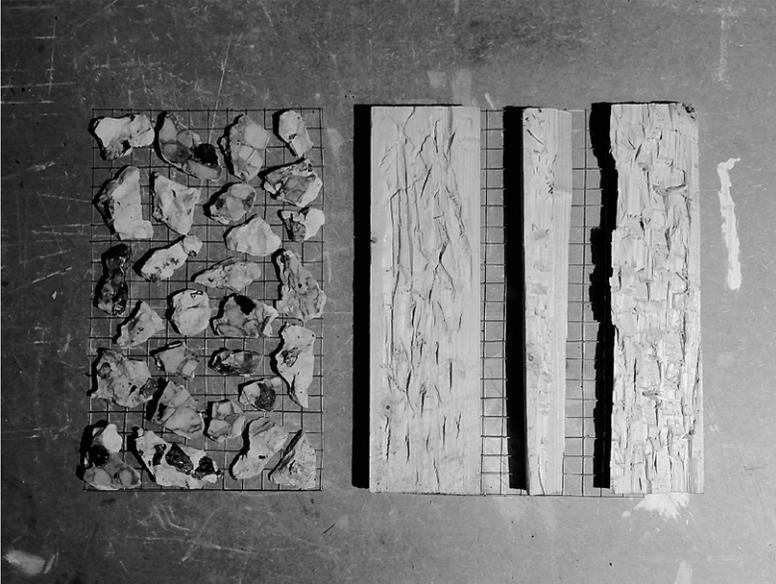
MODI OPERANDI

EX03 TECTONICS / ATMOSPHERE & PROGRAM

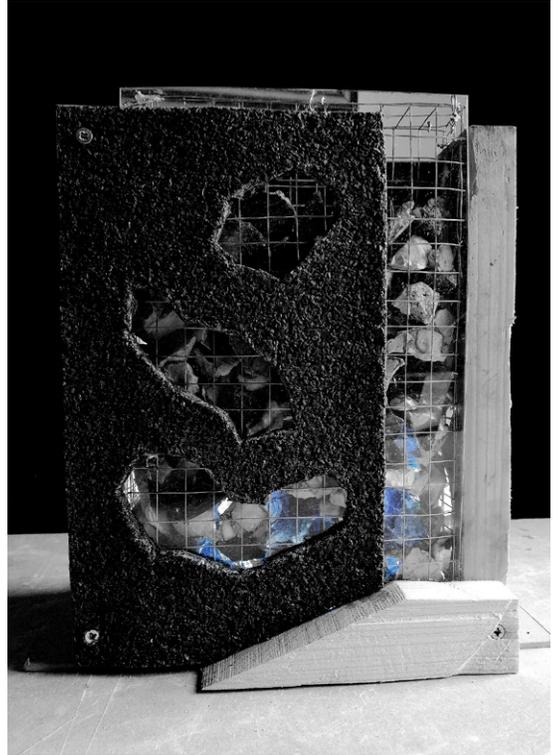
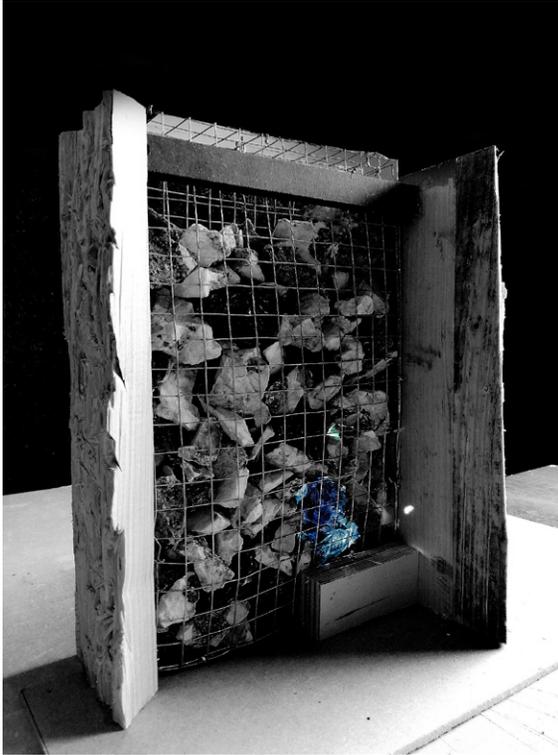
REDEFINING THE SYMPTOM OF THE SHELLLED FACADE, TRANSLATING IT INTO A NEW CREATION  
THROUGH THE (RE)USING OF VARIOUS DEBRIS, CAUSED BY DESTRUCTION



ATTAINING THE DEBRIS THROUGH THE DESTRUCTION OF VARIOUS MATERIALS PRESENT IN THE BUILT ENVIRONMENT, IN ORDER TO USE THE FRAGMENTS AS BUILDING COMPONENTS

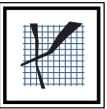


THE REDEFINED FACADE COMPOSES OF DISTINCT ELEMENTS: THE MESH (1) WHICH CONTAINS THE FRAGMENTED MATERIALS (2), AND THE ASPHALT-FINISHED FINISH WHICH CONTAINS THE TRACES (3)



MODI OPERANDI

SUMMARY

SITE	ASSEMBLAGE	ATMOSPHERE / TECTONICS	
reverse engineering	caring / intervening	layering	
			destruction
			documentation
			recreation

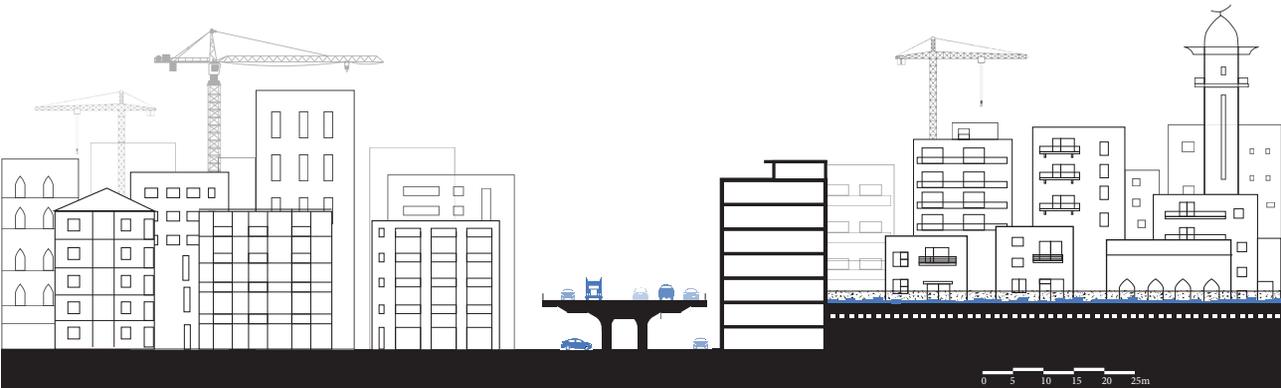
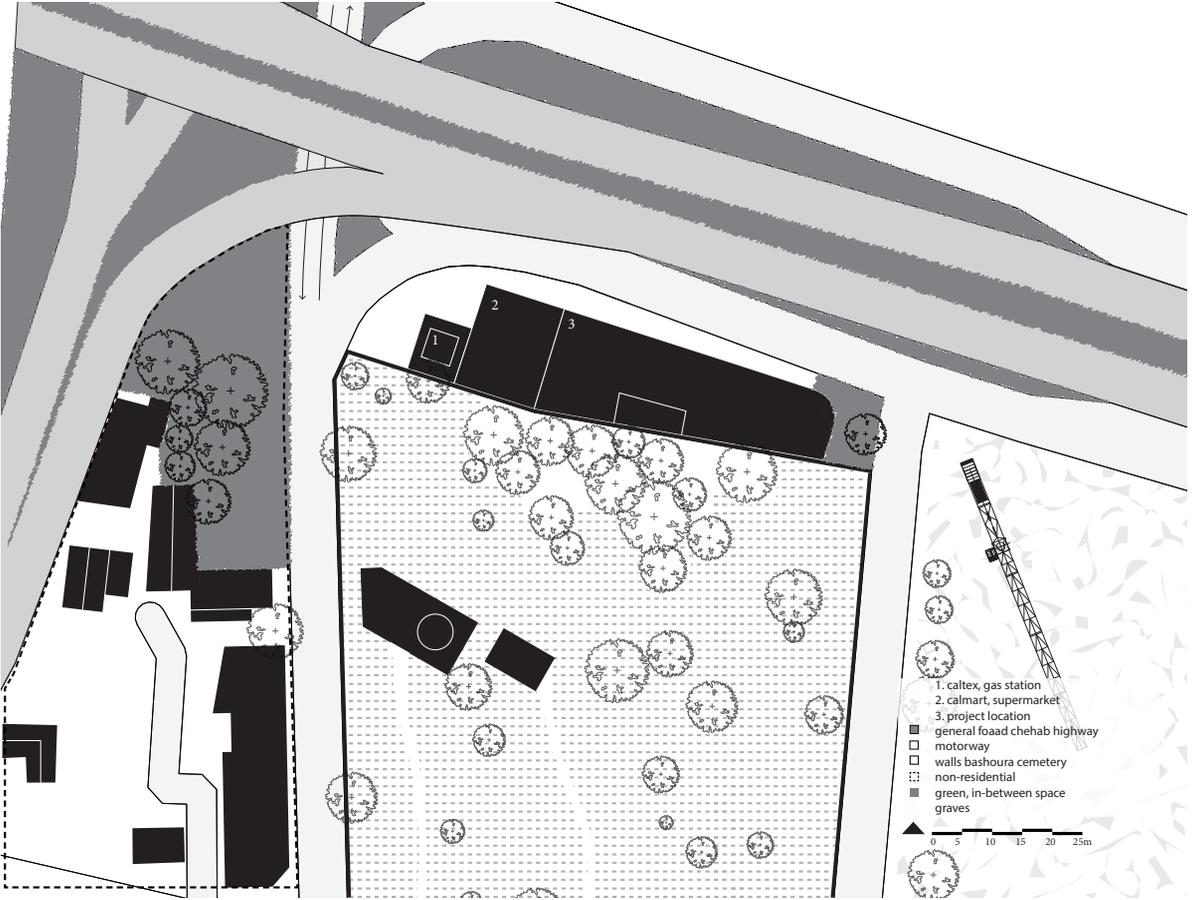
What all these operations had in common, was that they all constituted a response, in the form of a prospective method, to a destructive act; the act of caring, for the aftermath. Where the first exercise used the method of reverse engineering in order to reuse the negative mass of excavation processes. The second exercise was about caring for the traces, by weaving them. And the last exercise was to redefine a symptom of destruction, and create something new, reusing and thereby, again, caring for debris.

