# Mending the Broken City: Grafting the Village Towards Regenerating Damaged Urban Environments

by

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# Contents

# Abstract

Pre-war Beirut was characteristic of a typical Mediterranean urban fabric with its densely packed low-rise buildings and a cultural scene that saw public program mixed homogeneously with dwelling and other civic functions, influential of the social stability that existed within the environment. These issues question the development of modern ways of living focused on the rigid organization of program. This thesis analyzes how housing models can be used as a method of healing in regions affected by social instability resulting from conflict or trauma. It considers how the contemporary integration of program within an urban environment - based on historical ideas of the village typology - can develop a path towards reconciliation and regenerate damaged urban environments, solidifying the role of combining dwelling and public program to facilitate the regeneration of Beirut, and other landscapes that have seen similar changes in recent history.

# Acknowledgements

To my family; I cannot put into words how much your continuous love and support has kept me motivated during my years of education. Without you, I would not be the man I am today nor would I be in this position. I love you so much.

To my thesis committee, Niall and Diogo; you continued to push me past limits I could not see myself reaching. Your insight and support has made me believe in myself when I found it most difficult and helped me realize so many things about my work and myself, for that I thank you.

To my friends; you saw me at my worst and continued to push me to do my best. Thank you for constantly supporting me and reminding me of what is truly important. When school got in the way of life, you continued to motivate me to reach the end and continue doing what I love most; you always pushed me even when I hated you for it. I would not be at this point in my life if it were not for all of you and the endless support you have given me.

# Chapter 1: Introduction

## 1.1 Encountering Social Tensions

1930

1984

1994

Martyrs Square through time. Images marking the presence of Beirut's largest public park before, during and after the civil war. While development occurred around Martyrs Square following the war, the park itself was never reconstructed. (Richani 2011)

Beirut - a city of inexplicable conflicts - was widely referred to as the most Westernized city in the Middle East as it reached a period of heightened prosperity as a port city, and a link between the Arab region and the rest of the world. The city became the social and economic anchor of Lebanon after the country was granted independence in 1943. Soon after, Beirut became a battle ground for 15 years in 1975 when a civil war erupted amid conflict unleashed by sectarian and ideological passions (Larkin 2010, 427). The city was divided along the Green Line; a path of destruction separating it into Muslim-West and Christian-East Beirut during the war. At the centre of the conflict was Martyrs Square, and what was once the largest public park in the city quickly became a symbol of social division after being completely destroyed during the war (Doyle 2012, 22). The area dedicated to the Lebanese nationalists executed during World War I suddenly became a physical fracture within the already sensitive urban fabric of Beirut (Doyle 2012, 23).

The civil war left Beirut depleted of the large, varied, and long-established community of diverse populations that once enriched its social life and warranted its distinctive cosmopolitan character (Doyle 2012, 64). It became a city in ruin and its infrastructure obliterated, leaving Beirut's people with no electricity, ruptured sewer lines, and the city stripped of any kind of cultural identity (Höckel 2007, 14). Public squares and buildings that famed the city became inhabited by ghosts of Beirut's past; and Martyrs Square was but one of a large number of shattered landscapes that emerged in the region (Doyle 2012, 254). Roads were turned into

highways, with no traces left of pre-war Beirut except the concrete remains of abandoned buildings and alienated religious neighbourhoods. These changes affected the city's overall social and physical environment and its quality of public life; yet they offered a great opportunity to enhance the quality of urban spaces (Höckel 2007, 12).

Reconstruction efforts following the war focused mainly on the Beirut Central District (BCD), with an urban development strategy led by the group Solidere. The rest of Beirut, however, remained neglected and repaired haphazardly; physically alienating it from the rest of the city through a raised highway, and socially through developments catering to wealthy international businesses (Bou-Saleh 2016, 4). The social repercussions of effectively suffocating the rest of the city have been quite severe; according to Höckel, these actions led to a "loss of government legitimacy and credibility among its citizens" and "weakened state control in the marginalized regions" following the war (Höckel 2007, 1). The exclusion of the public in the development of civic space, and a neglect of the basic needs of less affluent neighbourhoods led to the disintegration of social adhesion and national unity in Beirut, failing to repair the damaged urban environment (Höckel 2007, 8).



Street scenes in Beirut. During the civil war that left many parts of the city completely uninhabitable, people somehow still find activities in the space. (AFP 1976, AFP 1975)



A timeline of Lebanon's long conflict-plagued history. The timeline outlines key events up to and following the civil war which devastated Beirut and its surrounding areas. The timeline is composed of various Google Images from multiple sources.
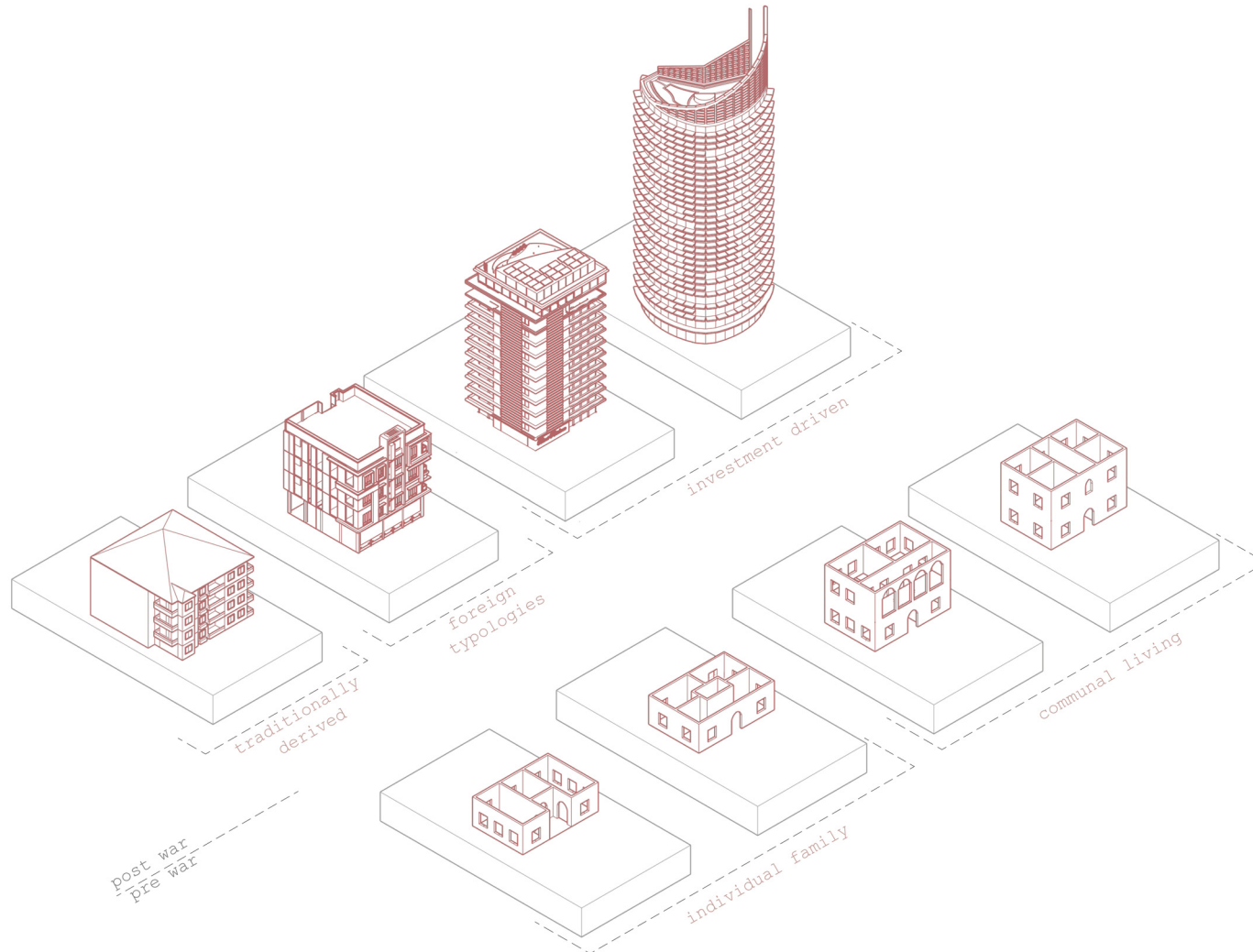
## 1.2 Literature Review

Exploring the role of culture in the regeneration of damaged urban environments begins with an analysis of how the loss of cultural experiences leads to damaged social landscapes. Craig Larkin (2010) raises the question of how ideas of culture can be erased over time. He identifies that it is partly due to the fact that there is often a strong influx of foreign architectural professionals who know less about the local architectural traditions formed over thousands of years, separating people from landscapes they know and find comfort in (Larkin 2010, 428). Another position to consider is the favouring of one group or another in the redevelopment of public space. Sophie Watson (2006) conducted a study analyzing the sanitization of spaces, making them almost exclusively for one group, terminating the presence of



Beirut's districts through time. Illustrating four major time periods of the city's history; pre-war, post-war, foreign investment, and the recent explosion at the Beirut Port on August 4th, 2020.

investment driven

foreign
typologies

communal living

traditionally
derived

individual family

post war
pre war

Changing landscapes. These changes conflict the way we experience the urban environment; by removing any form of collective identity and allowing the creation of spaces that have little consideration of the social climate, the space people inhabit becomes alien to even the most devout residents and the physical lines within the city once inhabited in ways that brought people together traded for perceived functionality.

4

tolerated diversity and announcing 'the end of the common world' in these contexts; which was manifested in Lebanon by the exclusion of the local population in favour of wealthy investors and tourists (Watson 2006, 11). These authors argue that when integrated into the wider emergency and development response, the restoration of cultural heritage can capitalize on a range of capacities to stabilize, and restore damaged social structures.

A related argument is raised in Lefebvre's (1991) production of space, whereby space is not only the designating land occupation, but rather the collection of meanings and activities associated with people's social practices. Authors including Gehl (1987, 1996), Watson (2006), and Carr et al. (1992) indicate the importance of housing in developing social interaction and exchange; and bringing these aspects together allows for reconciling with the notion of sharing space, and having the means to communicate about 'aesthetic experiences'. Larkin (2010) concludes that when public spaces are inclusive, common, and shared by all, they form the tissue that binds architecture and people together.

The framework of the proposal is developed by the literary works of Sophie Watson and Craig Larkin, among others. Their theories help develop a position on fractured landscapes that is focused on the importance of culture in creating stable urban environments and the impact on these environments when the culture is lost. Supporting their arguments is the work of Nicholas Stanley-Price and Kathirn Höckel which look at culture in more specific settings as well as in Lebanon. These investigations work to develop the general framework of the role culture plays in urban environments, and the contextually specific values and customs that are to be implemented in the framework.

A family attached to their home. They live in the dwelling despite its worsening condition as it has survived in their family for generations and become a part of their lives. (Nogues 2019)

These authors help set up a further investigation regarding the nature of culture and housing which is led by Jan Gehl and Craig Larkin. They identify the foundations of facilitating cultural practices by creating spaces that promote complex social relations, varying levels of privacy, and the orientation of programs to concentrate social aspects of culture. These authors consider how the built form facilitates the active role of culture in urban environments and how to create landscapes that encompass the cultural essence of a place.

The resulting investigation looks at housing in two ways; as an active member in creating culture in urban environments, and the role of the house in Lebanese culture to help inform the investigation. This part of the thesis in led by author Afif Tannous (1949) who writes extensively about the role of the home in Lebanon and authors like Jan Gehl who speak about housing as part of urban landscapes. Their analyses help develop the framework of form making and inform the opportunities for scaling the projects principles. Taken from the scale of the home, then to the village and the city, the investigation outlines how its replication across various locations can further promote the intentions of the proposal.
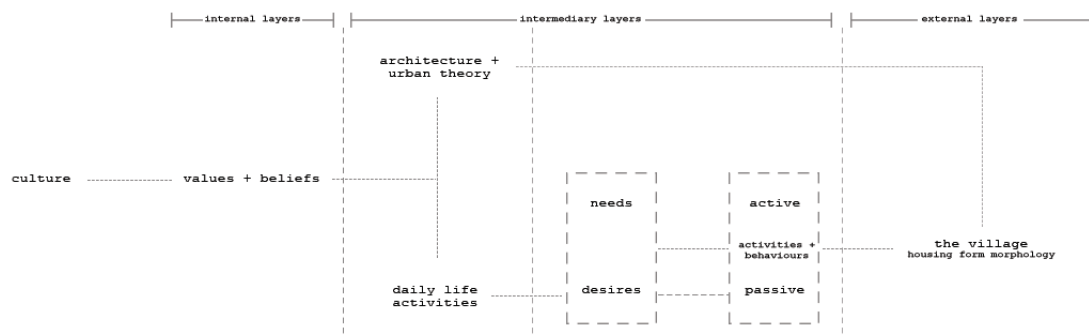


A relationship of housing and culture. The two methods are used as the foundation of the investigation for their mutual relationship in creating stable urban environments through built and social compositions of space. The form of the house allows the common values and beliefs to be manifested in the environment through architectural theory and considering cultural ways of life based on Rapoport (1998). (Zaroudi 2014)
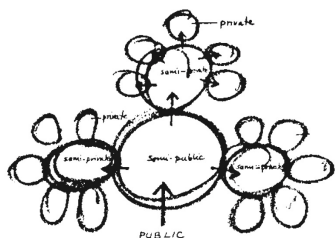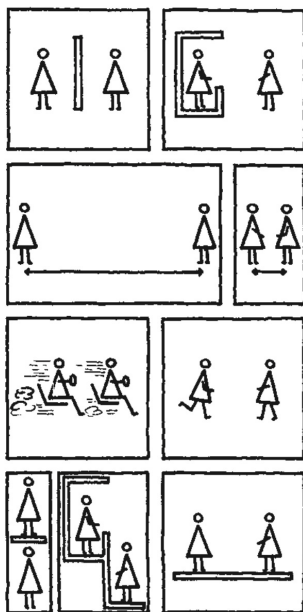
These writers help identify the acting principles that develop the role of culture in urban environments, the spatial considerations that facilitate these active cultures, and the role of the house in creating these landscapes. Their methods and principles are critical to the investigation as their research will inform the framework by carefully considering what elements are part of the general framework and which ones are left to be implemented after a cultural analysis of the setting. Considering their work, the investigation will inform future applications of the investigation in creating active social networks through the integration of culture from the scale of the house to the city and the role that these frameworks play in the development of the thesis.

## 1.3 Culture and Dwelling - The Hypothesis

The investigation will consider the foundations of culture and dwelling, and how they might develop models that challenge post-conflict redevelopment strategies which ultimately alienate neighbourhoods and heighten social tensions. It will emphasize their role in creating stable urban environments by first understanding what went wrong in other environments, and then developing strategies that will form to reconcile the foundations of stability in Beirut. Considering how the urban fabric of a place impacts its social composition supports the argument of housing and the built form as the facilitator of cultural interaction. The study also informs dwelling patters that align with the intentions of the thesis to develop the framework that will be applied in the investigation. The implementation of these factors will aim to regenerate fractured urban environments by creating landscapes founded on the characteristics of once stable urban settings and considering how the framework adopts cultural characteristics that are particular to each context.

Hierarchically organized housing area; illustrating graduating levels of private space. The structure strengthens surveillance and allows for individual expression in the public realm. (Gehl 1996, 59)

### 1.3.1 Defining Culture

For the purpose of this thesis, culture refers to the collective values, customs, and activities of daily life; factors that can be identified in any urban environment and contribute to stability. It manifests itself in our social environment through our interactions with neighbours, beliefs, and habits; and in our physical environment in the way we dwell and how we interact with the landscape (Watson 2006, 16). Our city fabric is then defined by the culture that exists within and in this way, provides the foundation of the thesis investigation as it develops these foundations in both their built and social composition. These universal ideas of culture will animate the framework of the investigation and form to embed themselves within an environment by using specific ideas of form and program that develop the project further as a method of regenerating urban environments.

Considering how culture manifests itself in the urban fabric supports the investigation of the village typology as a method of healing in these settings. Analyzing how the village promotes social interaction and the integration of diverse populations in its physical composition aims to develop an understanding of how this typology becomes a method of stimulating culture and a path to reconciliation. By investigating the role of the village in reconnecting people with the spaces they inhabit and restoring community interactions, the collective experience of these people surrounding the idea of dwelling becomes a tool for the regeneration of cultural landscapes that have encountered social tension as a result of conflict or trauma. It is in this way that the village typology will adopt cultural programs that will facilitate these intentions in specific settings and situate the investigation in any urban environment.

Principles of social relationships. Identified in the work of Jan Gehl, these ideas look at how physical distance and orientation of spaces facilitate rich collective experiences and form the principles that will be implemented in the thesis. (Gehl 1996, 62)

## 1.4 Developing a Framework

An understanding of how the built form acts to facilitate ideas of culture in an urban environment is critical to developing the framework through which the investigation will be applied. Using ideas of space and collective experience allows the investigation to be implemented in any setting by developing a set of criteria that form the village typology; such as varying levels of social interaction and privacy, a range of housing types that appeal to different groups, and a consideration of open spaces that facilitate cultural practices. By developing the village typology as the form generator of the investigation, the framework can then be placed in any context and used as a method of healing to regenerate damaged urban environments when combined with site specific cultural characteristics that form to create and animate spaces of collective experience.

### 1.4.1 The Role of Memory

The intentions of the investigation are not to create memories of a particular place or time; but rather to create moments of familiarity by specific implementation of the village that establishes elements of stable urban settings into the project and reforms connections between people and the spaces they interact with. The investigation also serves to challenge the negative history associated with many of these urban environments, while contextually specific ideas of program develop the collective experiences that are characteristic of stable environments and the people that inhabit them. Considering how these issues are applied in various settings promotes the village as a method of healing, acting as a stage for the culture that will encompass the space and provide people with spaces of familiarity and interaction.

## 1.5 Statement

By placing the investigation within a broader framework of post conflict reconstruction theories, the role of dwelling and culture can be examined as a method of healing. These efforts investigate housing models that are embedded within a cultural framework to create settings of place, space, and memory in contexts that have encountered social tensions as a result of conflict or trauma. The utilization of contextually specific ideas of program will remember the cultural heritage of a setting that once facilitated a stable urban environment; supporting the creation of spaces that promotes interaction by implementing "the village" and creating spaces of normality that people can associate with.

### 1.5.1 Thesis Question

These issues form to develop the question, how can a housing typology be developed as a "thread of continuity" to regenerate damaged urban environments following a period of conflict or trauma?
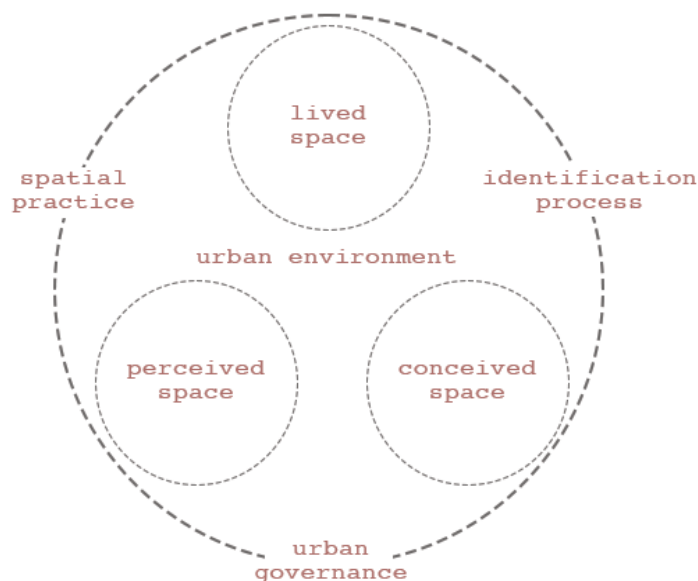


Lived, perceived, and conceived spaces. They refer to the collective values, and customs, manifesting themselves in our social environment through our interactions with neighbours and way of life. Based on Henri Lefebvre's production of space.

