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EMERGENCE OF PUBLIC PLACES IN PARA-OPEN SPACES

by

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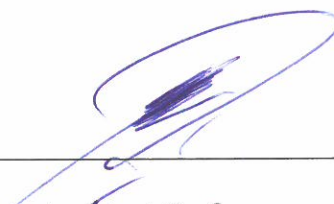
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# EMERGENCE OF PUBLIC PLACES IN PARA-OPEN SPACES

## THE CASE OF HARET HREIK

FINAL YEAR RESEARCH AND DESIGN PROJECT REPORT

Rim Hazimeh







## ABSTRACT

With the formation of suburbs around Beirut in the aftermath of the Lebanese Civil War (1975), a clear territorial configuration was prevalent in the Lebanese geography. Haret Hreik, a part of a specific geographic dominion -Beirut southern Suburbs- or so-called Dahye, which extends south of the capital city, is highly urbanized and politically asserted.

Being one of the main targets of the 2006 Israeli war on Lebanon, Haret Hreik demonstrated a fragile re-planned infrastructural setting, specifically with the reconstruction of several bridges connecting different areas and the rapid re-built of residential and commercial buildings.

The case here assembles by targeting these under-bridge spaces and their surroundings to act as catalysts in the formation of public places for residents of the area. Ultimate sensitivity to how the proposed design will not culminate more political hatred among the Lebanese communities is to be remarkably considered.

With the deeply engrained cultural notion in the society's lifestyle, and with the urgent need for the provision of public places in a highly congested area of immense population density, the project thus aims to foster the emergence of public places in para-open spaces, with an ultimate connection to the socio-spatial patterns of the neighborhood.





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# INTRODUCTION



## FRAMEWORK

With the city of Beirut being divided into a myriad of territories, specifically in the aftermath of the Lebanese Civil War, public spaces belonging to one dominion became restricted to it. The site targeted in this research project is one of the most critical and sensitive to the locals themselves and the Lebanese community as a whole.

Haret Hreik, being one of the most congested and securely measured areas in Beirut Southern suburbs, is an infrastructural religious neighborhood catering for people belonging to one sect. With a high population density and varied land uses, the neighborhood displays a local platform of exchange and occupation.

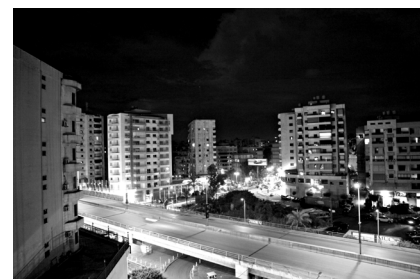


Fig.1 Congested Urban Fabric

Fig.2 View of Under Bridge Spaces



Fig.3 Aerial Views of Site

Considering the harsh political Lebanese conditions that have sadly become a lifestyle, the project struggles in affording public places to the residents of the site and its surrounding neighborhoods. The aim will be targeted through a keen and sensitive approach that will not excessively blow up the site's religious and political character to thus avoid bombarding other opposing sects.



Based on what has been presented, the main questions to be answered through research and design are:

How will the design approach provide a better social, mental, and physical wellbeing to the inhabitants without altering sensitive religious morals and beliefs? And how can the under bridge and leftover spaces be integrated in the site's framework, with critical consideration of existing security measures and imposed structures? Moreover, and on a broader level, how will the design address surrounding neighborhoods and impact the future perception of public places in a conservative environment?

Such questions are vital to the determination of the project's direction and final product.

The choice of such a case needed to formulate this project, however, was based on the urgency to address such delicate Lebanese issues and to prove, through the field of Landscape Architecture, that public places can be found within the most congested and highly tensed areas. Furthermore, the project was selected in an aim to demonstrate the under bridge spaces and their surroundings as social and physical active hubs among distinct communities.

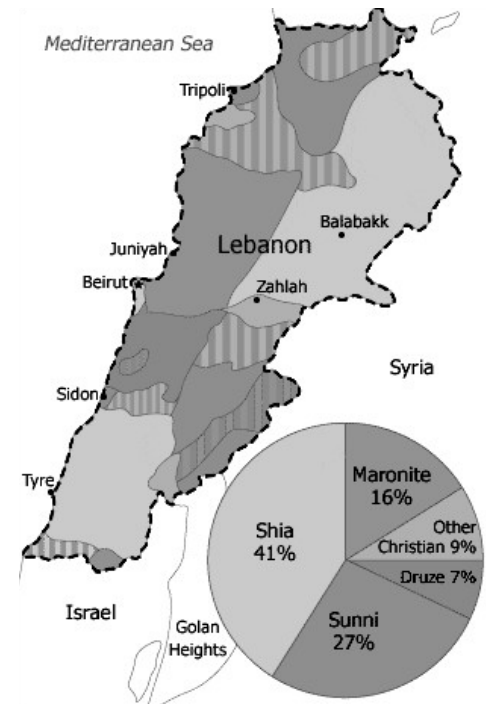


Fig.4 Lebanese Map by Sects

## METHODOLOGY

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The method adopted to carry out the project process depends on several phases as stated below.

First, after choosing the site due to its critical present conditions, a deep study of literature review was then conducted to base both the research and analysis on a profound theoretical model. Such a model will determine the path of the project and support it throughout.

Second, a set of case studies were selected, analyzed, interpreted, and compared to the site's conditions. Both the theoretical model and case studies are essential components to the success and consistency of the project.

After the completion of the first two phases, a deep investigation of the site was done through a series of site visits and observations. This resulted in compiling a set of site inventory layers such as mapping the open spaces, vegetation layer, security measures, sidewalk network and conditions, vehicular and pedestrian flow, users, and ground floor use. Consequently, the studied layers were analyzed, compared, and interrelated to reach a program plan.

The elements of the program plan were further investigated and combined to form a conceptual design approach that treats the site issues carefully through a master plan and a focus area.



Fig.5 Site Observations

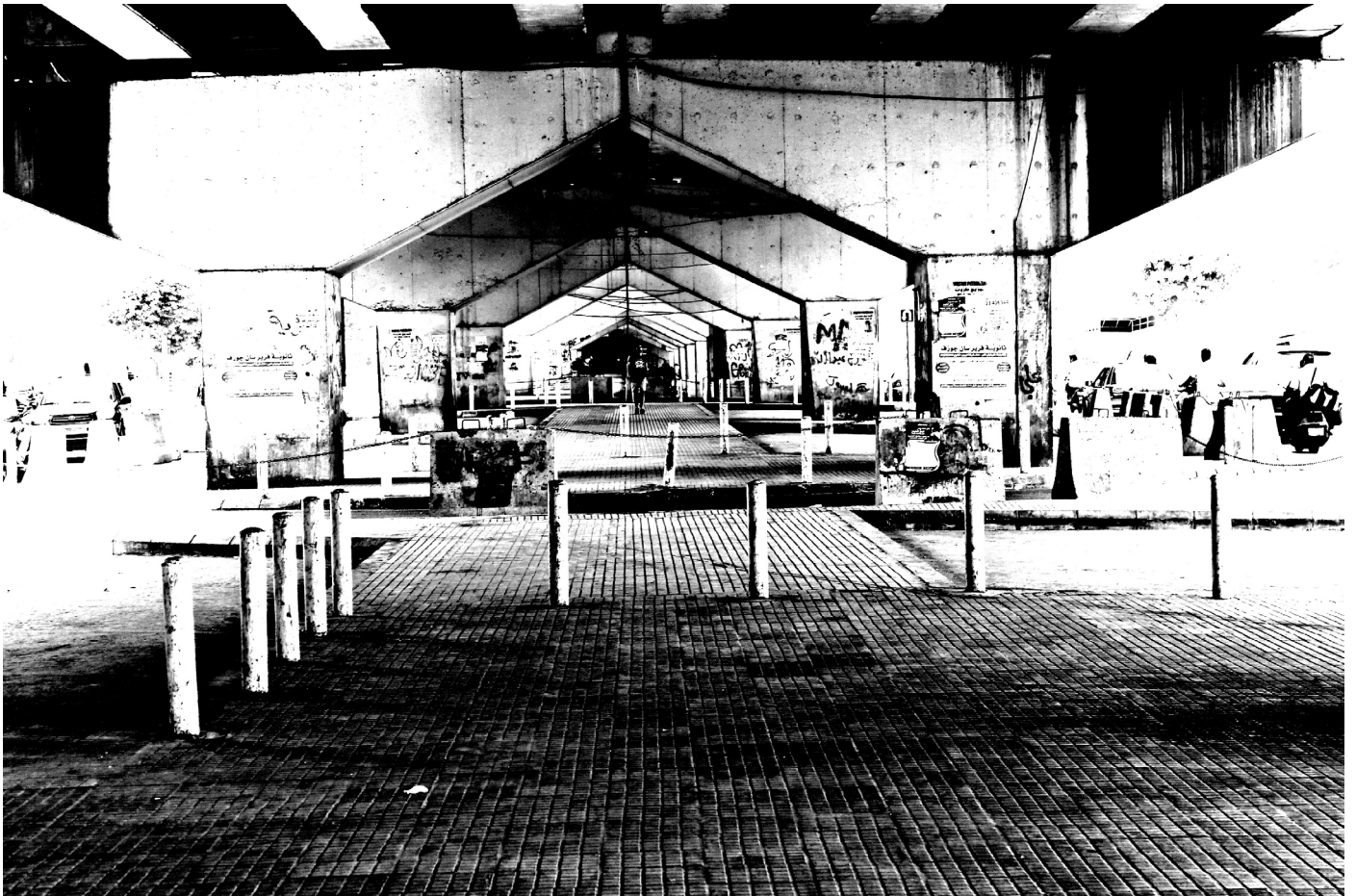


Fig.6 Under and Above Bridge Observations





# PROBLEM & PROJECT STATEMENT



**CONTEXT ISSUE**

“Dahiye” outlines a particular geographic territory that spreads south of the capital city Beirut (Harb, 2009), and is home to around a million citizens. People of Dahiye did not fall short in building their own neighborhoods, and have thus formed a homogenous set of countless neighborhoods, all perceived as one well- marked domain, with Haret Hreik being one of them.

This formation of suburbs happened in the aftermath of the forced dislocation of Shi'a bodies from Beirut's northern regions during the civil war of 1975 (Young, 2015) and their displacement from their southern villages after the Israeli attack of 1978 (Harb, 2011).

Territorial dominions around Beirut were not only restricted to Islamic enclaves, but also extended to Christian districts after leaving their dwellings in the southern suburbs during the early 1980s and heading towards the northern Beirut (Harb, 2011). Consequently, with similar diverging movements, the city of Beirut was divided into a myriad of territories, a bitter reality that faces every Lebanese until today.

People from all around Lebanon now use the term “Dahiye” instinctively to refer to an area connoted by backward, marginalized, illegitimate, chaotic, and Islamist features of cultural, social, urban, and economic lives. The built and spatial environment of Dahiye has thus become directly associated with religion and differentiated from various Beiruti regions through people's flawed demonstrations of religious values and codes.

Upon zooming in to one of Dahiye's neighborhoods, Haret Hreik, the project will aim to give significance to the unseen public spaces, and here we are referring to the disregarded and underutilized under- bridges, to thus provide a relief space to the locals on first hand and outsiders on second hand.



Fig.7 Beirut and Its Southern Suburbs



Fig.8 Haret Hreik Referenced by Beirut



**LOCAL ISSUE**

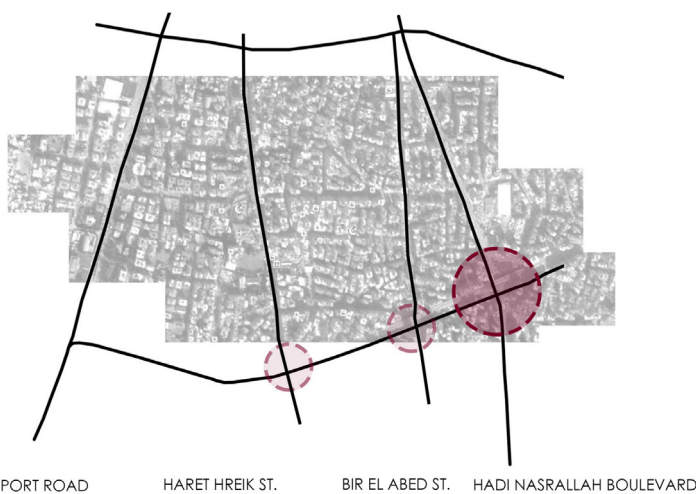


In a very complex urban setting, the selected site covers the spaces that lie around the intersection of Hadi Nasrallah Boulevard and Hazmieh-Tarik Matar Bridge, and mainly includes the underbridge spaces and their surroundings.



Beirut-Rafic Hariri International Airport  
5.1 KM  
**Fig.9 Site Location**

The choice behind this intersection and not the other two is the fact that it is located in a high urban density area, with a diverse commercial ground, and high vehicular traffic. Such factors lessen the opportunities of the residents in envisioning the neglected potential spaces.



**Fig.10 Main Vehicular Intersections**



**Fig.11 Hadi Nasrallah Intersection**



**Fig.12 Bir El Abed Intersection**



**Fig.13 Haret Hreik Intersection**

The project will thus deal with the bridge and its surroundings that constitute the physical environment such as building facades, street network, sidewalks, security measures, and the urgent need of the provision of public places in a setting where morals alter spatiality. In addition, the social environment is tackled, such as activities of pedestrians at eye level, their limited accessibility, livelihood, sense of belonging, and modes of urban occupation.



Fig.14 Samples of Social Environment

Fig.15 Samples of Physical Environment

## **VISION**

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Envisioning to afford what is missing in the site through what is existing, based on the theoretical model of Landscape Affordances, and to foster the emergence of public places in para-open spaces, with an ultimate connection to the socio-spatial patterns of the neighborhood.

## **STRATEGY**

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Investigating the main intersection under-study with respect to the bridge and its physical and social surroundings. In addition, examining the other two intersections to understand and rethink the role of the bridge and the spaces below it as an infrastructural opportunity to the community.



# LITERATURE REVIEW



## THEORETICAL MODEL

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After conducting a thorough research, the most suitable theoretical model that made the project more challenging was the Theory of Landscape Affordances.

The Theory of Affordances, which differs in character from the Theory of Landscape Affordances, was first found by the American psychologist James J. Gibson. In his book *The Ecological Approach to Visual Perception*, Gibson states that the environment provides to its users several affordances through surfaces that are of different forms, shapes, angles, and sizes.

Taking such a theory as a starting point, it was essential to conclude throughout what the site affords to my project that affordances are a way of seeing architecture as an evolving and interactive landscape.

To make things more concrete and understandable, a simple example can be adopted. The support of a bridge, for instance, is vertical, rigid, and smooth. According to such characteristics of the surface, the support can be used for individual seating benches, or group seating opportunities through the presence of concrete corners, or a simple meter as an entertaining element to measure heights!

The design approach will definitely not be restricted to such an element. However, more complex and interesting connections can be made and discovered between elements based on the Theory of Landscape Affordances.

For further application, the theoretical model is shown through a handsketched manual presented later in the report.



Fig.16 **The End of Sitting-A Project by RAAAF**

A 1970s buzzword finds new meaning in architectural parlance.

A project that works at the intersection of architecture, art, and landscape.



## BOOKS AND PERSPECTIVES

With no doubt, the increase of residential densities has yielded to a higher demand for enhanced and uniform access to open spaces for social and cultural activities. To this extent, researching about public life and spaces in urban contexts was very essential for the project.

The chosen books were carefully selected based on the expertise of their authors and their relevant content. For instance, Jan Gehl, a pioneer Danish architect who has focused his career on improving the quality of urban life in the most deteriorated conditions through re-orienting pedestrian life, was one of the vital references to the advance of the project.

Though architects like Jan Gehl or urban geographers like Paul Knox are based outside Lebanon and are of international expertise, their perspectives still provide a solid background for several issues encountered throughout the project. However, due to the complexity of Lebanese issues in most cases, looking to the project from a local point of view was very critical. Resorting to publications by experts in political urban issues like Dr. Mona Fawaz and Dr. Mona Harb was crucial to grab a sense of how distinct political, cultural, physical, and social layers can intertwine.

The following are some of the books and references used during the research phase.

### How to Study Public Life | Jan Gehl and Birgitte Svarre

For a city to be dynamic, the most important question to ask is how can public infrastructure be best designed to serve human use?

One major theory adopted from Jan Gehl was that which studies the relation between outdoor quality and outdoor activities. Gehl categorizes activities into necessary, optional, and social activities and stresses that an unattractive physical environment aids in decreasing the quality of activities.

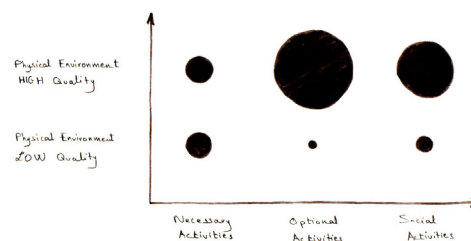


Fig.17 Outdoor Quality and Activities

### **Cities for People | Jan Gehl**

In his book, Gehl emphasizes four essential factors to the success of city planning: cities that are lively, sustainable, healthy, and safe. Referring to Haret Hreik project, the four factors are unfortunately completely or partially missing in the neighborhood and are in need to be re-established. Furthermore, Gehl highlights the importance of pedestrian experiences in a city and the need to regard the small-scale view in contemporary projects.

One of the depicted theories that can be applied to the ground floor use layer of Haret Hreik commercial character is based on the following study by Gehl:

“A 2003 study of Copenhagen shopping streets shows that the activity level in front of active facades is seven times greater than in front of passive facades.”

### **Urban Social Geography | Paul Knox and Steven Pinch**

More importance is being given to the relations between the cultures and economies of cities to that of their people and geography. Knox and Pinch emphasize sociospatial patterns and delve into what defines a culture in a city. The theories adopted from this book are helpful in fostering the understanding of how people socially construct themselves in physical environments.

### **The Reconstruction of Haret Hreik: Design Options for Improving the Livability of the Neighborhood | Mona Fawaz and Marwan Ghandour**

This design charette provides various suggestions for improving the livability of the neighborhood and shows local approaches to be considered. However, it seemed that security concerns and greater questions of the balance of power between Lebanese factions are more important in order to preserve the area's social and political hegemony.

Such an obstacle that has previously faced the design team of the charette makes the considered underbridge project more challenging.

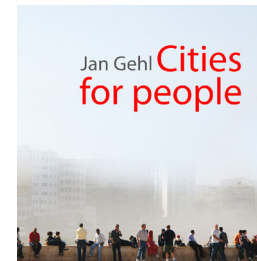


Fig.18 Cover Page of *Cities for People* by Jan Gehl

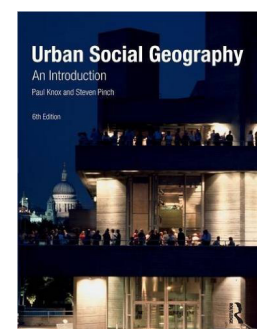


Fig.19 Cover Page of *Urban Social Geography* by Paul Knox and Steven Pinch



## **CONCLUSION TO LITERATURE REVIEW**

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The examined books and articles are therefore a key to a better understanding of urban neighborhoods and interactions of people. It is thus very essential to look into cities where public life has been squeezed almost into nonexistence. Accordingly, the solution might be in creating contemporary methods to forge an alliance between space and life. This allows to determine where the best emergence of public places can take place.



# CASE STUDY ANALYSIS



**GEORGIA STREET, US**

LOCATION Indianapolis, Indiana, US  
COMPLETION 2012  
LANDSCAPE ARCHITECTURE RATIO  
CLIENT Waterfront Auckland  
AREA 50,000 sq ft

**DESCRIPTION**

Essential to realizing the livable cities of our future is a reconsideration of streets as integrated systems that not only provide more humane options for mobility but also provide beneficial ecological services and openly express the vitality of a city. Georgia Street succeeds in creating such a place. It weaves together a pedestrian priority space, carefully considered urban forestation, and handsome infrastructure to shape a compelling new outdoor destination and events venue for Indianapolis.

**EXTRACTED MATERIAL**

- Integration of proposed stretch with street network and commercial ground floor use
- Consideration of the dense urban pattern in context through an emerging design
- Treatment of a semi-open space in relation to surrounding fabric



Fig.23 Flush Effect of Sidewalk and Vehicular Roads

Leveling the sidewalk with the street might be an effective approach in this particular project since the vehicular lanes are well defined by fixed bollards and light posts. However, in the case of Haret Hreik, a flush effect might not be the smartest decision to prevent the improper use of sidewalks, taking into consideration the extensive ground floor use.