# BUILDING & SITE ANALYSIS

ASSESSING THE SURROUNDING SPATIAL CONDITIONS

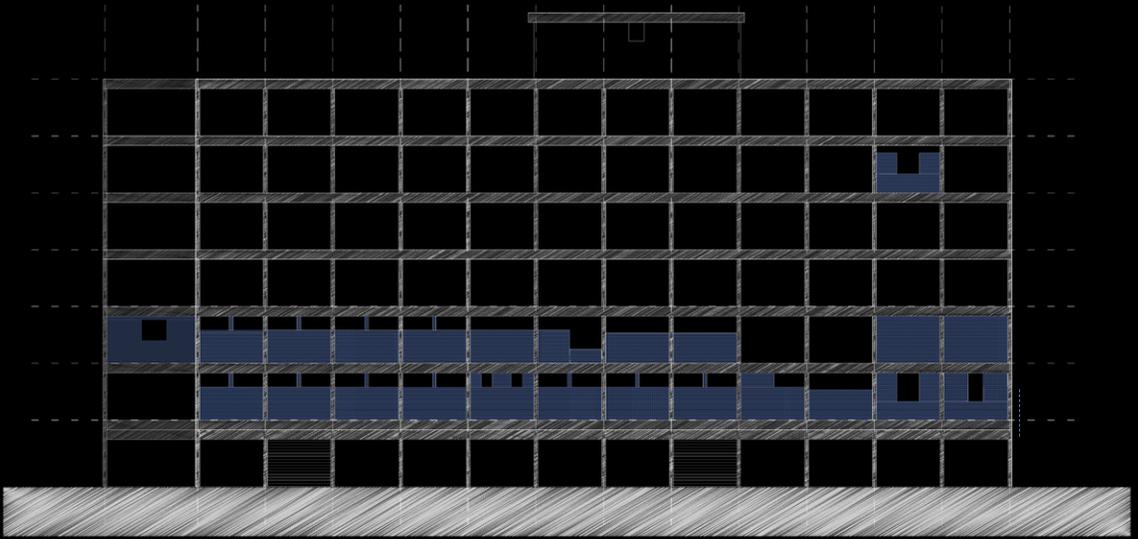


ELEVATED GROUNDS OF THE BASHOURA CEMETERY, ADJACENT TO THE PROJECT

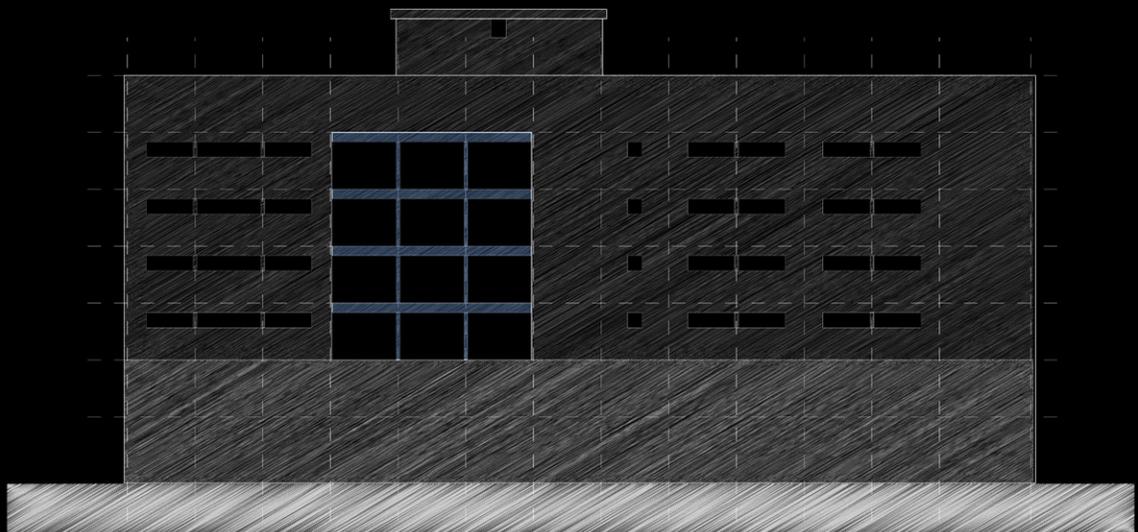


# ELEVATIONS

NORTHERN FACADE



SOUTHERN FACADE



“Architecture is tainted with passivity on its reaction to destruction, looking back on the past century.

Consequently, in our current age of realism, this practice is under pressure, through the increased perception of the human condition as a destructive and fanatic force.”

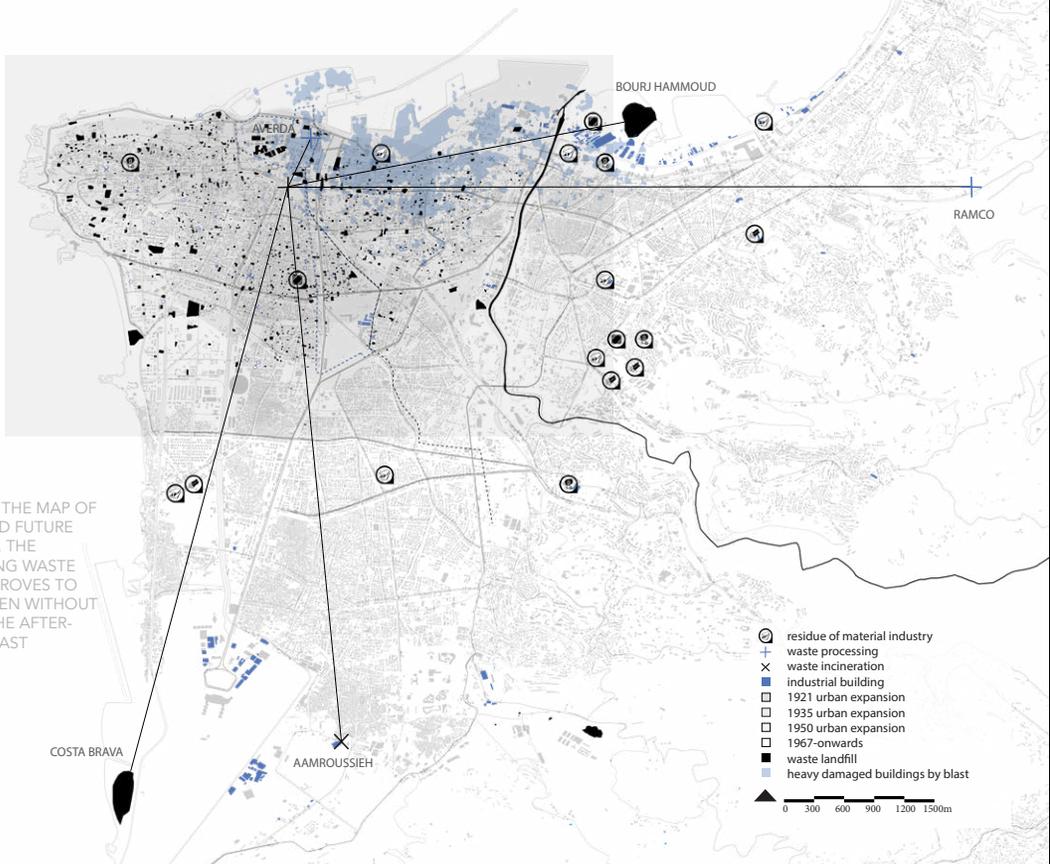
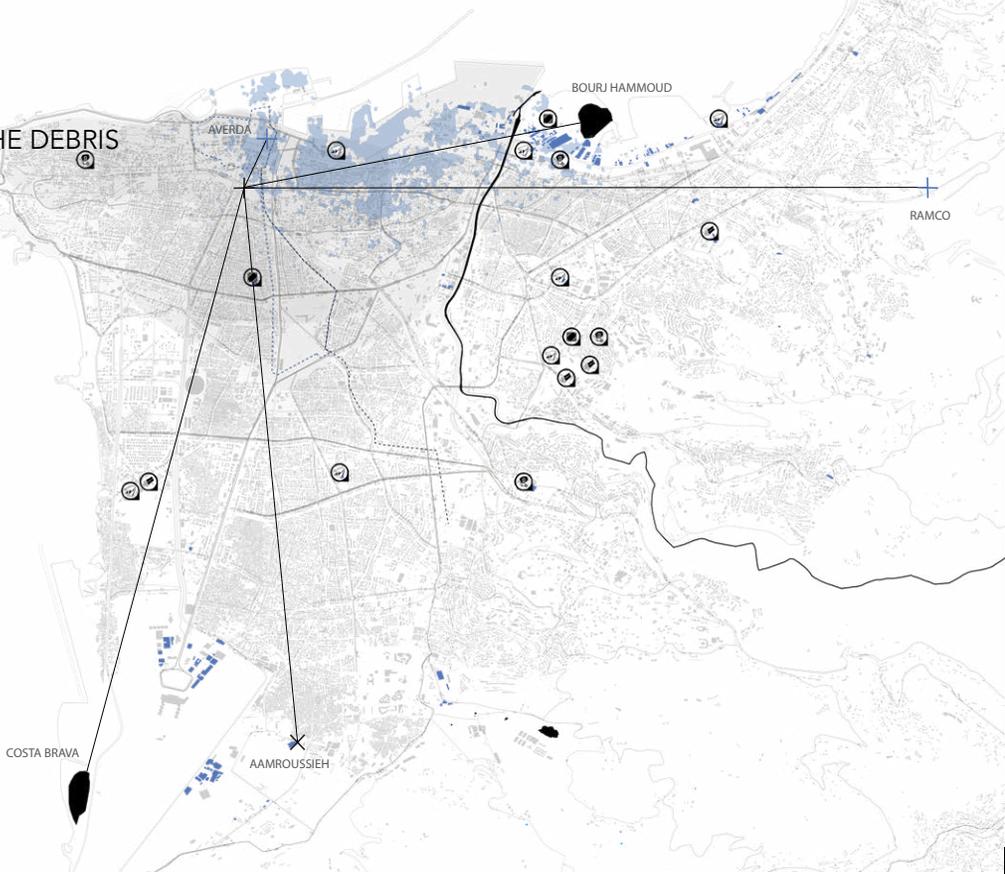
Ole Bouman