# Chapter 2: A Position on Fractured Landscapes

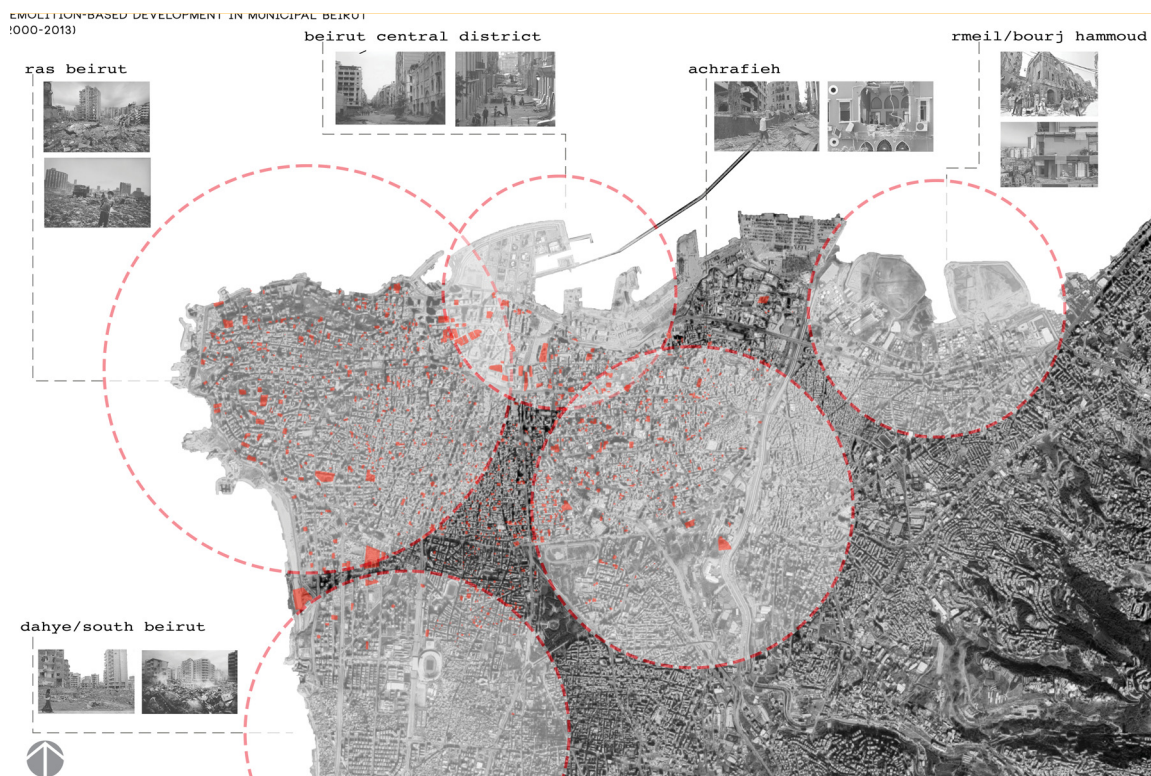## 2.1 An Introduction to Culture

The emphasis on cultural spaces is due to their role in generating positive collective experiences with a high degree of diversity within the city and for culturally significant events to take place, while the investigation of the village in enabling these activities promotes the interaction of diverse populations that animate the qualities of these settings (Watson 2006, 175). After periods of conflict, new developments would often fail to respect the fundamentals of urban living that existed prior to its destruction: the house as an integral part of the landscape and open space reciprocity with the natural environment (Larkin 2010, 429). Sophie Watson (2006) describes these cultural landscapes and urban environments as the places in which cultural activities take place, with the dwelling being the highest concentration of these activities; making it the active tool that will be investigated in this thesis.

### 2.1.1 Ideas of Stability

Cultural spaces that consider the social context of a place are an essential part of our life that allows for our value practices to exist (Lefebvre 1991, 70). They bring meaning to the lives of their members, and give them a sense of belonging and identity through having a common history, language and other cultural attributes. Culture is thus a unifying force for its members, but can also be a source of conflict in environments where many cultures coexist and social tensions are echoed by physical and cultural fractures in the urban landscape (Watson 2006, 94).
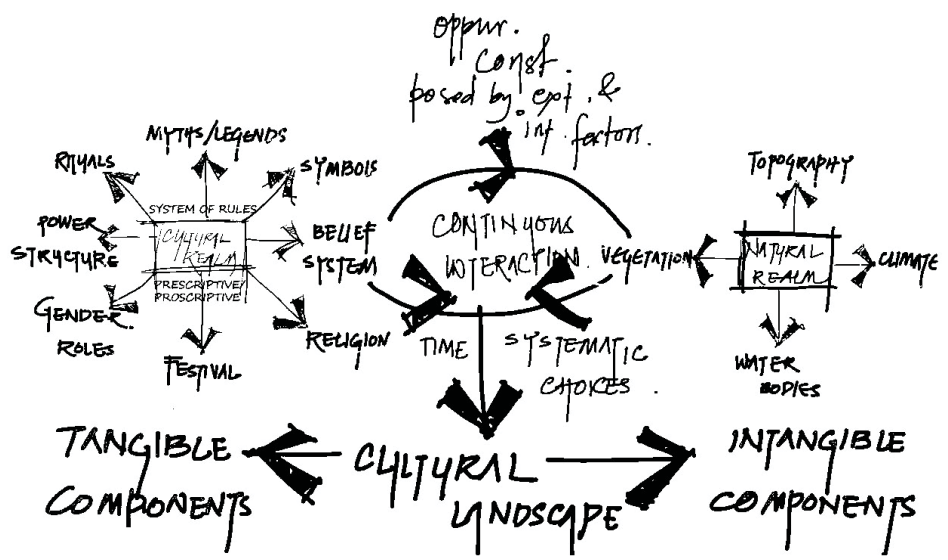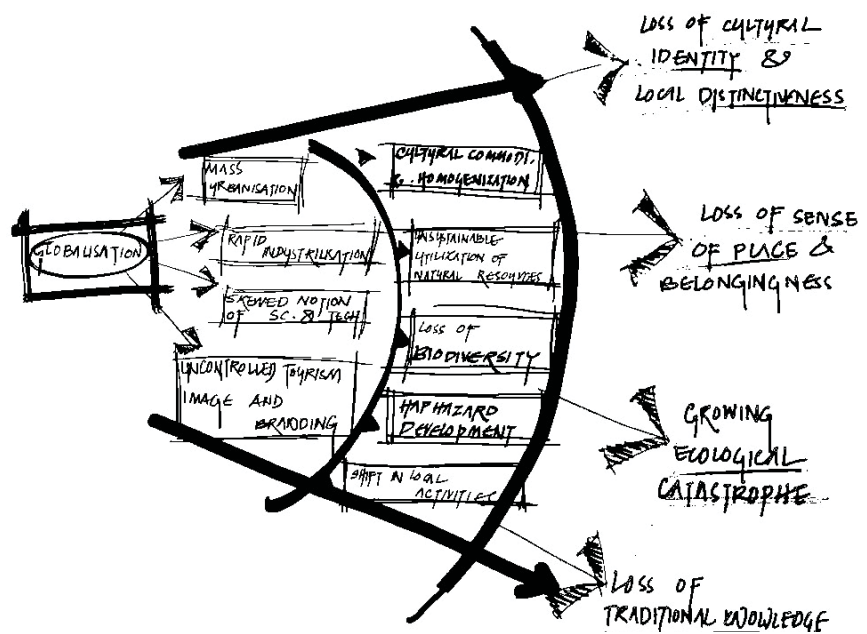
Effects of culture and environment. Considering the exclusion of local environments in the development of civic space, and the neglect of basic community needs helps develop an understanding around the disintegration of social adhesion and loss of cultural identity in many contexts. While damaged urban environments are inhabited by fault-lines that contribute to fractured social landscapes, challenging these issues and moving towards stability are spaces of cultural experience that provide continuous interaction, which are then imprinted in a shared collective memory away from exclusion and alienation. (Samiksha 2018)

EMOLITION-BASED DEVELOPMENT IN MUNICIPAL BEIRUT
!000-2013)

ras beirut

beirut central district

achrafieh

rmeil/bourj hammoud

dahye/south beirut

The destruction of public and cultural spaces following periods of conflict in Beirut. The images show the destruction of public streets, traditional buildings, and the loss of major infrastructure around Beirut. (Kantara 2019)

> War - through its destructions and its removal of culture - can damage two different forms of cultural identity. One form is social identity; the living tissue of familiarities accumulated around language, custom, and tradition through which a community recognizes itself and in which it finds continuity - the culture of daily life. The second form is the collective identity which has been constructed and often unquestioningly accepted around objects of so-called high art - our cathedrals or mosques, our monuments, libraries, portable antiquities, famous paintings and so forth. (Stanley-Price 2005, 17)

Thus, a people's ability to recover from such extreme situations owes much to their own cultural resilience and identity. Actively including cultural heritage in the agenda for recovery can have a positive force both for the social reconstruction of a place and the intended reconciliation of people and their land (Watson 2006, 40).

## 2.1.2 Cultural Resilience

A review of the deliberate destruction of culturally important places up to the second world war finds little evidence of it successfully undermining a particular collective identity (Stanley-Price 2005, 5). The idea of post-memory is described in the work of Larkin as a form of memory that is "not personally experienced but socially felt" (Larkin 2010, 18), a memory often used to affirm identities, traditions or assert continuity. These memory forms could be used as a healing method, if allowed to coexist, and if present-time activities are part of the everyday urban life of diverse yet coexisting groups, forming an amalgam to bond beyond past divides. Spaces providing cultural experiences are imprinted in society and being public; a collective memory that contributes ideas of stability to a space. In this manner, these spaces can be developed as a beacon of hope for social integration in a divided society (Lefebvre 1991, 100).

## 2.2 Cultural Landscapes as a Method

In many post-traumatic settings, there is a continual conflict between the creation of new versions of architecture against traditional architectural styles and their historical elements as a way to establish a meaningful character and identity

Public protest in Martyrs Square. In 2019, protests began following announcement that the Lebanese government will be implementing taxes on various social media apps. These protests demonstrate the cultural and social significance of Martyrs Square even in its current physical state. (Rizk 2019)

The Martyrs of Lebanon by Marino Mazzacuratti. The statue was commissioned as a commemorative sculpture in memory of the nationalists executed in WW I and its presence within the city stands as a symbol of hope for the people of Beirut. (Karim 2018)

(Stanley-Price 2005, 236–340). The development of new ways of living that are built on the historical foundation of a place - both physical and social - answer to a strong psychosocial need to re-establish the familiar following a phase of violent disruption, challenging the social and cultural neglect that results from foreign intervention in many settings. It can be distilled as a 'thread of continuity' that people search for when the rhythm of everyday life has been shattered (Stanley-Price 2005, 3).

Architecture, like many forms of art, has the ability to evoke collective experiences when it is deeply rooted in the history and the urban fabric of a place. The culture and history used to connect a space with its environments adds a layer of significance to the site as a 'revival of traditional elements and principles' (Stanley-Price 2005, 8). Some survivors of war are determined to reject their lives; but even they carry with them their culture, confirming the villages ability to create spaces of stability (Stanley-Price 2005, 2).
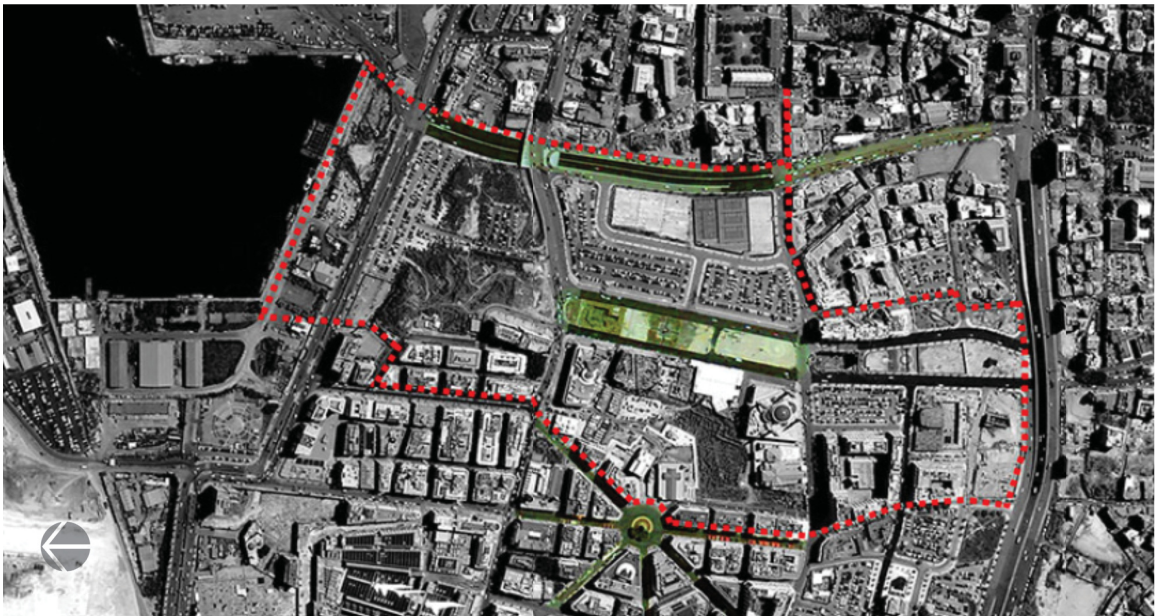


Satellite image of the existing condition of Martyrs Square. To the west of the site is the iconic Place de l'Etoile of Beirut; the largest and most historic market in the city, while to the east is the main port area of Beirut and its connection to the rest of the country.

People gather to protest in Martyrs Square; displaying their lack of trust in the government following a series of incidents in 2019. Since the civil war, political tensions and a lack of government transparency have created issues in the country. Martyrs Square becomes a reoccurring display for these movements based on its social and physical position. (Nabil 2019)

## 2.2.1 Finding the Essence of Stability

Memory is constructed over time, both individually and collectively; in which case it could also be influenced by the memory of many individuals when considering the active members in a space (Watson 2006, 157). When a well-known building or public place is destroyed, the damage is usually to continuity and the social environment. A deep sense of vulnerability is aroused when a gap appears in a familiar landscape or narrative.

> We cannot have an "absent presence" that simply ignores the cultural history of a site and only considers its surface memory. We must be deeply rooted within the surrounding context and also the associated memory; in this way, our designs can become more informed and its intentions fully realized, and capable of doing great things. (Libeskind 2012)

There is a wound in time when the disappearance of some familiar object - like Martyrs Square - whose sight has always granted a reassuring feeling is erased from a collective identity. Around the space instils a sense of insecurity in those that are part of the cultural landscape caused by the loss of elements that once connected them to the space and the diverse groups that inhabited it (Stanley-Price 2005, 24).
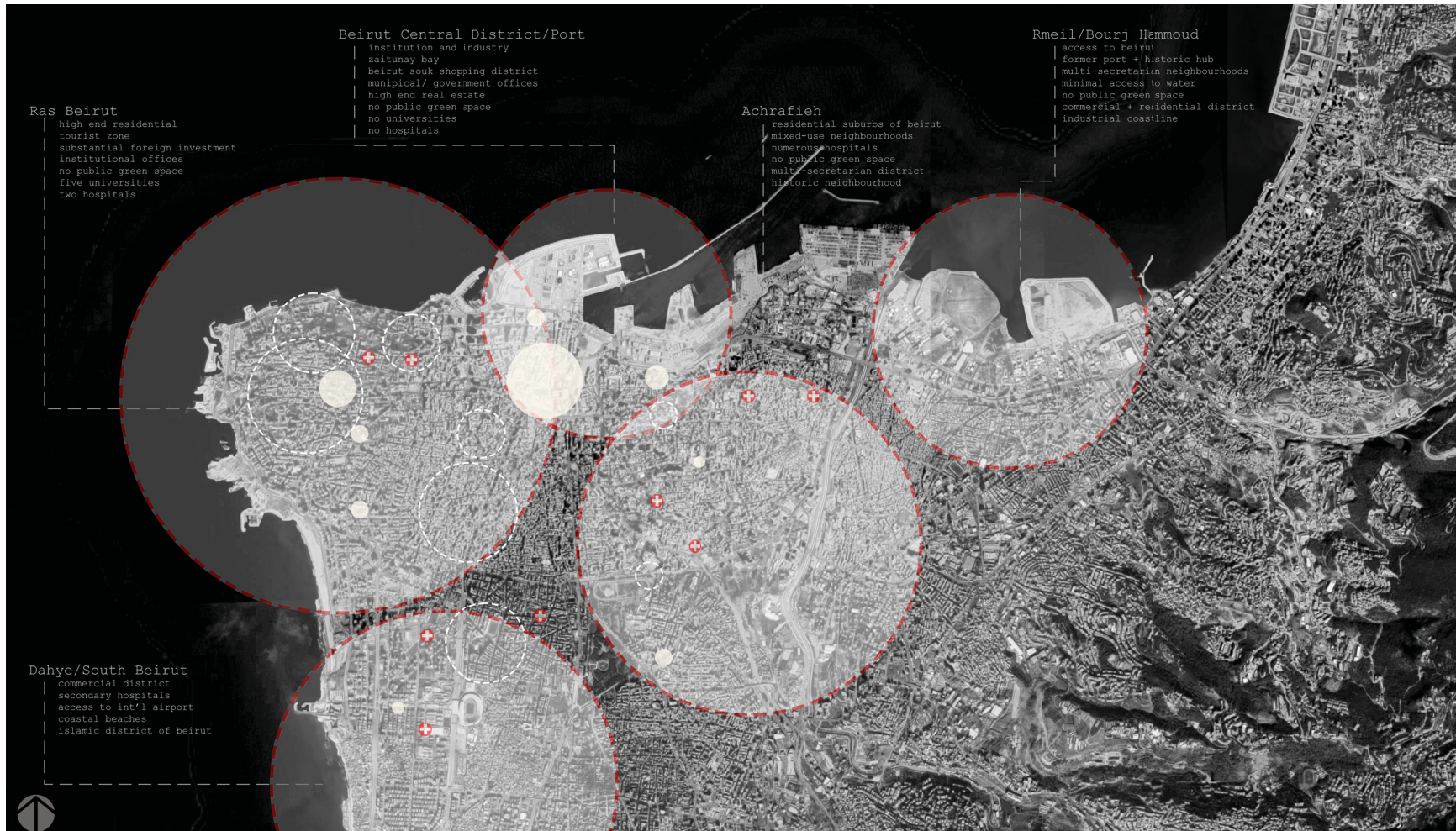
Creating symbolic elements within the project is critical to releasing the collective memory embodied within a site. Simply designing a building that accommodates a public program is not enough; elements that speak to the history of a site or place must evoke a collective experience and be part of the investigation (Watson 2006, 157). The deliberate assault on memory can change in unintended ways; by introducing a tougher, more resentful society with a lasting grievance around which to rally (Stanley-Price 2005, 22). Even in its current state, Martyrs Square is still a stage for cultural expression.



Man playing piano. The image demonstrates how the attachment to culture can be a force to challenge times of conflict and social tension. (Haidar 1983)



Original statue at Martyrs Square. The statue by Youssef Hoyek is of a Muslim and Christian woman holding hands over what is supposed to be the remains of their martyred children. The statue is said to be a symbol of the Lebanese people's solidarity in times of strife. (Yassine, 1920)

Ras Beirut
  high end residential
  tourist zone
  substantial foreign investment
  institutional offices
  no public green space
  five universities
  two hospitals

Beirut Central District/Port
  institution and industry
  zaitunay bay
  beirut souk shopping district
  munipical/ government offices
  high end real estate
  no public green space
  no universities
  no hospitals

Achrafieh
  residential suburbs of beirut
  mixed-use neighbourhoods
  numerous hospitals
  no public green space
  multi-secretarian district
  historic neighbourhood

Rmeil/Bourj Hammoud
  access to beirut
  former port + historic hub
  multi-secretarian neighbourhoods
  minimal access to water
  no public green space
  commercial + residential district
  industrial coastline

Dahye/South Beirut
  commercial district
  secondary hospitals
  access to int'l airport
  coastal beaches
  islamic district of beirut

This study will consider dwelling as the foundation of culture in Beirut, Lebanon; and critical to this investigation is the mapping of areas in the city to understand the current social climate and what settings have the potential to support the investigation. While certain areas like Ras Beirut have been restored through various efforts following the war; many of Beirut's other communities suffer from a lack of public infrastructure. As time progresses, social tensions in these areas heighten from a lack of public engagement and as religious communities are alienated from the city centre and become more exclusive. A display of neighbourhood services and infrastructure on satellite image.

# Chapter 3: Applying the Theory

## 3.1 Social Compositions of Space
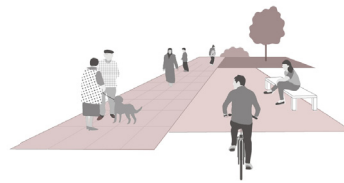
By analyzing the village as a "space of simultaneity", investigating stable urban settings and the principles, both built and social, that promote vibrant landscapes can be used to reconcile dwelling and culture within the project. Understanding the composition of these places will inform what elements are critical to developing the general principles of the design - such as neighbourhood spaces, adjacency of program, and interaction of diverse groups - and which factors are then specific to the context in which the investigation is placed (Gehl 1996, 81).

Through the investigation of culturally sensitive design principles, the architecture is supposed to find a way to reconcile diverse groups with the urban environments they once inhabited. This is accomplished by using elements of built and social compositions of space that are based on positive collective experiences and the architecture that facilitates these experiences. Thus, public spaces become stages for performing contextual practices, and memories generated in those spaces are based on history, affected by cultures, and transformed through time (Larkin 2010, 418).
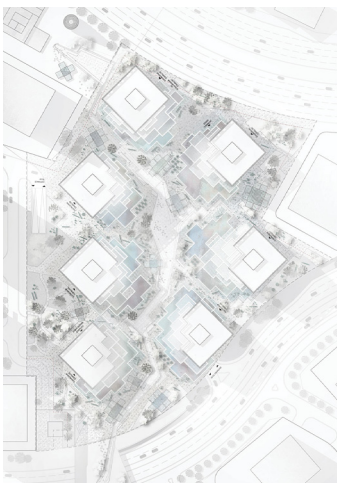
**Life**          **Space**          **Buildings**

Life, space, buildings. The principles identified in the work of Jan Gehl form to reconcile diverse groups with the landscapes they inhabit by first considering the culture that gives these spaces their character and then the public and built forms that facilitate these practices. (Gehl 2019)

### 3.1.1 Building Culture

In a context that has encountered social trauma, it is essential to address various generations and their collective memories in the reconciliation of space and how these generations contribute to the cultural stability of an urban environment. The appeal of cultural spaces is their ability in allowing for the acceptance and coexistence of differences; creating diversity, heterogeneity, and encounter that is embedded in the built composition of the space (Watson 2006, 11). Within an urban context, providing for such experiences is one tool that could mitigate schisms caused by conflicts based on values for honing social justice within urban life; supporting and building social networks by reintroducing people to the environment they previously inhabited (Lefebvre 1991, 120).