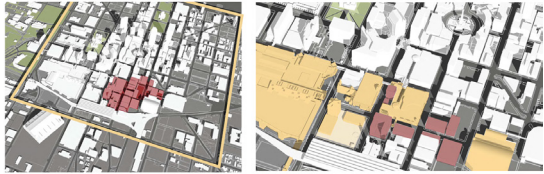


Fig.20 Georgia Street in Context



Fig.21 Georgia Street View



Fig.22 Filtration of Pedestrian Flow into the Proposed Strip

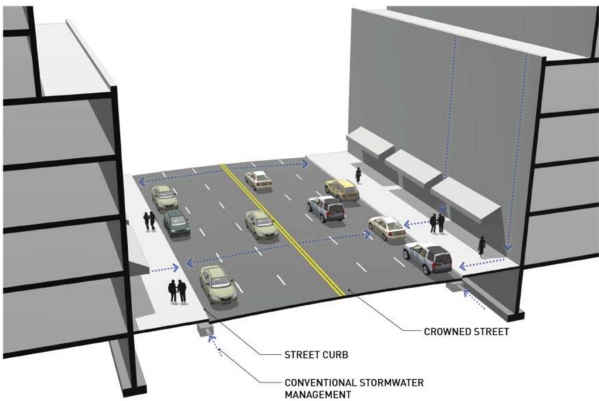


Fig.24 Georgia Street Prior Intervention

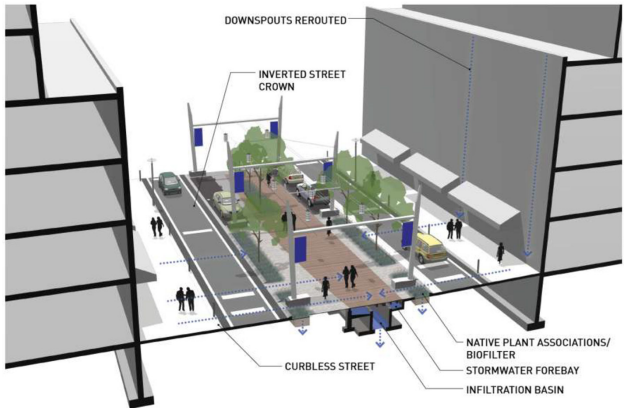


Fig.25 Georgia Street After Intervention

The design strategy aids in filtering the pedestrian patterns into the spaces between buildings and vehicular roads.

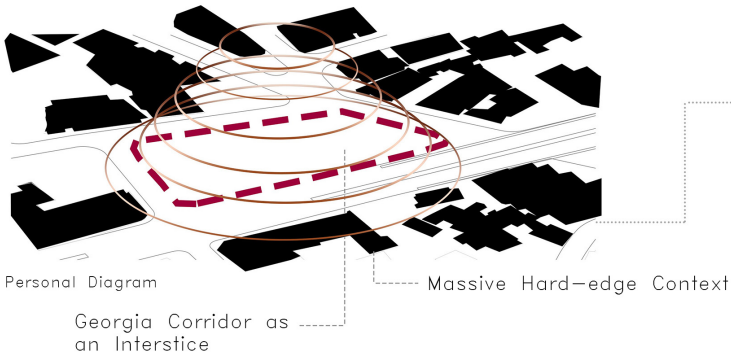


Fig.26 Georgia Street Interstice

The proposed stretch acts as an emerging interstice within a congested hard edge urban fabric. It helps, through its emergence, in impacting not only the near surroundings, but also the wider context.

**NORTH WHARF PROMENADE, NEW ZEALAND**

LOCATION Auckland, New Zealand  
 COMPLETION 2011  
 LANDSCAPE ARCHITECTURE Wraight and Associates and TCL  
 SIZE 1.8 Hectare  
 CLIENT Waterfront Auckland  
 AWARDS  
 2014 - 8th International Biennial of Landscape Architecture - Winner  
 Rosa Barba Landscape Prize  
 2014 - AILA National Award for Urban Design  
 2012 - Washington Waterfront Center Annual Honor Award

**DESCRIPTION**

Auckland's Waterfront redevelopment anticipates transforming a forlorn industrial and maritime precinct into a mixed use precinct. Underpinning the design are two key moves: retention and enhancing of fishing and maritime industries to form the focus of new public experiences; and, interpreting the site's peculiar archaeology of patterns and materiality to inform a new public landscape. The latter point being the extracted focus in this project, the theory of landscape affordances is touched upon and is vital for Haret Hreik project.

**EXTRACTED MATERIAL**

Silo Park is a layered public space that facilitates a range of hybrid uses; passive recreation, event space, youth precinct, industry and folly. Each program is new to the site, yet built from the pattern language, infrastructure and the mythology of place.

In the photo to the right, one can relate the tendency of the firm to make use of the landscape affordances that the industrial setting has to offer. Steel constructed structures are now seating areas for users. The rigidity, horizontality, and extended characters of the structure grant the surface to afford support.

In relation to the diagrams to the right, it is considerabe that several space affordances provide possibilities for actions. This theory will be applied in the design of Haret Hreik neighborhood through considering several landscape objectives to transform public spaces to public places.



Fig.27 Promenade Forms of Affordance

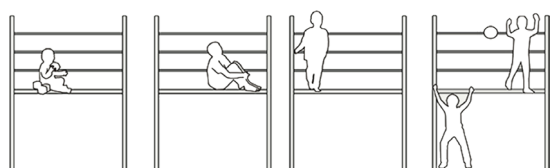


Fig.28 Diagrammatic Forms of Affordance



## FOUNDRY SQUARE, US

LOCATION San Francisco, California

COMPLETION 2014

LANDSCAPE ARCHITECTURE SWA Group

SIZE 1,000 square foot

CLIENT Wilson Equity Office

### DESCRIPTION

Foundry Square is an urban four-block, -1.6million-square-foot commercial development in San Francisco's Transbay District that revitalizes an area which historically lacked character, pedestrian street life, and significant public open space. The client's goal was to create an active people-place in downtown San Francisco. All four parcels were commonly owned which provided a remarkable opportunity to create a new urban space as the centerpiece.

The focus of the urban design strategy was to seamlessly integrate architecture with the public realm to realize an inverse vision of a typical public square. This district landmark is formed by carving out corner plazas that collectively form a square and embrace both pedestrian movements along the perimeter and traffic flows in the middle. Each corner maintains a distinct character ranging from shaded, more private feeling spaces, to sunny open gathering spaces.

### EXTRACTED MATERIAL

- Emergence of public places in the most unattractive and neglected spaces of an urban fabric
- Studying the connections between sidewalks, streets, and buildings
- Calming down the effect of vehicular traffic
- Studying the importance of edges in a public square

*"Previously, these elements were conducted out of the public eye. Now, however, they are part of the public realm experience and integrated as attractions. The design weaves public realm experiences around these 'as found' conditions."*

Taylor Cullity Lethlean LA



Fig.29 Views of Foundry Square



Fig.30 Top View of Foundry Square

## CITY SQUARE DEVELOPING, LUXEMBOURG

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LOCATION Esch-sur-Alzette, Luxembourg

COMPLETION 2007, 2008, 2010, 2015

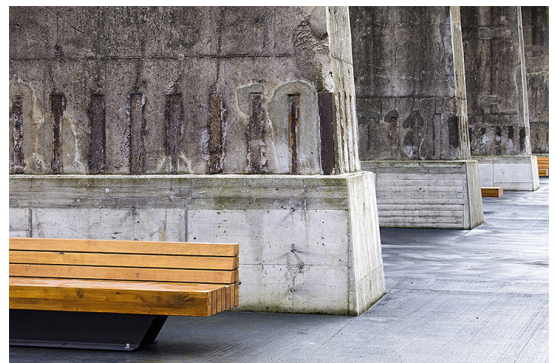
LANDSCAPE ARCHITECTURE AllesWirdGut Architektur

SIZE 10.000m<sup>2</sup>

CLIENT Agora, société de développement

### DESCRIPTION

The new steelyard square proposed is centered between high-rise buildings and blast old furnaces. In its former conditions, the industrial site was disused and characterized by roughness and wideness, with pioneer invasive plants such as mosses and birch. The former condition of the site is now literally covered by the upgraded design and uses through the applying techniques similar to the previously mentioned theory of Landscape Affordances.



*“Our major goal was to let the now hidden qualities shine through the redesign.”*

*AllesWirdGut Architekturr*

Fig.31 Views of Steelyard Square





Fig.32 Seating Areas in Concrete Former Structures



# SITE INVENTORY AND ANALYSIS



NEIGHBORHOOD INVESTIGATION

A GLIMPSE OF HISTORY

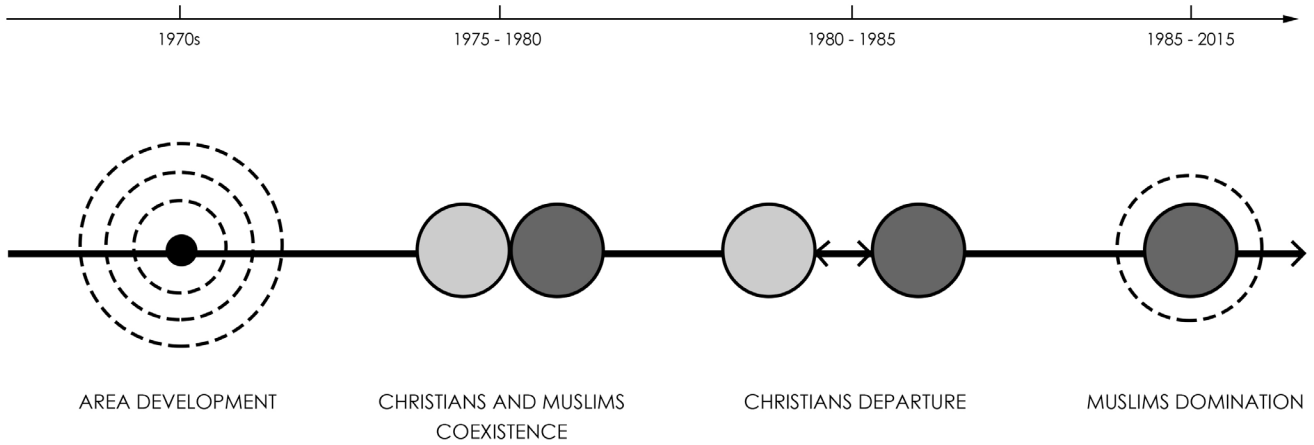


Fig.33 History Timeline of Neighborhood

URBAN PRODUCTION THROUGH HISTORY

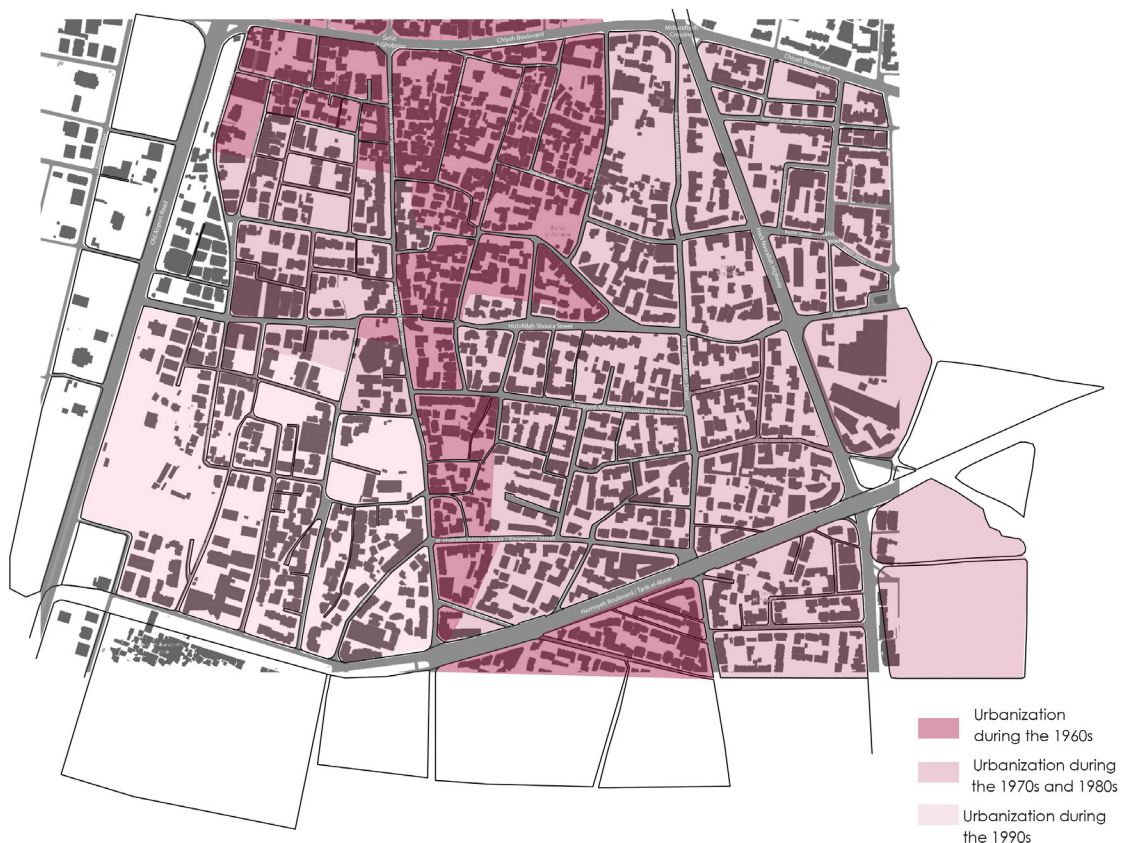


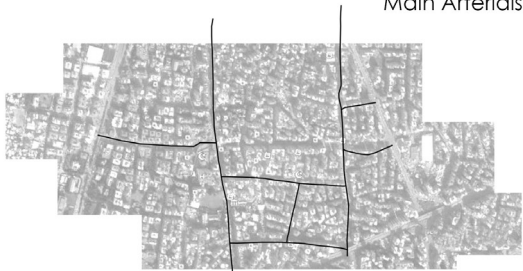
Fig.34 Diagram of Neighborhood Urban Production



**ROAD NETWORK**



Main Arterials



Main Neighborhood Arteries



Local Neighborhood Streets

Fig.35 Diagrams of Road Network

**LAND USE**



Fig.36 Mapping of Neighborhood Land Use

**SITE BOUNDARIES**

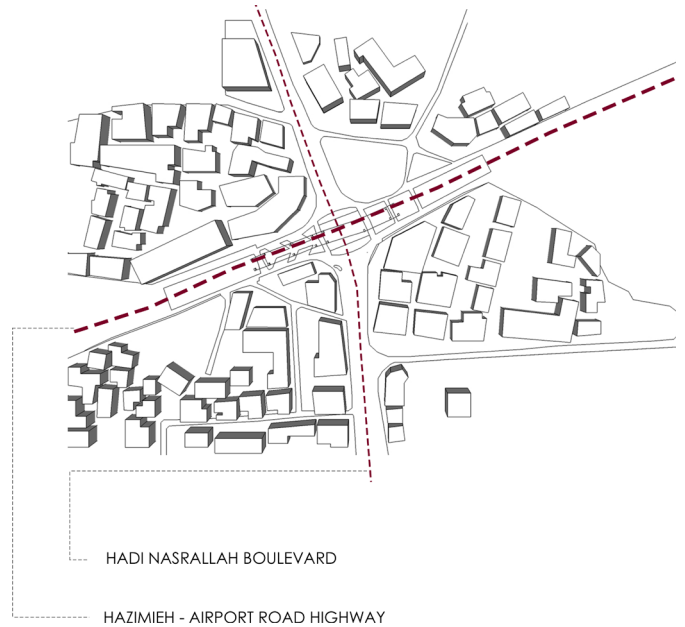


Fig.37 Map of Site Boundaries

Along the stretch of the bridge extending from the Airport Road to Hazmieh are three main intersections with primary a commercial land use, belonging to several neighborhoods.

The intersection of Sayyed Hadi street with the bridge is the most interesting to be tackled in the project, as it illustrates a vibrant commercial and residential community that lacks planned public open spaces with favorable quality to allow for improving the livelihood of the immediate context and surrounding neighborhoods.



IMMEDIATE SITE INVESTIGATION

BASE MAP



Fig.38 Base Map

RELEVANT GALLERY



Fig.39 Introductory Images to Site



**OPEN SPACES**



Fig.40 Mapping of Open Spaces

Several open spaces prevail in the site. However, most of them are underutilized by the citizens and mismanaged by the municipality. This inhibits leisure uses of such spaces by the public.

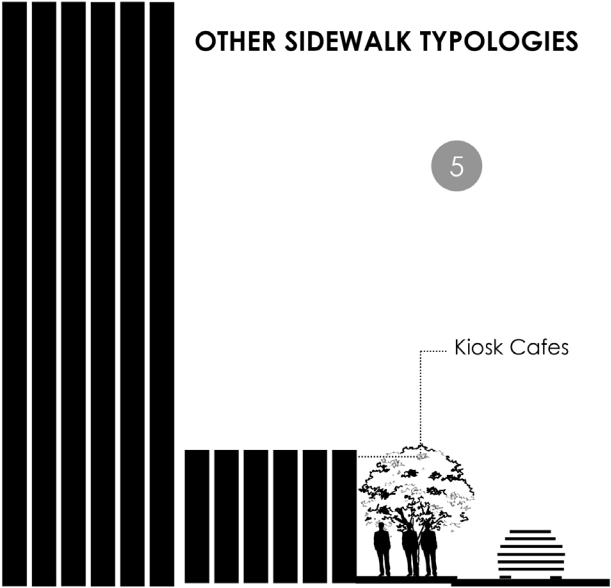
**RELEVANT GALLERY**



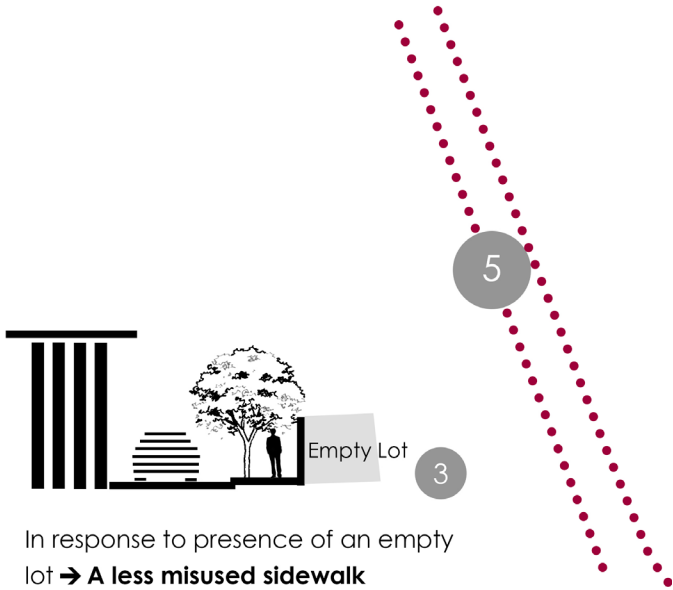
Fig.41 Images of Site Open Spaces

SIDEWALKS

OTHER SIDEWALK TYPOLOGIES



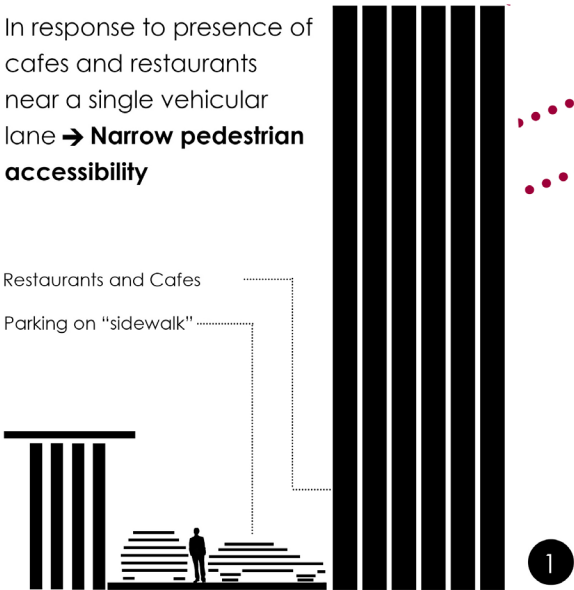
In response to presence of kiosks → A wider sidewalk



In response to presence of an empty lot → A less misused sidewalk

EXISTING ISSUES

In response to presence of cafes and restaurants near a single vehicular lane → **Narrow pedestrian accessibility**



In response to presence of a commercial ground floor and inclined sidewalks → **Unsafe proximity of pedestrians to streets**