# CARING FOR THE DEBRIS

BUILDING WASTE PROCESSING ACROSS BEIRUT

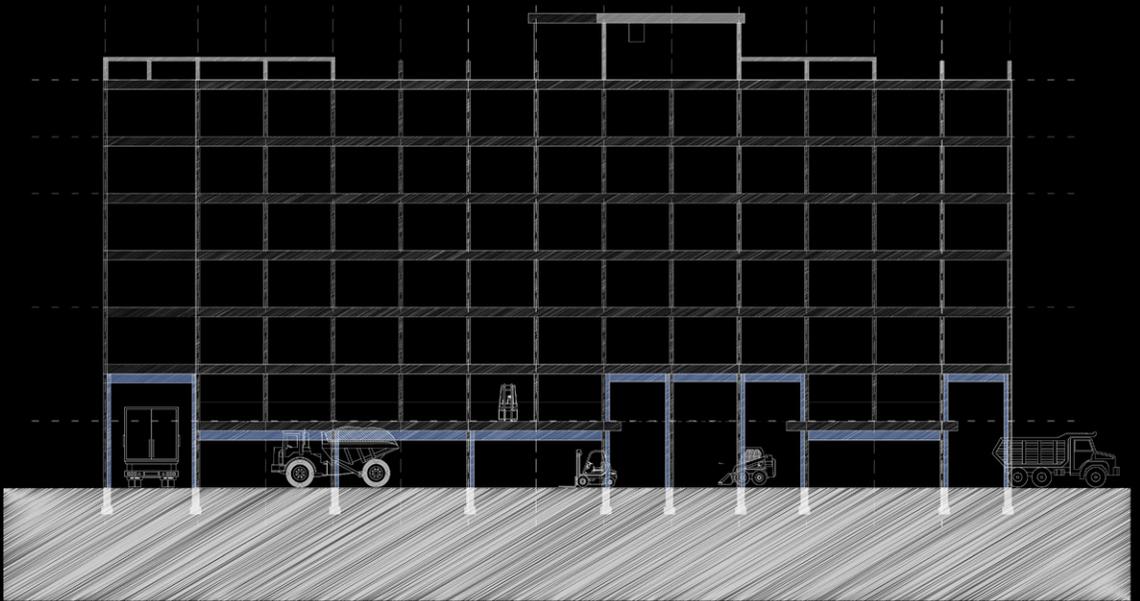
EXPLORING THE POSSIBILITIES OF URBAN MINING



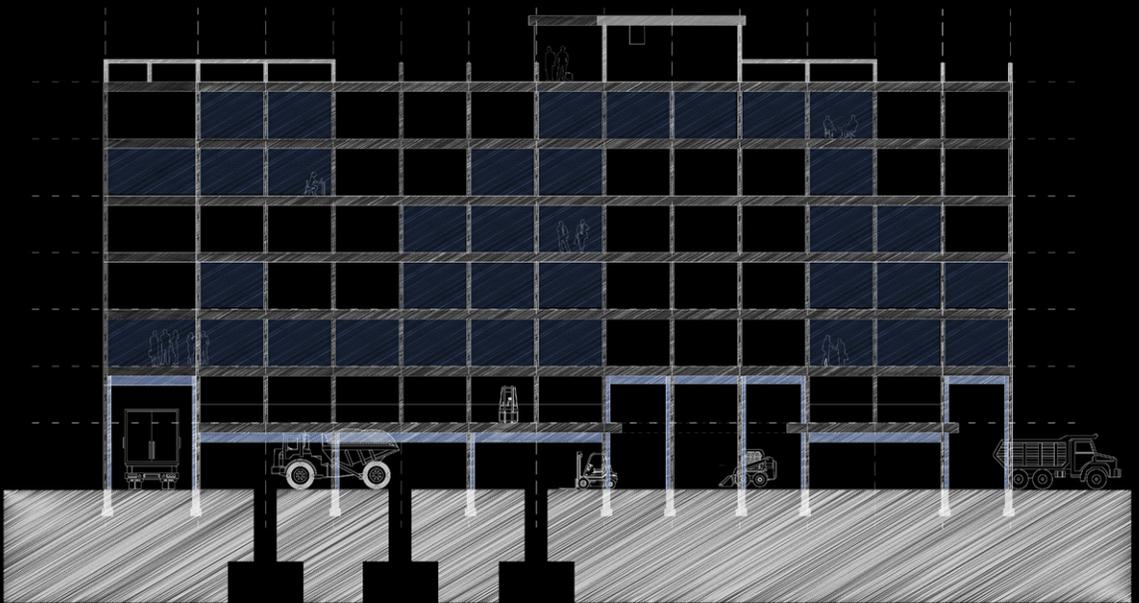
SUPERIMPOSING THE MAP OF THE HISTORY AND FUTURE OF DEMOLITION, THE ISSUE OF BUILDING WASTE MANAGEMENT PROVES TO BE RELEVANT, EVEN WITHOUT CONSIDERING THE AFTER-MATH OF THE BLAST

# PRELIMINARY TRANSFORMATION

PHASE I INDUSTRIAL HALL , FIRST TWO LEVELS



PHASE 1+X OFFICE SPACES



the 1990s, the number of people with diabetes has increased in all industrialized countries. In the Netherlands, the prevalence of diabetes has risen from 1.5% in 1975 to 5.5% in 1995 (1). The prevalence of diabetes is expected to continue to rise in the next decades (2).

Diabetes is a chronic disease with a high prevalence of complications. The most common complications are retinopathy, nephropathy, neuropathy, and cardiovascular disease. The prevalence of these complications is high, and the risk of complications is increased in people with diabetes (3). The prevalence of complications is also increased in people with diabetes who are treated with insulin (4).

The prevalence of complications is also increased in people with diabetes who are treated with oral hypoglycaemic agents (5). The prevalence of complications is also increased in people with diabetes who are treated with insulin and oral hypoglycaemic agents (6). The prevalence of complications is also increased in people with diabetes who are treated with insulin and oral hypoglycaemic agents (7).

The prevalence of complications is also increased in people with diabetes who are treated with insulin and oral hypoglycaemic agents (8). The prevalence of complications is also increased in people with diabetes who are treated with insulin and oral hypoglycaemic agents (9). The prevalence of complications is also increased in people with diabetes who are treated with insulin and oral hypoglycaemic agents (10).

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RIVER ENGINEERING  
LOOKING FOR 'LIFE  
INCLUSIVE' ALTERNATIVES FOR  
CHANNELIZATION

Useviciute Viktorija

## INTRODUCTION

Over more than 6000 years, the physical world was influenced by incremental economic and social transition. Still, only recently an appreciation of the need to understand the impact of man becomes apparent. It is now evident that the influence of human activities on a global scale is tremendous. The effects of man presently appear far more complex than already thought. They can affect one portion of the environment and consequently trigger genuine and in certain occurrences irreversible changes in another.

The river is a significant cause and even a symbol of the world's urban culture's appearance. The example of it is Mesopotamia plain that about 5000 years ago appeared between Iraq's Euphrates and the Tigris River. Another example is the Chinese civilization originated from Hwang He (Yellow River) and the Yangtze River.

'The impact of man on rivers and river channels has been widespread throughout the period of habitation of the planet. Water supply and land drainage schemes were implemented as early as 3200 BC and the Hwang He (Yellow River) in China has been regulated for at least 4000 years.'<sup>1</sup>

Three different nations illustrate different historical background. The United States of America has experienced an intense period of Channelization during the past 150 years; Britain has had a much longer history of Channelization amplifying back for at least 2000 years. Denmark has had almost 100% of the drainage arrange adjusted. In each of these nations, Channelization has only recently become a controversial issue.

However, this essay intends to find and describe the leading causes and effects of The River Beirut or Nahr Beirut channelization in Lebanon. It also explores and looks for alternative channel designs or holistic practices which attempt to work with Nature rather than against it.

'We do not inherit  
the land from our ancestors,  
we borrow it from our  
children.'<sup>2</sup> —Native American  
Proverb

## HISTORICAL CONTEXT AND THE CHARACTER OF THE RIVER BEIRUT

Three typologies can describe the Nahr Beirut watershed: urban, peri-urban, and natural; it streams through thirty regions and four areas: Beirut, Matn, Baabda, and Aley. It is revived by rainfall and snowmelt. Besides, its hydrological cycle is influenced by 190 sources that are found within the area of its watershed. The stream has two cycles: a dry season from May till November and a wet season from December until April.

'Rivers overflow causing major damages, which are estimated to amount to 15 million US\$ per year. These events are more and more studied and seem mostly related to anthropogenic factors, including uncontrolled urban sprawl.'<sup>3</sup>

In the 1940s, the Armenian refugees who located initially within the Quarantina zone moved to Achrafieh and Bourj Hammoud and settled on both sides of the River Beirut.

'The arrival of new population groups pushed settlements into the flood plains, and consequently, the first floods affecting these settlements were recorded.'<sup>4</sup>

The floods of Beirut River and Abou Ali River (Tripoli) in 1955 killed 160 individuals, that is when the idea of canalizing some of the most significant streams counting Nahr Beirut come to the daylight.

In 1968, the River was canalized to Furn el Chebak and in 1998 to Jisr el Bacha. Besides, the highway of Emile Lahoud was also completed in 1998.