### 3.1.2 Defining The Village

The investigation promotes the village as a space of ultimate cultural expression; the power lying in its ability to generate urban experiences of familiarity which become nonexistent following periods of conflict (Stanley-Price 2005, 1). Among other things, the village encompasses two relations between the self and built space when considered within cultural frameworks: first, spatial form as an apparatus through which people establish identity and articulate social relations; and second, the capacity of buildings to sustain and protect those identities (Watson 2006, 63). The village then becomes the expression of the individual family, while also reflecting the broader dynamics of culture. While damaged urban environments are inhabited by fault-lines contributing to social tensions; the framework provides spaces of interaction which are then imprinted in a shared collective memory away from exclusion and alienation.

*Pixel* by MVRDV. The project helps develop the idea of the village by considering how ideas of culture can be facilitated in the built form. The project integrates program vertically within the housing structures to further connect the open space to other parts of the project; while public and private programs are oriented towards a common space. Additionally, the programs within the development go beyond typical mixed-use urban development strategies and considers programs that are mutually beneficial to the space and the people it serves. (Martens 2019)

The village is defined in this thesis as a space that embodies both the built and social characteristics of culture - spaces that facilitate complex social relations, public settings that integrate diverse users, and the building of spaces that diverse groups inhabit and perform these actives in - becoming a pluralistic public space. These ideas will support the investigation of housing models to create settings of collective experience by first taking a position on fractured landscapes, considering housing as a response and then grafting the village using social frameworks to develop culture and dwelling as a catalyst for reconciliation.

### 3.1.3 Case Studies

A number of case study projects have considered the role of community housing as a method for regenerating damaged urban environments; one of which being the IBA Berlin Housing project completed in 1987. The exhibition aimed to use architecture as a way of creating a powerful reputation for Berlin that was necessary to strengthen its image by renovating neighbourhoods and attracting residents back to the city (Miller 1993, 204). The IBA housing project is evidence that a simple increase in public infrastructure is not sufficient in bringing life back to a city that has an absence of architectural and social cohesion. While many of the developments failed to reconcile public life in the city, the ones that followed the two distinct strategies of *careful urban renewal* and *critical reconstruction* were able rebuild the western part of Berlin's central district and metropolitan image, both destroyed by the war (Miller 1993, 207). In this way, the project can be used to inform the principles that are developed in the investigation to apply a more critical and sensitive approach to regenerating damaged urban environments.
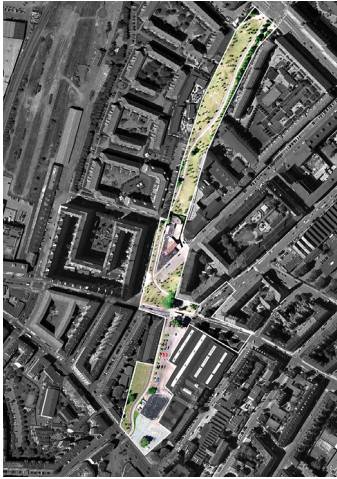
Semi-private balconies and methods of circulation in the IBA Berlin housing project. These inform modes of interaction that help connect spaces within the individual dwelling to the surrounding landscape and help promote the intimate and also informal relationships in the village. (Miller 1993, 204)
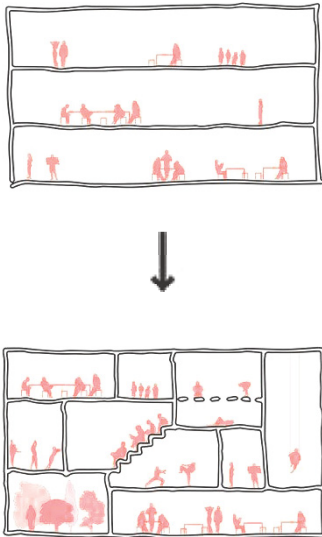
Another project aimed at reconciling dwelling and culture as a way of challenging social tension is Red Square Denmark; a half mile long urban space wedging through one of the most ethnically diverse and socially challenged neighbourhoods in the country. It has one overarching idea that it is conceived as a giant exhibition of urban best practice - a collection of globally found objects that come from the 60 different nationalities of the people inhabiting the surrounding area (Ingels 2015). The project aims to reconcile these cultures by critically involving the local community in its design to create a sense of ownership and restore the collective experiences of the various groups that inhabit the space. A range of recreational spaces and the large central square allows the local residents to meet through social and physical activity; forming otherwise unprecedented and sometimes damaged connections (Ingels 2015). These projects help identify what elements are critical to creating a framework that can be implemented in Beirut and how they consider different methods as a way to reconcile cultural landscapes.



Site plan of Red Square Denmark; highlighting the connecting element of the project which is the public open space corridor. The success of this space is the concentration of diverse housing types around the project that facilitate interactions between different groups. (Ingels 2015)



Rendering of the public street that serves Red Square Denmark. The space is designed as an open exhibition with symbolic elements from each groups culture; the street creates spaces of interaction for different users. (Ingels 2015)

## 3.2 The Architecture of Collective Memory

Human memory is spatial. The shaping of space is an instrument for the shaping of memory. A shared space such as a street can be a locus of collective memory in a double sense. It can express group identity from above, through architectural order, monuments and symbols, commemorative sites, street names, civic spaces, and historic conservation; and it can express the accumulation of memories from below, through the physical and associative traces left by interweaving patterns of everyday life. (Hebbert 2005, 592)

The right methods must be available for a 'healing process' to occur, and the generated environment should simultaneously be impregnated with encounter, sharing and collective memory (Hebbert 2005, 585). In this way, the village embodies two equally fundamental sets of characteristics that contribute stability and continuity in these settings. Understanding how the built and social compositions of space work simultaneously to develop the foundations of culture in the village develop the role of housing frameworks and how they contribute to the investigation. This treatment of space promotes the interaction of diverse groups and facilitates their activities; a fundamental part in providing collective experience and restoring social adhesion.

### 3.2.1 Building the Village

The pride of ones identity, the village, exists as a complex yet compact social unit with tightly packed houses; each area distinct from the next (Tannous 1949, 155). The strength of the village lies in its ability to facilitate a myriad of activities, and these events - whether belonging to one family or a group - become a shared celebration. The village forms a family unit and important to these relationships are the shared social events which over time, form strong affirmations of a shared identity, interdependence, and public ownership (Tannous 1949, 158). The village becomes



Housing typology section; illustrating a change from typical housing typologies that move towards greater efforts of social interaction. These methods aim to create connections between various users of a space and integrate programs that are mutually beneficial to create strong social relationships. (Gotfredsen 2020)

its own self sufficient part of the urban infrastructure capable of sustaining life and culture in otherwise unstable settings.

Critical to the animation of these social actives that are embedded in the success and vibrancy of the village is the physical construction of the space. Allowing for complex social relationships to occur in such an environment relies on the orientation of spaces towards one another around a common entity like the street or courtyard (Gehl 1996, 129). Additionally, views from spaces within the dwelling like the living room or kitchen help connect spaces and break down barriers of public and private to form intimate relationships. In Lebanon, the street market or - *souk* - is one of the most socially vibrant spaces. It relies on the concentration of shops, services, and social spaces that are part of the dwelling to be oriented along a public street. The interactions in the village are generated by its built form while varying concentrations of programs create levels of privacy within the project setting (Doyle 2012, 167). These characteristics will develop the form generating strategies of the village typology; the intentions furthered with specific cultural elements to regenerate damaged urban environments.
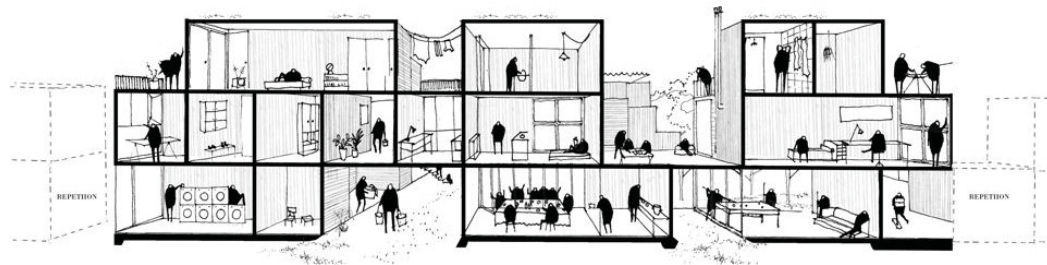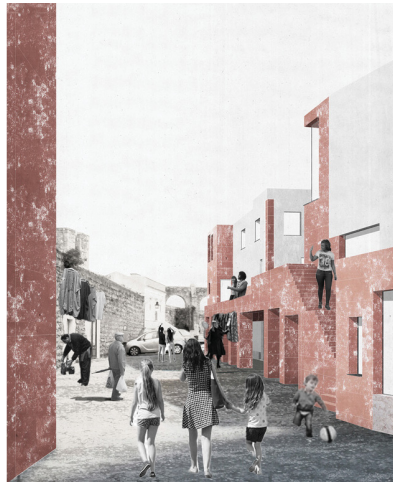


Section view of la communidad; the project aims to integrate dwelling and culture by way of housing. It considers various aspects of daily life in society and imagines how these programs can be integrated to create a strong community identity and social adhesion. (Henriques 2016)

A perspective sketch and collages of cultural space; illustrating how the integration of housing in the design intends to promote social interactions. By considering how programs can be oriented to animate the public space, barriers between public and private living are broken down to create various types of interactions. By treating spaces of the living room, the public street and the balcony in this way; these three spaces which are critical to village life, in Lebanon and abroad, can be used in the framework of the proposal. (Saleh 2015)

# Chapter 4: Dwelling and Culture as a Catalyst for Regeneration

## 4.1 Home - The Foundation of Culture

The house remains the concentration of cultural expression and values. The social fabric of an urban environment can be identified in both the physical and nonphysical composition of the house, referencing the relationship between the house and the landscape, or from one dwelling to the next; highlighting the importance of the home in the composition of social environments (Gafijczuk 2013, 164).

The concept of housing remains the foundation of the framework for its deep integration with a settings cultural values and social fabric. The ways in which we dwell are direct implications of the urban environments that we inhabit, reflecting their stability and inter-connectedness (Gafijczuk 2013, 149). Elements of social culture embed themselves in the physical construction of the home in how the dwelling addresses the street, the arrangement of rooms, and the ability for housing to facilitate social interaction. Rather than a private space within the public realm, the house itself becomes an extension of the public realm; the rooms within it dictating degrees of privacy (Tannous 1949, 159-161).

### 4.1.1 The Role of the House

The house has always been a concentration of activities - both public and private - reflecting the societal values of an urban setting. It becomes a place of individual expression within the public realm, amalgamating these spaces and their values. The underlying concept of residential architecture is its integration with the natural and built environment. Its response to the natural aesthetics happens through a
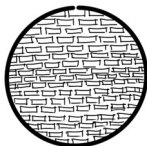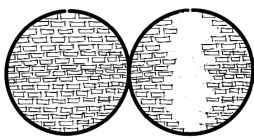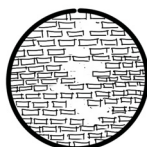
1. pre conflict stability of urban environments
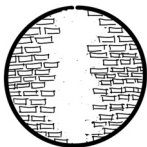
2. damaged urban environments as a result of conflict + cultural tensions

3. integrating principles of the cultural foundation as a method of healing

4. regenerating damaged urban environments through the introduction of cultural housing models that facilitate stable cultural landscapes and evoke a collective memory of space
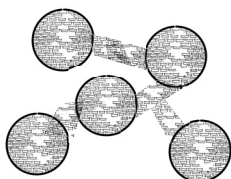
5. the aggregation of the investigation throughout an urban setting will form to reconcile a number of cultural environments and reform connections that have been broken as a result of conflict or trauma

Scaling culture and dwelling. Diagrammatic drawing illustrating how the principles of the thesis can be used to regenerate an urban environment and how they can then be scaled to effect larger portions of a city that has encountered social tensions.

particular architectural element that links the interior and the exterior of a house and forms connections to the social environment that surroundings the dwelling, particularly in the village (Suzdaltseva, 2019). These principles work at three scales - the house, the village, and the city - to reconcile these settings by reforming lost connections that result from past conflicts, and reintroduce foundations of stable urban environments into the project.

## 4.2 Home to Village

Shared recreational activity is a characteristic of many urban societies. This seems to be an essential need, biologically and socially, of human group life. Occasions for community festivities and group-play activity are varied and contribute to social adhesion and community identity in sensitive cultural settings (Tannous 1949, 151-163).

The outstanding feature of the village settlement is that it provides the individual with a situation that is highly socializing. In many situations, they act as a group yet leave room for individual initiative. This attachment to the land and to the community life is one of the fundamentals village identity (Tannous 1949, 151-163). It encompasses programs of the city but at the scale of the home, concentrating these activities into an intimate public environment that forms the social and cultural identity of its people (Suzdaltseva, 2019).

The village establishes itself as a collection of dwellings and spaces where private life is integrated within the public realm of cultural spaces. It exists as a transition between dwelling and city, a place of scales that facilitate different types of social interaction and exposure. It utilizes the strengths of the people who inhabit the space to attract the public and establish itself as a working component of the greater

network; making it vibrant in its integration with surrounding areas and confirming its role in establishing relationships and regenerating urban environments (Doyle 2010, 235).

### 4.2.1 Towards Stable Cultures

The village community is a cooperative unit in its family organization, traditions of neighbourliness, and social life. In many settings, we find the village-community type so firmly established in the development of social life as in Lebanon; promoting the framework that will be developed as a method of regeneration in various settings (Tannous 1949, 153). It is an avenue of public infrastructure across various scales of the city as public space becomes integrated into the urban fabric and promotes community interaction. The barriers between the dwelling and environment blend when its members come to participate in cultural activities; impacting surrounding environments (Tannous 1949, 154).

## 4.3 Village to City

While most cities are the focus of regeneration following a period of conflict, they often lack a consideration of the culture that facilitates a stable urban environment prior to its destruction (Stanley-Price 2005, 111). Growing the investigation from the scale of the house to the city will reconcile urban environments with the collective experiences that once existed, regenerating the social landscape by affirming principles of the village at various scales and extending these efforts across a larger landscape.

### 4.3.1 Reforming Connections

The alienation of neighbourhoods on the periphery of urban centres creates a schism in the social fabric of a setting by separating people from their basic needs, and

nowhere is this more apparent than in Beirut and the spaces surrounding Martyrs Square (Höckel 2007, 1). The regeneration of damaged environments forms to reconnect these neighbourhoods with their surrounding landscape, re-establishing the network of interdependence that once existed. Using Martyrs Square as the setting for the investigation will reconcile a community of diverse populations that once enriched the city's social life and provide models to be introduced in settings that have encountered similar conflict in recent history.



BUSINESS DISTRICT    BEIRUT SOCIAL DISTRICT    CENTRE OF PRODUCTION
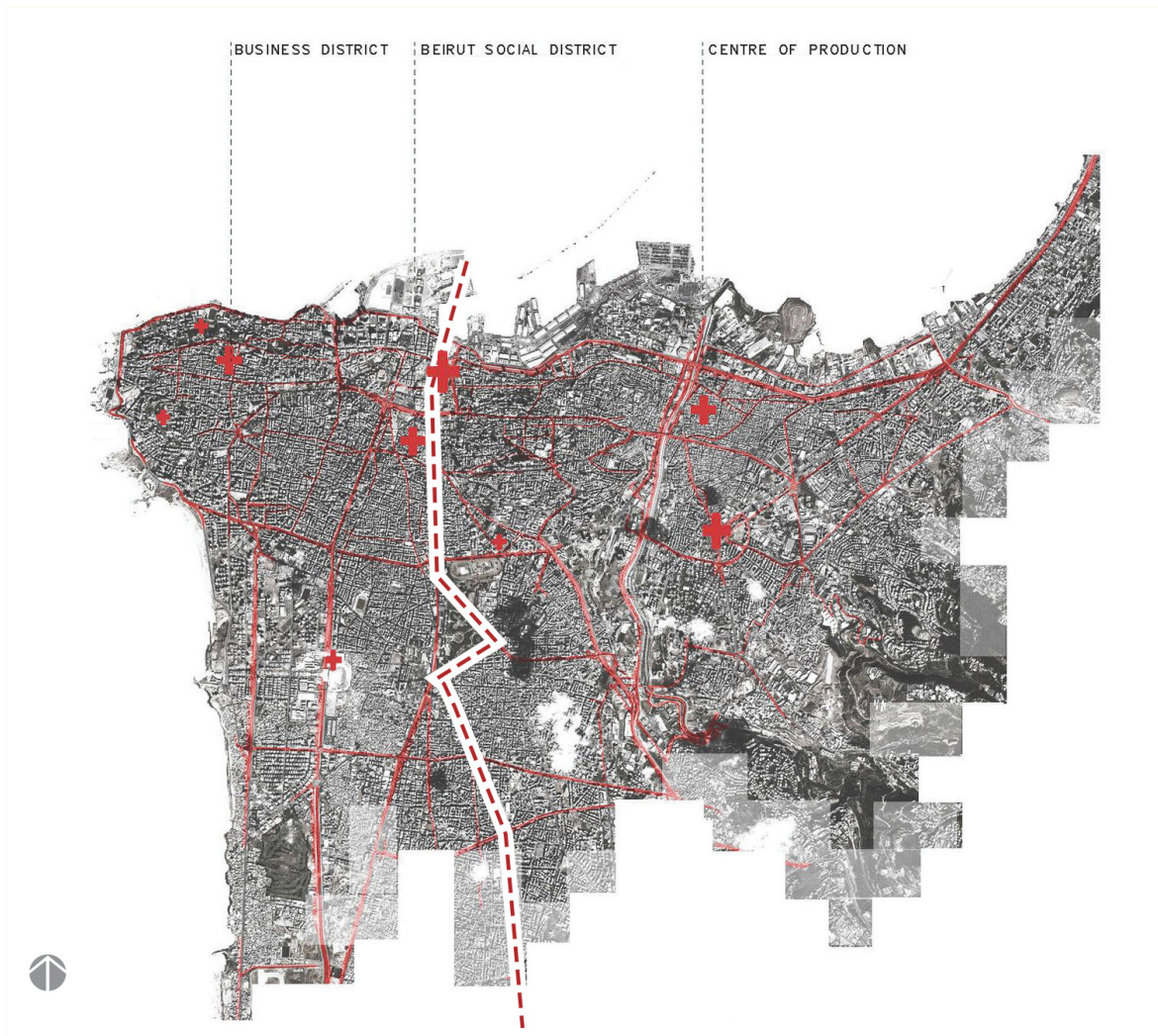
Satellite image of Beirut, considering multiple intervention sites. This takes the project from the scale of the village to that of the city by looking at other sites with similar conditions and histories as Martyrs Square as a way to re-establish long standing connections that contributed to once stable urban environments in any urban setting.

# Chapter 5: Potential Implications

## 5.1 Re-inhabiting Damaged Environments

As more regions encounter social tension resulting from conflict and instability, identifying factors that contribute to the reconciliation of diverse groups of people and the environments they once inhabited is increasingly important. This investigation aims to consider the foundations of culture and how these concepts can be used to develop models that regenerate damaged urban environments. The thesis establishes the role of housing in developing this framework and its potential to foster these cultural values in urban settings. The argument is that by integrating housing in cultural frameworks, the implementation of these factors will achieve to reconcile people and the landscapes they once inhabited and challenge social tensions. Considering cultural and social issues that are specific to the setting will take the investigation further into the development of creating the framework, while also helping decipher what elements of culture are specific to the site and what elements are general and can be translated across multiple settings.



Wish image. It attempts to illustrate how once damaged urban environments with no social identity can be reconciled using ideas of cultural heritage to create a familiar landscape that diverse groups can associate with. Various compiled google images.

### 5.1.1 History as a Method for Regeneration

By using history as a framework, the investigation takes on a comprehensive approach to understanding the cultural dynamic of a setting and create a better informed response. These elements are part of the urban fabric that has been damaged over time, while the investigation considers how these values and customs can be used to animate the village framework for creating stable urban environments. The intentions of the proposal are not to develop a nostalgic model that acts as a memorial, but to consider the role of cultures and the principles that contributed to positive landscapes. These elements will support the foundation of the proposal with current methods of place making to reactivate cultural landscapes and restore social adhesion.



Satellite image showing the development of the project's urban strategy. The strategy is informed by considering the site as a connection between various parts of the city and how these connections establish the built form pattern of the investigation. These intentions will be furthered by the integration of diverse housing types that appeal to the different groups that will inhabit the space and from to reconcile its social and community identity.

### 5.1.2 A Catalyst for Reconciliation

The village combines the fundamental components of culture, translating them into a housing typology that directly embeds itself into social frameworks. Considering programs that facilitate more than a mixed-use urban setting, but the deeper relations involved in developing the village as a method of healing helps to achieve the intentions of creating a collective experience and providing landscapes that people can associate with positive ideas of cultural heritage beyond exclusion and tension.

## 5.2 Transferring Methods

Testing the method in Beirut will help analyze the values and characteristics of the framework, and how they are manifested on site. Contextual settings add a layer of significance to the investigation that involves challenging social dynamics and the role of the individual groups that will be considered in the development of the investigation. Being able to navigate social environments requires a careful understanding of the past conflicts and issues that have led to these estranged groups and avoid heightening tensions that currently exist. It is critical to consider the role of the investigation in sensitive urban settings and how these methods can adapt to specific situations.