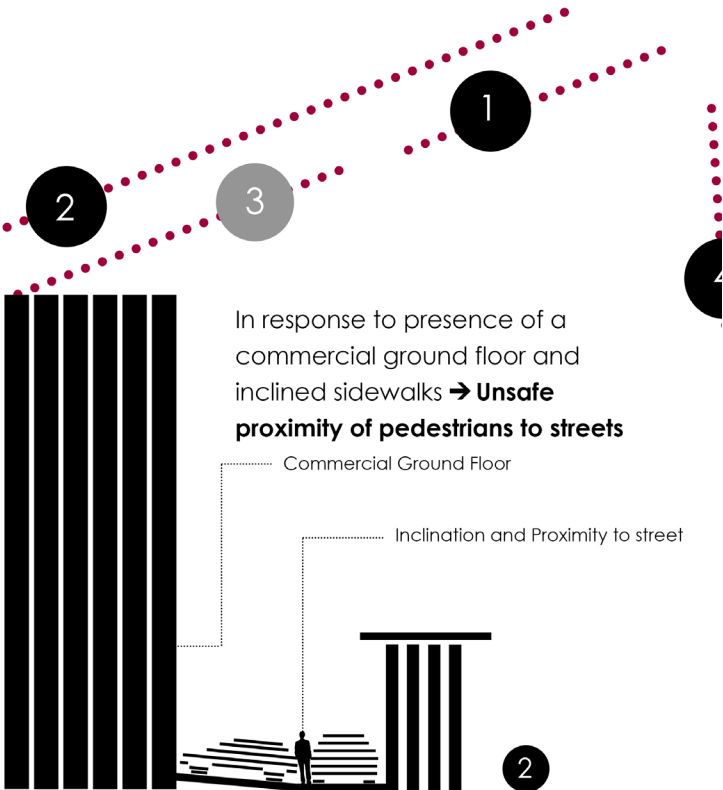
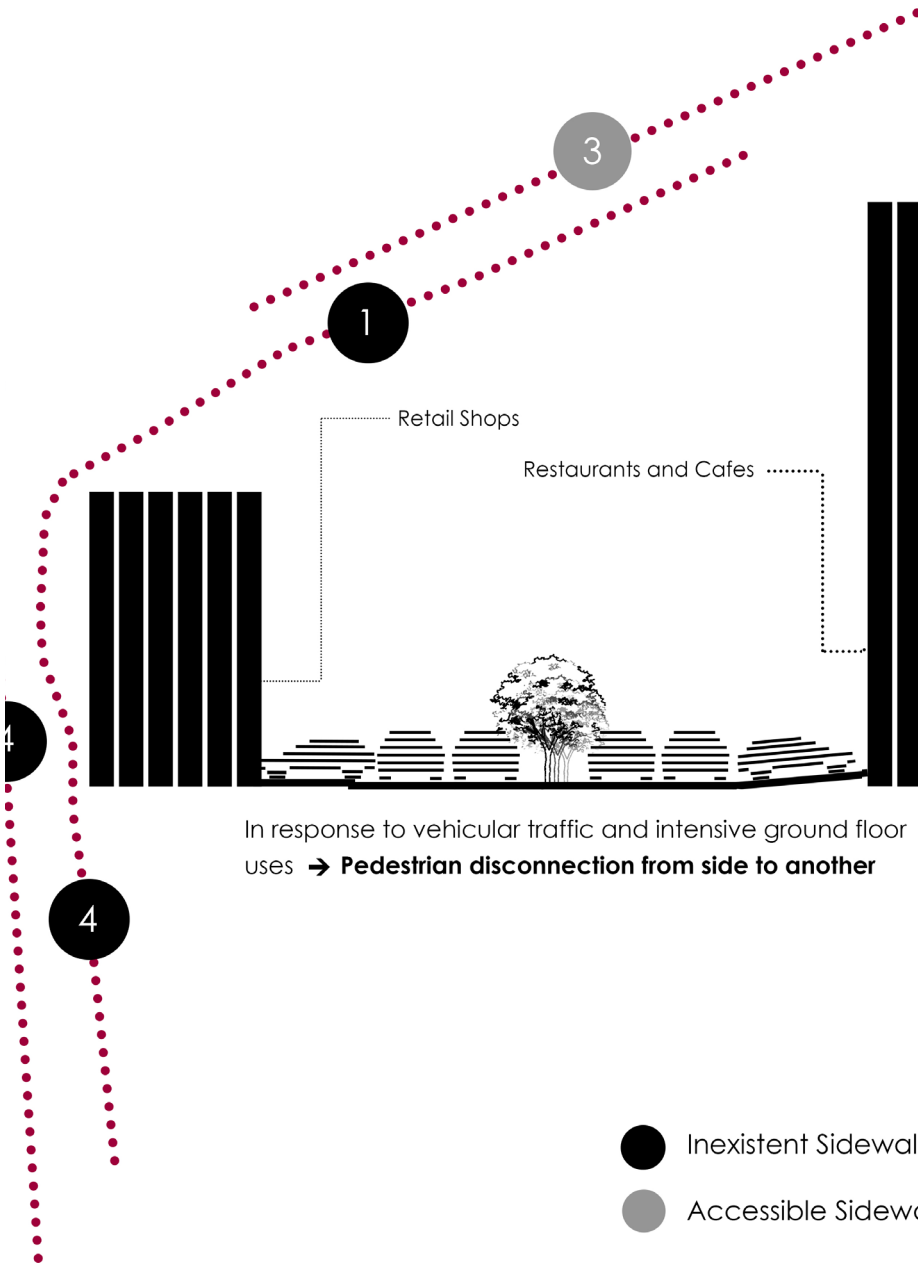
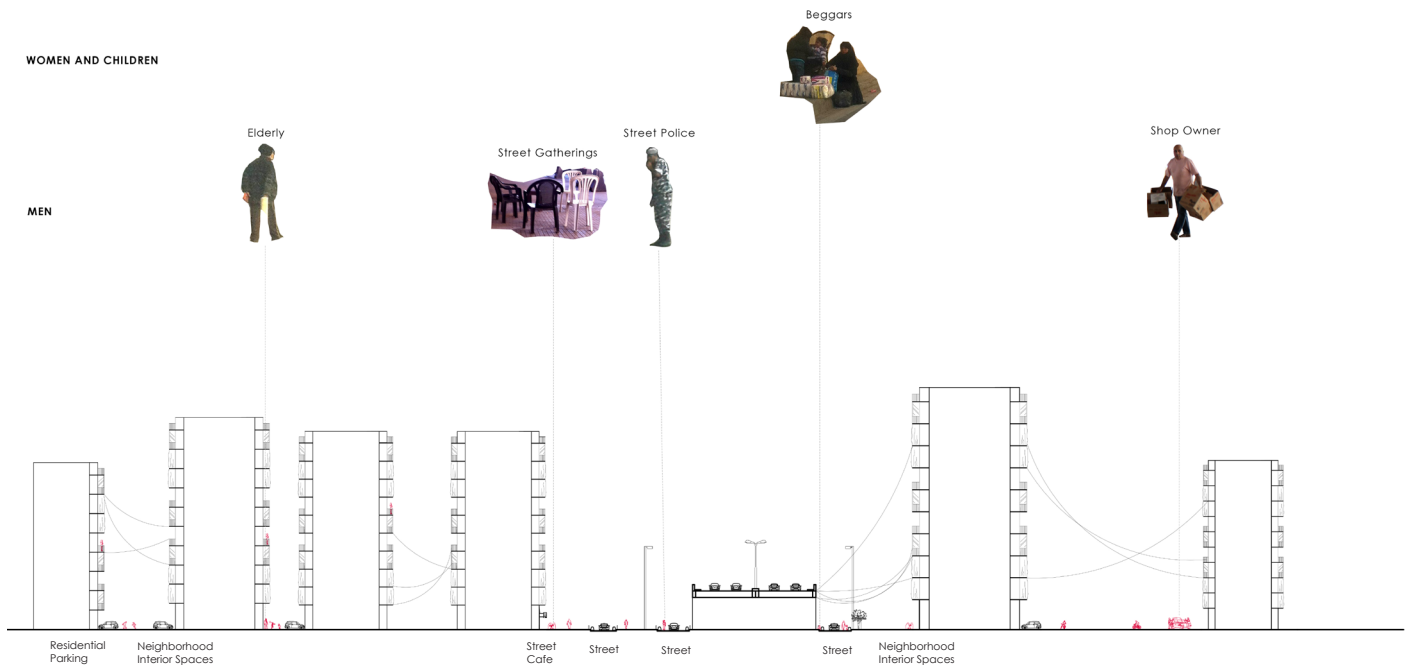


Fig.42 Mapping of Sidewalk Issues

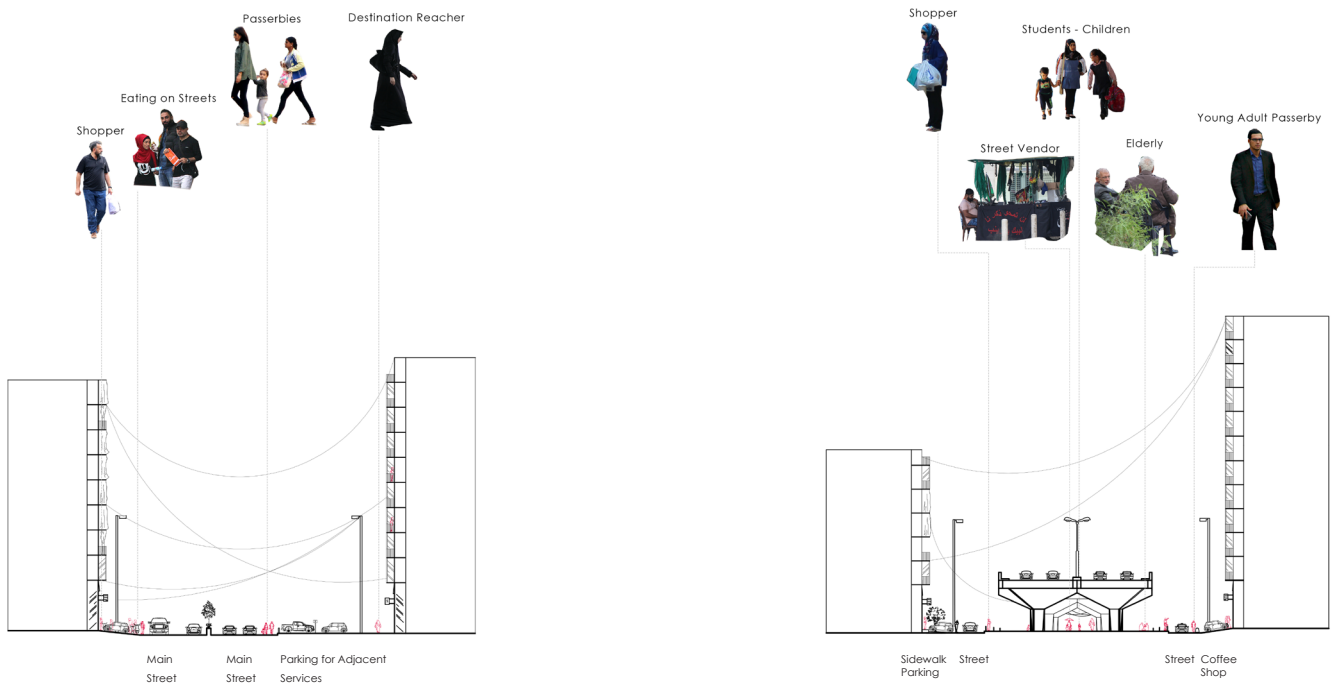




SECTIONS AND USER PROFILE

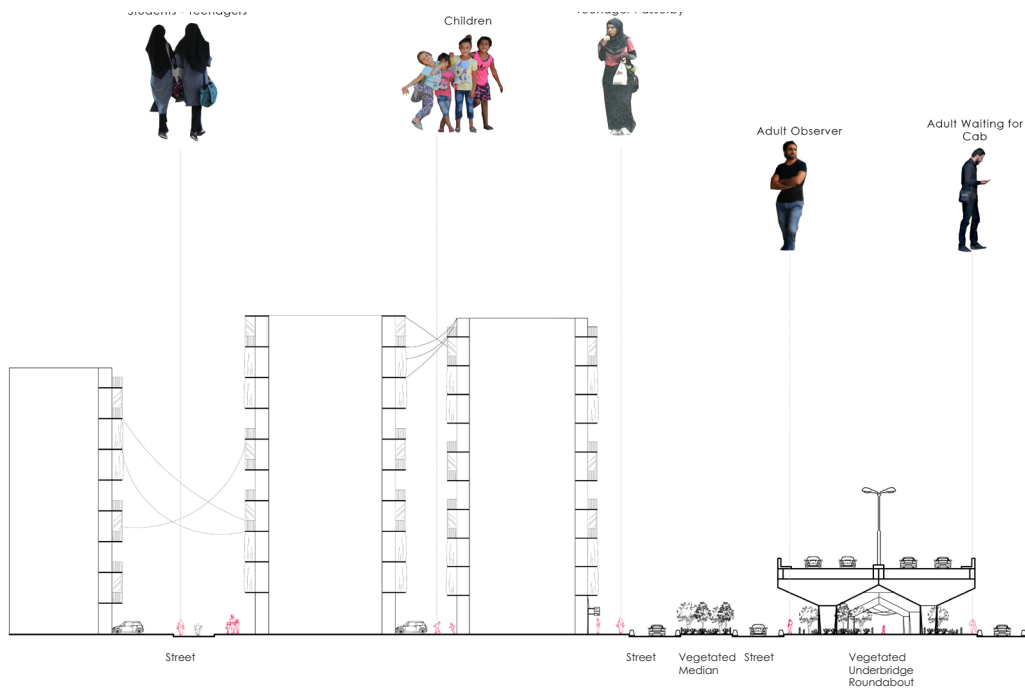


Through Haret Hreik



Through Hadi Nasrallah Boulevard

Through Hadi Nasrallah Boulevard



Through Bir El Abed

Fig.43 Sections and Users of Site

People in Haret Hreik form a relatively equal mixture of men and women with mostly the same cultural, political, and religious backgrounds. It is noticed that users on the streets are mainly men with few women completing some necessary activities. Moreover, elderly people are hardly seen supposing that the existing street and sidewalk networks are not pedestrian friendly. Although streets and sidewalks are used as people's public spaces, however their use is restricted majorily to necessary activities, such as reaching a destination or shopping for groceries, and hardly any social or optional activites, such as reading a magazine or meeting with friends for a coffee break.



Key Map

VEGETATION

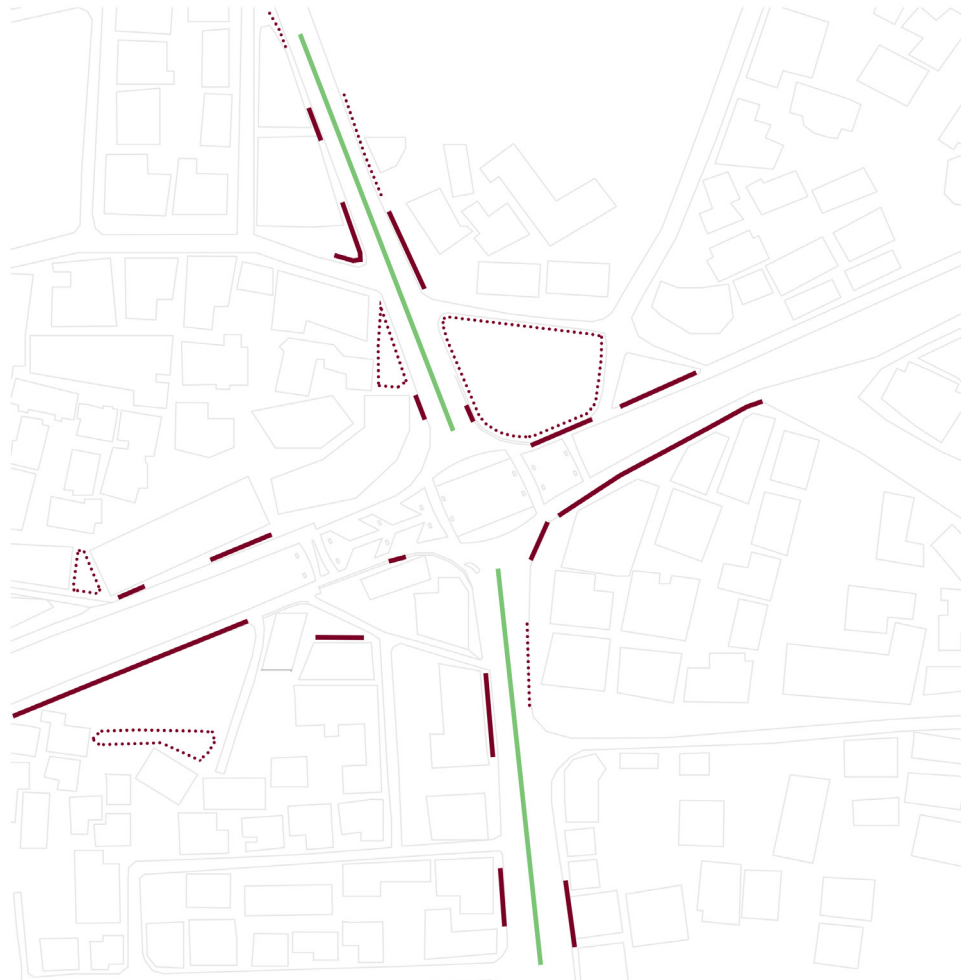


Fig.44 Mapping of Site Vegetation

One recognizable initiative done by the Municipality of Haret Hreik after the war of 2006 was planning for green streets. However, the municipality fell short in adhering to the sidewalk-trees principle, and consequently plantations happened to be barriers instead of being merging elements.

- Formal Row Planting
- ⋯ Irregular Planting
- Median Strip Planting

RELEVANT GALLERY



Fig.45 Images of Site Vegetation



**SIDEWALK NETWORK**

**DISCONNECTIONS**

Due to several disconnections on sidewalks, most of these passages are no longer considered practical. Two types of disconnections mainly are found: partial - such as the presence of unplanned street furniture and elevation differences, and complete - such as vehicular parking.

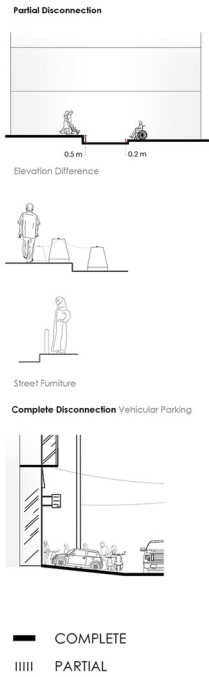


Fig.46 Mapping of Sidewalk Disconnections

**WIDTH**

Different sidewalk widths have been spotted around the neighborhood. Majorly, wide sidewalks are present in front of retail shops (cafes and restaurants) and commercial services (banks). Narrow sidewalks are mainly present in the northern part of the site where less activities take place.

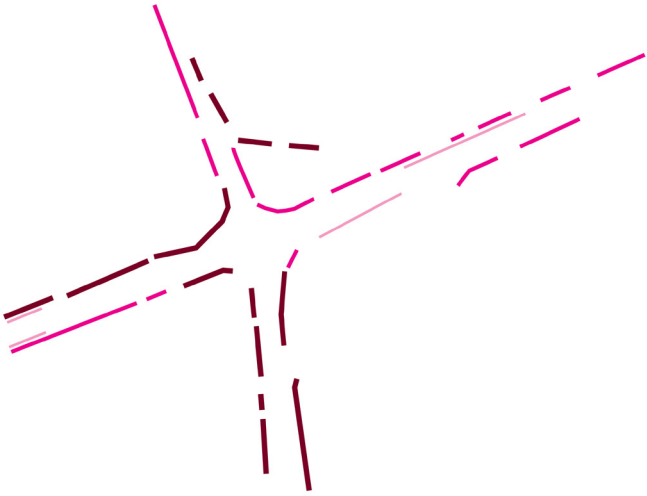


Fig.47 Mapping of Sidewalk Widths



VEHICULAR PARKING



- Sidewalk Car Parking
- Sidewalk Motorbike Parking

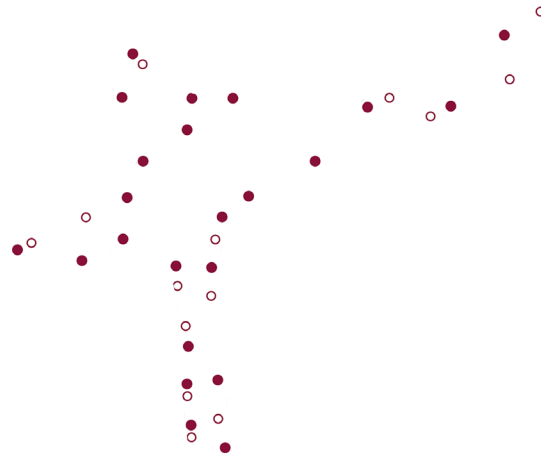


Fig.48 Mapping of Vehicular Parking

Shop owners and vehicle users make advantage of the wide sidewalks in front of their stores to cater for customers.

A huge influx of car and motorbike users park their cars on streets and sidewalks, either for staying a night at home or for a quick service from the available shops.

MULTILAYERED ANALYSIS

Despite the presence of sidewalks with variable widths on site, the act of parking vehicles on these sidewalks, however, is causing the deterioration of the sidewalks' pedestrian functions.

In addition to the issue of vehicular parking on sidewalks, numerous disconnections are present.