## THE ECOLOGICAL IMPORTANCE OF THE NAHR BEIRUT

Historically, Nahr Beirut played an essential role in giving environmental and social values. These benefits are called 'ecosystem services'

'Provisioning: to provide fresh water in the area of Daychounieh to the city all the way through the

Roman aqueducts for irrigation and potable water supply and to transport sediments, organisms, and nutrients.

Regulating: to treat and store water as well as control erosion, to mitigate impacts of floods and storms, and filter waste through natural processes.

Supporting: to offer food, shelter, and water to living organisms as it acts as a vital migratory path to more than 70,000 soaring birds.

Cultural services: to provide a natural space for recreation and cultural events for communities such as the renowned Armenian water festival Vardavar where Armenians used to traditionally gather around the river and drench themselves in water.'<sup>5</sup>

The Nahr Beirut Valley and especially its upper reaches, is undoubtedly one of the foremost vital locations for raptor migration in Lebanon. Over 70,000 soaring birds of 33 diverse species were counted in 2006.

## RIVER AS A PUBLIC SEWER

The urbanized area of the waterway hinders the natural flow of water from the mountain to an estuary and the Mediterranean Sea. In this part, the river no longer performs as a natural water body with its regular operation.

'With the depth of the river canal, the height of the river walls, and state of the river, the adjacent neighborhoods have become disconnected from the river and disengaged with it.'<sup>6</sup>

In this manner, the Nahr Beirut misplaced its recreational activities such as swimming, having an outdoor meal, and fishing as it got to be a concrete channel disengaging people from its natural landscape.

'In the eyes of the public, the river is an open sewer. The residential wastewaters of Furn el Chebak, Sin el Fil, Baabda, Hazmieh, Mansourieh and the industrial waste from the Mansourieh area are also dumped in the canal affecting the lives of the sur-

rounding communities due to the smell, pest infestation, vector-borne diseases, etc. The canalization coupled with poor and insufficient basic service provision in the adjacent neighborhoods has disrupted the healthy and performing ecosystem of the river and changed it from a riparian and healthy habitat into an open domestic and industrial sewer.<sup>7</sup>

## LOST SOCIAL ACTIVITIES AND CULTURE

Due to channelization, the natural resource lost its social significance:

'Until 1850, the River Beirut had been an agricultural plain. Accounts by inhabitants describe the areas around the river as abounding with "nature": banana trees, orange and lemon trees, tomatoes, and gardens. Back then, the river was used by its residents for domestic and daily activities: mothers used to do laundry in the river on Saturdays and use the river water for cooking, children used to bathe there too and some would even fish in it or play at catching frogs and snakes<sup>8</sup>.

Back then, the river was an association of safety and had great significance as a public, meeting, social engagement, playground and leisure place. It was a place where the people would gather, celebrate and engage with nature; share their stories, experiences and skills. Lost access to the river erases this significant aspect of their culture.

## ECOLOGICAL DISASTER AND DESERTIFICATION

The great emphasis on the impact of channelization put in detail in A. Brookes book 'Channalised Rivers' where he states that

'The principal consequences of channelization <-> include a reduction in the complexity of habitat by elimination of pools, riffles and non-uniformities in channel geometry, increased water temperatures due to removal of bankside and instream vegetation;

bed and bank erosion; and downstream flooding and sedimentation. The combined effects of these produce a wide range of biological impacts, principally upon benthic invertebrates, fish and aquatic vegetation. In addition, lowering of the water-table in and adjacent floodplains, as a direct consequence of channelization, can produce impacts on natural vegetation and wildlife.<sup>9</sup>

Another obvious effect of channelization is desertification. Desertification occurs as a result of a long-term failure to balance social demand for ecosystem services and the amount the ecosystem can supply. In other words, desertification is defined as

"the rapid depletion of plant life and the loss of top-soil at desert boundaries and in semiarid regions, usually caused by a combination of drought and the overexploitation of grasses and other vegetation by people."<sup>10</sup>

There is a common misconception that desertification spreads from a desert core. One of the leading causes of desertification is low soil conservation, which leads to soil degradation. Healthy soil contains organic matter and nutrients such as carbon, nitrogen, phosphorus, and sulfur.

## RIVER CHANNELIZATION ALTER-NATIVES

'Channelization is the term used to embrace all processes of river channel engineering for the purposes of flood control, drainage improvement, maintenance of navigation, reduction of bank erosion.'<sup>11</sup>

Channelization of River Beirut serves only as flood control mechanism that has proved to have negative impact on many aspects for the nature as well as for the city. Therefore, the question arises of whether the River engineering in Beirut serves its purpose?

'Trees have an important role to play not only in climate change mitigation but also in reducing vulnerability to climate related risks'<sup>12</sup>- Nobel Peace Prize Laureate Wangari Maathai

Research paper 'The role of agroforestry in building livelihood resilience to floods and drought in semi-arid Kenya' published by three scholars in 2017 present their findings that proves and describes how agroforestry can be and already is a solution for

flood.

'Some of the ecological characteristics of agroforestry species make them resilient to floods and droughts, including deep root systems that are able to use a greater soil volume for water and nutrients (Kandji et al. 2006, Verchot et al. 2007). Shade trees can produce microclimates that buffer temperature fluctuations (Lin 2007), which in turn can reduce evapotranspiration.'<sup>13</sup>

Another living example is Cauvery Calling campaign in India. That could set the standard for rivers revitalization. That accompanies to Kenya practises and states that the simplest way to recover Cauvery basin is by adopting agroforestry.

'As trees disappear, soil is being eroded, Cauvery is drying up. Cauvery has depleted over 40% in the last 70 years, 87% of the basin's original tree cover has been lost. Almost half the Cauvery basin suffers critical groundwater depletion.'<sup>14</sup>

## REFORESTATION

### Tree cover and root systems

Creating tree cover on the runoff areas, and floodplains of rivers could be a seemingly basic but a very compelling method to guarantee long-term surface, and subsurface streams, and increase total water supply.

Tree root canopy improves the infiltration of water from rain into the soil. It leads to an expanded quantum of water in groundwater aquifers that supply the rivers. Water is recharged in this way within the aquifer streams into the rivers in a regular pattern over a long period, drop by drop through the groundwater-surface-water interaction. Live and rotting roots form an intricate web of channels within the soil called macro-pores. Water streams through these macro-pores can be a few hundred times quicker than a stream through the soil matrix. Moreover, biological matter from leaves and tree roots boosts soil structure, which can raise infiltration rates.

### Groundwater, Baseflow and streamflow

Baseflow and streamflow are the two types of flow in a stream or river. The groundwater infiltrating into riverbanks or the riverbed forms the river

baseflow. Baseflow is the sole or essential source of streamflow amid the yearly dry season when the precipitation is inadequate to produce substantive runoff. The surface water is mostly associated with groundwater, which features a significant effect on the water flow of the river. Commonly the baseflow can be sufficient to permit the stream to flow all year. Baseflow through groundwater is the primary source of maintained flow within the river, but this is not the case amid storms.

### Quality of water

Afforestation will help stabilize the quantum of river water and enhances the quality of water as well. Agrochemicals used in agriculture are the most significant source of pollution in our streams. Having a green cover will guarantee that the root system of the tree channels out such poisons from the soil, and the runoff water before it enters the river.

### Evapotranspiration

But trees don't only assist with replenishing the source — they, in turn, have a remarkable effect on stabilizing precipitation trends through evapotranspiration (a process by which water is moved from land to the atmosphere by evaporation and transpiration). This process seeds passing rain clouds, making it rain in and around the tree cover itself, which increases the flow of the river as well. Over most of the tropics, the air that passes over forests for ten days produces twice or more as much rain as the air that passes over meagre vegetation, due to the forest-derived evapotranspiration as seen in satellite maps of precipitation. Usually, 40 per cent to 70 per cent of rainfall over land stems from evapotranspiration, with more significant commitments in a few locales such as the Rio de Plata river basin.

In summary, afforestation leads to replenished groundwater and evapotranspiration, which is a catalyst for river revitalization. Trees and vegetation can be the cornerstone in human efforts to sustain the water cycle.

## CONCLUSION

River engineering is meant to be a quick solution for flood control, drainage network and soil erosion. In some instances, it still proves to be a solution for specific purposes in some places. However, it started being referred to as 'insidious cancer' rather than a resolution (Bauer and East, 1970) due to its harmful environmental effects encompassing channelization.

In the case study of River Beirut, it also proved to be a factor of disengaging people from its natural landscape. Besides, River lost its cultural and ecosystem services. Moreover, the analysis showed that citizens lost a public space, and there were erased many social activities from the neighbourhoods. Therefore, at this point, it is essential to reconsider what is the man's role in changing the face of the earth.

The alternatives for channelization could be reforestation. This method adopted by some nations in the world proved to be the simplest yet most promising solution.

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the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million, and the number of people aged 75 and over has increased from 4.5 million to 6.5 million (Office for National Statistics 2000).

There is a growing awareness of the need to address the needs of older people, and the need to ensure that the health care system is able to meet the needs of older people. The Department of Health (2000) has set out a strategy for the health care system to meet the needs of older people, and the Health Service Research Unit (2000) has set out a research agenda for the health care system to meet the needs of older people.

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RIVER ENGINEERING  
ABUNDANT WITH NATURE  
Useviciute Viktorija



Fig 1. The picture shows the river flow in the summer.

Lebanon has a wide range of the rivers and River Beirut is one of them.

The Beirut river flow dramatically changed during the last century. There are many reasons for it. However, development of the port, waves of migrants and refugees, as well as rapid and uncontrolled urbanisation were the leading causes for its transformation.

Due to channelization, the natural resource lost its social significance. Back a century ago, the river was an association of safety and had great significance as a public, meeting, social engagement, playground and leisure place. It was a place where people would gather, celebrate and engage with nature; share their stories, experiences and skills.

Lost access to the river erased this significant cultural aspect of social engagement and contact with nature in the city.

The image of the River today is the opposite. It lacks nature. River Beirut drastically depleted due to many reasons, but the main reason is uncontrolled urbanisation. Today, River treated as sewage rather than a land nurturer and a source of nourishment. The leading factories built along the River as well as the slum houses and low-quality housing for

refugees, immigrants settled along the River too.