### 5.2.1 Planting the Seed

The investigation promotes the collective memories established within a setting to affirm ideas of continuity; contributing a sense of national identity and stability in damage urban environments. The true potential of the investigation lies in the ability to create a pluralistic public space trough the development of dwelling and culture as

a method of healing. By injecting the framework in multiple settings in an urban environment, the corresponding connection between these spaces and their surrounding environments can form to reconcile settings at a larger scale. Considering the various typologies of dwelling that each group possesses can be used to re-establish long-standing social relations and affirm the identities of various users. By developing ideas of housing as the foundation of the project, the resulting framework can be investigated within a larger urban context and form to reintegrate the varied groups that once coexisted and provide a translational method that has many implications across many urban environments.

## 5.2.2 Synthesis

Quality of life considerations will help quantify the success of the proposal by comparing issues of well being before and after the investigation is tested to determine in what ways it is successful and where improvements can be made. The investigation situates itself well within the current social climate of Lebanon and other urban environments that are encountering issues of social tension and cultural identity. With the threat of disappearing neighbourhoods and social conflict always present, Beirut provides a suitable setting for the investigation. As a study of how housing and culture can regenerate damaged urban environments, the investigation fits within areas of the discourse concerned with housing as public space and their roles in the built environment. With the immediate need for housing and public space following periods of conflict and trauma, the investigation affirms the ability of these factors in rebuilding not only the physical infrastructure of these setting but the social dynamics that contributed to once stable urban environments.

# Chapter 6: Considering a Problem

## 6.1 Identifying A Common Issue

Developing a project capable of challenging social instability begins by identifying different fractures in the urban fabric and how these issues are manifested through the built form of the space. Understanding these issues requires developing a research method that considers past and existing qualities allowing for social culture to thrive in a given environment which then serves to create a path towards reconciliation by restoring old and developing new social relations that unite people and the landscapes they inhabit as a way of promoting social identity and public ownership.

### 6.1.1 The Broken City

The broken city refers to urban settings that have encountered social challenges following a phase of violent disruption. While the physical impacts of these settings may vary, they share a common characteristic; one where the social environment has been partitioned along physical lines, impacting the functionality and culture of the landscape.

Jerusalem, Mostar, Berlin, and Nicosia are vitally important to understanding these issues. While each of these examples is different in that they emerge from a unique historical background belonging to a quite particular set of cultural conditions, they share a common set of factors, belonging to what we might call an emerging global condition. Prominent among these is a confrontation of differing, although not necessarily opposed beliefs, leading to widespread violence and a solution focused on the physical separation of conflicting communities in an attempt to restore peace in the environment(Calame 2009, vi).

There are numerous examples throughout history that point to the destruction of urban environments as a relationship between the social and physical form of these landscapes. Jerusalem, Mostar, Berlin, Nicosia are but a few of the victims of conflict creating physical and social scars in once integrated environments. These areas had their people uprooted and homes destroyed, replaced with barriers that established themselves in the urban fabric, leading to the destruction of the social landscape that once existed.

The relationship between the built form and the level of social interaction that exists within a given space is evident. In order for social culture to thrive, the urban environment must facilitate these interactions and provide a myriad of programs and spaces for the involved activity to take place. When this relationship is compromised, the common problem is one where characteristics of the urban fabric create a lack of social adhesion and community identity. In order to challenge these issues, it is critical to develop an understanding of the different ways in which the social landscape can be altered by changes in the physical formation of space and to what extent these changes effect both the built and consequently the social environment.

## 6.1.2 Existing Fractures

By identifying the ways in which physical landscapes face separation, a set of parameters can be developed that aims to challenge these issues and ultimately form to regenerate damaged urban environments. This is accomplished by tapping into the social characteristics that are present in any cultural environment, and utilizing them as an active component in the redevelopment of the urban space in order to create a path to reconciliation.

In the case of Jerusalem, the Arab-Israeli War displaced nearly 750,000 people from their homes, leaving a path of destruction in their place. This fracture within the urban fabric was initiated by conflict over territorial boundaries, creating a visible scar in Jerusalem's urban fabric (Hughes 2005,29). Much like Beirut, these issues are a constant reminder of the conflict that is part of the regions history. Furthermore, these spaces continue to breed conflict as they are a physical and social reminder of the issues that were once present, but still live in the mind of the people who inhabit the space. The treatment of these areas is critical in acknowledging the issues that plagued societies, while a careful consideration of how these spaces are redeveloped must be considered in the formation of space in Martyrs Square and similar areas to challenge these negative histories.

In other areas such as Mostar, the division of space is created by fractures already present in the urban environment. The use of geographical thresholds in the separation of physical space is common following periods of conflict, creating a focal point for social issues to exists. The River Neretva became a physical barrier during the Bosnian War and a point of conflict between Croatian and Bosnian forces. The Old Bridge crossing the river was destroyed in 1993 during the 24-hour Siege of Mostar. The destruction of the bridge and the physical threshold left in its place was enough to separate the city for nearly a decade until a new bridge was constructed in its place (Kalyvas 2005, 191-200).

The new bridge exists as a popular attraction in the city and its construction in the same location as the old bridge serves two purposes; to reconnect parts of Mostar that have been divided since the war and to respect the history that exists in the region while respectfully challenging its role in

the development of social culture (Kalyvas 2005, 205-230). It is this relationship with the history of a place that has to be acknowledged but at the same time challenged so to remove any of the negative connotations associated with the place and the characteristics that once contributed to conflict and social instability in the urban environment.

Compared to geographical thresholds and fractures in the urban fabric creating social instability and contributing to the separation of urban space, no application has the effect that human-made barriers do. The deliberate construction of a physical barrier creates immediate feelings of insecurity. For whatever reason they are constructed, the positioning of physical barriers create a drastically different atmosphere in their physical environment by establishing a hard boundary that did not exist previously with the sole purposes of separating two spaces that were once considered whole. This delineation of space in Berlin and Nicosia was a sign of military intervention during a period of conflict in an attempt to keep peace between two parties. After World War I, the Berlin Wall was constructed to divide East and West Berlin physically and ideologically. Although the conflict had subsided, the wall created feelings of insecurity across the country and established a hard barrier that was forbidden to be crossed, reaffirming social tensions that existed previously. Even after its destruction, ghost of the wall still lives in the mind of many and the area hold its presence as a scar in Berlin (Ross 2004, 25-43). In the case of Nicosia, the military checkpoint between Greek and Turkish territories still exists as a boarder bisecting the country. Like the examples mentioned previously, the barrier is a reminder of past conflict that lives in the mind of the people as long as the wall is present (Calame 2009, 121-125).

jerusalem

berlin
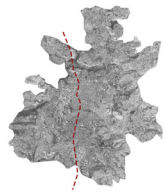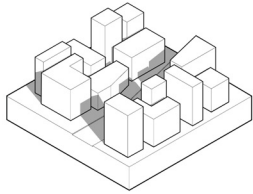
mostar

nicosia

1948

1993

1961

1974

fractured urban landscape
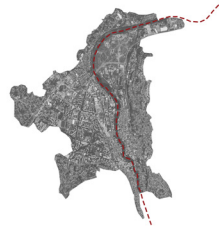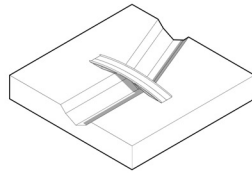
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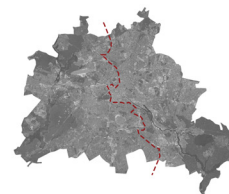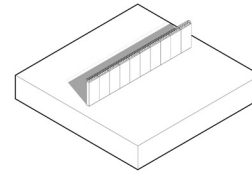
human-built barrier
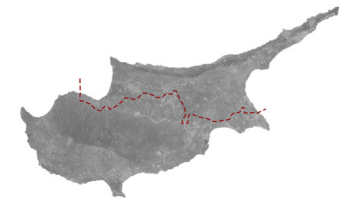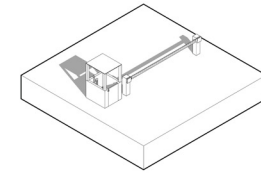
military-political boundary

750,000 people

50,000 people

2.5+ million people

210,000 people

Examples of urban separation. Considering the ways that urban landscapes have been separated in the past allows us to challenge these issues with the development of the thesis. These examples begin to describe how the built form contributes to social instability.

## 6.2 The Pattern

From these examples, we can identify a number of settlement types that effect the development of social and physical relationships within the urban environment in a variety of ways. These examples represent how the built form influences the way people interact within a social environment and their ability to create relationships.

While some urban development strategies promote the establishment of the built form over public space, other approaches consider the opposite to be the best settlement pattern for developing a relationship between people and the spaces they inhabit. Regardless of the approach, each of these strategies, whether prioritizing the built form or open space, has an impact on the way we interact with each other and our ability to create meaningful relationships in a given environment. A careful consideration of the relationship between public and private space creates the ability to develop varying relationships and the freedom of experience within a cultural landscape.

This consideration also serves to provide users with the ability to experience unique levels of interaction, creating a dynamic component to the urban environment and giving social culture an opportunity to thrive in its various ways. This complex mix of programs and places is what is critical in facilitating the varying types of activity that exist in socially vibrant cultures. Suburbs have been historically criticized for promoting the exact opposite; a stagnant and underwhelming public experience focused on functionality over the development of public space and the relationship between dwelling and the urban environment where social culture is to have the greatest opportunity of survival.

Development

Circumabulation

Domesticism

Green Space

Un-developed

Post-conflict redevelopment strategies. These images illustrate the formal organization common in most redevelopment strategies. Considering how these structures form to heighten social tensions allows us to consider new ways of inhabiting the landscape and create a path towards reconciliation.

## 6.2.1 The Axis

The development of socially instable spaces can be attributed to one common factor; the development of the axis. Whether physical, social, pre-existing, or built anew; each of the examples discussed previously can attribute the declination of social activity in their respective contexts to the development of an axis in the urban environment. The axis creates a barrier; it establishes a line through a physical space that is felt beyond the built environment and begins to effect the way social culture is conducted in a given space.

In Beirut, this axis is Martyrs Square. It is the line in the urban fabric that once bred conflict and, while the war ended decades ago, the space serves as a constant reminder of past challenges and a divided city. The axis still embodies all of the negative associations left after the war because of a lack of acknowledgement with this negative history that still lives in the mind of Beirut's people. These issues are emphasized beyond the physical geography and into its social atmosphere, effecting the relationships people are able to create and acting as a reminder of hate and separation. In order to repair the urban environment, an acknowledgment of the history that exists must be considered. By respectfully challenging this narrative and its negative connotations, we develop a path towards reconciliation that restores past and develops new relationships between people and the space they inhabit. This is the first step in regenerating a damaged urban environment; by coming to accept the negative history of a place, we are able to develop a set of parameters that redevelop the built form in a way that acknowledges this history but begins to move away from the negativity that surrounds it and towards a space that encourages the vibrancy and varied experiences of socially stable places.

## 6.3 Translations

This analysis highlights the relationship between the built form and the ability for social culture to thrive. It is evident from the examples mentioned above that urban settlement patterns directly influence peoples ability to develop relationships and establish meaningful identities with the spaces they inhabit, as well as how the introduction of the axis in any form has impacts beyond the physical environment and into the destruction of social life.

These issues point to the challenges faced in Beirut. With a conflicted history plagued by social instability and political corruption, it becomes difficult to understand what exactly led to the disintegration of the physical and social landscape. However, these issues point towards a path capable of reconciling people with the urban environment they once inhabited and a way of challenged this negative history.

### 6.3.1 Positioning Beirut

This thesis achieves an understanding of these issues in order to develop a response for Beirut. Following the examples above, Martyrs Square began as a collection of people and places established along the historic road to Damascus. Over time, the site became moulded by development and infrastructure, leading to its use as a dividing axis between East and West Beirut at the time of the Lebanese Civil War. Today, as in the case of Berlin and Nicosia, Martyrs Square still marks a clear distinction between the different neighbourhoods of Beirut and the remains of the war a token of a broken history. This thesis initiates a way to establish a thread of continuity and stitch together the broke pieces left after the war by using the village to regenerate the urban landscape.
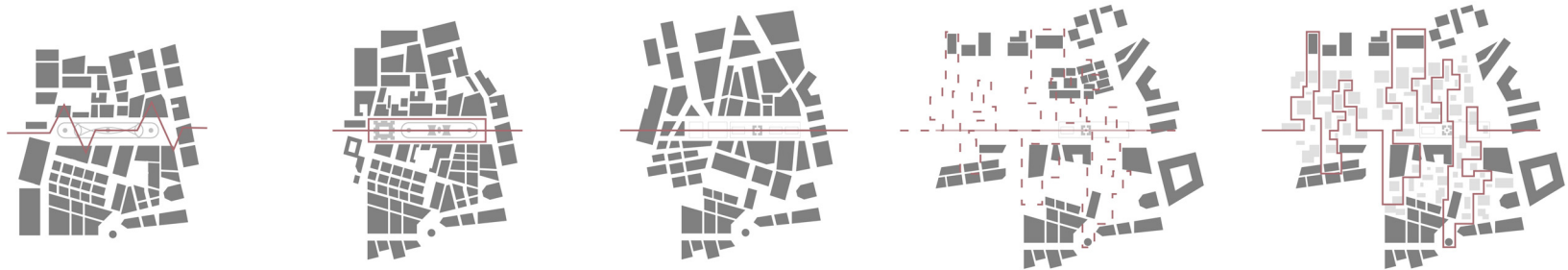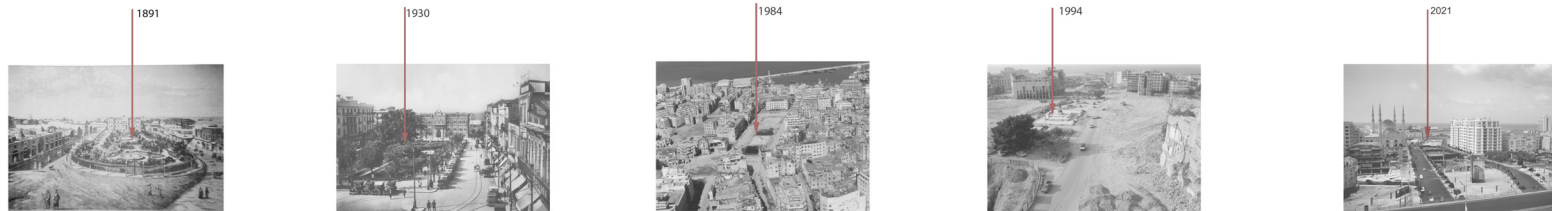
Martyrs Square through time.  Intended to show the changes in the physical landscape in the years before, during, and after the war, this illustration depicts how the urban environment surrounding Martyrs Square began as a public park within the densely packed urban fabric of Beirut. With the conflict brought on by the war and the physical position of Martyrs Square in the city, it became and still exists as an axis within the urban fabric and a scar of Beirut's broken history.

# Chapter 7: Developing a Method

## 7.1 Changing Perceptions

Developing the project requires understanding the manners in which cultural forms characterize social interactions, as well as how the built form can challenge social instability. A loss of cultural identity, belongingness, traditional knowledge, and increased ecological catastrophe are all symptoms of the rapid response to erase evidence of violence following periods of conflict (Samiksha 2018). These issues remain present in the environment until there is an appropriate response that considers the social culture of a setting and careful urban form strategy to rebuild the area that allows for these cultures to thrive. We can also identify that there are controllable and uncontrollable components when these scenarios arise. By tapping into the tangible components, we can develop them into a model that reconciles the urban fabric and restores social identity, through piecing together fragments of the urban environment and creating spaces of familiarity that people can associate with (Samiksha 2018).

By moulding these components, we are able to create a path that results in regeneration. When the stability of an environment is compromised, the path begins by creating a thread of continuity that is capable of integrating itself into the social landscape by grafting existing elements into the response to initiate a method of healing for both the people and the physical space. This translation of culturally significant components uses pieces of the existing urban fabric that still embody positive connotations to respectfully challenge the negative history of a place and develop a way of positively re-inhabiting the landscape; developing a model that can be aggregated to regenerate other environments.
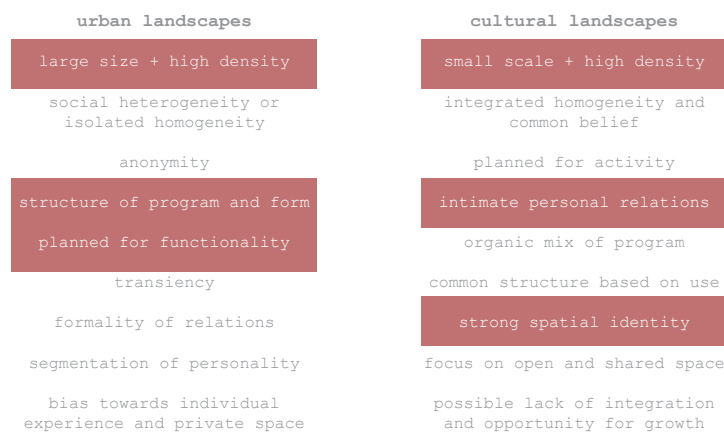
### 7.1.1 Developing the Characteristics

In order to develop the principles that mend a broken city fabric, we must consider elements of the existing urban environment and integrate them with previous ideas of cultural landscapes in order to initiate the path towards reconciliation. The house remains the foundation of the framework for its deep integration with cultural values. It is the combination of housing and public program that provide the basis of the design as dwelling remains the critical connection with an urban landscape (Gafijczuk 2013, 164). To inhabit an environment means to develop a connection with that place beyond functionality; it means establishing an identity with a place that one can associate with during times of conflict or peace. For these reasons, the connections we make with the landscapes that we inhabit serve to catalyse the regeneration of damaged urban environments.

### 7.1.2 Urbanity + Culture

The formation of the project relies on a consideration of how the built form of urban environments can exist and function efficiently when incorporating values of cultural landscapes. When comparing the two, we see that they share critical components. While they vary in scale, both have a common quality of creating a high density of people and programs. In both cases, this promotes the efficiency of the environment and its functionality; however, it results in two drastically different forms of social interaction. In the urban landscape,the relationships are formalized to the extent that there is not an opportunity to engage in social interactions as productivity is the priority, whereas in the village the pace at which these interactions occur allows room for the development of intimate social relationships.

When looking at the composition of these settings, the mixing of people and spaces is drastically different as well. In the urban environment, there is a very structured mix of peoples that typically reflects issues present in society based on class groups while in culturally oriented landscapes, although these issues are still present, they do not often translate themselves into the built form. These issues effect the way people associate themselves within their urban environment. While the pace and drive of urban environments creates a lack of community and in some cases personal identity with a place, cultural landscapes provide the varied interactions and organic social environment that allows people to develop intimate relationships with other people and the spaces they inhabit (Gehl 1996, 129).

By identifying what issues are critical to the success of urban and cultural landscapes, we develop a set of parameters to be used as the foundation of a typology that reconciles people with the space they inhabit and provides this thread of continuity. After establishing these principles, we can then graft these components into the project, making the built form a cultural landscape that considers social values.

| urban landscapes | cultural landscapes |
|---|---|
| large size + high density | small scale + high density |
| social heterogeneity or isolated homogeneity | integrated homogeneity and common belief |
| anonymity | planned for activity |
| structure of program and form | intimate personal relations |
| planned for functionality | organic mix of program |
| transiency | common structure based on use |
| formality of relations | strong spatial identity |
| segmentation of personality | focus on open and shared space |
| bias towards individual experience and private space | possible lack of integration and opportunity for growth |

Integrating urbanism and culture. By understanding what common traits are shared between urban and cultural landscapes, we can begin to establish a set of principles that form to restore social culture within the urban environment and repair social scars.

We understand that what is critical in making the village a successful tool for the regeneration of damaged urban environments is providing a varied experience in social relations (Gehl 1996, 129). Capitalizing on individual and shared experiences to provide a welcoming space that exists seamlessly within its urban context creates a space that is locally driven, but globally responsive in that the impacts of the investigation are felt beyond the project's physical extents. What is most critical to the success of the project is the ability to provide a contemporary mix of program that goes beyond the examples looked at and is implemented in a way that respectfully challenges the negative history of a place while still acknowledging its presence.

**urban landscapes**

large size + high density

social heterogeneity or isolated homogeneity

anonymity

structure of program and form

planned for functionality

transiency

formality of relations

segmentation of personality

bias towards individual experience and private space

**cultural landscapes**

small scale + high density

integrated homogeneity and common belief

planned for activity

intimate personal relations

organic mix of program

common structure based on use

strong spatial identity

focus on open and shared space

possible lack of integration and opportunity for growth

**the village**

varied scales of social relationships

individual and shared memory and experiences

design for social interaction

locally driven and globally responsive

natural heterogeneity

contemporary mix of program and activity

natural progression of social privacy

respectfully challenges history while acknowledging its presence

Developing the village. In order to develop a method of regenerating urban environments, it is critical to understand what characteristics of the village embody a strong cultural significance and allow us to move away from the negative history associated with a given environment to create spaces that have the capacity of maintaining complex social relationships.

## 7.2 Theory to Application

The combination of these characteristics begin to define ways of creating socially stable spaces and how the built form can be adapted to achieve the kind of public interaction that the investigation calls for. These changes develop the types of interactions and experiences that are unique to cultural landscapes, but within urban settings. These characteristics form to reconcile two settlement patterns that once were thought to be mutually exclusive, but can be achieved through a careful consideration of the environment and the cultures of the people that inhabit it.