Having these three layers in mind, and based on the criteria of pedestrian accessibility, it is critical to analyze the current pedestrian network. Where is the sidewalk practical? In which areas are people obliged to use the edges of the streets instead of the sidewalks to reach a destination?



SIDEWALK PEDESTRIAN ACCESSIBILITY LEVELS

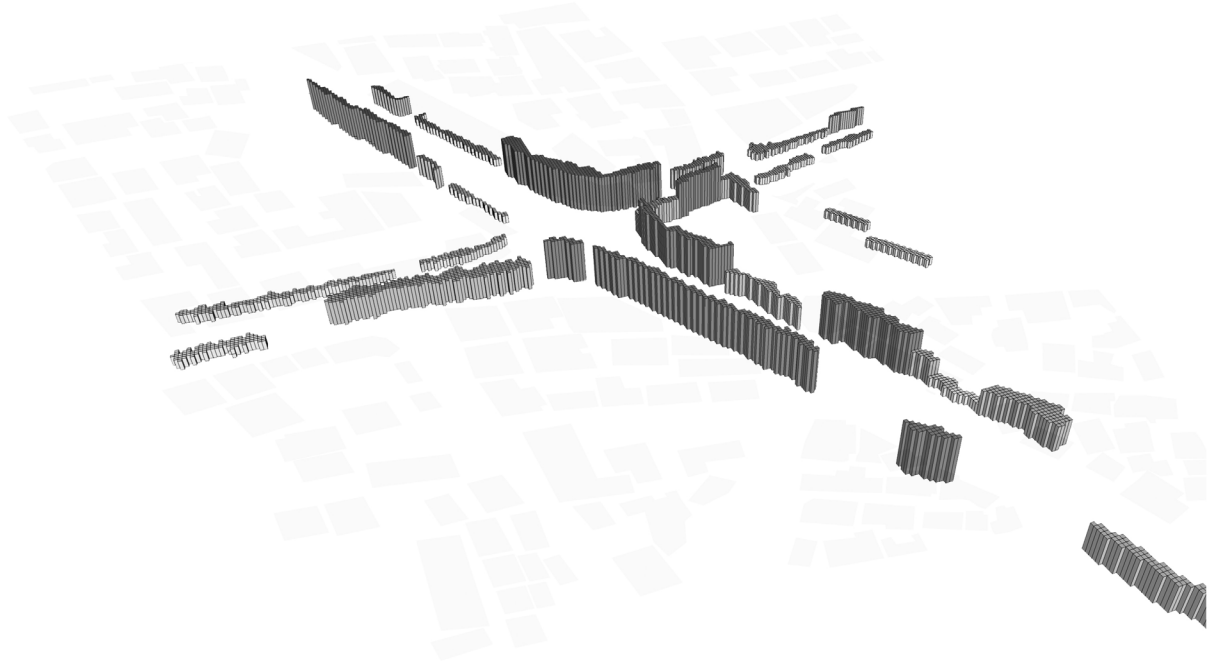


Fig.49 Diagram of Pedestrian Accessibility Levels

PEDESTRIAN NETWORK

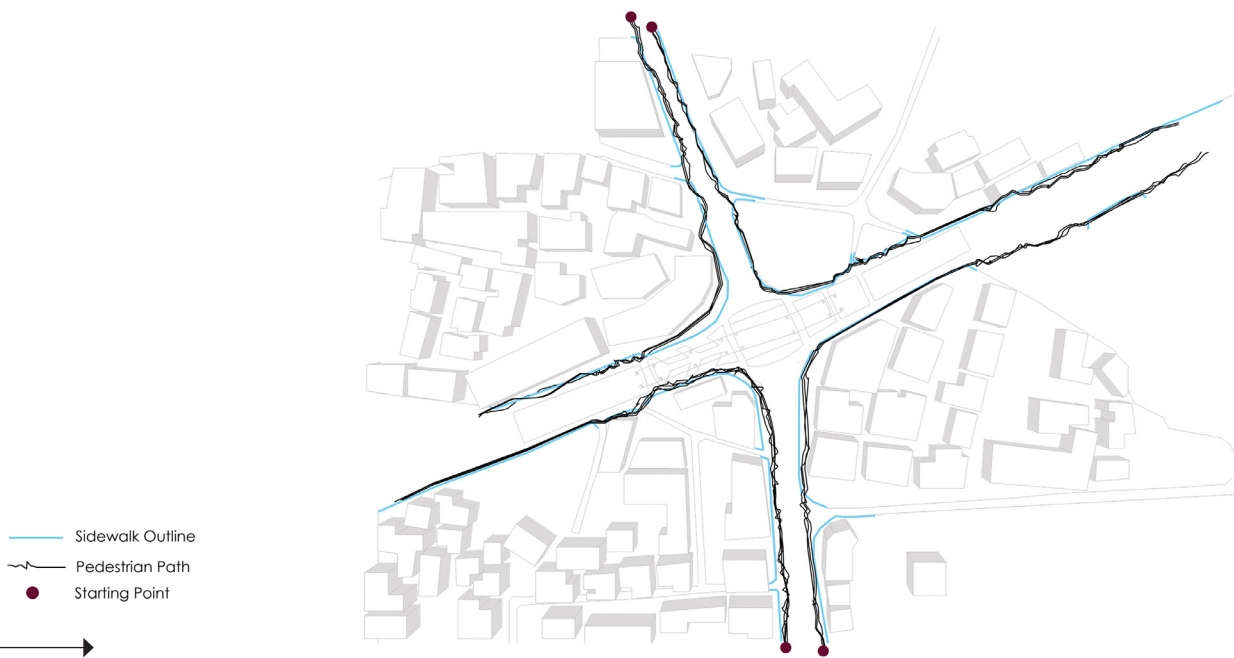


Fig.50 Diagram of Pedestrian Network



**SIDEWALK CONDITIONS**

PEDESTRIAN BARRIERS AND MODES OF SIDEWALK APPROPRIATION

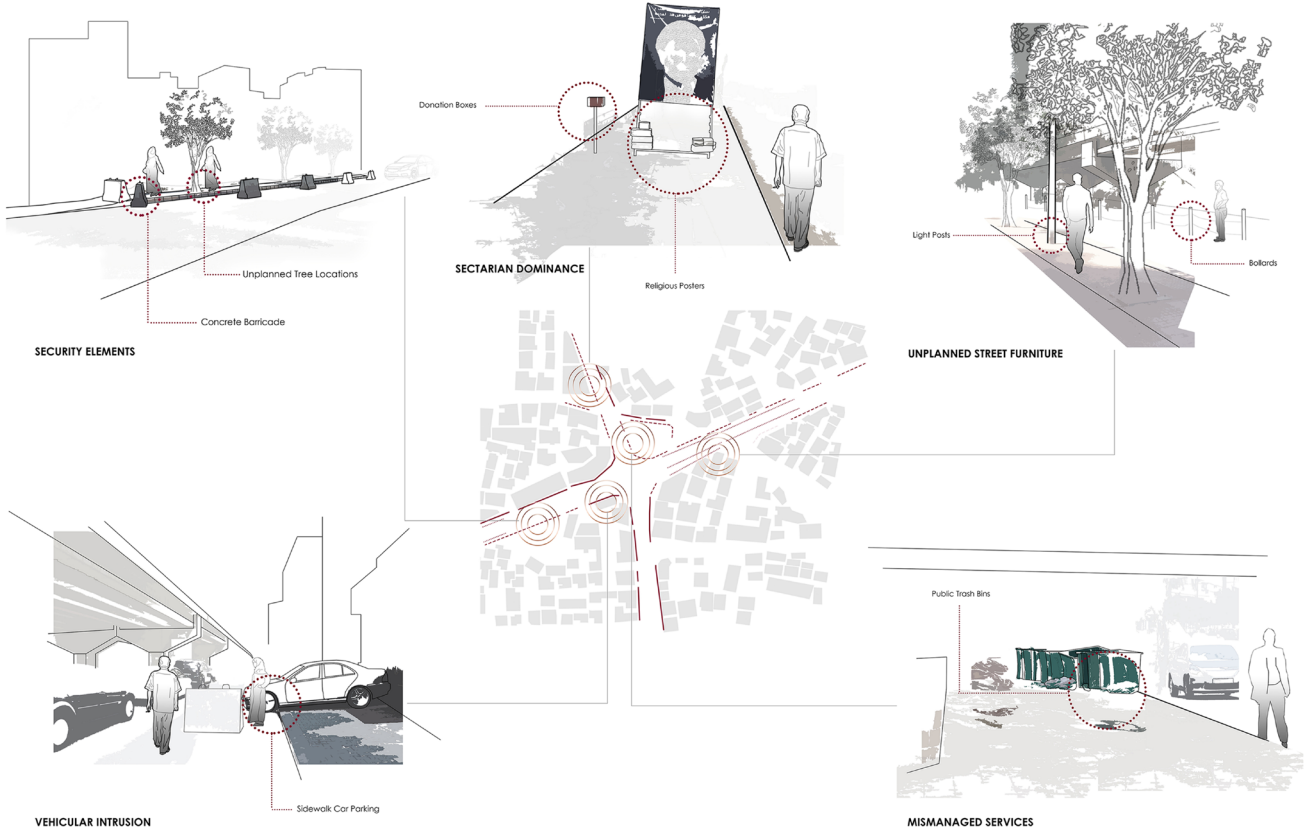


Fig.51 Digital Sketches of Sidewalk Pedestrian Barriers

SITE ACTIVITY

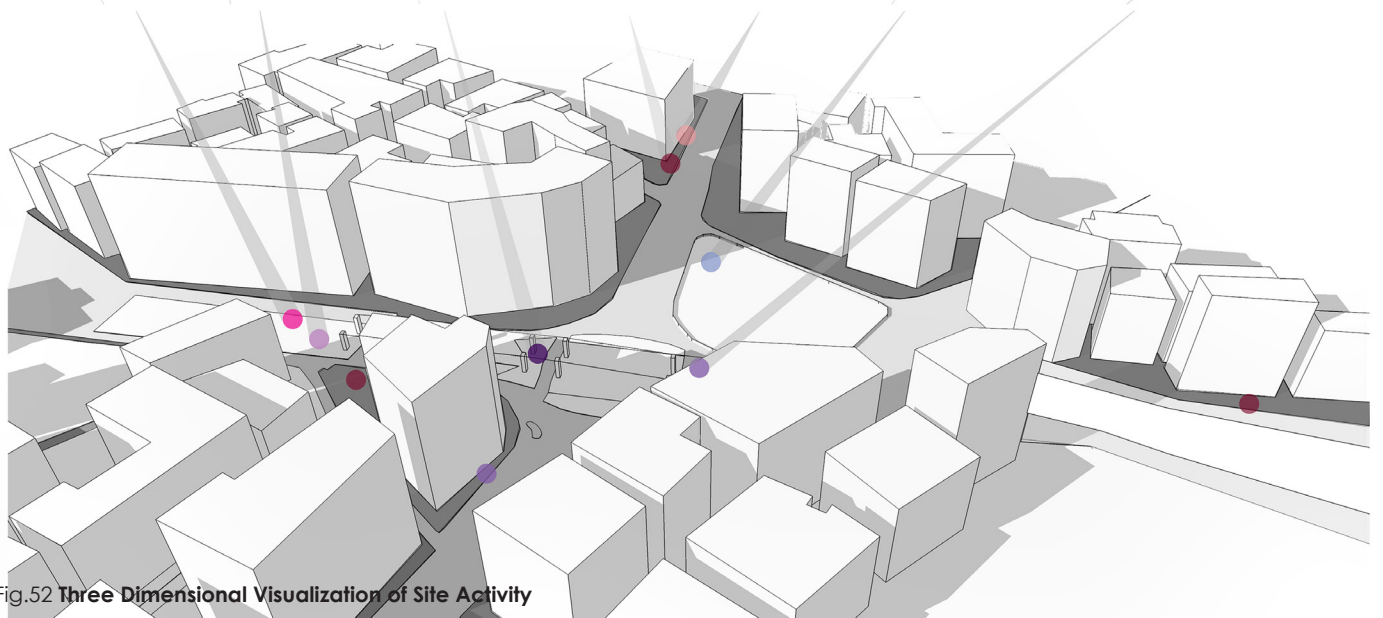


Fig.52 Three Dimensional Visualization of Site Activity



LEVELS OF SIDEWALK APPROPRIATION

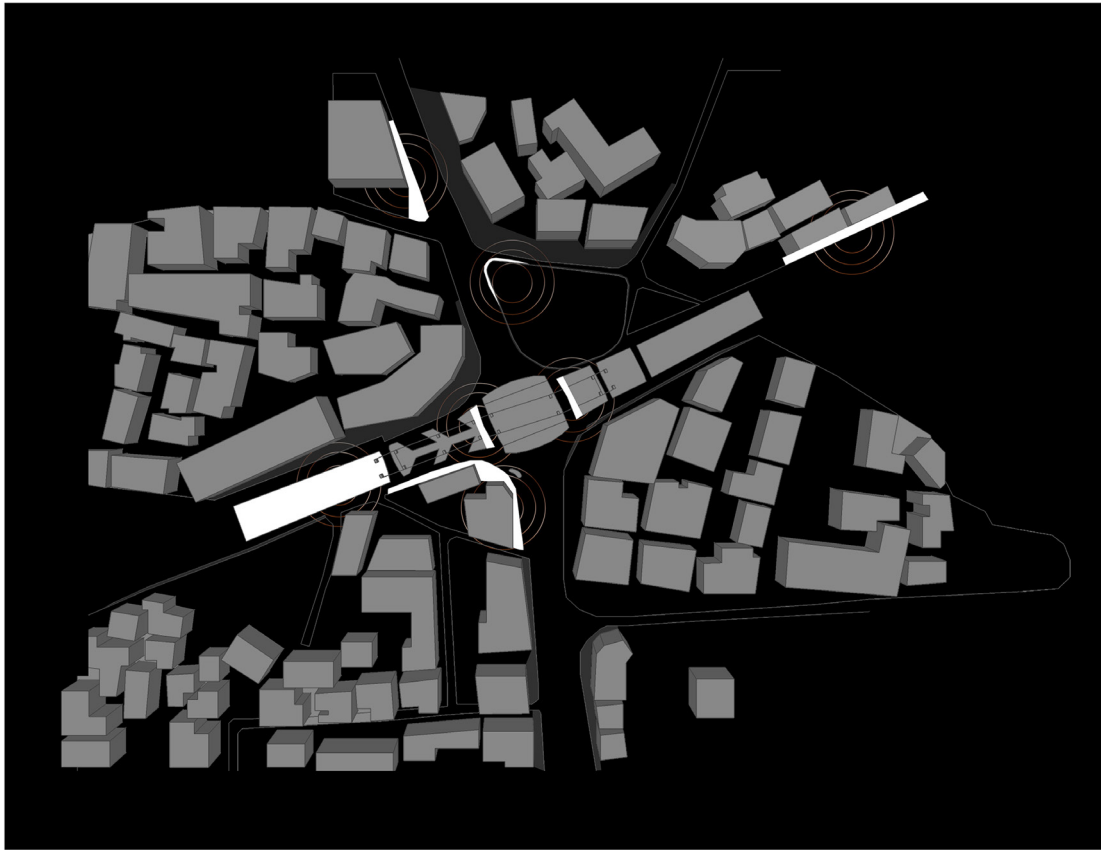


Fig.53 Three Dimensional Plan of Sidewalk Appropriation Levels

- Most Appropriated Sidewalks
- Least Appropriated Sidewalks

MULTILAYERED ANALYSIS

Having the two layers of pedestrian barriers and site activity in mind, it is deduced that despite the imposed or non imposed obstructions to movement, people are still finding ways to appropriate themselves and their activities on sidewalks. In contrast, other sidewalks that are strictly inactive and inaccessible are treated as a disregarded extension to buildings.

This brings up the question: Where are the potential activities taking place in respect to the sidewalks? Such a question raises the argument of analyzing what are the most and least appropriated sidewalks.

NOTIONS OF OCCUPATION

RELIGIOUS PUBLIC - A PART OF STREET NETWORK



Fig.54 Mapping of Religious Signs

With religious and sectarian notions deeply engrained in the ideologies of the residents, public places are now a translation of the people's origins and ideas. Elements representing such a social infrastructure are a part of the street network and daily life.

SECURITY MEASURES

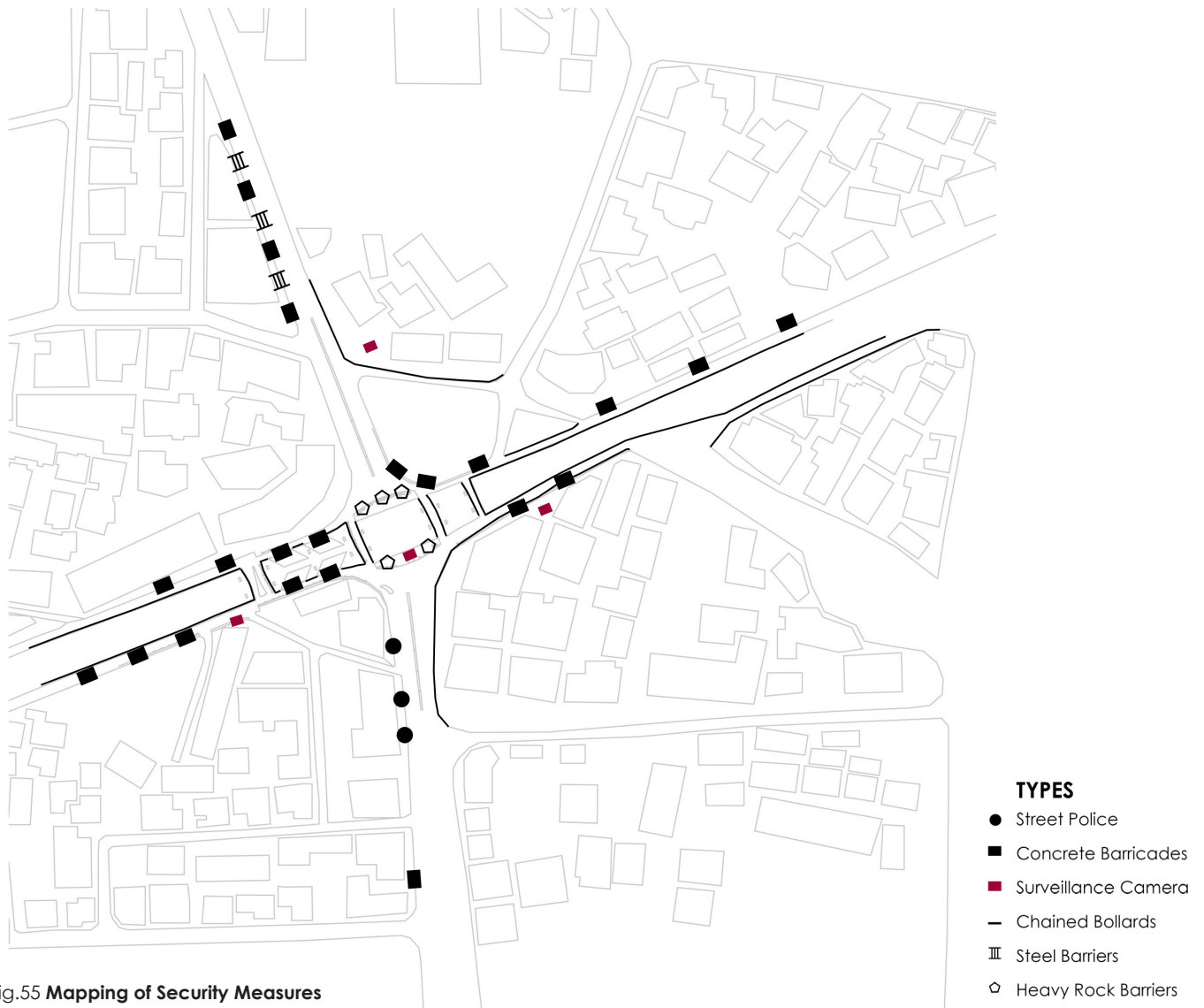


Fig.55 Mapping of Security Measures

Due to the several suicide bombing tragedies that the area has witnessed few years ago, and is still witnessing, strict security measures have been taken. Such measures were able to limit the quality of the neighborhood's livelihood (in terms of reduced parking spaces) and delineate the spatial configuration of the current spaces (sidewalks and street networks).