The River was transformed from a riparian river to a concrete canal in 1968. Extensive work was done along the riverbank to protect the city suburb from floods. A canal is around 7 kilometres length.

However, the downside of canalisation is that the water from the mountain is flushed to the sea very quickly during the flood season in February and March. Therefore, in the summer, the river is almost dried completely. Also, sewage water, trashes, the sun's heat, and lack of the river flow create a distinguish awful smell in the city.

In 1933 the highway built along the River of Beirut. Mainly to create heavy traffic artery which supports the port's ground shipping. It eliminated the public access to the River from the Beirut city side. Later, the road was constructed also along the other side of the river. In this way, the area was filled with traffic, noise and smell of gasoline.

## MODUS OPERANDI

I made a model as a representation of lost land char-



Fig 2. River Beirut flow in the summer; close to slum hoses

acteristics such as a wetland. The idea of pollution and current land issues I aimed to represent through making the model out of the toilet paper. The model was made from the many layers of wet out or moistened toilet paper and then glued to recreate lost landscape features by the river.

This model influenced me to research the idea of pollution. How the river is polluted, where and who or what is responsible for it?

## CONCEPT

From very beginning my approach was look for the methods that would revive the riverbank and reinstate biodiversity into the site by removing the walls and bringing nature back to the city.

However, before that, I already explored the other possibilities of the river which are:

\_To altogether remove the river from the city realm by enclosing and bringing it under the canal. Then, think of creating a public space with some other functions, not related to nature but rather opposite.

\_To remove the canal and reinstate nature only in some parts of the city. Also, looking for the possi-

bilities to excavate the ground under the roads in order to expand the riverbanks' scope.

\_To altogether remove the canal bottom to bring back all the natural qualities. Then, construct it to create a shape appropriate for flood seasons but also accessible to the public. Sidewalls partially would remain in place to make wastewater conduit. That run to the wastewater treatment plant located at the waterfront. Most importantly plant the trees along the river as the primary means for thickening the ground and therefore suitable for flood control.

The most appropriate and reasonable solution for the river, in my opinion, would be the last option.

Many living examples prove reforestation is the simplest yet most sustainable solution for floods. Some tree species make them resilient to floods and droughts, including deep root systems that can use a greater soil volume for water and nutrients. The shade of trees produces microclimates that mitigate temperature fluctuations. Tree roots held and stabilize soil against erosion. They also filter impure water. Flood water takes long time to be absorbed by the roots. It prevents the river water level fluctuation from very high to extremely low. Therefore, forests control surface water flow and prevent floods.

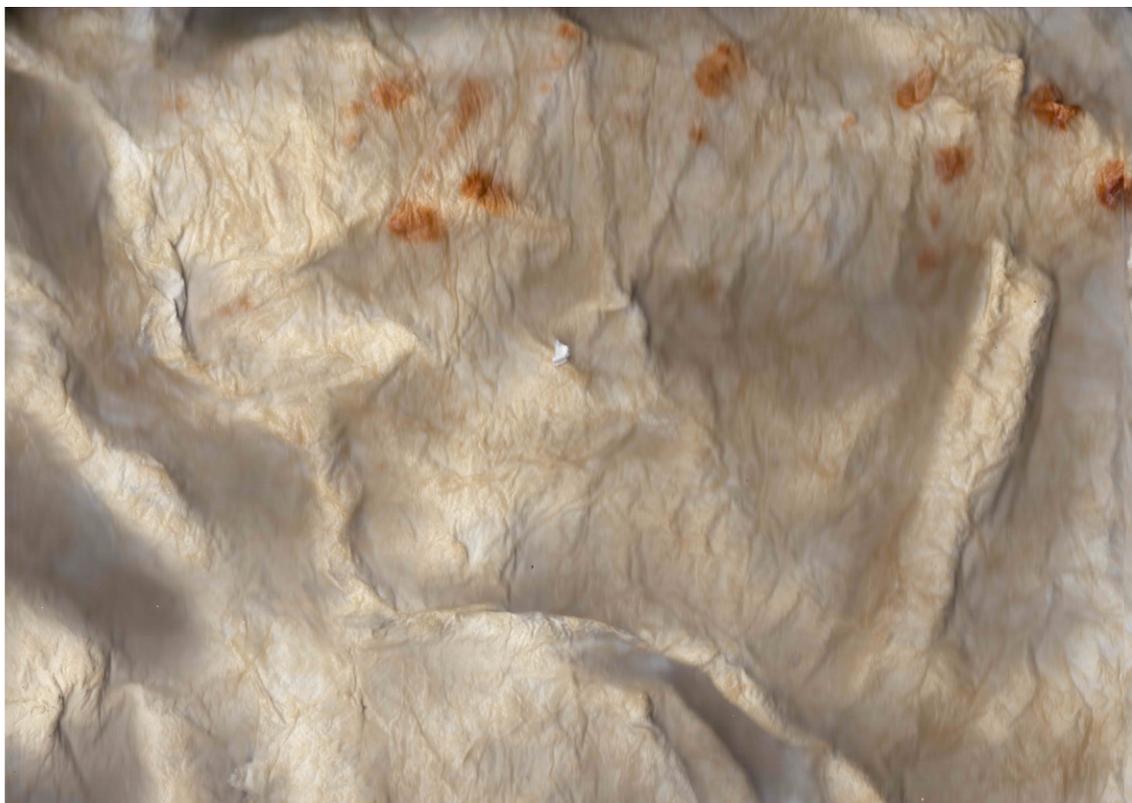


Fig 3. Picture of 'modus operandi' workshop paper model

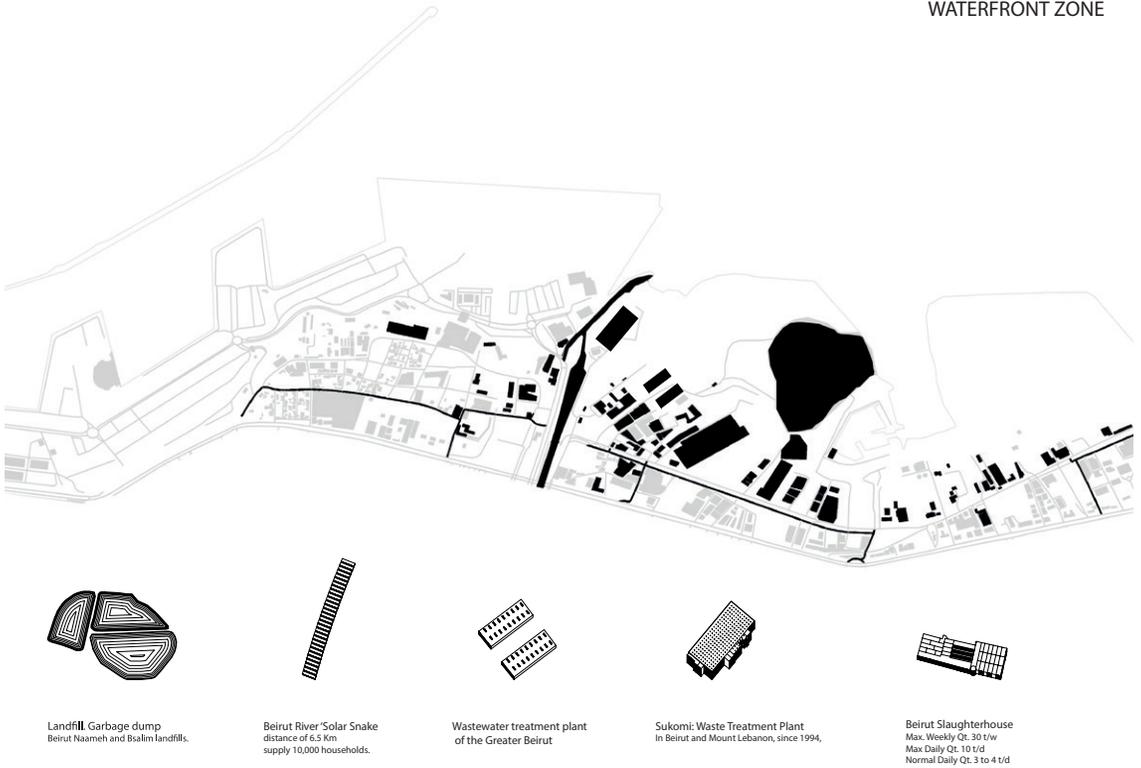


Fig 4. Drawing of pollution mapping in waterfront zone

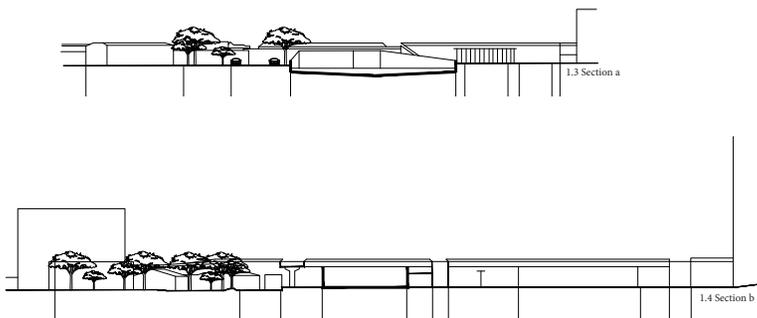
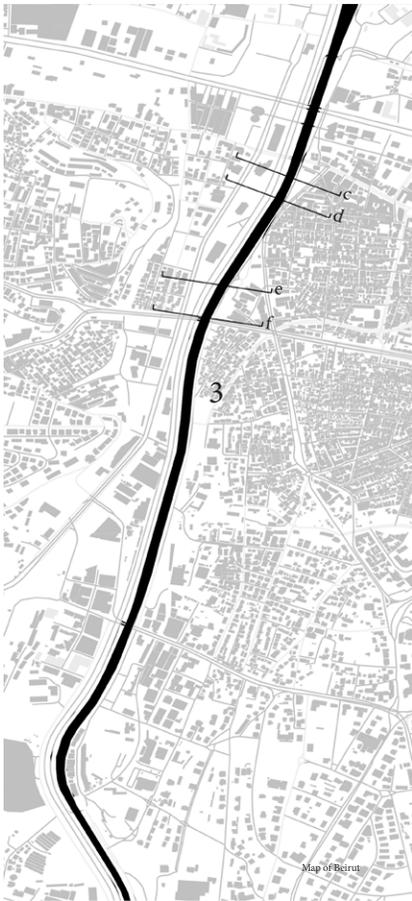
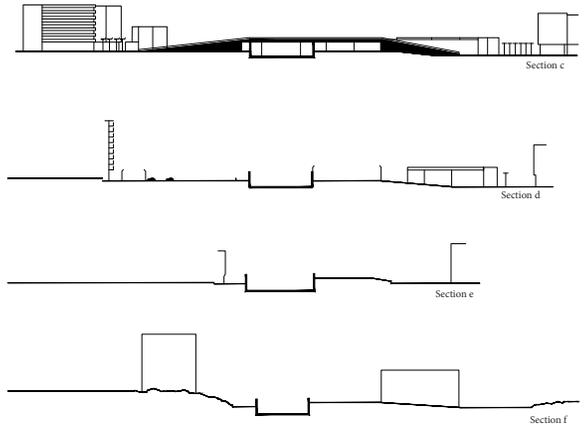


Fig 5. Canal sections



The urban zone mainly comprises dense residential neighbourhoods on both river sides. The canal in this section is sandwiched between the regional highway on Beirut's side, and a local road on the opposite bank.