The application of these principles in Beirut means restoring connections that have been broken since the war; bringing the people and activities back that once contributed to the success of Martyrs Square. A critical component in the success of this application is understanding the people and the challenges that the project will eventually encounter. With the space currently existing as a reminder of conflict and corruption, the re-inhabitation of Martyrs Square must occur in a way that aims to incorporate the multiple histories of the people and their respective cultures as opposed to favouring one group; an issue that occurred in previous redevelopment strategies. Considering these multiple groups means designing a space that provides a variety of activities for people to engage in regardless of ones religious background or social position. Developing these spaces to be flexible means those who inhabit it are able to develop a relationship with the site using positive ideas from its past, but in a way that changes the narrative that surrounds Martyrs Square for much of the Lebanese population. This promotes the development of a strong individual and community identity, initiating Beirut's regeneration.

## 7.2.1 Navigating Landscapes

The challenge with Martyrs Square is being able to consider all of the people that have an association with its presence. At one time, the space was a culmination of people from 18 different religious sects all living peacefully. However, 92% of people feel Lebanon is less safe now than it ever was. These feelings of insecurity in the capital are the result of ongoing examples of the political and economical corruption that plague the country. The outcome; a growing lack of faith in the governments ability to reverse any of the harms that have been caused to Lebanon and its people since the war (International Alert 2014). With many of the governments decisions favouring the economical power over the betterment of the physical or social environment, the landscape has began to deteriorate beyond Martyrs Square and making its way throughout the entire country.

These issues manifest themselves in many ways that make living in Lebanon challenging for its people. Increasing percentages of poverty and unemployment make it one of the least financially stable countries to live in, creating mass feelings of insecurity and leaving people to question many of the decisions that have been made to repair Beirut since the war. A response to these issues means providing the people of Lebanon with a place that they can restore their sense of belonging and public ownership. This redistribution of responsibility results in a positive effort to regenerate the urban landscape, if not from the government then at least from Beirut's population. These issues are felt across the country, however it is critical that in order to catalyze the effort we must first consider repairing the setting that holds the most cultural significance and initiated the deterioration of social culture across Lebanon (International Alert 2014).

lebanon openly recognizes 18 different religious sects
muslim 61.1% | 30.6% sunni, 30.5% shia
Christian 33.7% | maronite catholics
Druze 5.2%,
Jews, Baha'is, Buddhists, and Hindus

urban population: 88.9% of total population (2020)

# 92%

of respondents feel lebanon as a whole is less
safe than the years during and immediately
following the war

**crime is mainly credited to**

**63%**
poverty

**45.8%**
unemployment

**21.5%**
insufficient
state security

**20.6%**
sectarian
discrimination

**17.3%**
political
disputes

**when asked about urban housing**

almost **30%**
of people credit their
feelings of insecurity
and corruption to the
changes in the urban
fabric since the end of
the war

almost **60%**
of people attribute
the organization of
the urban environment
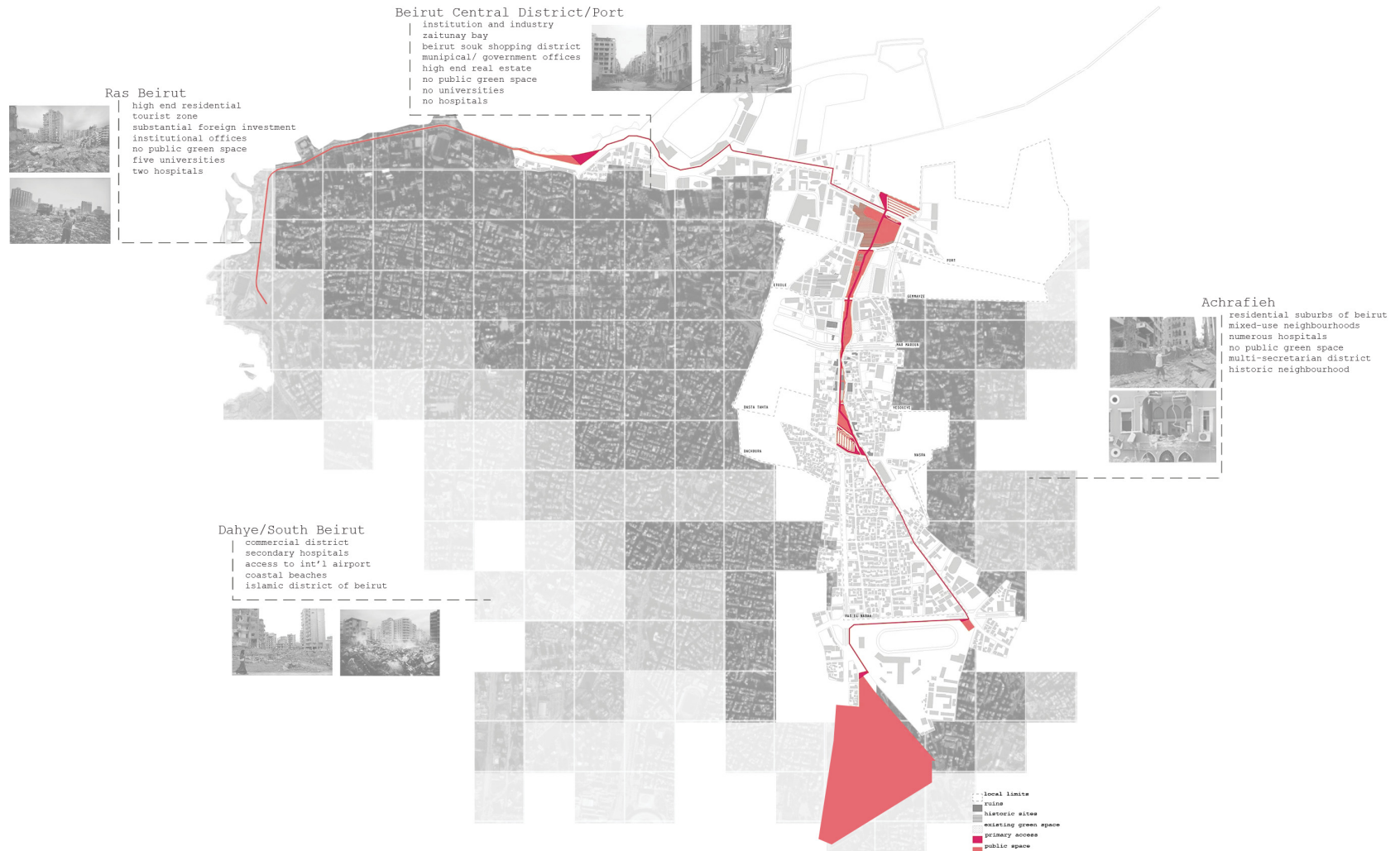with their feeling of
security

Beirut demographics. Displaying the insecurities that plague Beirut and its people; issues
stemming from years of political corruption and social trauma. Data and graphics adapted from
International Alert 2014. (International Alert 2014)

## 7.3 Correcting Mistakes

Beirut can be identified by three main areas; a centre of production, business, and social activity. These areas come together to form the Beirut Central District (BCD); the country's foremost social and economic power. The significance that surrounds this particular part of Lebanon means the issues felt in Beirut are then echoed throughout the rest of the country (Höckel 2007, 14). These qualities place much of Lebanon's stability on the situation in Beirut, emphasizing the importance of regenerating this urban landscape. The fragility of these spaces, specifically the social district, is caused by the fact that its centre is Martyrs Square, part of the axis that can be seen miles above the city's surface. This means that any kind of social gathering in the city has the memory of Beirut's broken history associated with its very being (Höckel 2007, 13).

As it runs through the city, this scar splits Beirut's resources and most of its religions in half. With most of the cities public services east of the line and its institutional care and production west, the separation is heightened both physically and socially as it creates a barrier to these basic needs. These issues extend well beyond the BCD; the axis cuts these services off from the rest of the country, suffocating roadways and overcrowding the surrounding villages as people try to access hospitals, universities, and other services located at the tip of Beirut. These separations form to heighten religious tensions as groups feel the inequality in their lack of access to basic living needs between the Eastern and Western parts of the city. Solving these issues and reconciling these groups begins with breaking down the line that separates them physically and socially by re-inhabiting the axis and challenging its negative history.

Ras Beirut
| high end residential
| tourist zone
| substantial foreign investment
| institutional offices
| no public green space
| five universities
| two hospitals

Beirut Central District/Port
| institution and industry
| zaitunay bay
| beirut souk shopping district
| munipical/ government offices
| high end real estate
| no public green space
| no universities
| no hospitals

Achrafieh
| residential suburbs of beirut
| mixed-use neighbourhoods
| numerous hospitals
| no public green space
| multi-secretarian district
| historic neighbourhood

Dahye/South Beirut
| commercial district
| secondary hospitals
| access to int'l airport
| coastal beaches
| islamic district of beirut

local limits
ruins
historic sites
existing green space
primary access
public space

Considering the landscape. Beirut is an amalgamation of different people and their respective cultures; and at one time these people lived peacefully among one another. Identified here is the axis that is Martyrs Square, separating Beirut's people and restricting access to basic goods and services.

51

Moving closer into the landscape, we see this separation emphasized by a lack of activity and public infrastructure. What was just a thin line within the urban fabric is now shown for what it actually is; a swath of shattered urban spaces that were never rebuilt and a constant reminder of the division that plagues the city. Following the war, these once-public spaces were neglected and a sever lack of reparation caused many to leave the area leading the government to capitalize on the opportunity to do what they thought would modernize Beirut and rejuvenate life in the city centre. These efforts in turn displaced more people, and the anger that consumed this local population created heightened tensions between the government and the people of Beirut; meaning many refused to accept the changes imposed by the government as a form of disobeying authority (Höckel 2007, 14).

All that encompasses the site now are a series of empty parking lots and multi-lane highways, emphasizing its role as a dividing piece within Beirut's urban fabric. The potential, however, lies in its surroundings; a series of culturally significant spaces waiting to be reconciled in a way that aims to re-inhabit the space with the local population that still associates much of their history with Martyrs Square, and introducing a familiar mix of programs and services to correct the mistakes that have been made since the war.

## 7.4 The Model - Creating Freedom

What we have witnessed over time is a change in the physical environment, favouring foreign investment over a consideration for the people and their cultural lifestyle. Pre-war Beirut was characteristic of a typical Mediterranean urban fabric with densely packed low-rise buildings and a cultural scene that saw public program mixed homogeneously with
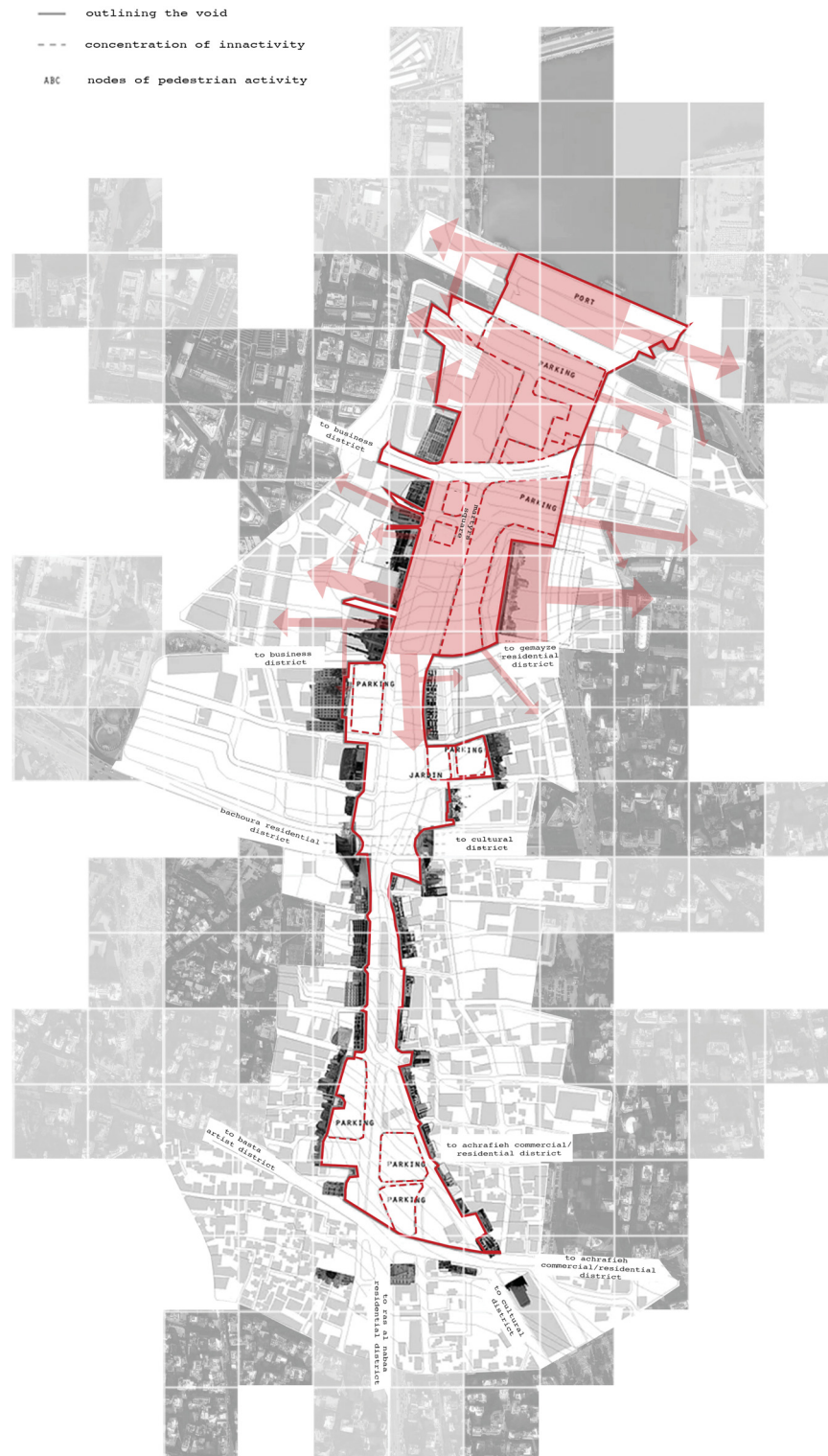
Immediate surroundings. Understanding the state of Martyrs Square's immediate surroundings is beneficial for two reasons. First, it allows us to understand why the urban environment has come to the level of decay it currently experiences; and second, we begin to see spaces of opportunity that are capable of adopting the principles of the thesis.

dwelling and other civic functions. After the war, foreign enterprises moved in and a lack of government resulted in no-one upholding the traditional housing types that contribute to cultural identities. These changes conflict the way we perceive the urban environment; by removing any form of collective identity and allowing the creation of spaces that have no consideration of the social climate, the space becomes alien to even the most devout residents.

These issues help define what the village means physically and socially. It is a place that aims to exist seamlessly within its surrounding context, providing a range of programs and experiences for people to engage in. It builds on existing housing types to embody a sense of familiarity and incorporates elements from the existing environment to provide a thread of continuity and a path towards reconciliation. The village in this way is a place that provides freedom; of experience, interaction, privacy, and activity. It is the manner through which form and program will work cohesively to regenerate damaged urban environments.

The village. By developing a model for the Village, the project takes on its first physical application and its principles can then be adapted to the urban environment.
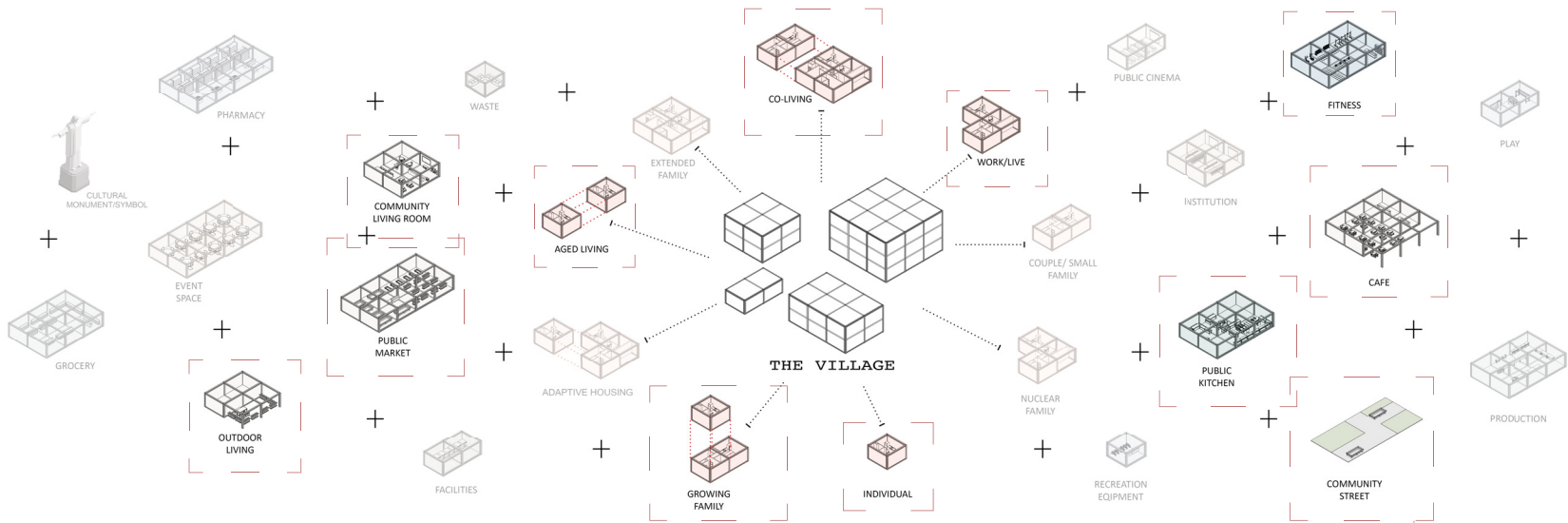
# Chapter 8: Grafting the Design

## 8.1 Changing Perspectives

To design a space that encourages the varying interactions that are characteristic of cultural landscapes, we must move away from what we typically think of when we say "mixed-use" and reimagine how we combine programs and services. By including programs that would otherwise not be included within a given space, the opportunity is created that allows people to form new connections and reinvigorates the culture that lives within Beirut. This new integration of public and private spaces develops unprecedented levels of interaction between people and the spaces they inhabit, immersing the public experience within the everyday functions of the village. By creating different combinations of program, even the simplest changes are capable of creating drastically diverse spaces that all contribute to the social and physical composition of the village. This ability for the project to vary infinitely from a slight change in program provides the space with the changing experiences and organic mixing of program that are characteristic of the village typology. It is the intent that these spaces combine to create a project that serves to provide users with a variety of spaces they can associate with, without formalizing their level of interaction. These changes also form to challenge the various social and political inequalities that have remained present since the war by returning Martyrs Square back to the people of Beirut. These efforts serve to make it a space they can form a positive collective identity with and begin to regenerate the urban environment, while the mix of program and dwelling serves to re-inhabit the landscape with the traditional values and functions that once contributed to its success.
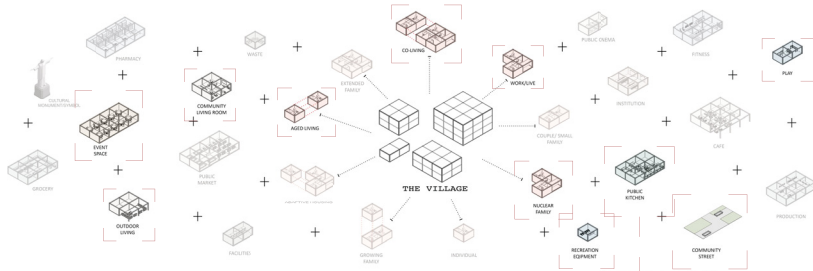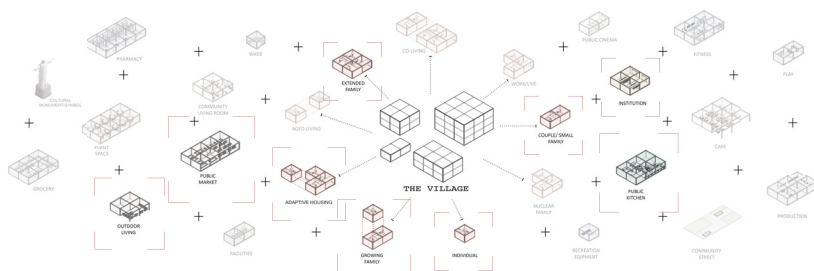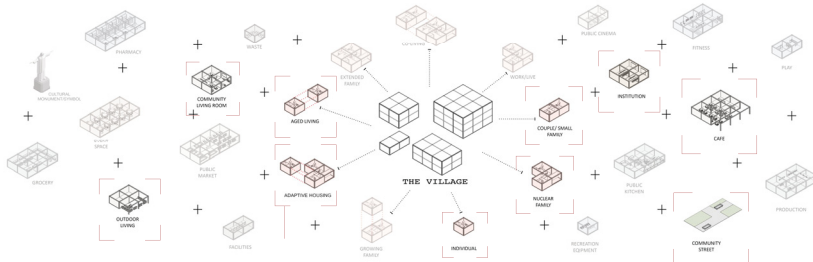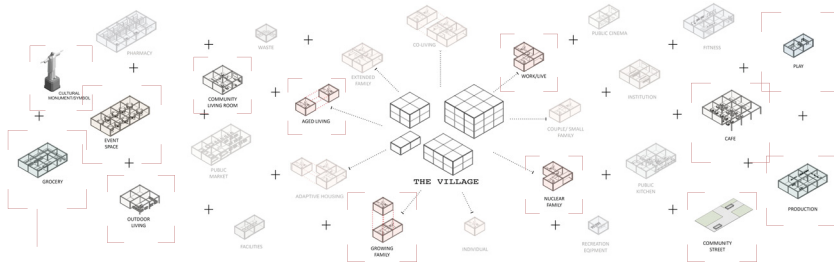
Contemporary mixing. The arrangement of programs in this way is intended to create spaces that are unique in the programs they provide, but ultimately serve to deliver these programs in a cohesively design setting. It is these intentions that graft elements of the village into the design by considering how these settings function at a high capacity and integrate program in an organic way in the physical environment.
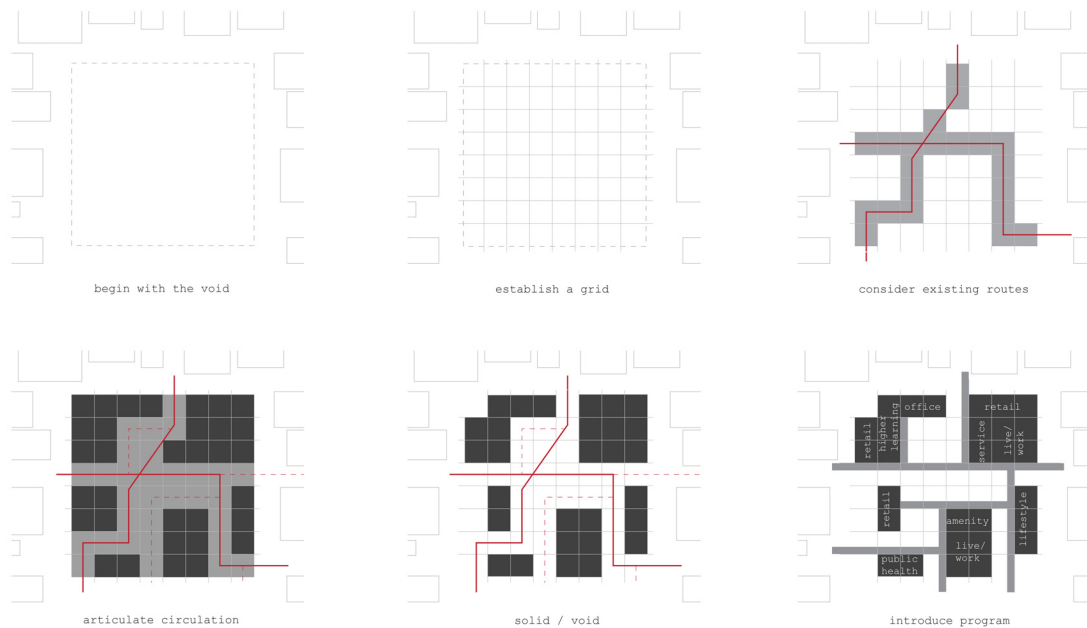
PHARMACY