RELEVANT GALLERY



Fig.56 Images of Security Measures on Site

NOISE

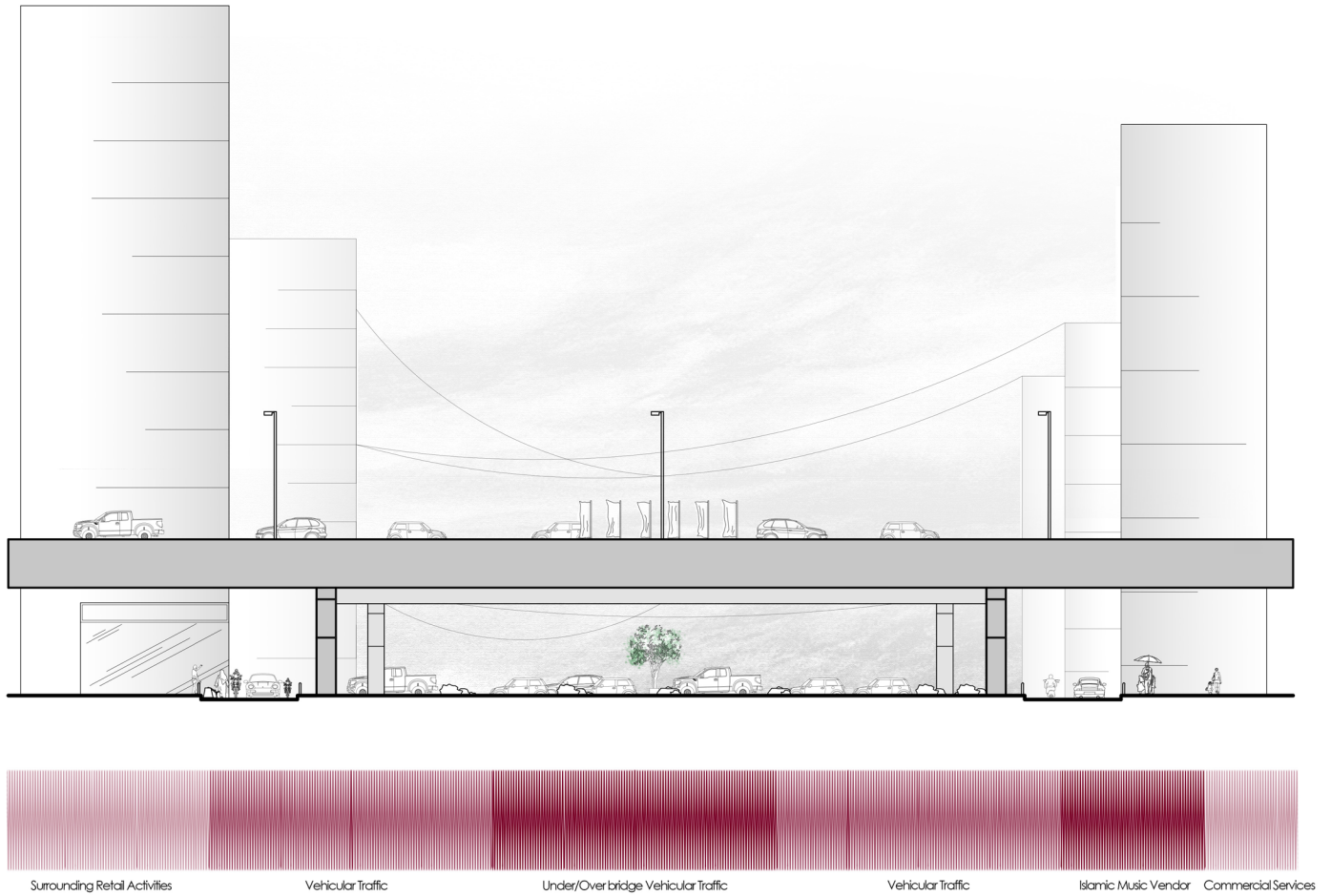
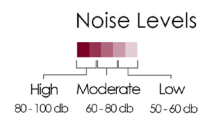


Fig.57 Analytical Noise Section



Noise has always been part of this congested urban fabric. Sources like street activities and vehicular sounds are conditions that residents have always been used to. However, a factor like noise sets restrictions on the comfortability measures of the proposed public spaces.



SPACE TRANSPARENCY

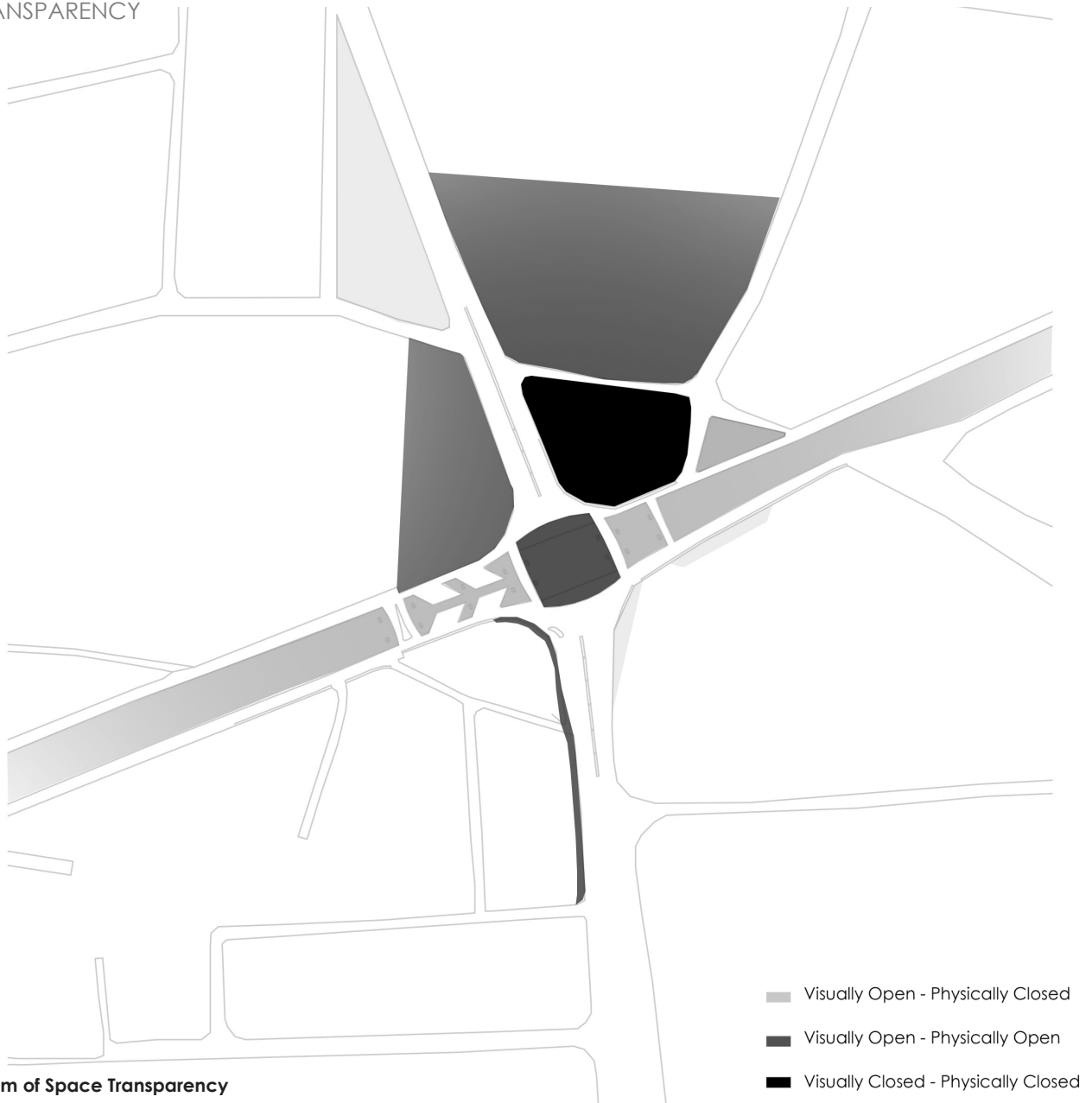


Fig.58 **Diagram of Space Transparency**

MULTILAYERED ANALYSIS

Despite the streets are platforms for self expression as seen in the mapping of the sectarian notions, however, a contrast can be depicted when seeing that people are visually and physically restricted due to the imposed security elements.

Based on that, several closed and open spaces can be delineated. Such spaces will be incorporated in the concept of the design, and the physical structures will be playing a character opposite to their obstructing identity, based on the used theoretical model: Landscape Affordances.

PLACE OF EXCHANGE

GROUND FLOOR USE AND FRONTAGES

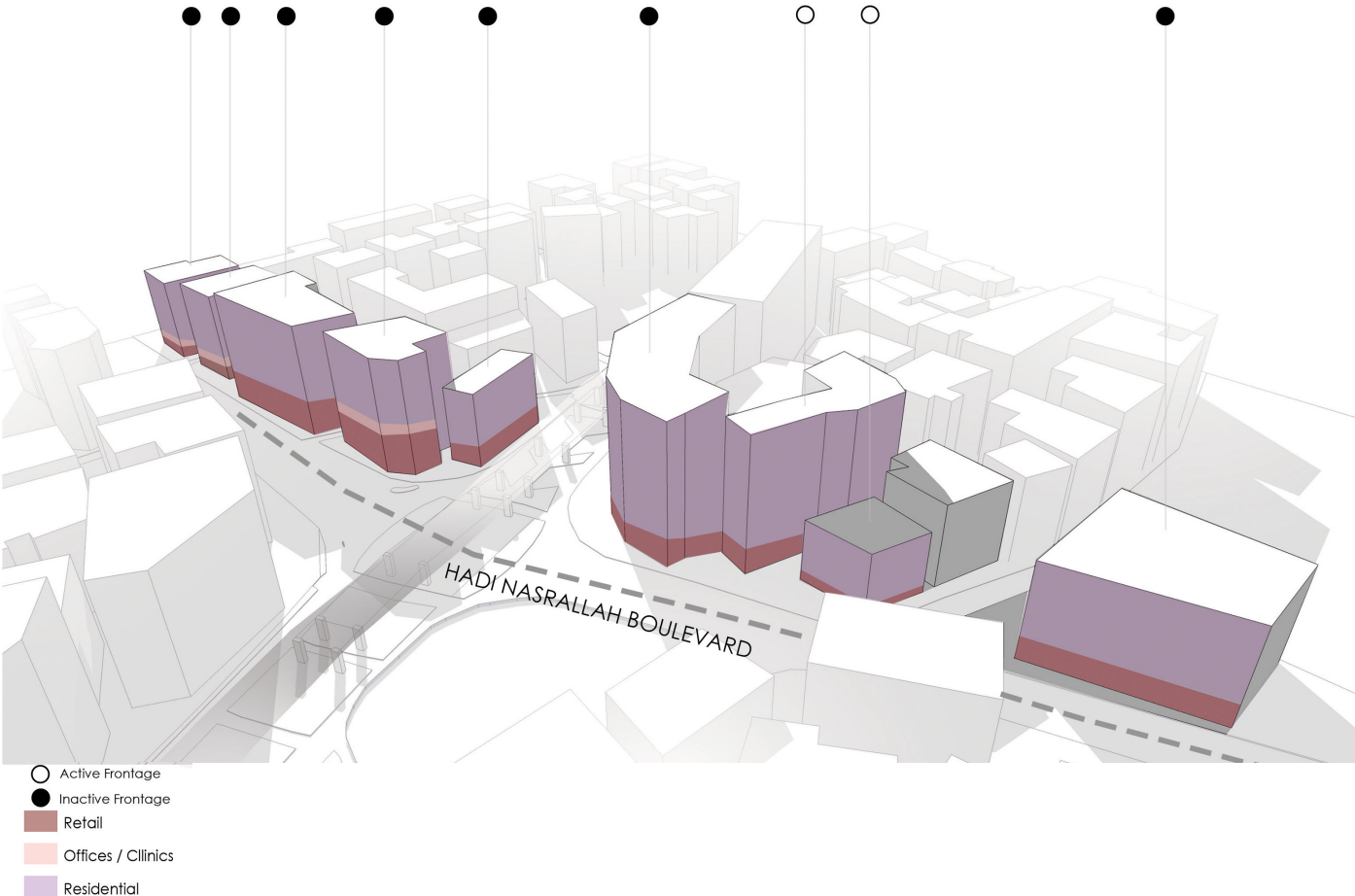
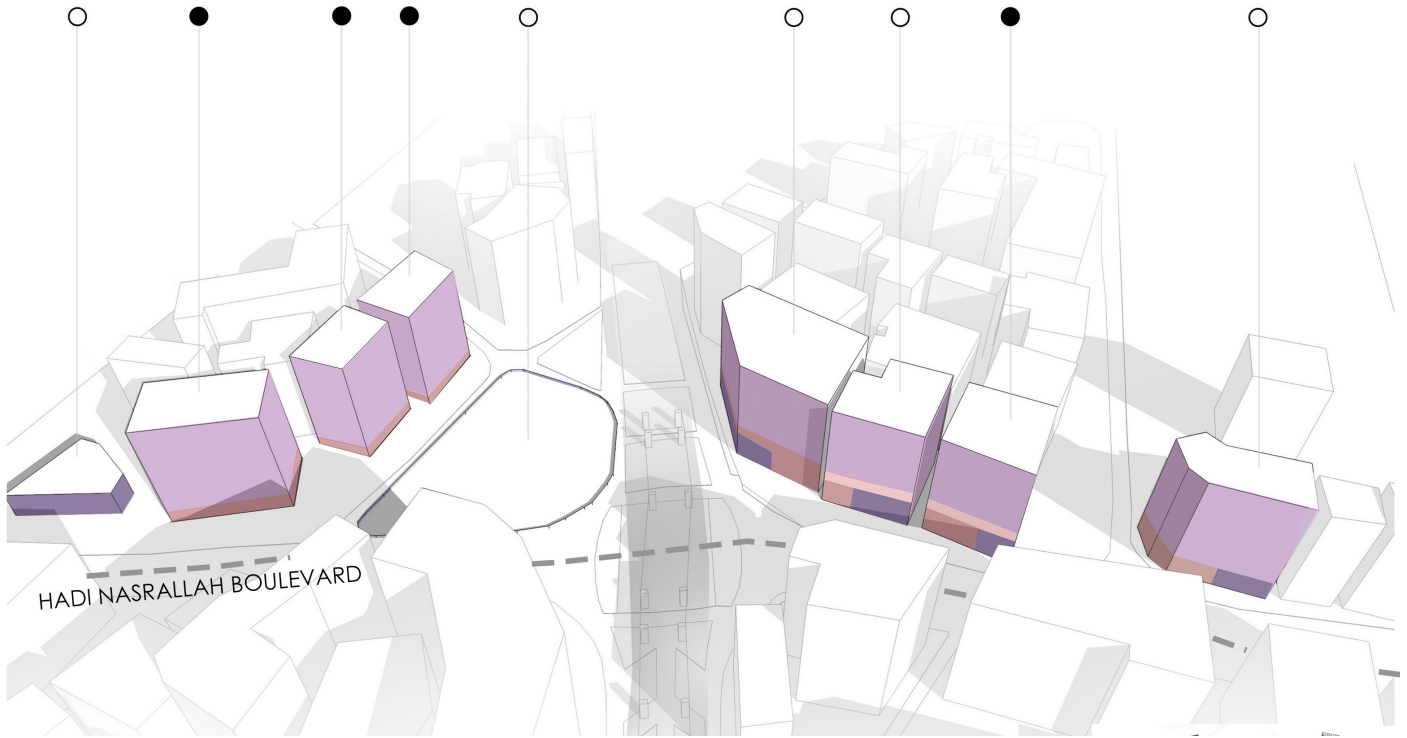


Fig.59 Three Dimensional Visualizations of Ground Floor Use and Frontages

RELEVANT GALLERY



Fig.60 Images of Site Frontages



- Active Frontage
- Inactive Frontage
- Retail
- Offices / Clinics
- Residential
- Commercial Services

**RELEVANT GALLERY**



PEDESTRIAN DAILY ACTIVITIES



Fig.61 Mapping of Pedestrian Daily Activities

MULTILAYERED ANALYSIS

It is noticed that necessary activities are majorly taking place on site, while optional and social acitvities are present minimally. Moreover, the ground floor use inventory shows that several pedestrian attractions are available.

Despite the awful conditions and limitations that the site sets and causes optional and social activities to be minimal, people seek such small opportunities to create street pocket gatherings.

RELEVANT GALLERY



Fig.62 Images of Site Pedestrian Daily Activities



GROUND FLOOR LAND USE



Fig.63 Mapping of Ground Floor Land Use

POTENTIAL SPACES

One aim of the project can thus be fostering and serving these shy activities since there is potential to support them based on the available attractions.

The theoretical model of Landscape Affordances will also come into play to provide to the site what is missing through what is existing.

The analysis layer of spatial pattern therefore determines the main potential points for fostering social and optional activities based on the criteria of pedestrian activities in relation to ground floor use.

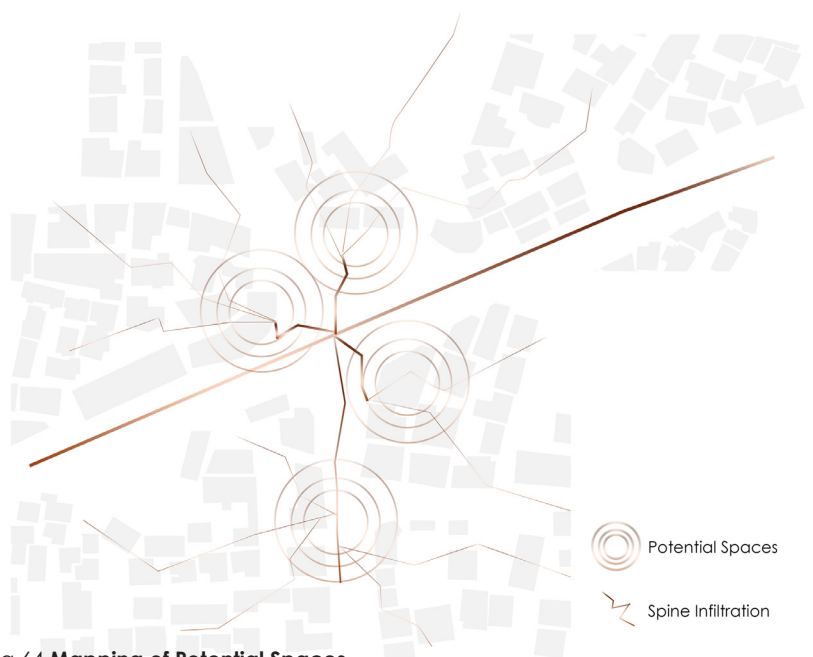


Fig.64 Mapping of Potential Spaces



# PRELIMINARY CONCEPTUAL DESIGN APPROACHES AND PROGRAMMING



Three different design approaches are proposed as conceptual solutions to the issues of the project.

Through a combination of the three approaches, one final design concept is to be adopted and developed during the spring semester of Academic Year 2016 - 2017.

The three approaches are fully based on extracted data from the site inventory, analyzed layers, site observations, surveys, and formal and informal site visits (Formal refers to the visits where I was accompanied by an involved person assigned by the responsible committee after receiving the permission, as no one is allowed to be seen holding a map or a camera in that area due to firm security measures. Informal refers to site visits that I had taken by car or on foot, strolling in the neighborhood and observing activities of people in relation to their physical surroundings).

**CORD OF LIVELIHOOD - CONCEPT 1**

DESCRIPTION

The approach is based on a large scale master plan with samples of areas to be developed.

Spatially, the whole bridge stretch will be treated, focusing on the three intersections to allow for the emergence of public places and communal ties between the different neighborhoods through targeting all genders and ages of the society.

Due to the vital existence of various land uses, the thoughts behind this approach and its program were based on the dominant land uses across the three neighborhoods.