Sections of the River Beirut and its context



Fig 6. Urban zone sections and zoning diagram.

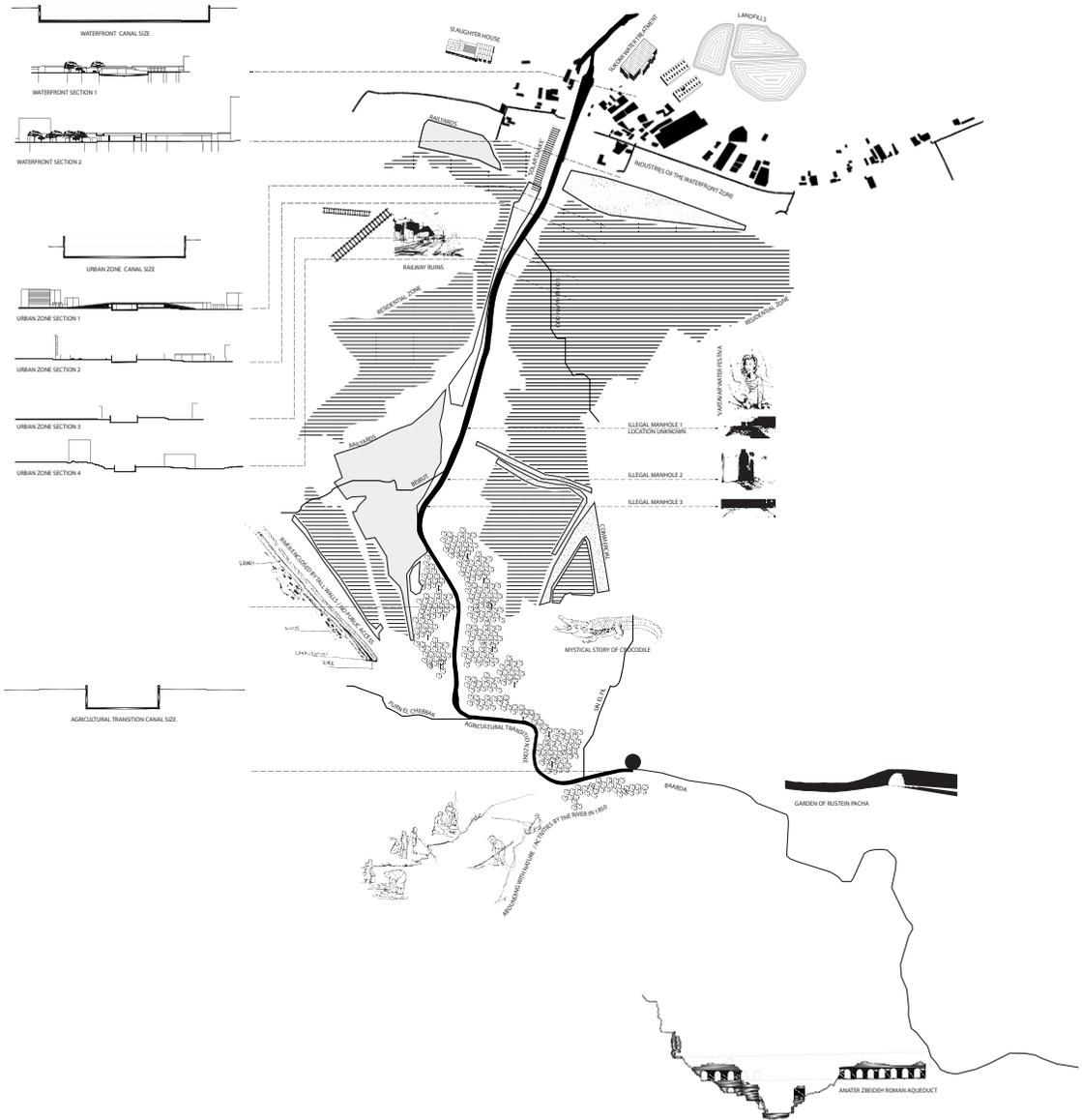


Fig 7. Mapping of research outcomes; doodles

Adjacent industries and households highly pollute the River. Legal and illegal manholes contaminate the River. Nobody feels responsible for their waste management. There is no one authority or system for it. Ecological balance and biodiversity lost around the River. The land suffers from desertification. Flood water is not used for any purposes. It

only runs from the mountains to the sea. The River lost its cultural, social aspects, but most importantly, it does not nourish the land. The River is visually distorted; it looks abandoned and resembles public sewage rather than a land feature. The city and the citizens lost contact with nature, and there is no public access to the River.

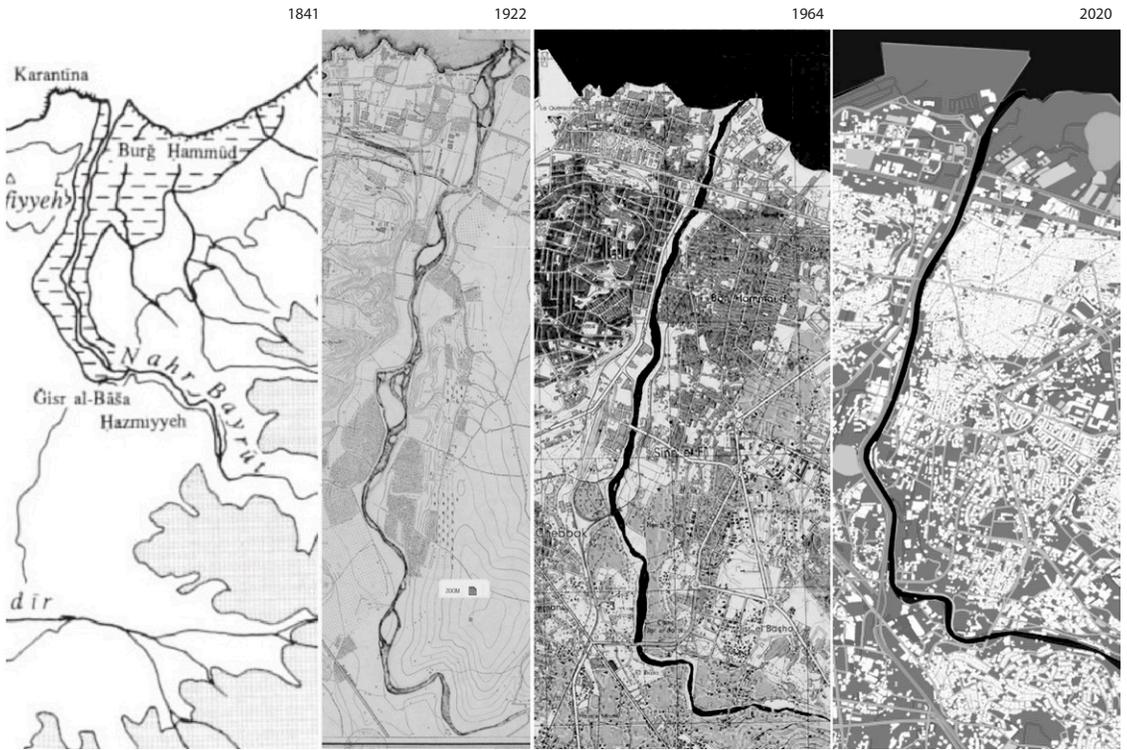


Fig 8. Historical maps

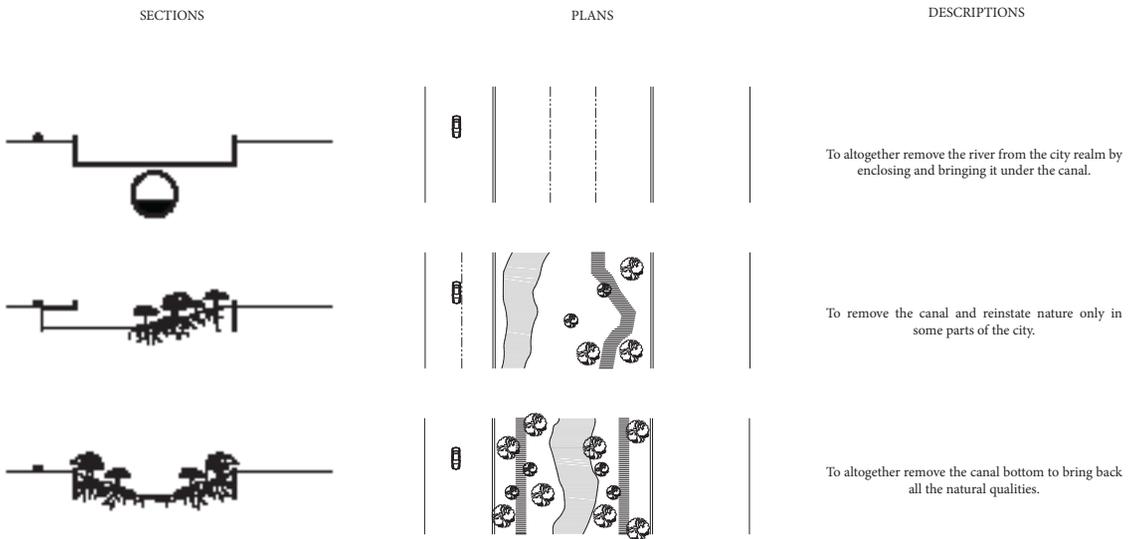


Fig 9. Sections and plans of possible river alterations



Fig 10. Mapping produced for the group work representing disappeared natural landscape