WASTE

PUBLIC CINEMA

FITNESS

PLAY

CULTURAL
MONUMENT/SYMBOL

COMMUNITY
LIVING ROOM

CO-LIVING

EVENT
SPACE

AGED LIVING

EXTENDED
FAMILY

WORK/LIVE

INSTITUTION

CAFE

GROCERY

PUBLIC
MARKET

THE VILLAGE

COUPLE/ SMALL
FAMILY

PUBLIC
KITCHEN

PRODUCTION

OUTDOOR
LIVING

ADAPTIVE HOUSING

NUCLEAR
FAMILY

COMMUNITY
STREET

FACILITIES

GROWING
FAMILY

INDIVIDUAL

RECREATION
EQIPMENT

Contemporary mixing 2. Considering how these spaces form to create the urban village requires the development of a form capable of sustaining these varied programs and groups of people. These spaces ultimately combine to develop the project and its potential for regenerating damaged urban environments.

### 8.1.1 Designing for Change

In order to establish such a mix of program in one space and to make the form that facilitates the use of these programs universal, the development of a general form is essential. The objective in establishing a new way of inhabiting the urban landscape serves to create modular strategy that allows for flexibility both programmatically and physically. There are a number of built forms that facilitate these intentions; beginning with establishing a grid. By establishing a grid, the intentions of creating varied interactions can be achieved through the adaptability that the grid provides and in this way, the grid is also accepting of the changing form of the urban landscape and the typology that the project takes on. Considering a model that is flexible in both form and function allows for the creation of spaces in Beirut that have not existed since the war, if ever.

Grafting this process onto the site begins by considering the current - although void - landscape and translating the grid onto it to begin its transformation. Once the grid has been established, the current modes of access to and through the site must be considered; this exercise serves to make the site familiar and approachable to those who remember its history, but also to establish it as an extension of the existing urban fabric. After considering existing and proposed modes of access, the forms that will then house these functions can be put in place and any combination of programs integrated into the design. Considering how dwelling and public culture serve to regenerate the urban environment allows for the placement of programs that are mutually beneficial; what this means is the development of spaces that are functional beyond simply creating a mixed-use environment to create the varied experiences that we naturally desire.

begin with the void | establish a grid | consider existing routes

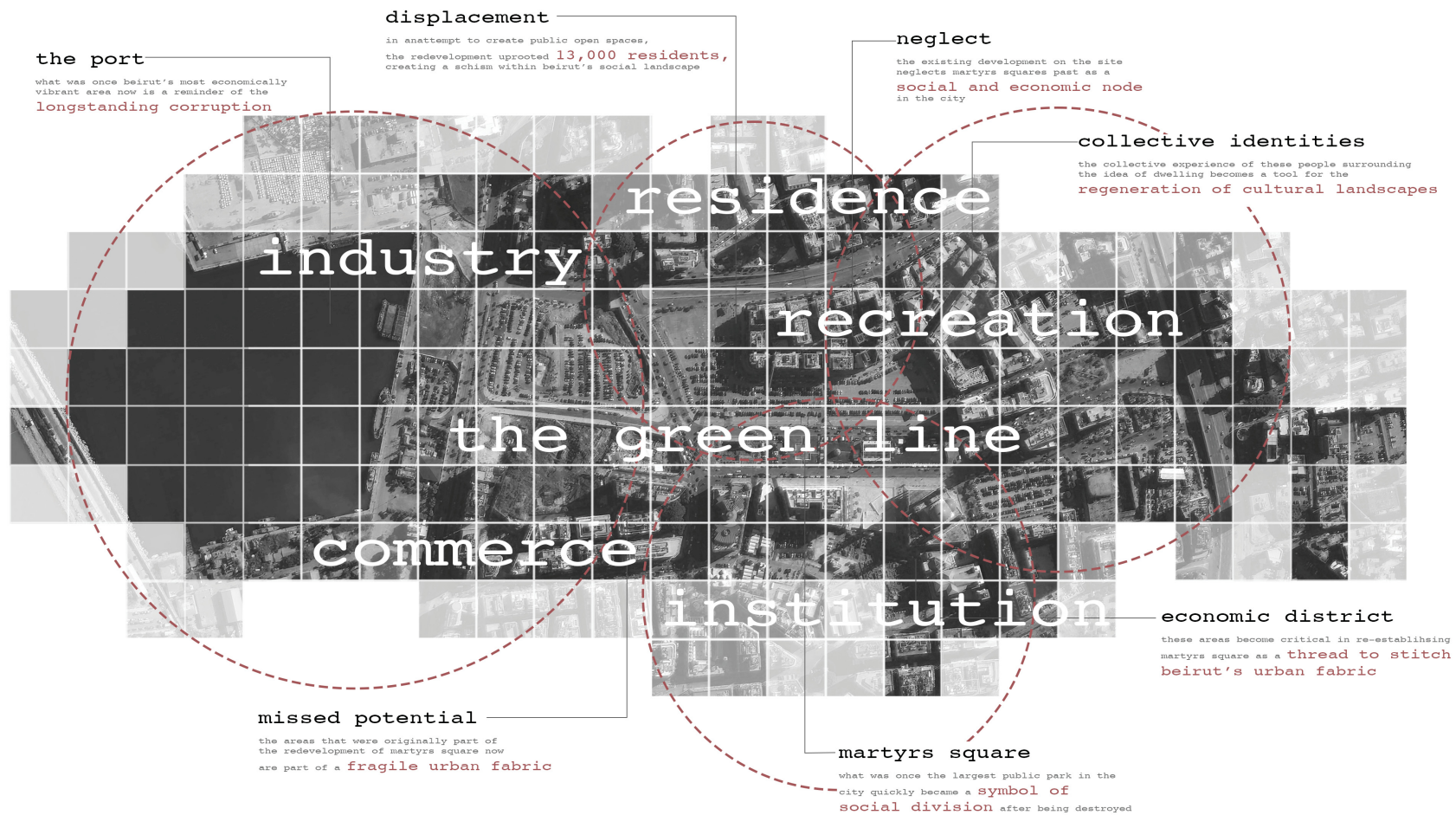articulate circulation | solid / void | introduce program

Creating flexibility. The process of creating flexible spaces that promote varied interactions begins by developing a model capable of sustaining multiple programs and uses. The modular form is critical to the development of the project for its adaptive capabilities.

## 8.1.2 Considering the Context

When considering the project in this manner, we have to look at the site beyond its physical geography and from its social position. As Beirut was stripped of any kind of cultural identity, these changes affected the city's overall social and physical environment, yet they offered an opportunity to enhance the presence of public urban spaces.

The development of new ways of living built on the historical foundation of a place responds to the strong psychosocial need to re-establish the familiar following a phase of disruption. For this reason, Martyrs Square prepares a test setting for the project; its history as a public square embodies the characteristics that people associate with a stable urban environment, while its physical position allows it to reconcile parts of Beirut that have been divided since the war.

the port
what was once beirut's most economically
vibrant area now is a reminder of the
**longstanding corruption**

displacement
in anattempt to create public open spaces,
the redevelopment uprooted **13,000 residents,**
creating a schism within beirut's social landscape

neglect
the existing development on the site
neglects martyrs squares past as a
**social and economic node**
in the city

collective identities
the collective experience of these people surrounding
the idea of dwelling becomes a tool for the
**regeneration of cultural landscapes**

residence

industry

recreation

the green line

commerce

institution

economic district
these areas become critical in re-establihsing
martyrs square as a **thread to stitch
beirut's urban fabric**

missed potential
the areas that were originally part of
the redevelopment of martyrs square now
are part of a **fragile urban fabric**

martyrs square
what was once the largest public park in the
city quickly became a **symbol of
social division** after being destroyed

The social and physical landscape. More than its physical position within the city, but the social position of Martyrs Square in Beirut and the impacts this space has on the entire country make it the ideal test setting for the thesis.

## 8.2 Placement

The consideration of these issues begins by solving a lack of program on the site, as well as the challenge of relating the project to its surroundings. The project engages with its surrounding context by placing itself within the voids left following the war; by consuming the site in this way and emanating into the smaller forgotten areas along the periphery of Martyrs Square, the project begins stitches these broken pieces of the urban fabric back together by physically reforming the landscape that once existed in this void. Inhabiting these spaces reforms the social and physical connections that were once characteristic of Martyrs Square, and the integration of a diverse array of programs in the resulting landscape accomplishes to return the people to the area while challenging its negative history.

The placement of the project in this way is critical to achieving the intentions of the thesis. While the site plays an important role in the application of the project in the social landscape, the form through which the design serves to inhabit this landscape develops the relationships we create within the mended environment. Creating an organic relationship between the physical spaces left in ruin after the war serves to heal the broken city and reconnect spaces that were left socially isolated by the scar that inhabited Martyrs Square. Including the smaller areas along the periphery of Martyrs Square encapsulates the entire landscape into the design; and rather than creating a new entity that is different in form from its surroundings, the inclusion of these spaces in the design serves to connect the main social spaces of the project with those that still exist following the war, using them in  the process of regeneration and bringing these pieces together once again.
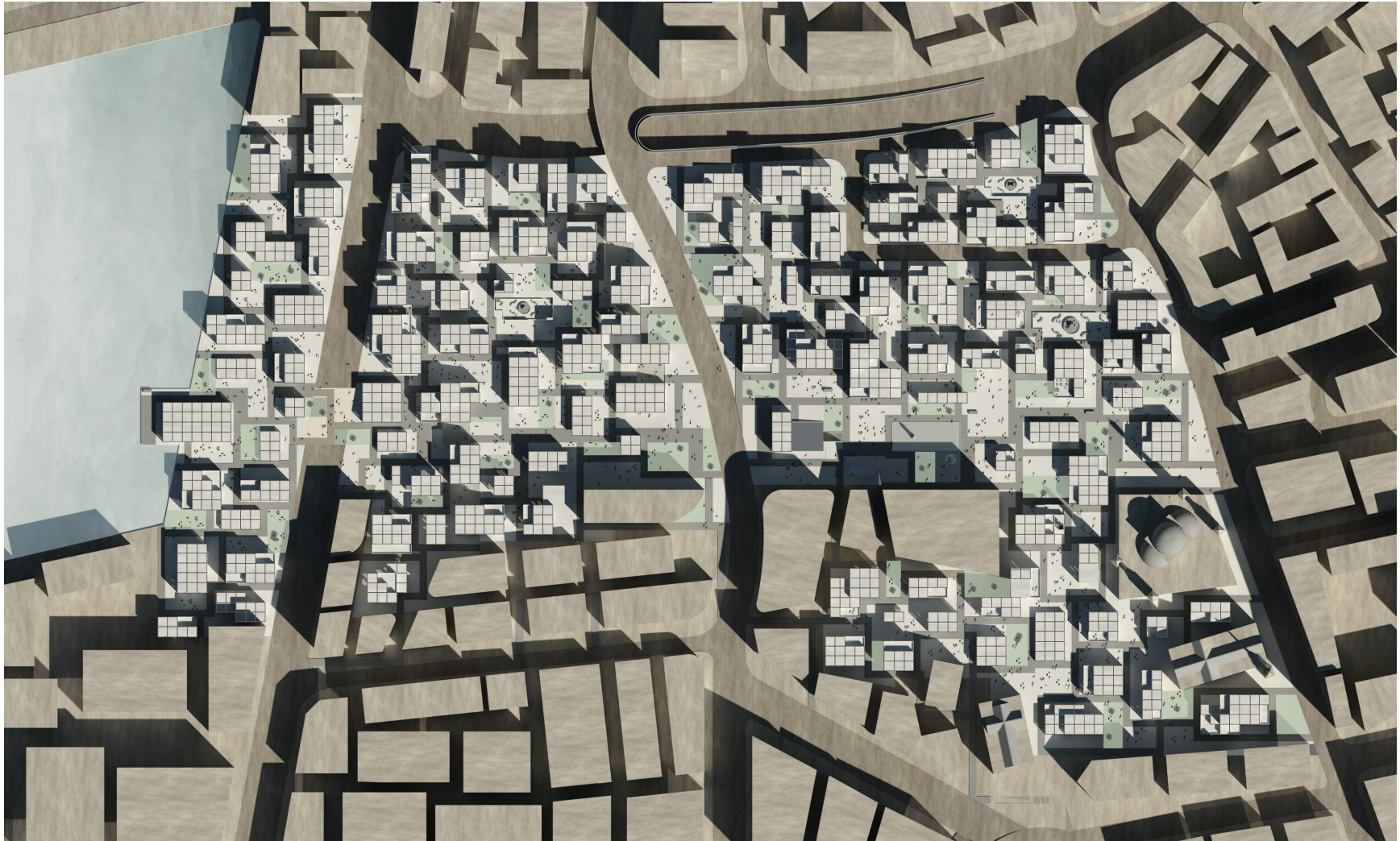
Grafting the village. Considering how the project relates to the surrounding environment is critical in its ability to reconcile Beirut's urban fabric. If not for its ability to emanate into the smaller areas along the periphery of Martyrs Square, the project would serve to become a destination rather than the critical extension of the existing environment that it intends to heal.

## 8.2.1 Grafting Critical Components

Relating the project to the surrounding environment goes beyond the physical environment. By considering what parts of the existing urban fabric still hold a strong positive connotation within Beirut's social culture, we can graft these components into critical areas of the design and maintain a natural presence within the city, and although new in form, a place of familiarity. These intentions serve to integrate the project within the urban fabric not only physically, but also socially; establishing connections with the landscape that are part of a collective identity within the area and solidifying the relationship between the project and its setting.

By incorporating culturally significant parts of the existing fabric such as the Al-Amin Mosque, the Statue at Martyrs Square, the pedestrian boardwalk, and existing programmed public spaces, the project fits appropriately within its setting, allowing for new ideas of program to be introduced while maintaining a sense of belonging and public identity.
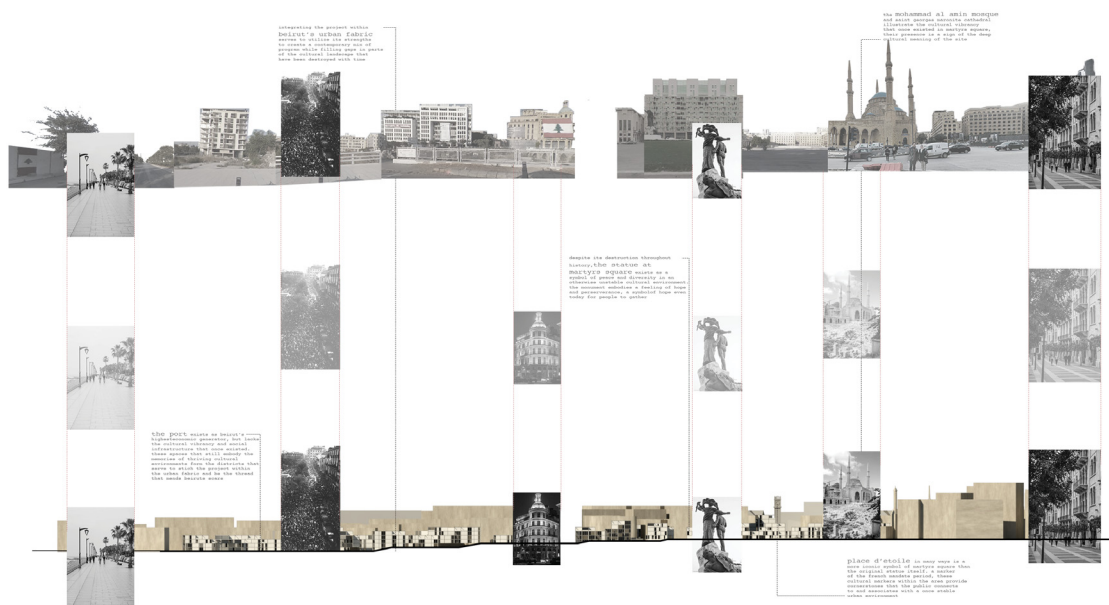


Translating critical components. Much of Beirut's social history and stability relies on the presence of cultural artifacts and possessions; by acknowledging this in the development of the project, the foundation of a stable urban environment is established.

## 8.2.2 Challenging the Axis

In these ways, the project serves to challenge the negative associations left after the war and that have been amplified over time by the continued neglect and lack of reparations the site has undergone. By challenging that axis, the project aims to take away its role as a facilitator of separation, while placing an arrangement of publicly programmed spaces on it assigns a new positive characteristic to the site that acknowledges its importance within the urban fabric, finally bringing these pieces back together.

As mentioned before, the first step in creating the path towards regeneration begins by inhabiting the space in a way that establishes the resulting project as more than an architectural intervention. Taking the void of Martyrs Square and the surrounding areas and establishing these spaces as a new social landscape serves to mend an urban fabric that has been divided for decades, and by considering the space not as a destination, but rather a connection, the process of mending the broken city begins. These efforts are catalyzed by the integration of programs and the people that will experience them, forming to create a housing typology that regenerates the urban environment.

The inhabitation of Martyrs Square, however, goes beyond simply placing a number of mixed use buildings in the space and expecting that to challenge social instability resulting from decades of conflict and trauma. With this in mind, inhabiting not only the physical space but rather challenging the history of the axis in the environment becomes more and more critical to the projects success. Challenging the negative associations and the role of the axis within Martyrs Square begins by considering how this space functions

as a social landscape within Beirut's urban fabric. While the axis provides an organizing component, we have come to understand how this pattern of organizing space leads to the separation of people and contributes to social instability. It is with these examples in mind that in order to respectfully challenge history and create a new path towards reconciliation, an alternative approach must be considered.