**CORE INTERVENTION AREA** Underbridge Spaces

**AIM OF APPROACH**

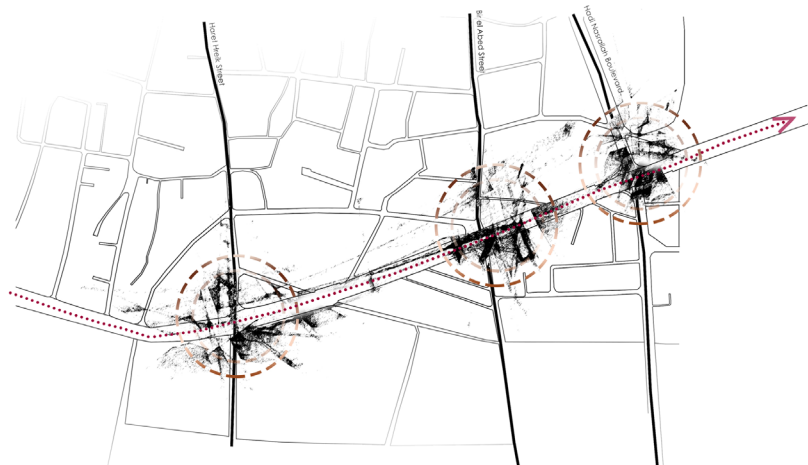
- Appreciating the sense of community between three neighborhoods
- Creating a central public realm for pedestrian activity
- Enhancing people's physical, social, and mental wellbeing

**LANDSCAPE OUTCOME** Network of Public Places

**STRATEGY**

- Creating different points of intervention
- Providing a network of activities to neighboring areas

EXISTING NEIGHBORHOOD CHARACTERS



<b>STREET CHARACTER</b>	Shopping and Retail	Shopping and Retail	Retail and Services
<b>DOMINANT NEIGHBORHOOD CHARACTER</b>	Social Infrastructure	Religious	Commercial

NEIGHBORHOOD INTEGRATION

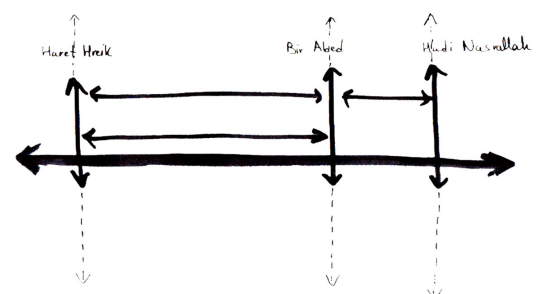


Fig.65 Diagrams of Conceptual Approach

LAND USE



Fig.66 Mapping of Contextual Land Use

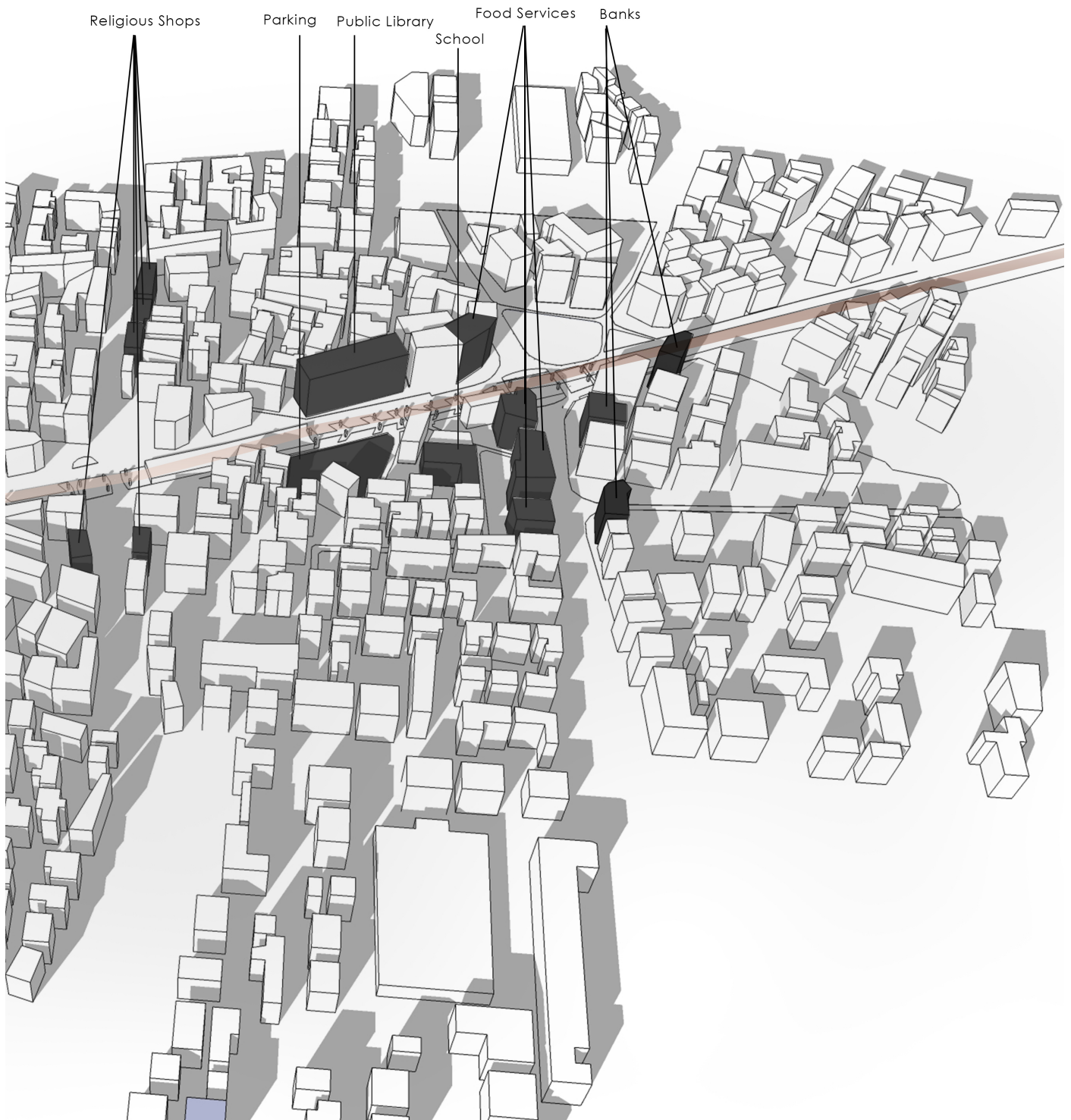








DOMINANT LAND USE

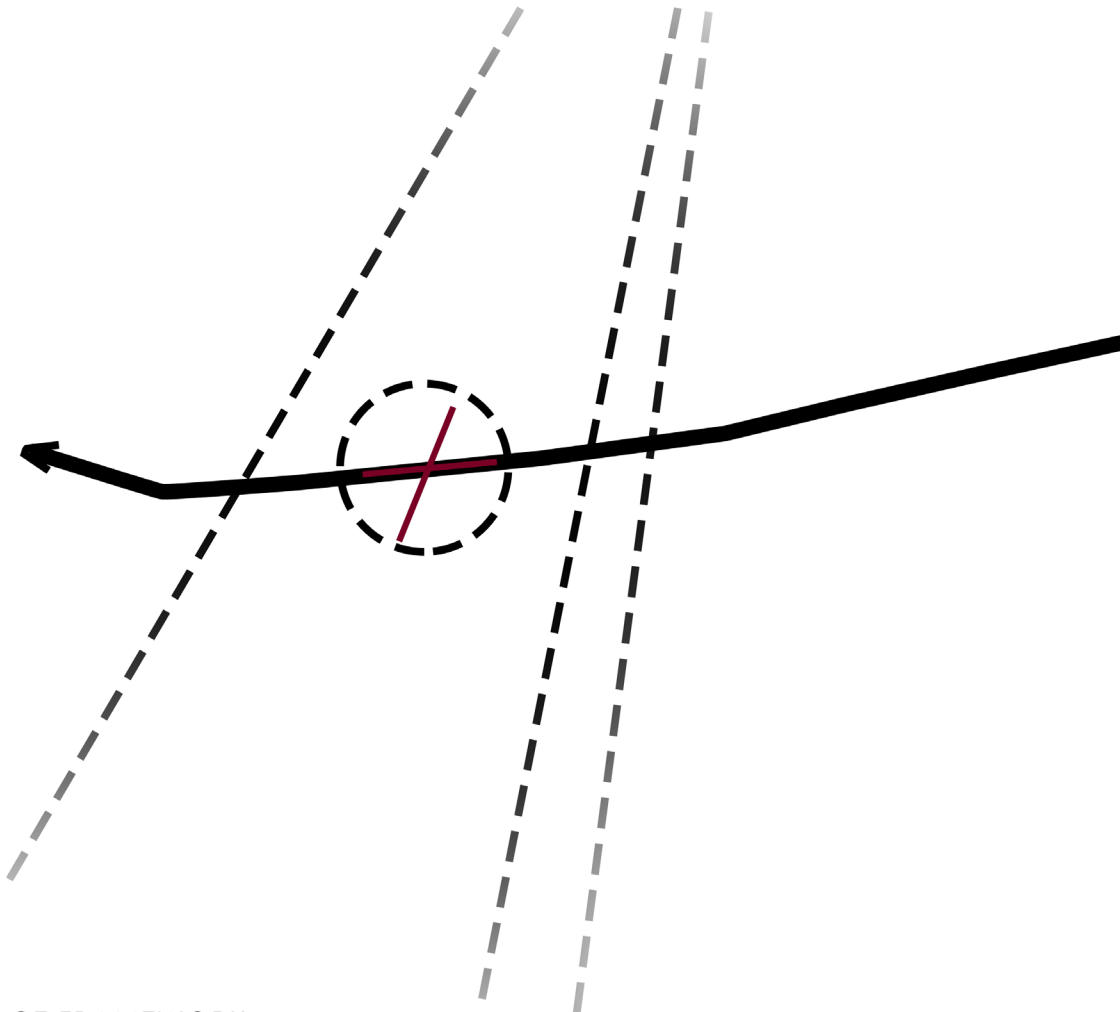


Fig.67 Mapping of Contextual Dominant Land Use



CONCEPTUAL APPROACH

-  Proposed Neighborhood Nodes
-  Intrusion into Neighborhoods
-  Major Linear Network
-  Pedestrian Interseccions



SPACE FRAMEWORK



AREA(m<sup>2</sup>)    306                      433                      240    1264

PROGRAMMING

Resting Area of Social Infrastructure Zone

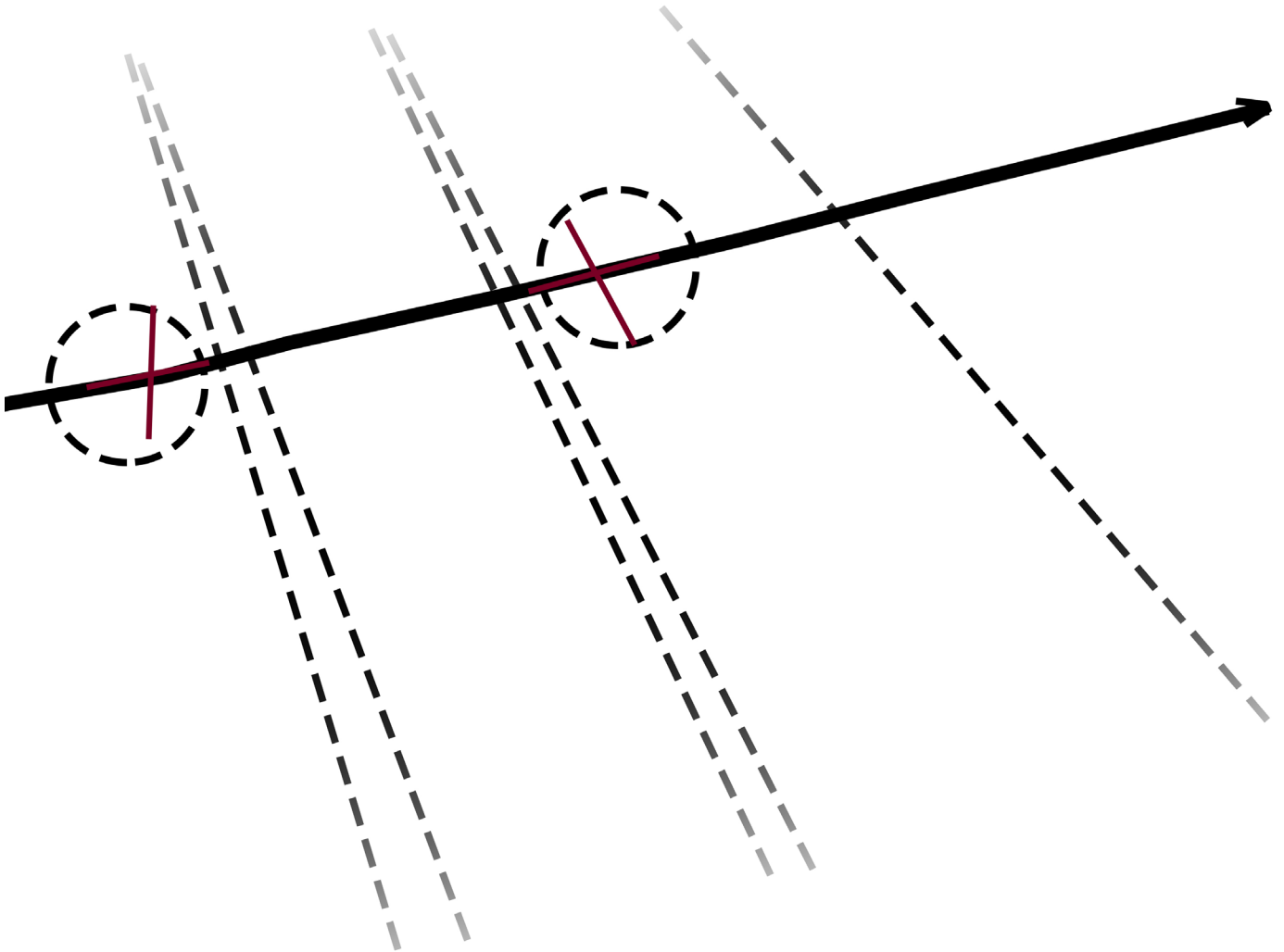
Changing Exhibition Stretch

TARGETED USERS

Hospital Staff // Patients // Elderly // Mosque and Church Attendants

Shop Owners // Local Talents // Passerbies // Religious Ceremonies

Fig.68 Diagram of Conceptual Design Approach



395

2132

1317

1113

TOTAL AREA= 7200

Outdoor Playground and Educational Platform

Business Plazas and Street Cafes

Schools // Universities // Children // Public Educational Events

Employees // Shop Owners // Security Men

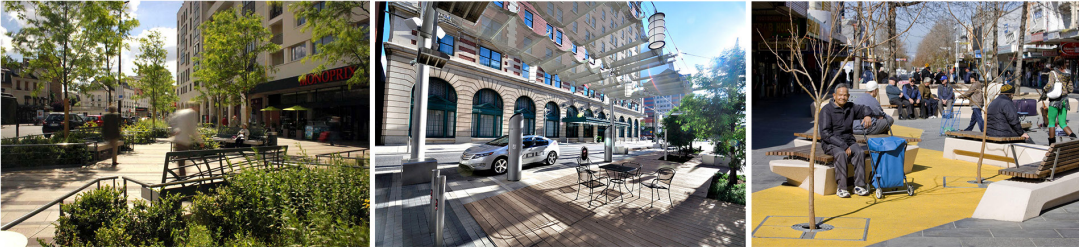
ELEMENTS AND VISION OF SPACES

RESTING AREA OF SOCIAL INFRASTRUCTURE ZONE

**Elements**

- Noise Buffering Techniques
- Open and Secluded Seating Zones
- Naturally Healing Environment
- Ultimate Accessibility
- Spaces for Break Shifts

**Mood Images**



CHANGING EXHIBITION STRETCH

**Elements**

- Major Relations between Streets and Pedestrian Spaces
- Safe Pedestrian Movement
- Working with Street Pavement
- Exhibition Opportunities

**Mood Images**



Fig.69 Mood Images of Design Approach



**OUTDOOR PLAYGROUND AND EDUCATIONAL PLATFORM**

**Elements**

- Ultimate Safety Methods
- Changing Platforms
- Playing Surfaces

**Mood Images**



**BUSINESS PLAZAS AND STREET CAFES**

**Elements**

- Wide Pedestrian Lanes
- Street Cafes
- Gathering Opportunities

**Mood Images**



EXISTING LANDSCAPE FORMS AND THEIR AFFORDANCES

RESTING AREA OF SOCIAL INFRASTRUCTURE ZONE



Allows for Space Centralization and Buffering

CHANGING EXHIBITION STRETCH



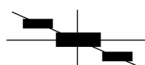
Allows for Linear Appropriation

OUTDOOR PLAYGROUND AND EDUCATIONAL PLATFORM



Allows for Different Rooms

BUSINESS PLAZAS AND STREET CAFES



Allows for a Network of Plazas

Fig.70 Diagrams of Landscape Forms Affordances



**CULTURAL EXPOSURE - CONCEPT 2**

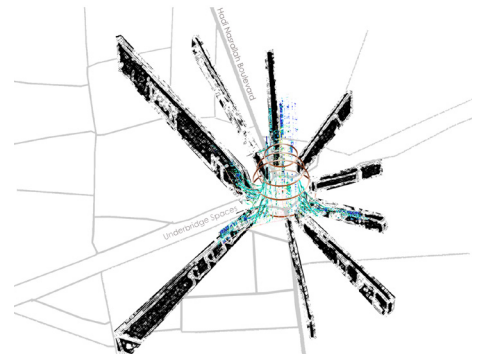
DESCRIPTION

The approach is based on a focused site design of the Hadi Nasrallah intersection.

Spatially, the intersection (currently a roundabout) and its surrounding streets, sidewalks, commercial ground, and residential context will be treated in detail.

The conceptual design is based on the inhabitants' religious and cultural beliefs which state that present life is a trial in preparation for the next realm of existence. Thus, the outcome most probably will be an interactive memorial that is sensitively designed to not violate other Lebanese religious or cultural views.

Accordingly, emphasis on the emergence of one main path (the ultimate realm of existence) and other marginal paths (the trials in life) is to be established.



**CORE INTERVENTION AREA** Underbridge roundabout, sidewalks, and block edges

**AIM OF APPROACH**

- Recelebrating the cultural values and beliefs of the community
- Exposing and exhibiting the culture to other communities
- Serving the community's daily needs
- Integrating men and women in common activities

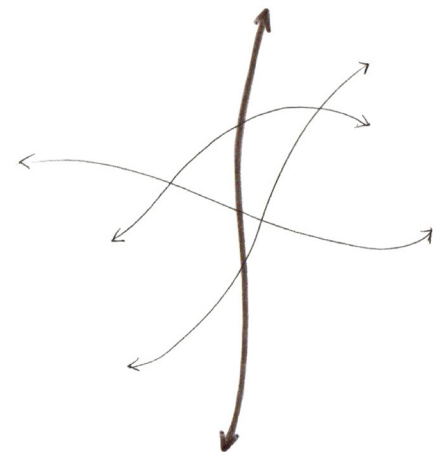


Fig.71 **Diagram of the Emergence to the Ultimate Realm of Existence**

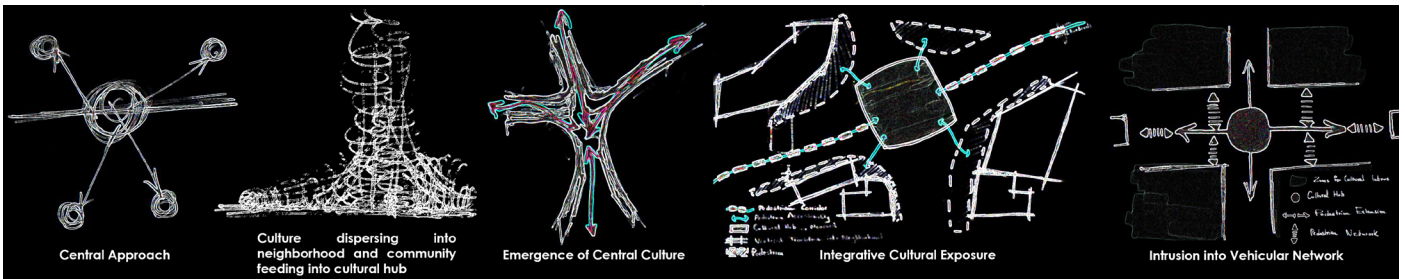
**LANDSCAPE OUTCOME** Interactive memorial

**STRATEGY**

- Creating a cultural hub
- The surroundings feed into the core and the core fragments into the neighborhood

**TARGETED USERS** Religious ceremonies // Families // Local talents

THOUGHTS IN PROCESS



Due to the importance of considering the intense vehicular flow in the design thoughts, the approach is based on this layer.

Proposing a cultural hub requires intensive pedestrian safety, noise and pollution buffering, and a smart action to work with the roundabout and its surrounding pedestrian edges.