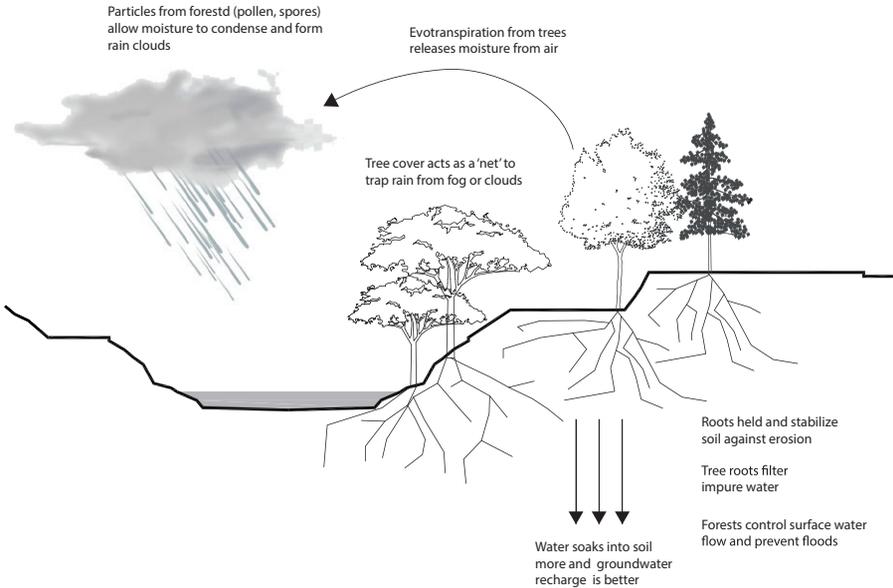


Fig 11. Reforestation and nature water cycle diagram

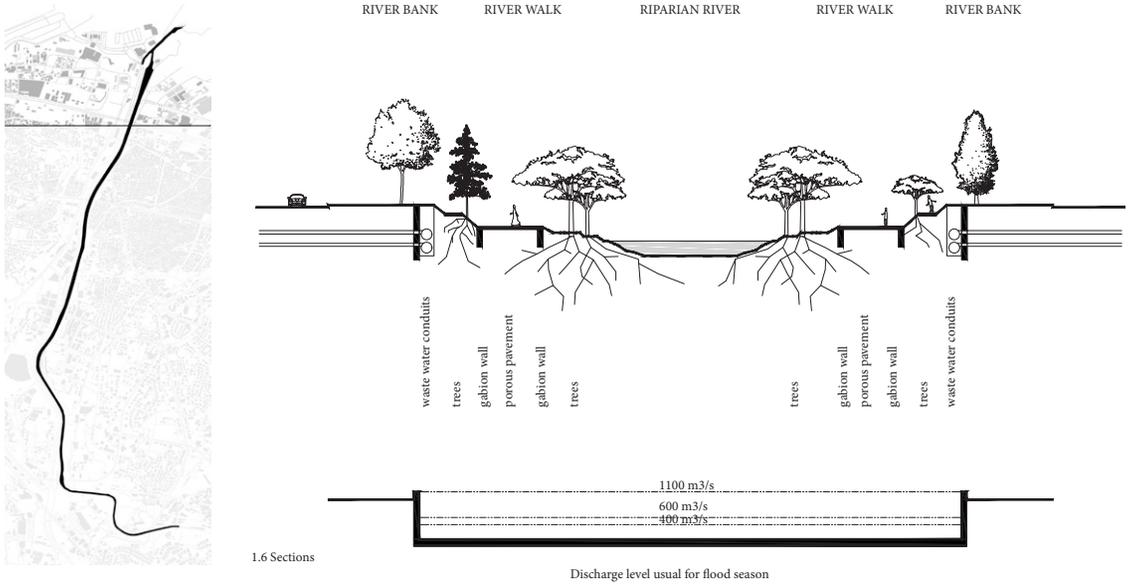


Fig 12. Waterfront zone proposed section

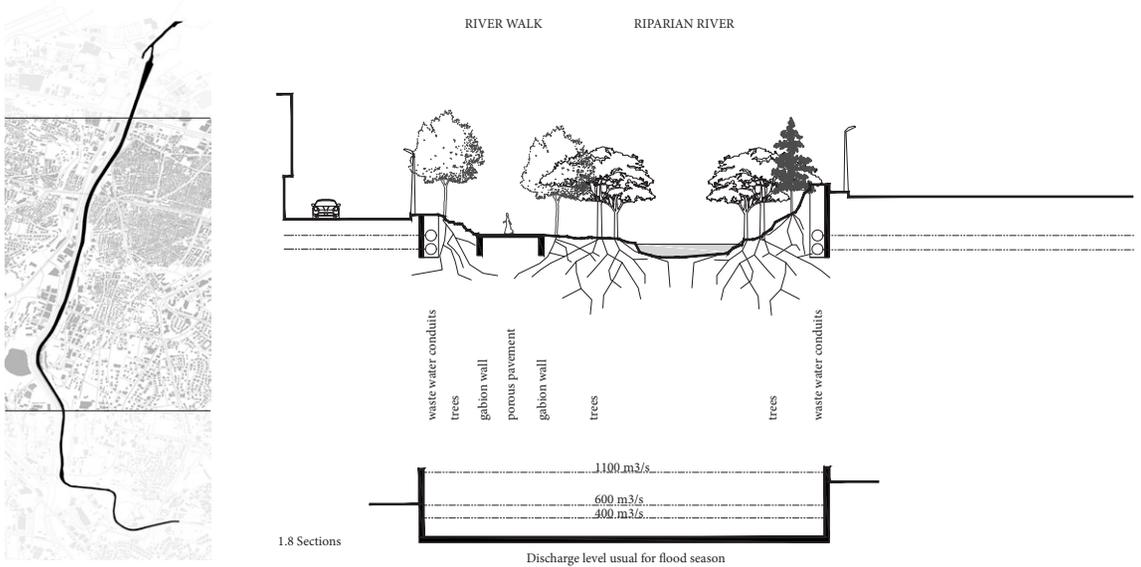


Fig 13. Urban zone proposed section

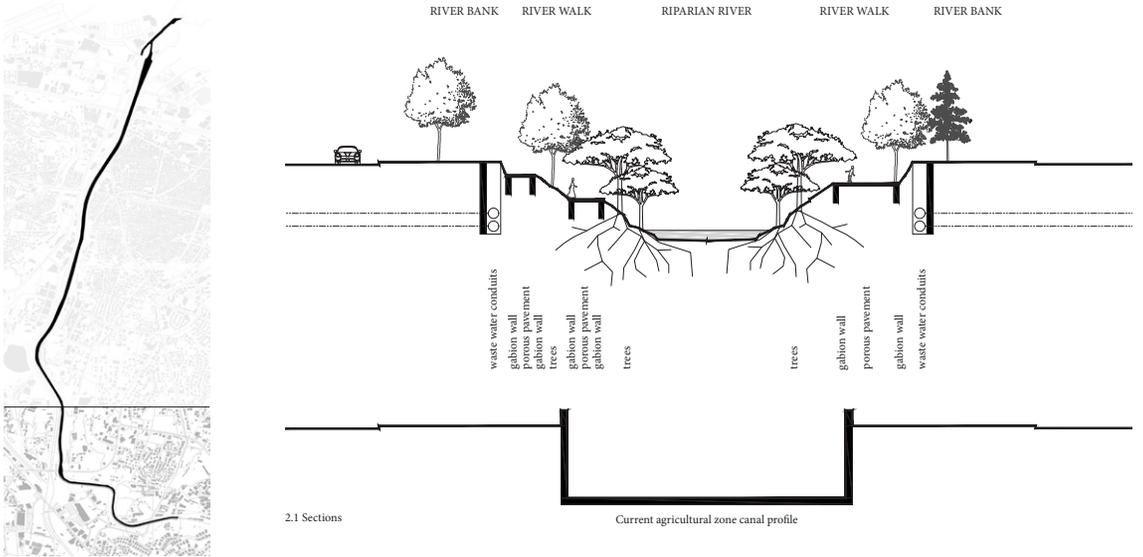


Fig 14. Agricultural transition and valley zones proposed section

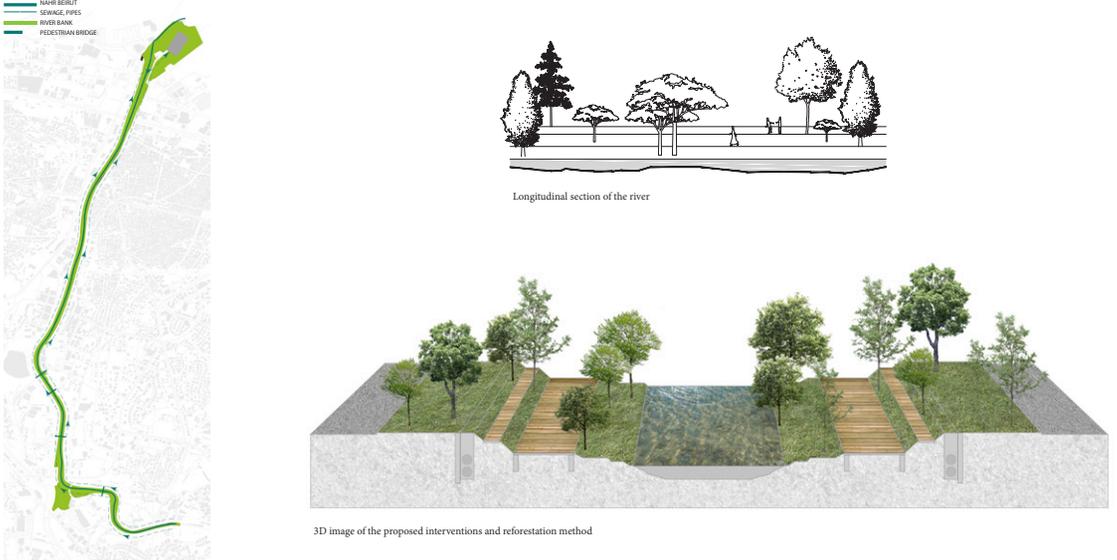


Fig 15. Vision presented in map, section and 3D view

## PROBLEM STATEMENT

'The Beirut River, the city's largest open river, emerges thirty kilometres inland from two points in Hammana and Tarchiche at an altitude of around 1900 meters.'<sup>1</sup>

For numerous years the Waterway has been utilized as a water resource for drinking and waterworks. Besides, it once had an essential part as a space for recreational enterprises. In 1968, the River Beirut (Nahr Beirut) was changed from a common, healthy and performing biological system to a canalized infrastructure. Becoming an open sewer of residential and industrial wastewater, exceedingly contaminated and posturing numerous health dangers to its neighbours.