The inhabitation of the line becomes that way of stitching together pieces of the broken city. While the entire site of Martyrs Square has been left in ruin, it is the social presence of the axis that remains in the minds of Beirut's people and contributed to social challenges in Lebanon as a whole for years. These lingering emotions that live in the mind of the local population requires the project to go beyond redeveloping Martyrs Square and to consider what other factors are contributing to the social instability of the place. By inhabiting the axis, the project opposes its previous meanings and now establishes Martyrs Square as a functional landscape within Beirut. When the inhabitation of the line is established and the negative emotions since the war have been acknowledged, the environment becomes receptive of the programs and spaces that make it a familiar environment that people can now create a positive collective identity with. Incorporating spaces for people to engage in a variety of social activities and creating opportunities for this level of interaction to occur beyond what is typically considered to be public space serves to heal the broken urban fabric by re-establishing old and creating opportunity for new relationships to be created. These considerations develop a way of challenging the physical and social challenges associated with such a project, creating a path towards reconciliation that is applicable beyond Beirut alone.
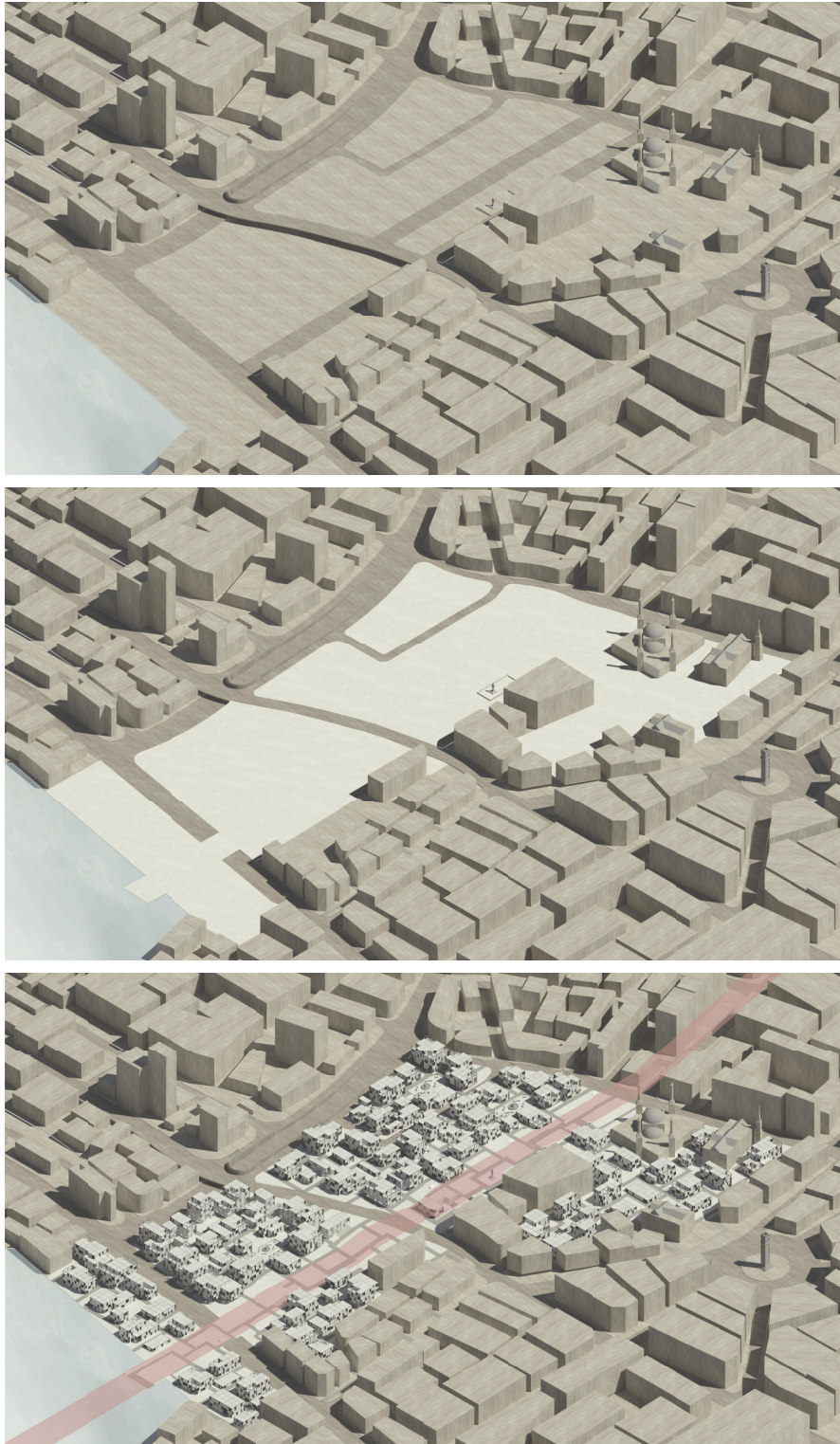
Challenging the axis. To challenge the negative history associated with Martyrs Square, we must consider how the presence of the axis contributes to social instability. By taking the current urban fabric and grafting the village onto it, the process of regenerating the urban environment begins. However, in order to effectively serve to reconcile these landscapes we must inhabit the original axis with a variety of programs that serve to acknowledge its presence, but re-establish it as a place of connection as opposed to a tool of separation.
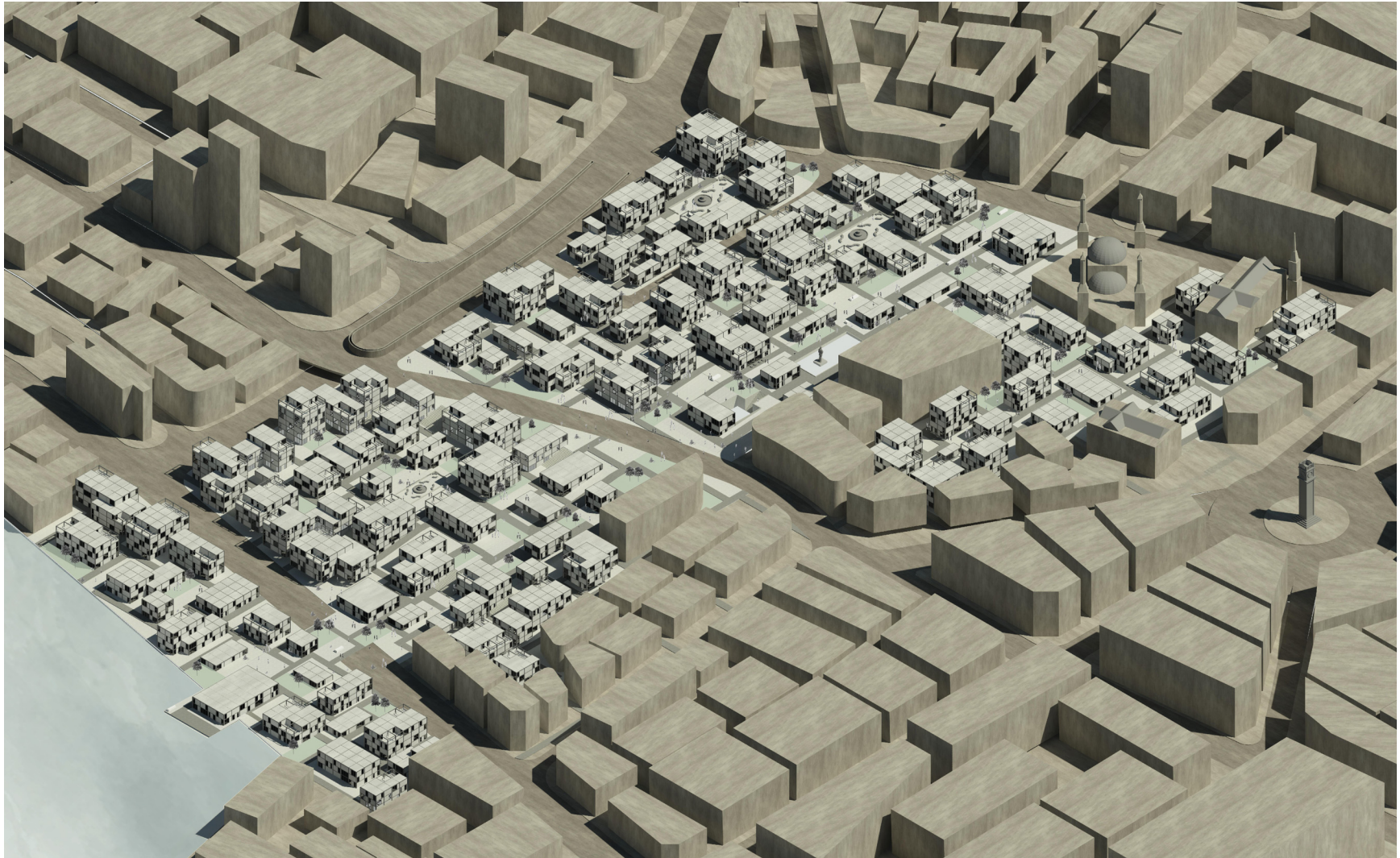
Establishing the village. Establishing the village as an extension of the existing landscape and allowing it to benefit the urban fabric by being both functional and social achieves the efforts of developing a project capable of regenerating damaged urban environments.

## 8.3 Translating the Village

When considering the different programs that provide opportunities for the project, the surrounding landscape must be considered to establish the project as an extension of the existing environment. By relating the programs in the project to the spaces that immediately surround each part of the design, boundaries that were established during and after the war begin to disappear and the urban environment able to begin its path towards reconciliation. Integrating the project within its surrounding context in this way also serves to create a space of familiarity. Removing these social barriers that are present in the urban fabric reinforces the project as a functioning part of the cultural landscape, capable of sustaining the everyday functions of the urban environment but through a new form of dwelling.

As the project aims to provide the organic mixing of programs and people in the ways that the village is an amalgamation of these entities, each part of the design provides a node of concentration for these particular functions to exist. It is this contemporary integration that promotes the project as a mode through creating a positive path forward and inhabiting the landscape in a way that develops it as a functioning part of the urban environment. What is important to consider is that all of these programs must exist in a way where while one district provides a concentration of one type, they all are present with a high level of unity that creates the flexible environments that cater to multiple groups. This pattern of providing different programs creates an infinitely diverse environment that provides the users of the space with the choice of interactions that are unique to the project and oppose the typical organization of programs from previous examples that contribute to social instability.

The interaction between the community members and the different programs strengthens the local economy and its social relationships. Mixing programs at a variety of scales and uses further promotes a sense of community and integration between the project and the surrounding environment, responding to the needs of its surroundings and promoting the project as a public response intended to serve the greater context. By establishing a set of guidelines for future mixed-use housing developments, the qualities and patterns of housing that were once founded centuries ago through basic human instinct, can be replicated in modern projects and used in other settings.



PUBLIC BENEFIT

COMMERCE

INSTITUTION

INDUSTRY
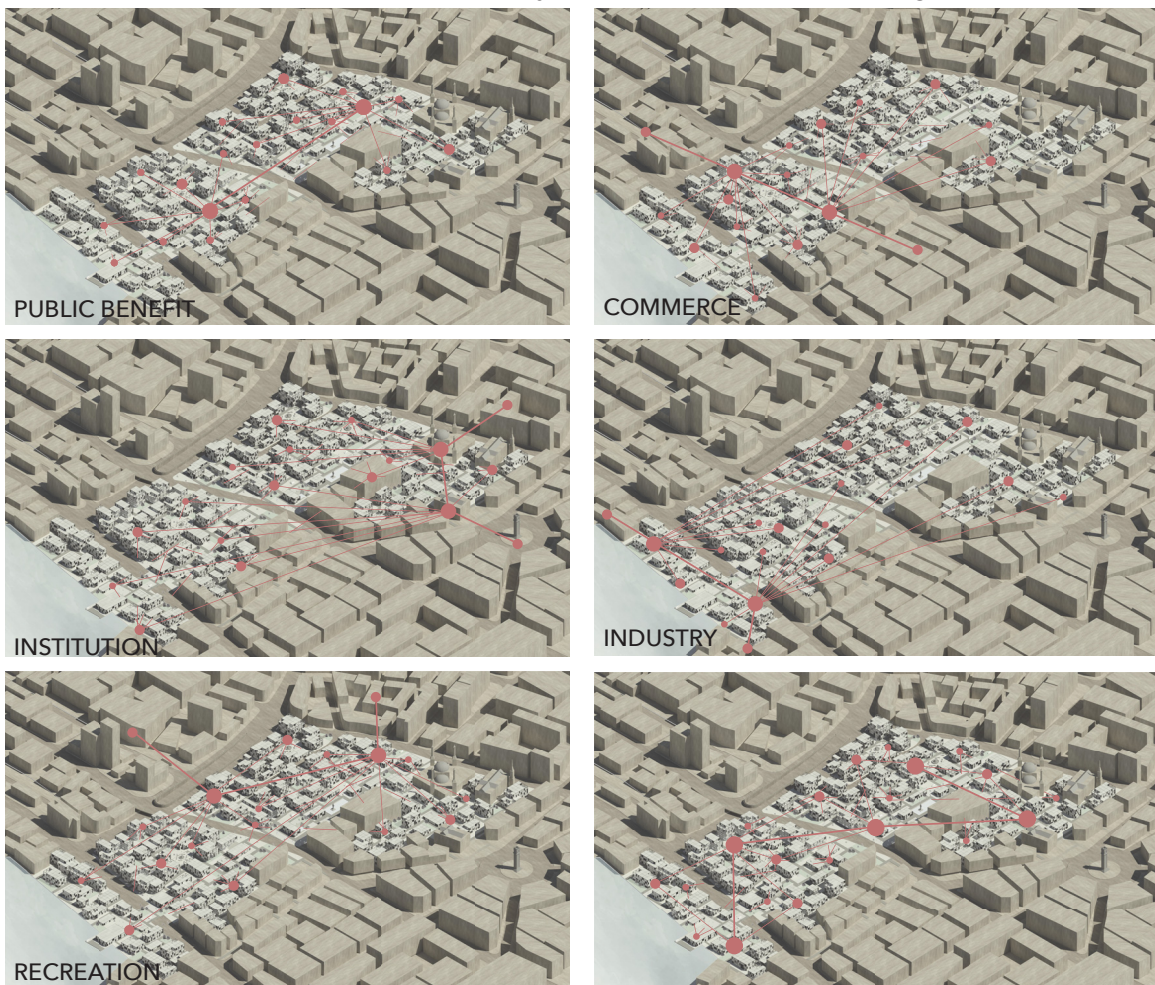
RECREATION

Programming the landscape. Allowing programs to exist organically within the project while creating nodes of concentration for these functions to exist allows the project to relate to the needs of its surrounding context while promoting the varying interactions that are so critical to the project and made possible by an elaborate arrangement of people and programs.

The framework. Designing the project to exist as a varied arrangement of people and programs allow its principles to be applied at various scales of the design. This means that the project remains familiar in its entire experience and its effort in regenerating the urban environment is unlimited in its potential.

## 8.3.1 Contemporary Mixes

These intentions provide the basis for the entire project and adapt to each of the areas as a way of providing a pluralistic public space for the people that each space intends to serve. In any given space, we can begin to see how the form and variety of programs work together to achieve the intentions of the project. The success of the investigation is attributed to the mixing of programs in one form to provide a space that offers a variety of social interactions, but ultimately the choice of choosing at what level you experience these interactions. It serves to move away from the typical assumption of what a mixed-use space looks like and towards a more contemporary amalgamation of people and places, creating interactions in a way that serves to be both functional and familiar. The design of the project becomes a tool for implementing public infrastructure to strengthen local communities and promote social and economic growth.



Principles of integration. The project is designed to provide users of the space with access to a wide variety of programs in any given area. These efforts form to promote informal interactions and also increase accessibility for various groups.

Further promoting the success of a mixed-use housing project relies on its ability to integrate multiple programs in an effective way. By integrating residential and commercial programs in one project, local economic and small businesses are stimulated and "mini neighborhoods" that are more sustainable and efficient can be developed in urban centers and additional settings. Additionally, commercial programs that are complimentary to one another and that provide goods and services required by the residents of the project and the greater community ensures the social and economic success of the project. By integrating programs that are mutually beneficial for residents and the commercial owners, local market spaces are created and this interaction between the community members strengthens the local economy and the social relationships between residents. These considerations call for new perspective when considering the redevelopment of urban environments to reach the full social and economic potential of these places.

## 8.3.2 Movement

Translating these ideas to the formation of the pedestrian paths; acknowledging the main arterial road that exists provides the project with its initial organizing component - the main village street. The main street is then broken up by connecting paths that allow people to move in and between the programmed spaces and deeper into the village. This movement is facilitated at all scales by the variety of programs that exist in the project, promoting walkability and mixed-use neighbourhoods that encourage the development of social interaction. These considerations facilitate the exchange of both goods and knowledge from people of various social backgrounds, creating a sense of trust between the residents and the greater community.

Creating social interaction. Developing the circulation throughout the project utilizes the significance of the axis in creating the main village street; this serves to challenge the negative history associated with the site and assign a new positive identity with its being.

### 8.3.3 Applying Scales

The organization of program and spaces within the project is designed to create unique interactions at every scale from city to dwelling. We see that all of the paths are connected by one of the three levels of circulation and again, the movement facilitated by the combination of functions that exist throughout the design. The intentions of the project are to fully engage people beyond the ground level; to move away from the previously mentioned examples that are highly program focused in some areas, while the public spaces such as the pedestrian streets are neglected programmatically. This treatment of space directly contributes to increased social tension as it mirrors issues already present in society. Considering how the arrangement of program throughout the design impacts our ability to engage with each other and the landscapes we inhabit is critical in the success of the project and the relationships made.

As past arrangements of mixed-use developments have placed public program at the ground level and dwelling above as a method of creating privacy, the ability to maintain this level of privacy is critical to the function and appeal of the space. Although the intention of the project is to provide a truly public environment, the ability to create privacy at the ground level in spaces such as the dwelling or private offices is still and important factor in the design. In order to maintain the public atmosphere within the pedestrian street but still provide privacy where desired, the more publicly programmed rooms are surrounded by areas for people to engage on the pedestrian street. This treatment of the space provides an initial method for directing people through the project in a way that draws them to public attractions that they are able to engage with, moving them away from more

privately programmed rooms. Additionally, transition spaces such as an exterior terrace or seating areas are designed throughout the project to create semi-private spaces as a threshold between the pedestrian street and spaces like the dwelling. The placement of these spaces serves two critical functions; first, the space acts as a threshold between the public and private environment to allow for privacy to be maintained at the ground of the design. Secondly, the space creates a secondary form of interaction between the public and private space. It allows the users of the space to openly engage with the public environment with an increased level of privacy. This treatment of the threshold between public and  private space opposes past ideas of separating the two realms by creating soft thresholds; while past ideas thought of separating these programs completely by placing them on entirely different levels, the project understands that the relationships and ability for these two environments to engage is critical to the relationships that are able to be made within the space.

Furthering this relationship is made possible by the treatment of the pedestrian street; as it is drawn into the structure with the placement of service cores, it creates moments of interaction between people and the places they are trying to access. This extends the level of interaction beyond the public street and into the design with the same intentions of providing spaces for the informal interactions to take place that are so characteristic of the village typology. It is in these ways that dwelling and program come together to achieve the intentions of the design. By allowing these various parts of the urban environment to peacefully coexist and mutually benefit from one another, Beirut can begin its path towards regenerating its urban environment.

Effecting the social landscape. The principles applied in the design serve to integrate the space appropriately within the context and provide the surrounding environment with programs and services that currently cannot be accessed. By organizing these programs in a contemporary way, it serves to facilitate the organic circulation and high functionality of the village.
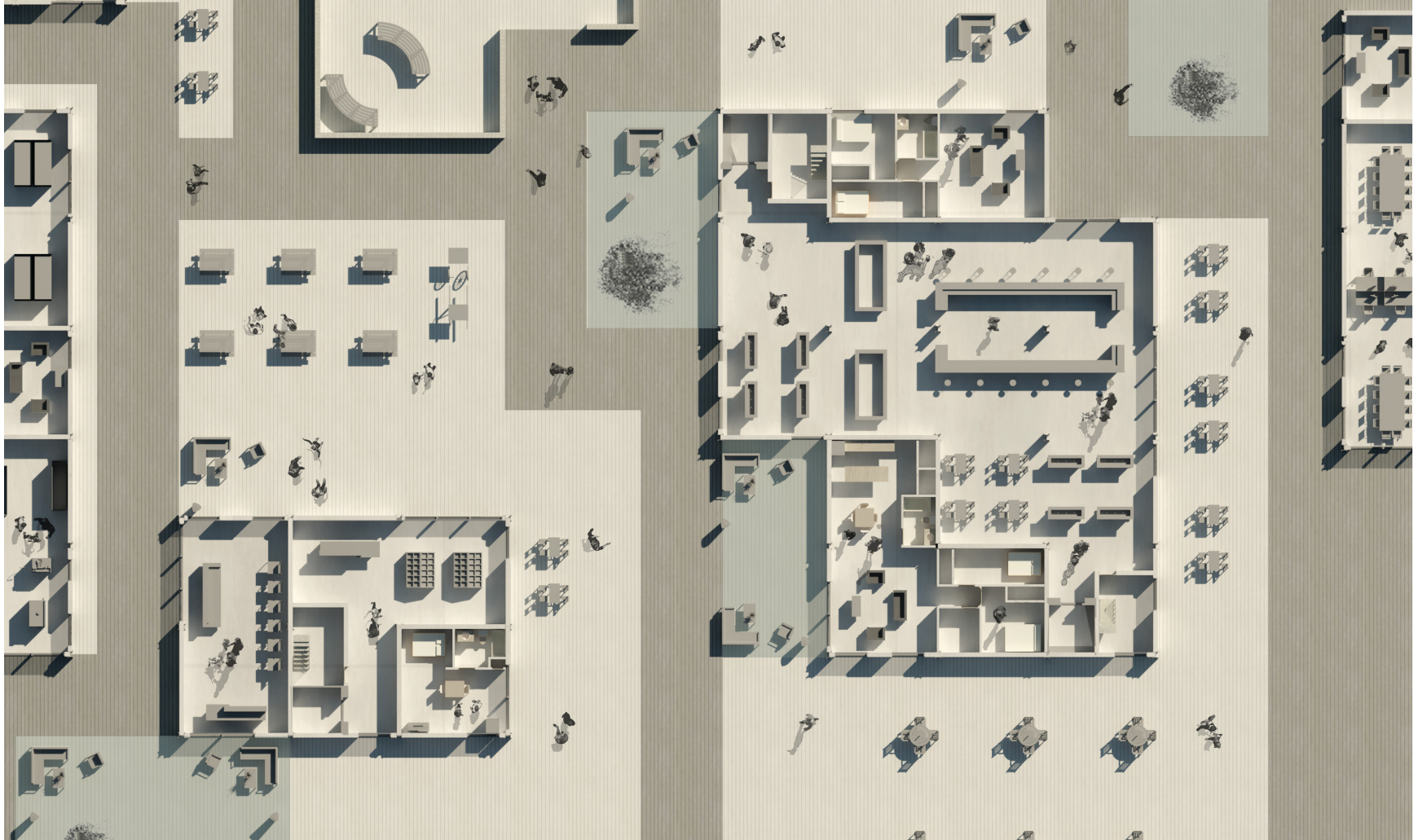
The block. When considering how public and private spaces form to exist in a cohesive environment, it is critical to develop a project that is capable of sustaining and providing usable space to a wide variety of programs with ease so that no function feels out of place and the project can exist as an efficient part of the urban fabric.