VEHICULAR CIRCULATION

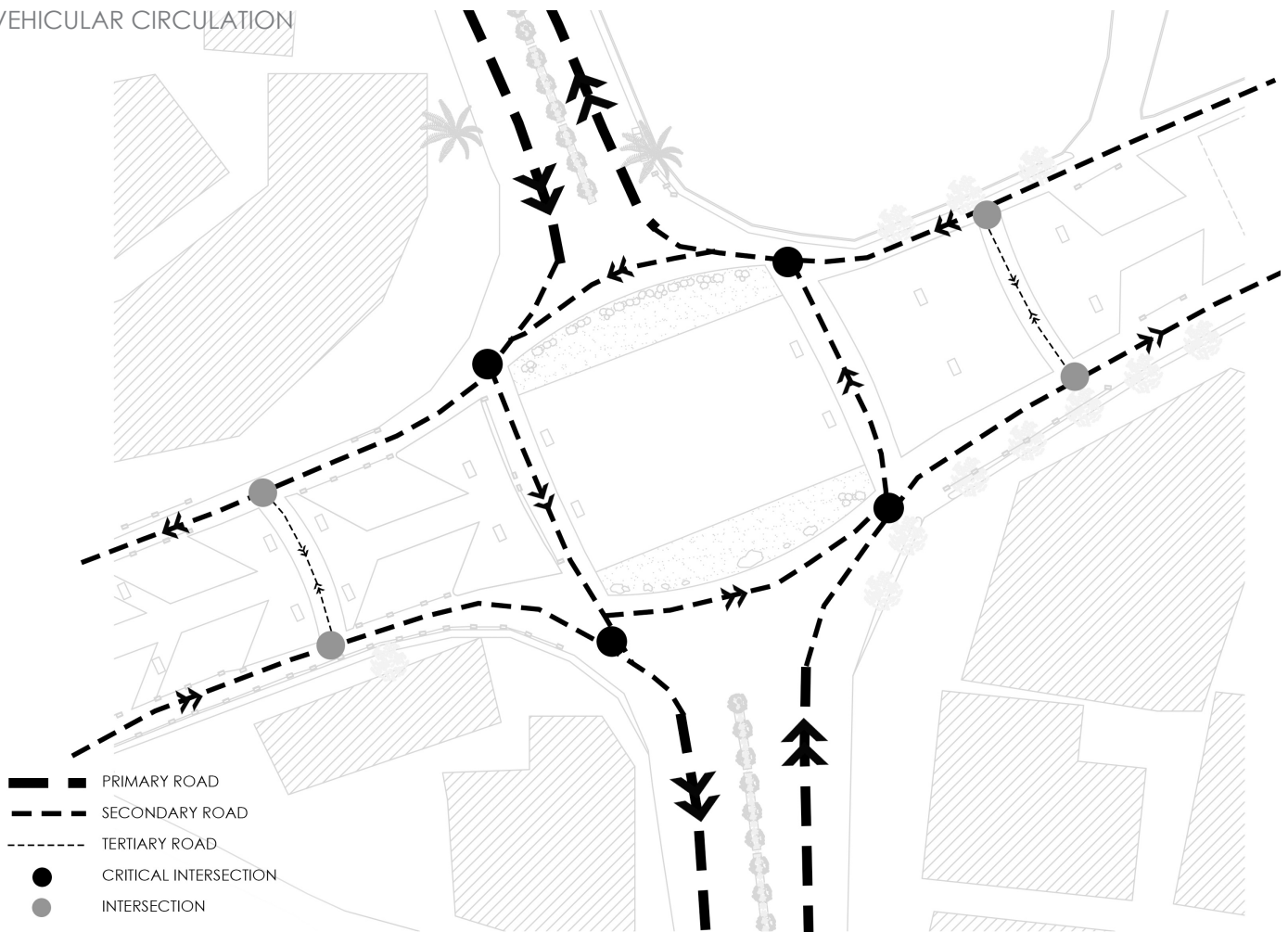
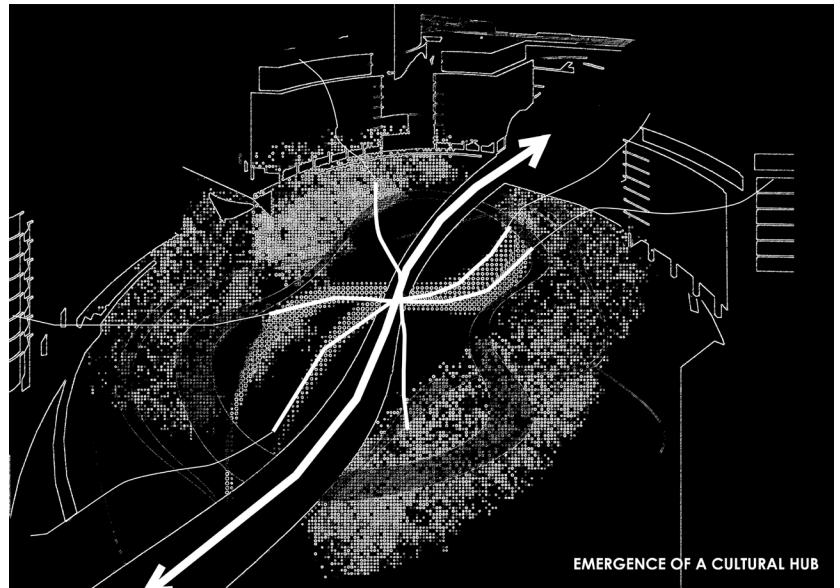


Fig.72 Mapping of Vehicular Circulation

CONCEPTUAL DESIGN

The conceptual design focuses on the cultural beliefs of the users: present life is a trial in preparation for the next realm of existence.

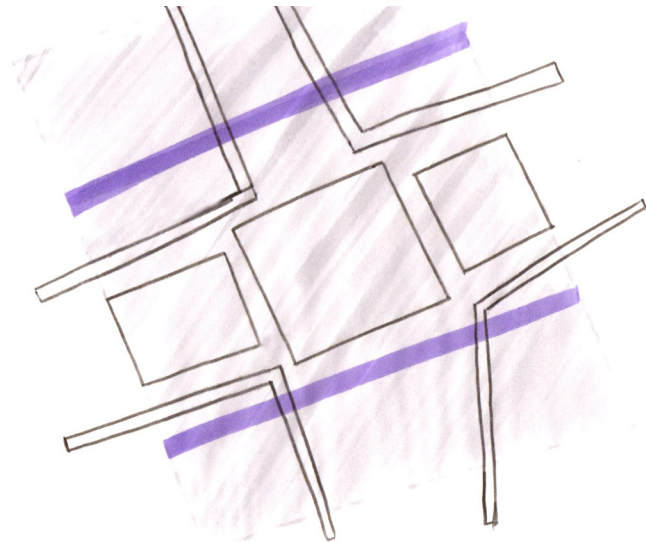
The emergence of the cultural hub in relation to the locals and outsiders will be a very challenging and sensitive approach to adopt due to the complex Lebanese issues.



FRAMING THE SITE - STEP 1

Outlining the main elements to integrate into the design is very essential. The roundabout, the two alongside under bridge spaces, and the surrounding block edges all merge in to produce a solid landscape that emerges within a jammed urban context.

The first step in framing the site was to delineate the major elements.



FRAMING THE SITE - STEP 2

The second step was to unify the intervention ground through merging four typologies of landscapes into one.

The theory behind this strategy is based on the Public Square, Ohio, US, a case study in which the planners merged four separated squares into a unified and coherent public place.

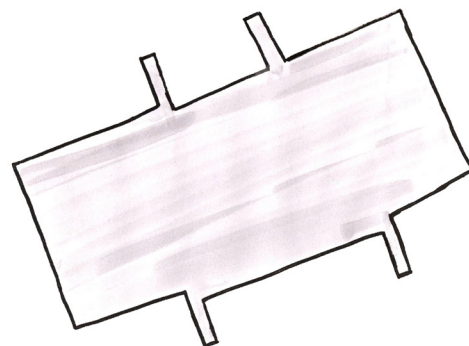


Fig.73 Diagrams of Conceptual Design Process



Fig.74 Images of Case Study



PROGRAM AND ZONING

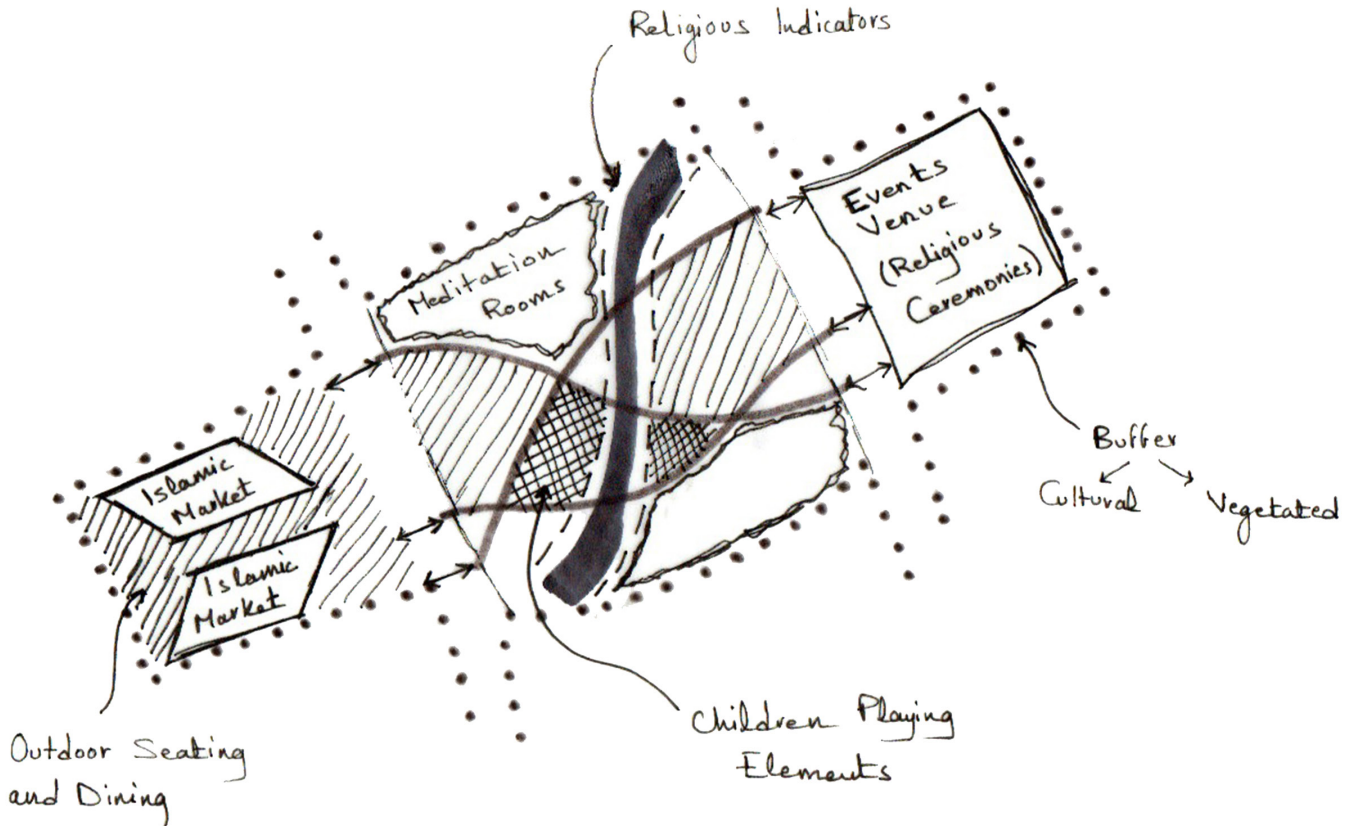


Fig.75 Diagram of Program and Zoning

DECISIONS BEHIND DESIGN

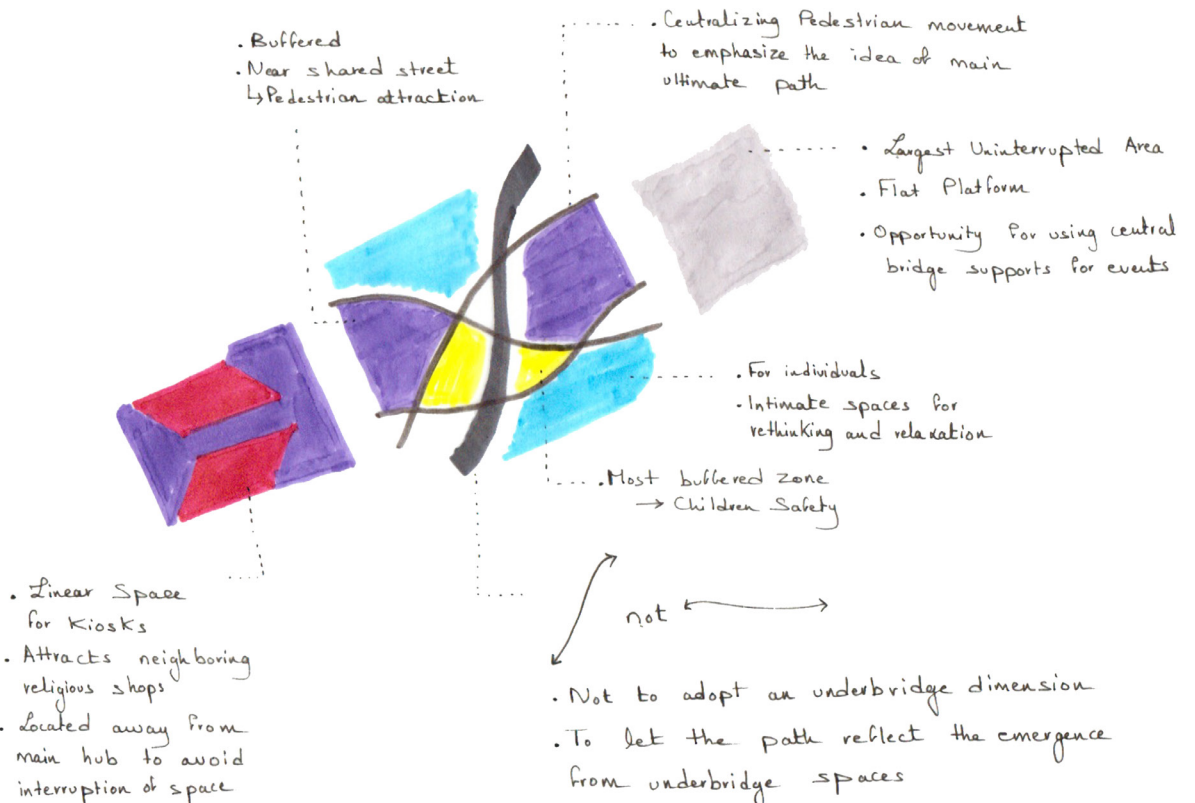


Fig.76 Diagram of Design Decisions

AREAS (m2)

Area divisions are majorly based on the two previous conceptual design development layers: the program and zoning and the decisions behind the design.

Based on what each program needs, areas were divided, and vice versa, that is, based on what each area affords to the users, spaces were adjusted and programmed.

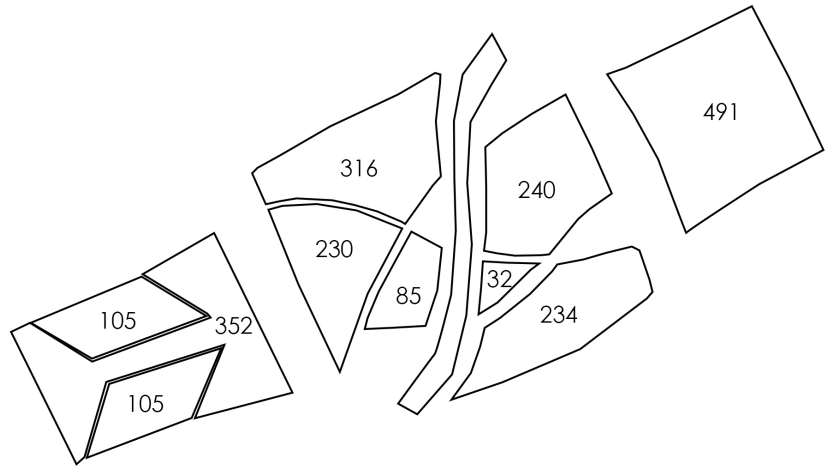


Fig.77 Diagram of Areas Division

PROPOSED CIRCULATION

Changing the traffic pattern is vital in a case where vehicular circulation dominates.

This justifies the proposed circulation pattern, where vehicular traffic becomes rounded around the plaza, thus making the space for pedestrians more accessible as a unified stretch combining the roundabout and the alongside underbridge spaces.

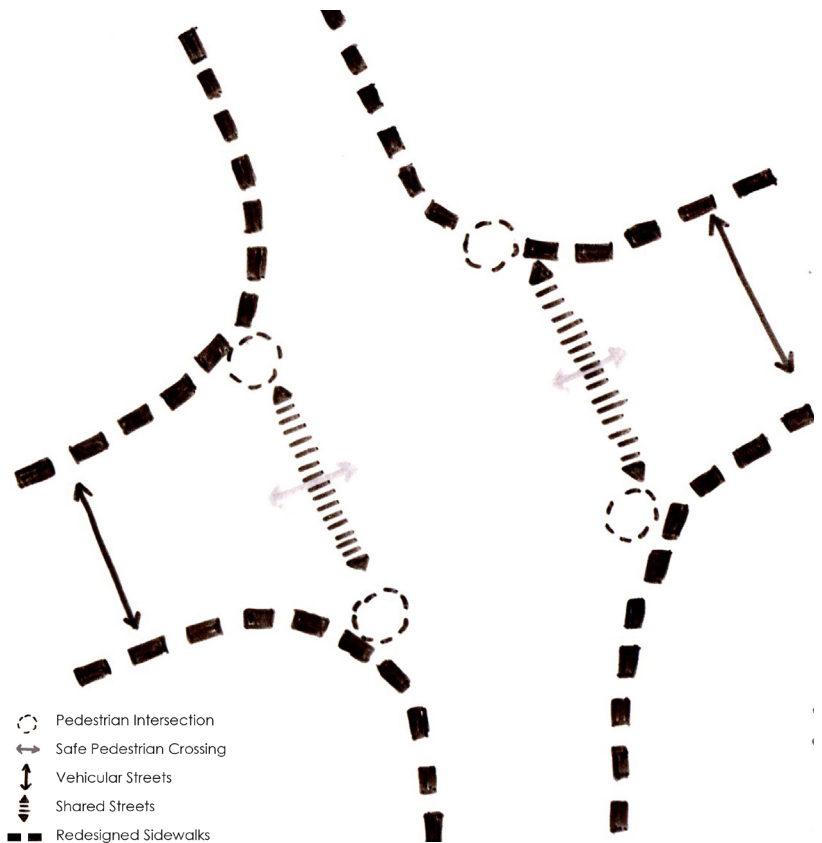


Fig.78 Diagram of Proposed Circulation

**COMMERCIAL REINFORCEMENT THROUGH TRANSACTIONAL SPACES - CONCEPT 3**

DESCRIPTION

The approach is based on a focused site design of the Hadi Nasrallah intersection.

Spatially, the intersection (currently a roundabout) and its surrounding will be treated as a center and edges.

The conceptual design is based on the emergence of a continuous pedestrian gesture that unifies the diverse built elements and frontages of this urban site.

Paths emerging from main avenues will take part of the street pavement and framework. Thus, the outcome most probably will be a central plaza with neighboring parklets.



**CORE INTERVENTION AREA** Underbridge roundabout, sidewalks, and leftover pockets

**AIM OF APPROACH** -Enhancing the neighborhood's economy and local commerce  
-Expanding the existing shy and large businesses



Fig.79 Images of Commercial Ground

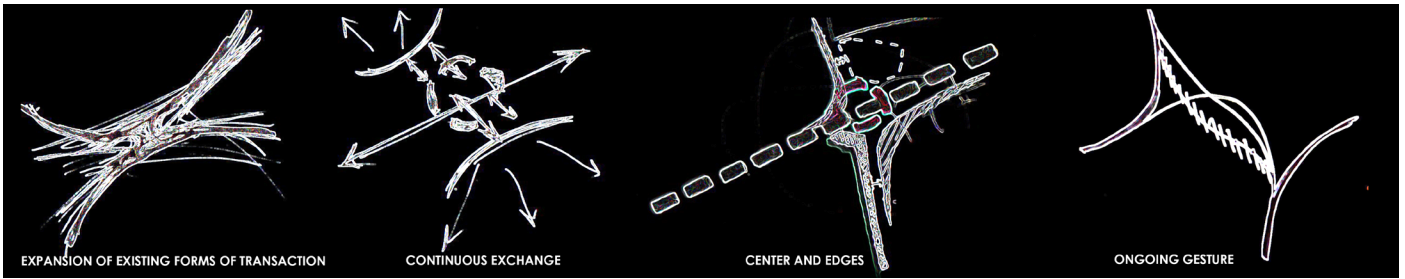
**LANDSCAPE OUTCOME** Central Plaza and Parklets

**STRATEGY** -Redefining leftover spaces  
-Shifting pedestrian influx towards least active areas  
-Developing pedestrian avenues

**TARGETED USERS** Employees // Shop Owners // Security Men



THOUGHTS IN PROCESS



Since the approach is based on an ongoing gesture that maintains a continuous exchange of people, experiences, and products, the essential layer to be considered is population density of the neighborhood.

Studying population density allows exploring where do people mostly come from to reach the site, and which existing entrances and roads are to be considered as major proposed pedestrian commercial lanes.

POPULATION DENSITY



Fig.80 Mapping of Population Density

PEDESTRIAN INFLUX

Determining the pedestrian influx is directly based on the population density mapping.

The larger the density is, the more pedestrians need wider lanes to cross from one place to another, and vice versa.

Based on this observation, proposed avenues are located and sidewalks are revitalized.