Today, it is called 'no man's land' because it does not belong to a single authority. Many jurisdictions border or own some part of the river, but none take full responsibility for its actions.

Moreover, The River misplaced its recreational and social objectives as individuals do not have access to it.

Also, they did extensive work along the waterway bank to ensure Nahr rural areas from floods. It partially worked. However, nowadays, the region endures from desertification, soil erosion, and it lost the balance of ecosystems.

## RESEARCH QUESTIONS

Canalisation (channelisation) / River engineering has its pros and cons. One of the benefits is to limit water to a specific area of a stream's natural bottomlands so the majority of such lands may be made available for agriculture. Another reason is control, with the concept of giving a stream a sufficiently broad and deep channel, so flooding beyond those limits is minimal or non-existent, a minimum of on a routine basis. One more primary reason is to scale

<sup>1</sup> '20200601074424-Af13336de517d1026985b13bf-0c9b117.Pdf'. Accessed 4 January 2021. <https://www.theotherdada.com/data/pages-subs/files/20200601074424-af13336de517d1026985b13bf0c9b117.pdf>.

back natural erosion. In this specific case of River, Beirut canalisation serves only one of the utilities mentioned earlier: flood control.

Therefore, the question arises of whether the River engineering in Beirut serves its purpose? Are there any better methods or solutions that could regulate flood streams but compromise soil erosion and biodiversity loss? What would they be?

Revitalising River Beirut, is it necessary?

Can reforestation be a solution for river rejuvenation in Beirut?

What is the real purpose of the River in a city?

## DESIGN ASSIGNMENT

The aims of the design would be:

-To address the Beirut River's degradation and its adverse effect on the neighboring communities and environment by creating a holistic design strategy for the Beirut River Watershed. The objective is to bring the Beirut stream back to life by introducing the Landscape Ecology approach;

-To recover the ecological balance; to revive ecosystems and biodiversity;

-To introduce a sensible and mindful approach towards its natural resources and heritage – soil, water, and natural landscape.

-To make the river accessible to the public;

-To restore cities cultural, social activities, engagement with water;

-To bring the possibility for human body get in contact with natural elements.

-To look for a connection that bonds and unites the river with different neighborhoods and authorities; blurs invisible boundaries between communities. Thus, 'no man's land' becomes 'our land';

## METHOD DESCRIPTION

The River Beirut is mistreated and not acknowledged in many respects. It is treated as sewage rather than a nurturer of land and a source of nourishment. Leading factories built along the River and the main slum houses and low-quality housing for refugees settled along the River. Therefore, it has a history of being a shelter for all superfluous elements of Beirut's city.

The River was transformed from a riparian river to a concrete canal in 1968. Canalisation solved the flooding problem. But this led to an altered ecosystem and its effects such as desertification, soil erosion, lost biodiversity etc. Nahr Beirut already lost its natural services which are:

**Provisioning services:** to provide fresh water in the area of Daychounieh to the city all the way through the Roman aqueducts for irrigation and potable water supply and to transport sediments, organisms, and nutrients.

**Regulating services:** to treat and store water as well as control erosion, to mitigate impacts of floods and storms, and filter waste through natural processes.

**Supporting services:** to offer food, shelter, and water to living organisms as it acts as a vital migratory path to more than 70,000 soaring birds.

**Cultural services:** to provide a natural space for recreation and cultural events for communities such as the renowned Armenian water festival Vardavar where Armenians used to traditionally gather around the river and drench themselves in water.<sup>2</sup>

<sup>2</sup>Moreover, the waterway has no public access and is disconnected from its surrounding neighbourhoods. Besides, Lebanon is suffering water shortage, especially quality water supply. It appears that the city is missing a sensible and mindful approach towards its natural sources and heritage.

For this reason, a search for natural, life-inclusive, holistic design strategy by introducing Landscape Ecology approach seems to be a good starting point. Looking at the other living examples of a similar situation of endangered River ecology such as Cauvery Calling and its adopted agroforestry method – going back to the roots - can be a simple but effective method for the ecosystem revival of River

2 theOtherDada. 'The Importance of Ecosystem Services'. TheOtherDada (blog), 10 May 2016. <https://theotherdada.wordpress.com/2016/05/10/the-importance-of-ecosystem-services/>.

Beirut.

Beirut's folklore expresses that the city was destroyed and rebuilt seven times as phoenix reborn from the ashes during 5000-year history. Therefore, the research structured as archaeological work. Uncovering historical layers of the city, investigating them and then recomposing their traces:

'fragments which appear to be disconnected and disparate while knowing that it will never be possible to assemble all the parts'<sup>3</sup>.

The approach of reconstructing layers disclosed unapparent elements of the riverside. Awareness and understanding of the man's importance to contact nature's main elements, such as soil, water, and natural landscape. That enhances human life and creates a connection between the city and nature; brings back the balance to urban life. Contact to nature enhances 'ability to question what exists'. That lays aside the norm and allows exploration of endless freedom.

## RELEVANCE

It is recreating riverbank of Beirut ecosystem that can have an essential role in reshaping that area of city Beirut and act as a precedent for the treatment of the many other channelized watercourses in Lebanon and the world. The aim is to bring the natural services and qualities of the River Beirut back to the city. Thus, to establish a connection between the city and nature. That would also enhance every individual life quality. 'As we are part of nature and nature is part of us.'<sup>4</sup> In this way, to establish a living example of the river transformation through the holistic, age-proof forestation model that can revive its ecosystem not only in theory but also in action and, therefore, in city consciousness. That would consequently inspire to protect and respect the public realm.

3 Michel Foucault, *The Archaeology of Knowledge* (Tavistock, 1974, Editions Gallimard, 1969) cited in Royston Landau, *Notes on the concept of an architectural position* (London: AA Architectural Association School of Architecture 1981), p.4

4 Australian School of Meditation & Yoga | ASMY. 'CHIEF SEATTLE'S LETTER', 28 April 2017. <https://asmy.org.au/wisdom/chief-seattles-letter/>.

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Practical Preferences:

Underwater restaurant - Snøhetta / Norway (2019)

Horizontal Skyscraper - Herzog & de Meuron / Moscow, Russia

Wetland park (to prevent flood) - CF Møller / Denmark (2018)

Orpheus - Kim Wilkie / United Kingdom

City / Double Negative - Michael Heizer / Nevada (1969)

Flamingo Visitor Center - Petr Janda / brainwork studio / Abu Dhabi (2020)

Crane Pavilion - GBBN / China (2018)

Swan Lake Bridge House and Viewing Tower - TAO / China (2018)

Novartis Campus Park – VOGT landscape / Switzerland (2016)

## LIST OF FIGURES

1. Picture is taking in the beginning of the agricultural transition zone. Close to Funr El Chebback bridge / theOtherDada. 'Sustainable Architecture Consultancy + Forests'. Accessed 19 January 2021. <http://theotherdada.com/en/>.

2. Kamel Lazaar Foundation. 'Under-Writing Beirut', 26 May 2017. <http://www.kamellazaarfoundation.org/fellowship/under-writing-beirut>.

3. Picture of 'modus operandi' workshop paper model. Taken by V.Useviciute

4 - 7. Drawings produced by V.Useviciute

8. 'MAPS AND THE HISTORICAL TOPOGRAPHY OF BEIRUT'. Accessed 19 January 2021. <https://almashriq.hiof.no/lebanon/900/930/930.1/beirut/reconstruction/davie/Davie-text.html>. 'Map - Beirut - Beirut01.Jpg - MAP[N]ALL.COM'. Accessed 19 January 2021. [http://www.mapnall.com/en/map/Map-Beirut\\_85853.html](http://www.mapnall.com/en/map/Map-Beirut_85853.html). 'Large Old Map of Beirut City with Buildings - 1936 | Beirut | Lebanon | Asia | Mapsland | Maps of the World'. Accessed 19 January 2021. <https://www.mapsland.com/asia/lebanon/beirut/large-old-map-of-beirut-city-with-buildings-1936>.

9-15. Drawings produced by V.Useviciute



The graduation studio 'Border Conditions along the New Silk Road' focusses on sites where spatial conditions have emerged that are 'teeming with suggestive meanings and unexpected potential' but are hardly analysed within contemporary architectural discourse. The studio investigates contemporary border conditions within the larger urban and territorial scale, with a special emphasis on the relationship between architecture and its socio-political context(s). B&T views the

contemporary city as an 'urban universe' of spatial conditions, which consists of constellations of elements seemingly without any relative weight. To think of an 'architectural project' in such a context means to engage in a speculative approach directed to alternative formulations of architecture, all based on a fundamental understanding of fragmentation and complexity. In the graduation studio, these new reformulations are instigated by, and at the same time applied to the controversial 'New Silk Road'.