## 8.4 Considering the Vertical Element

These intentions are further achieved by the treatment of space vertically throughout the project. By furthering the integration of program beyond the ground level of the project, these spaces extend parts of the dwelling and other programs out into the public realm as well as provide an opportunity for users of the exterior spaces to witness the activities being engaged inside. The ability for the public to engage with the activities that are being experienced within the building increases the capacity for the varied interactions that are critical to the mending of broken cities to occur. Furthering the level at which these relationships between people and the spaces they inhabit can exist forms to create a stronger collective identity and promotes social adhesion within a given environment.

What this means for Beirut is re-establishing a connection with the landscape and reconciling Martyrs Square with its surrounding environment, as it was before the war. Stitching these pieces of the urban fabric back together by way of housing and culture solidifies the role of the project in regenerating the damaged urban environment and forming a path towards reconciliation. A diversity of program that goes beyond the typical requirement of including both residential and commercial spaces is required to visualize the full potential of a mixed-use housing development. Integrating these programs in diverse ways within the body of a project facilitates the social interactions that occur between residents and the greater community. Furthermore, integrating housing types that effectively combine people from different social backgrounds fulfills the definition of mixed-use housing and creates social interactions that are not achievable in any other housing type.
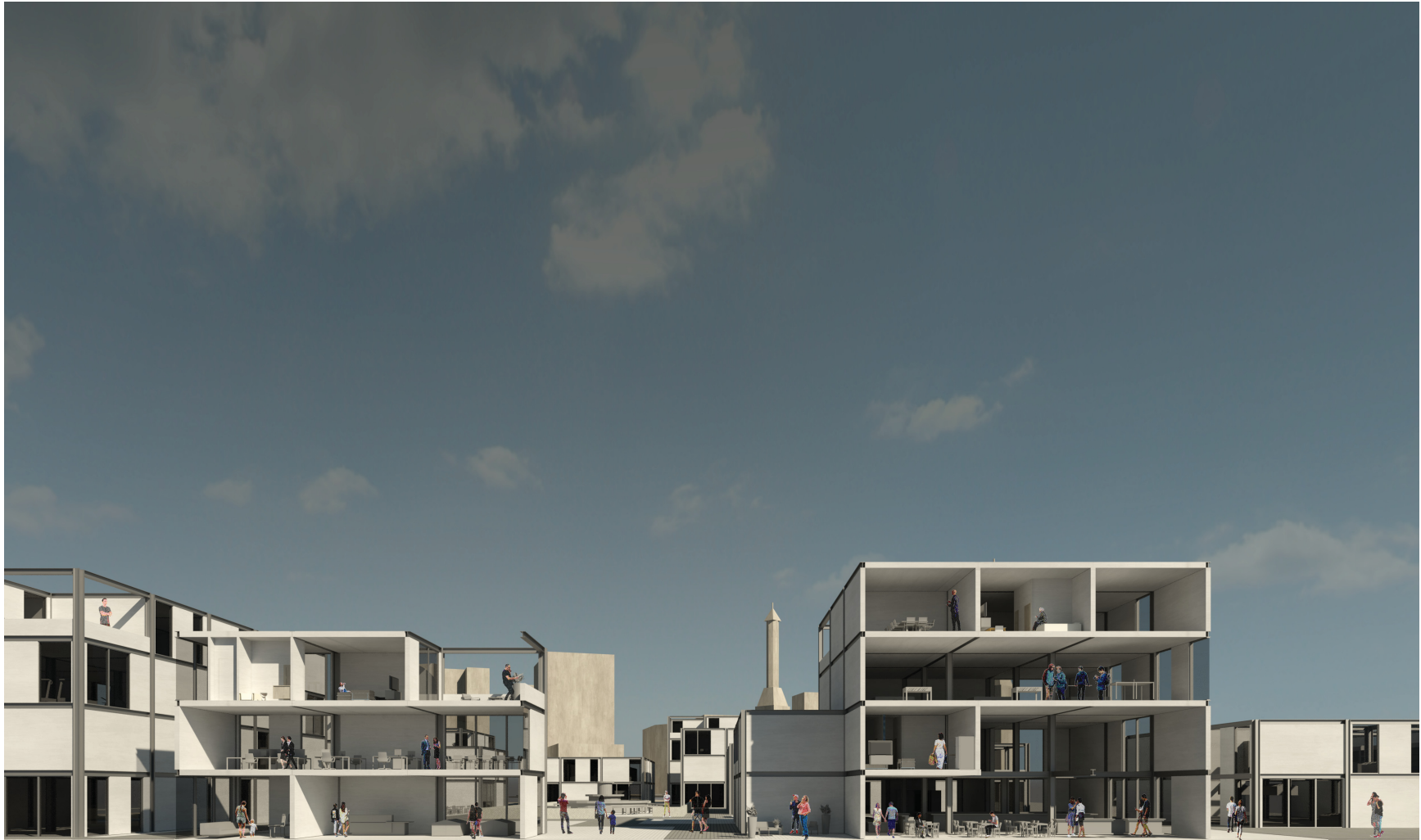
Vertical relationships. By taking the level of public engagement beyond the ground level of the project, a new form of inhabitation is developed; one where culture and program are mixed seamlessly within a given setting. These efforts give the project the capacity to challenge issues within the context of the design and provide a space that serves the people by reconciling parts of a damaged urban environment.
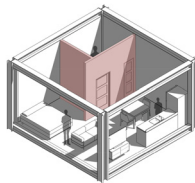
Unit Installing
Flexibility in space creating,
based on users requirements.
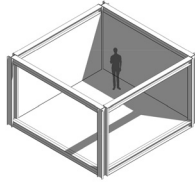
Panels Movement
Divide the one space into two spaces
by sliding panels on railings.
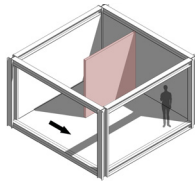
Space Dividing
Four spaces can be created,
depending on users requirements.

Adaptive design: creating spaces with change and growth in mind.

## 8.4.1 Relationship Through Structure

As mentioned, the structure of the project is critical to achieving the desired intentions of the investigation and the ability to combine such a variety of programs in a cohesively designed space. Beginning as a kit of parts, each space is then articulated based on the individual program of the unit and its spatial needs. These units are then assembled into a from that gets replicated throughout the design and built upon throughout time as the needs of the space and its people change, growing in scale and increasing its density as the population returns and establishes itself within the project. The module provides a flexible space that can be customized both internally and externally, based on each users separate needs, while maintaining a similar presence throughout the design. This allows for growing families to remain present in the same space for generations, or a situation where programs are altered to happen without effecting the structure or design of any given space.
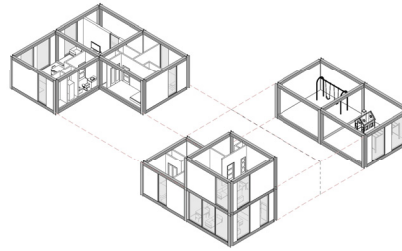
The project establishes the building blocks for creating a thriving community and a supportive everyday life for people of all ages, backgrounds, and living situations by creating an adaptive environment. Residents could simply rearrange the accommodation as required, replacing any elements of the module that need repair. This allows for flexible and adaptable living, and moves towards a circular approach to living space and management of buildings. The design being based on a modular building system also allows for the creation of a wide range of different housing typologies for different urban settings and an array of applications that are easily deployable. Achieving these intentions also allows for the project to grow over time to a scale and density that is appropriate within the surrounding context.
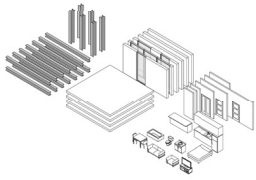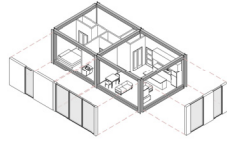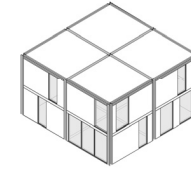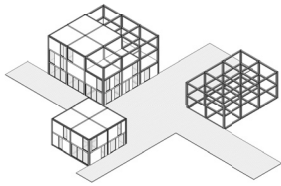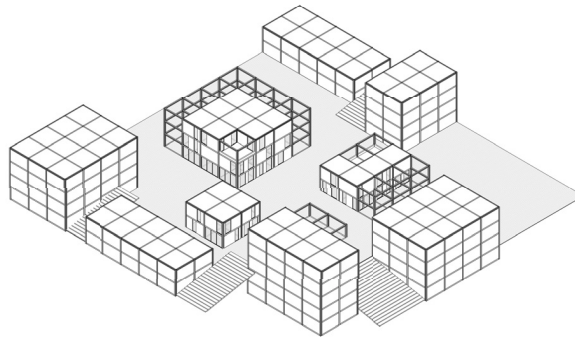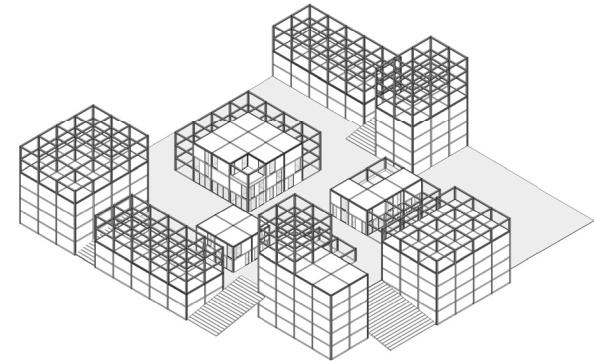
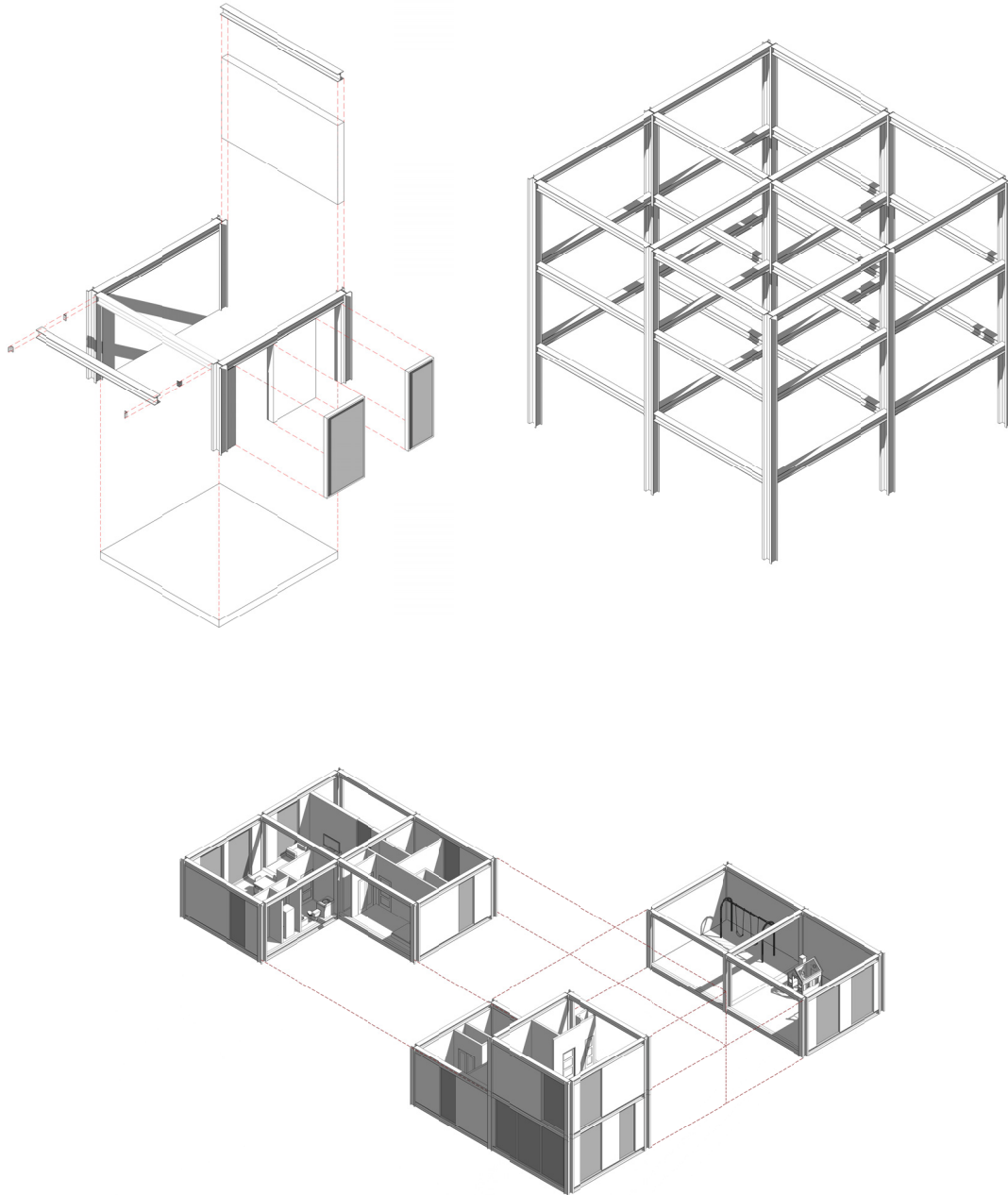the kit  the articulation  the assembly  the form

the aggregation  the replication  the growth

Growth and assembly. Existing as a kit of parts, the project is capable of changing as the needs of the current environment change in sequence. This makes the project quickly deployable in a number of scenarios and capable of taking on forms natural to a given environment.

Structuring change. The structure of the design intends to make the spaces created universal. The structure then serves many purposes; it can be adopted in a number of contexts, it can be assembled by locals as the construction process is quite simple, and also reduces waste. These efforts make the space efficient to construct and able to adapt to any application or use of the space, allowing it to be scaled with ease.

# Chapter 9: Conclusion

Ideas of repairing urban environments following periods of conflict are critical now more than ever. With issues of government, politics, and social instability a constant threat, the considering of how we approach the redevelopment of places like Beirut becomes evermore sensitive. This thesis aims to challenge past and somewhat present ideas of mending broken cities to develop a model that considers the critical factors that ultimately go into the redevelopment of a cultural landscape that have the capability of regenerating a damaged urban environment.

When considering the meticulous planning and strict organization of some of the examples mentioned throughout the thesis, we see how this approach to the redevelopment of damaged urban environments contributes more to social instability by enforcing cultural issues. A new method of reconciling people with the environment they inhabit begins by considering how the landscape functioned before the conflict and trauma occurred. Applying these strategies in the formation of redeveloped cultural landscapes serves to create a space of familiarity that people can re-establish a positive collective memory with, and that is also functional to the economic and social growth of the urban environment that surrounds future applications of the design.

Understanding what elements are significant both socially and physically provides the opportunity to build on these existing components and utilize them to mend the broken city. In the case of Beirut, this pieces are used in critical areas of the design to establish it as a method of stitching together pieces of the urban fabric that have been separated since the war. These elements are transferable

to any scenario and when grafted into the application of the design, provide a common significance that people from multiple generations and backgrounds can relate to. Using these existing elements and integrating them with the contemporary mix of dwelling and programs that the project provides grafts the organic and high-functioning qualities of the village into the project to regenerate damaged urban environments. These efforts to challenge current ways of redevelopment is built on years of witnessing the destruction that these strategies have had on Beirut and how a lack of political responsibility has led to the disappearance of some of the most culturally vibrant neighbourhoods. This thesis provides a way of acknowledging history; acknowledging a history that has many faults, but embracing this faults with open arms as a way of reaching for something better.

By combining a variety of programs, the space intends to create levels of interaction that were destroyed during the war and left in ruin since by a government that favoured foreign investment over the cultural lifestyle that once made Lebanon a social hub in the Middle East. These intentions serve to repair the urban fabric by capitalizing on the social culture that still hangs on in Beirut despite the issues it faces everyday and restoring these connections means reconciling the relationship between people and the environment they know and find comfort in. It provides them with the necessary tools to actively regenerate their urban landscape and the feeling of comfort and security. Finally, by establishing this thread of continuity, Beirut and other places that have seen similar changes in recent history can form a path towards reconciliation and repair the physical and social scars that have been left behind for decades.

Symbols of social stability. The pedestrian experience is critical for the functions of the thesis to be achieved. These experiences provide people with familiar sites like the Mosque and the Statue mentioned before; utilized in a way that capitalizes on the positive associations that these elements of the urban fabric still  embody.
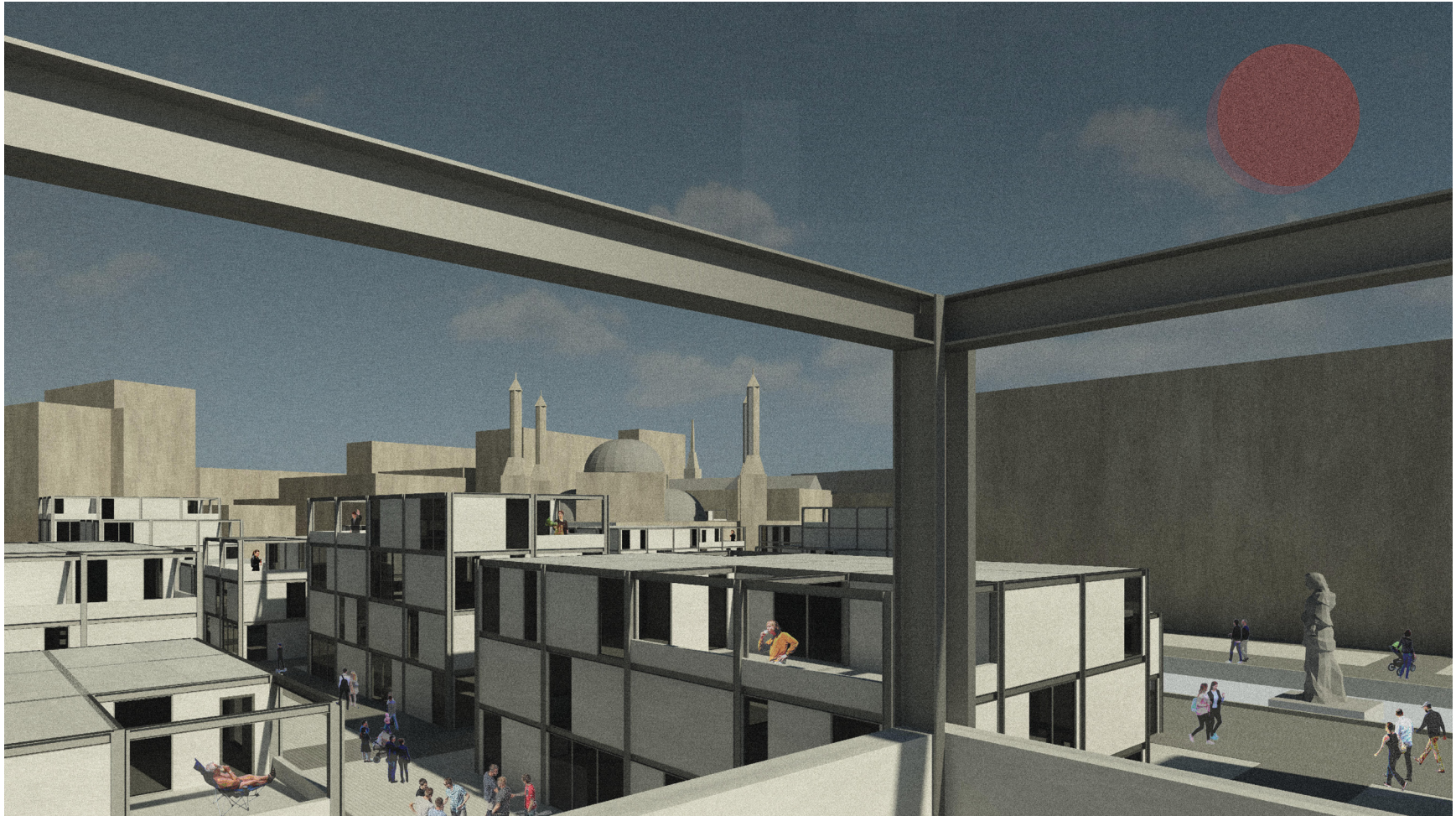
Interacting landscapes. These elements are also used in creating focal points in the design that serves to stitch the new environment to its surrounding landscape, but also to create relationships within the reformed landscape.

Socially active environments. By combining a variety of programs, the space intends to create levels of interaction that were destroyed during the war and left in ruin since. These intentions serve to repair the urban fabric by capitalizing on the social culture that still hangs on in Beirut despite the issues it faces everyday.

Form and program. Restoring these relationships means re-establishing the connections between people and the environment they know and find comfort in. It provides them with the necessary tools to actively regenerate their urban landscape and the feeling of security.

Inhabiting the landscape. By establishing this thread of continuity, Beirut and other places that have seen similar changes in recent history can form a path towards reconciliation and repair the physical and social scars that have been left behind for decades.

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