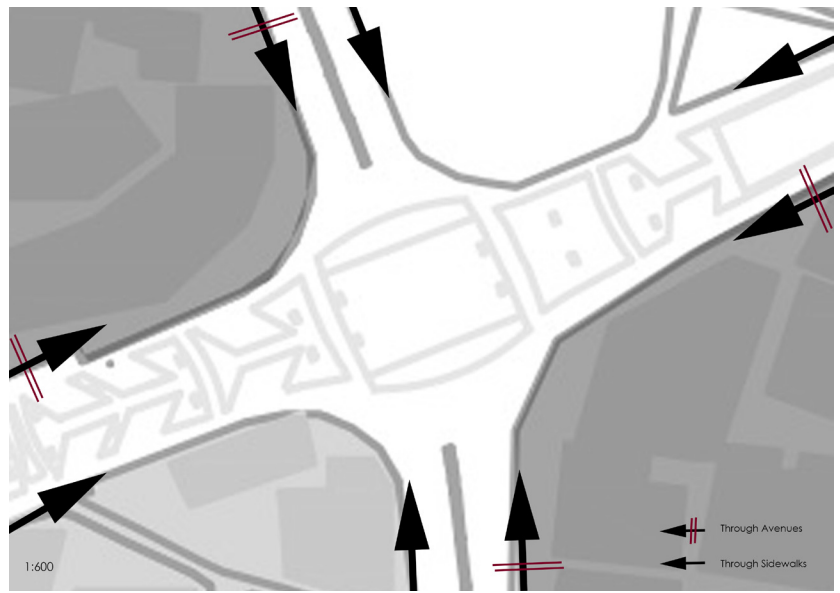


Fig.81 Mapping of Pedestrian Influx

PROGRAM AND ZONING

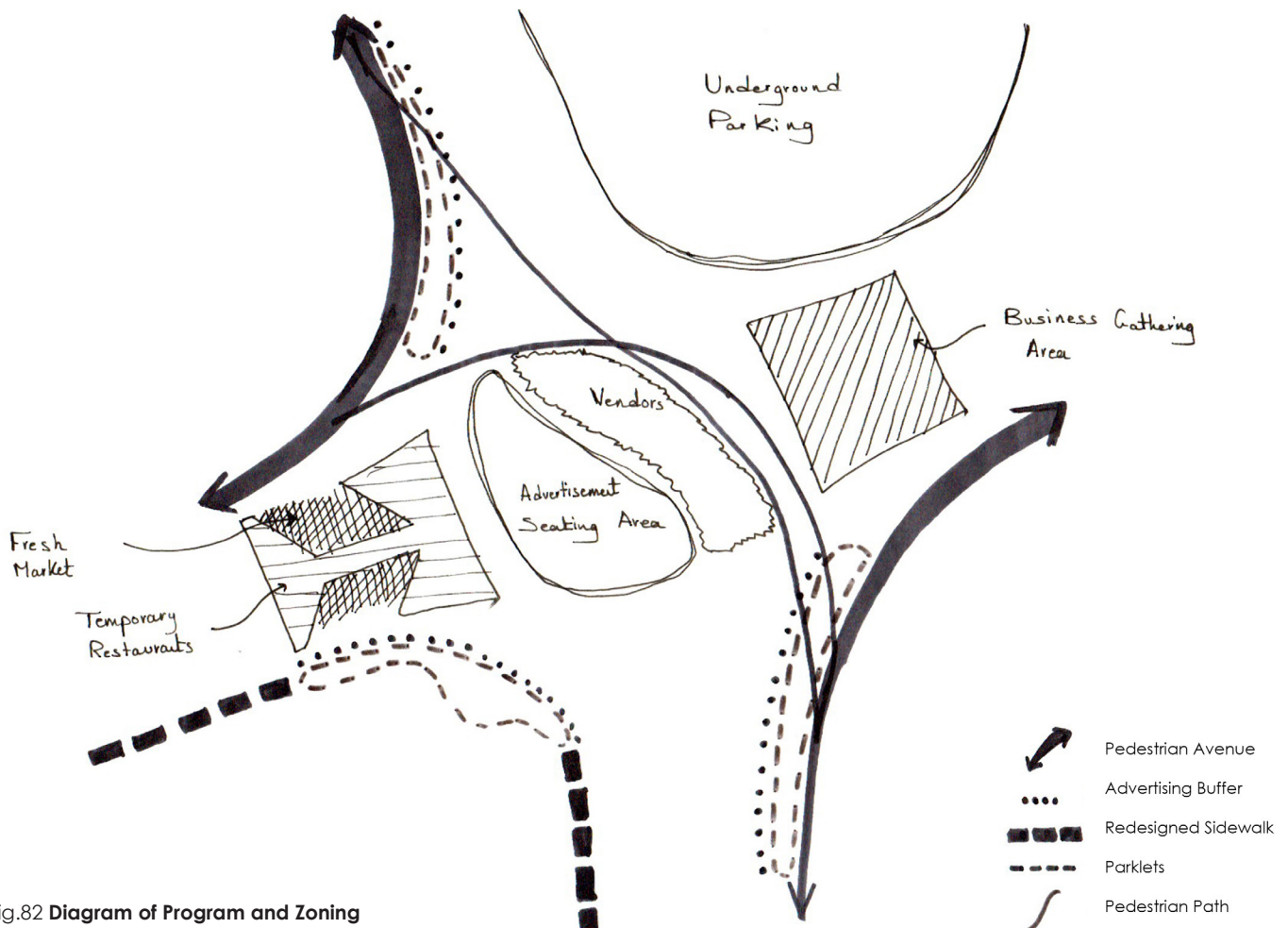


Fig.82 Diagram of Program and Zoning

PROPOSED CIRCULATION

The concept of having a continuous ground of a commercial gesture suggests the need to focus on the pedestrian experience. This recommends that shared streets might be one solution to lessen the massive vehicular flow.

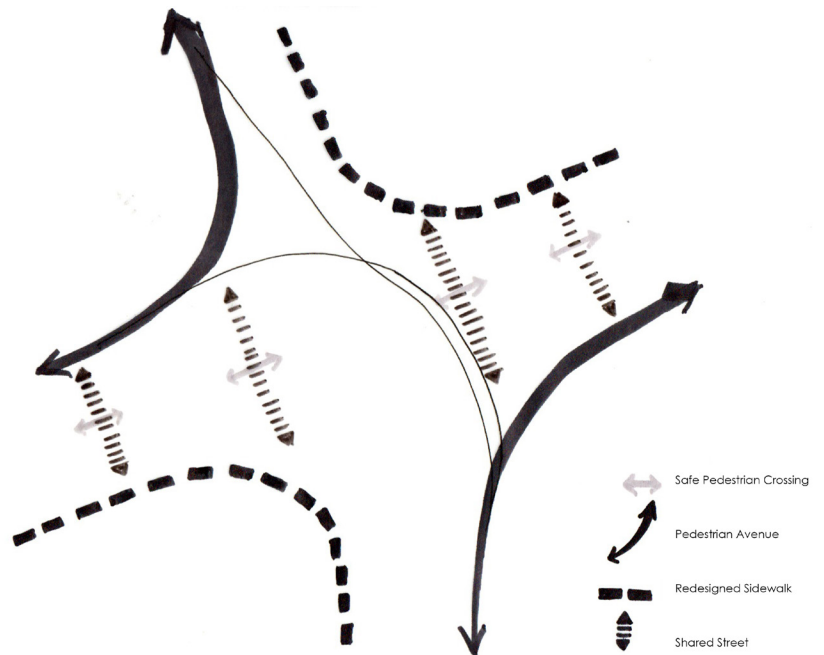


Fig.83 Diagram of Proposed Circulation

AREAS (m2)

Based on what each program needs, areas are divided, and vice versa, that is, based on what each area affords to the users, spaces are adjusted and programmed.

For instance, the 3318m2 area offers a future opportunity to be an underground parking to the proposed landscape, as it is expected that this land will be a residential complex according to the property owner.

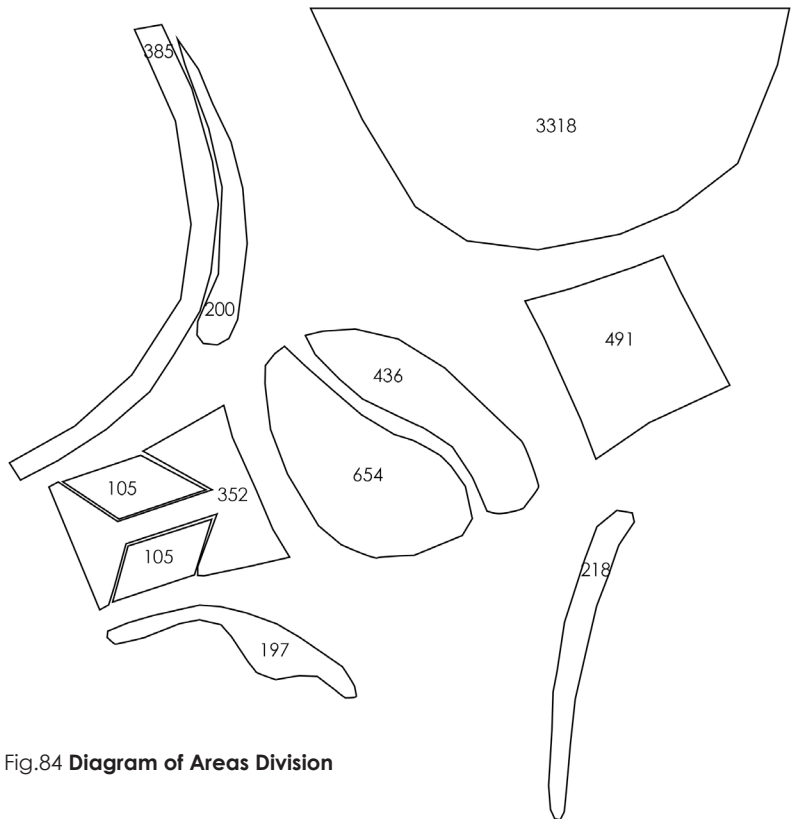


Fig.84 Diagram of Areas Division

MOOD IMAGES



Fig.85 Mood Images of Design Approach

**COMPARISON OF DESIGN APPROACHES**
























<b>CONCEPTUAL APPROACH</b> <b>APPROACH ASPECTS</b>	CORD OF LIVELIHOOD	CULTURAL EXPOSURE	COMMERCIAL REINFORCEMENT THROUGH TRANSACTIONAL SPACES
Integrates both men and women of the community			
Emerges women from their usual spaces (house and its surroundings)			
Reactivates inactive frontages			
Allows cultural emergence to locals and outsiders			NONE
Alters Vehicular Circulation			
Maintains project statement (emergence of public places)			
Serves all user profiles of the community			 Low  Moderate  High 

Fig.86 Comparison Table of Design Approaches

**FINAL DESIGN APPROACH**

Based on further investigation, and on the juror's advices to adopt guidelines for all the nodes with a focus on one only, as the next section of this report will show, the final design approach was developed.

The final design is thus composed of a quick planning of the entire under bridge stretch with a focus on one context (node) which is the Hadi Nasrallah intersection.

This suggests that the three nodes will be treated programwise as shown in concept 1 (Cord of Livelihood). As for concept 2, which covers the cultural and religious aspects of the site, it will be present as an abstracted layer that acts throughout the entire stretch, implicitly and not explicitly.

Moreover, concept 3, which is commercially oriented, will not be disregarded due to the prevalent commercial character of the neighborhood, however it will be representing the program of the Hadi Nasrallah intersection, for what this intersection offers from high population density, massive commercial ground, and eclectic ground floor uses.

The whole stretch will be connected to larger Beirut's street network to allow for the flow of the neighborhood's visitors into the stretch and surroundings.

The project is thus envisioned as a modest initiative to resolve Lebanese complicated political and religious conflicts through an original spatial approach, that benefits both locals and outsiders, rather than the endless and fruitless meetings of Lebanese officials.

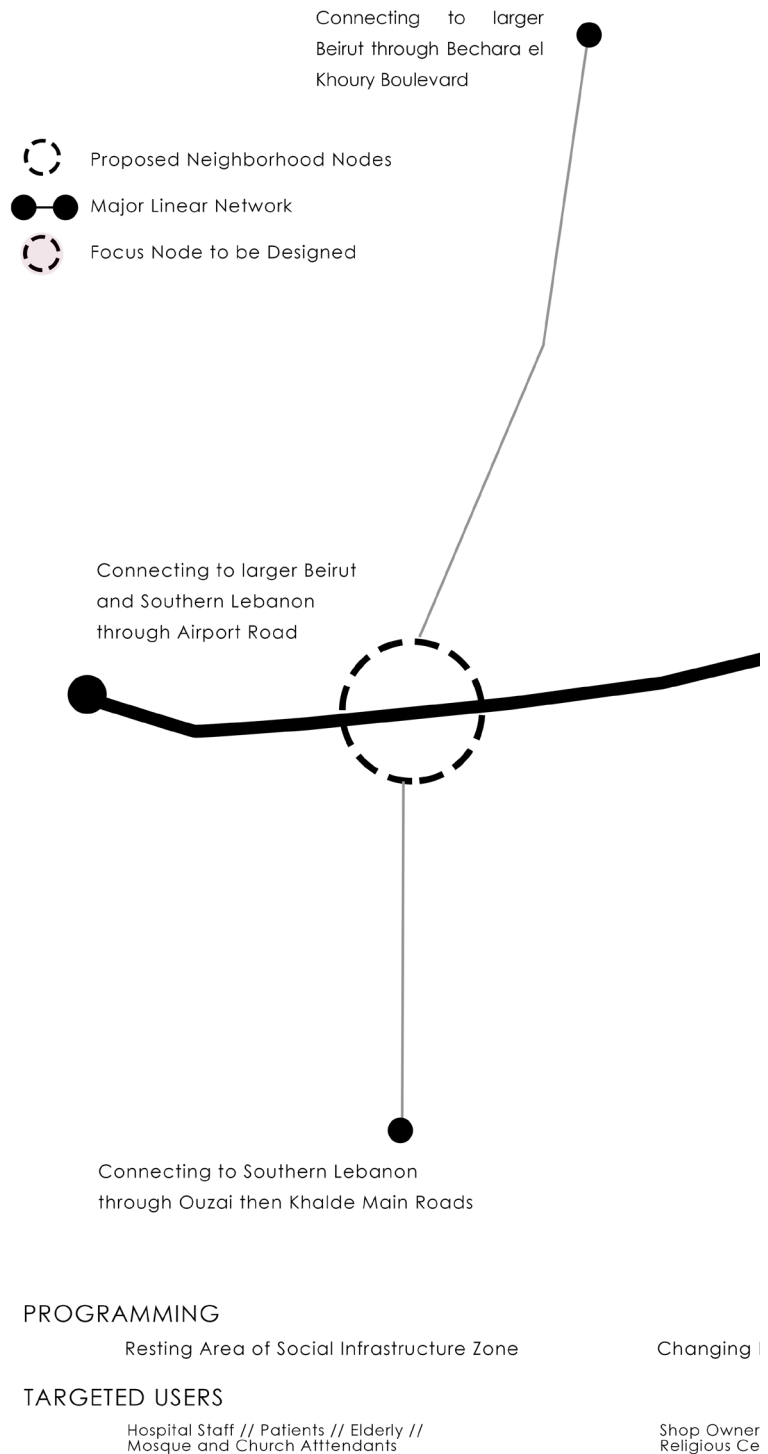
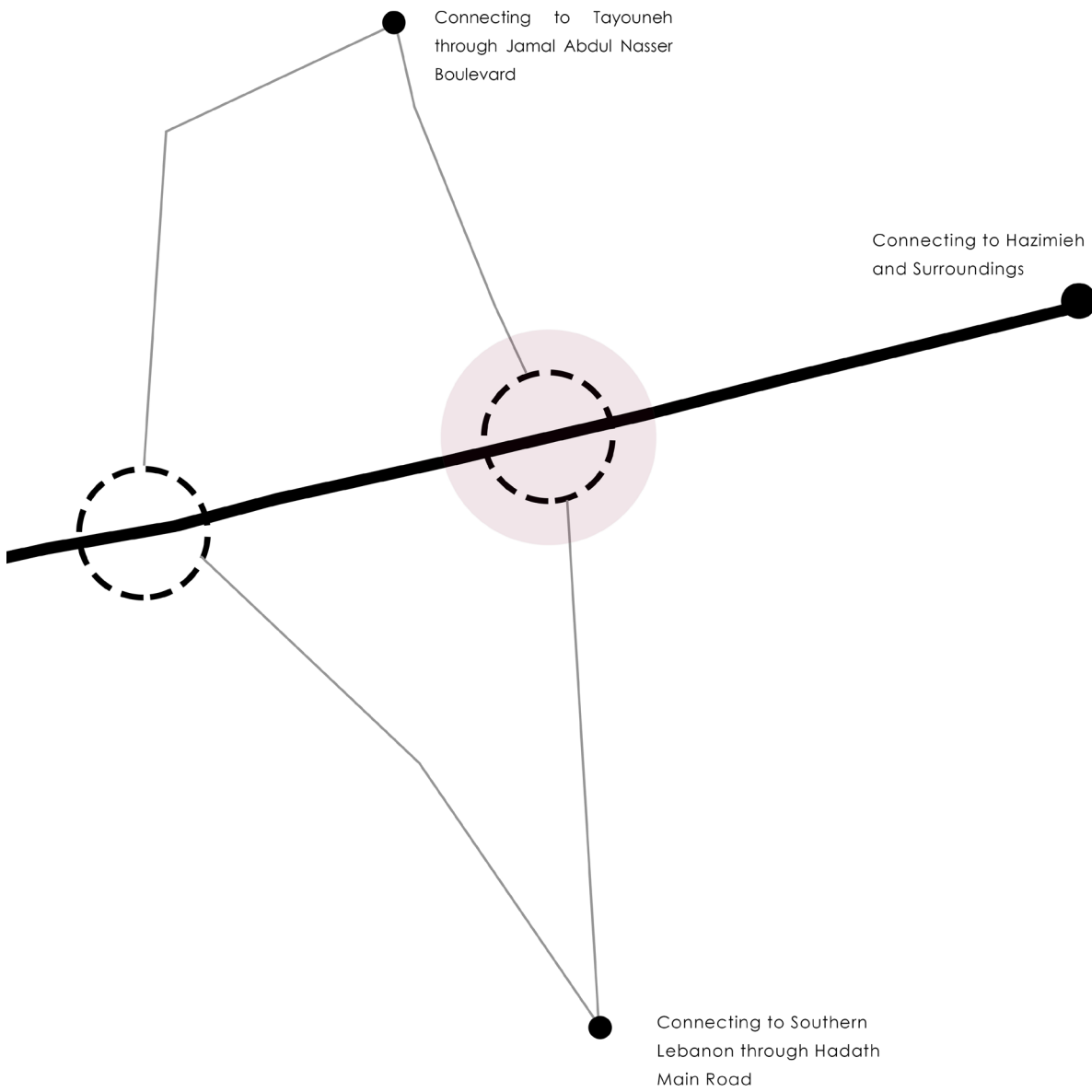


Fig.87 Diagram of Final Design Approach

# CONCEPTUAL DESIGN APPROACHES AND PROGRAMMING



Outdoor Playground and Educational Platform

Business Plazas and Street Cafes

sserbies //

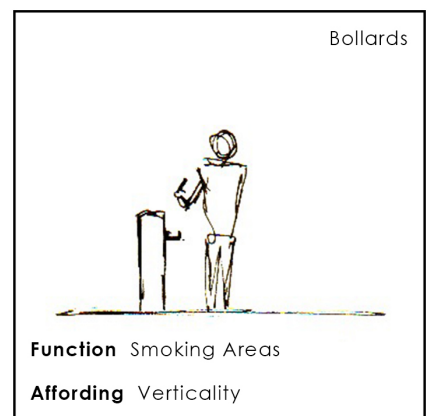
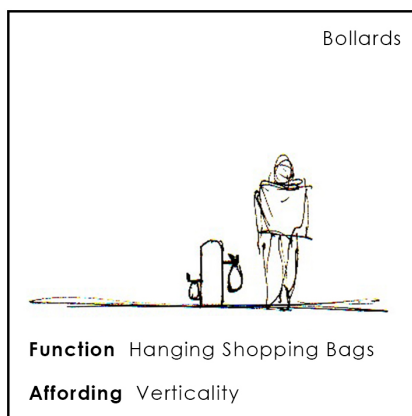
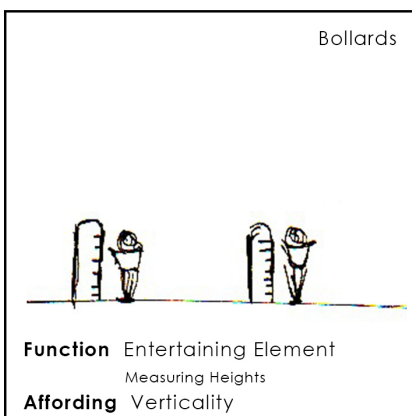
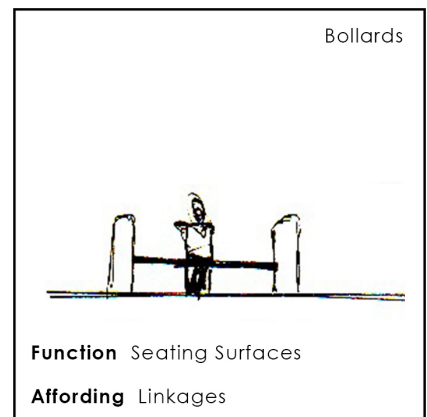
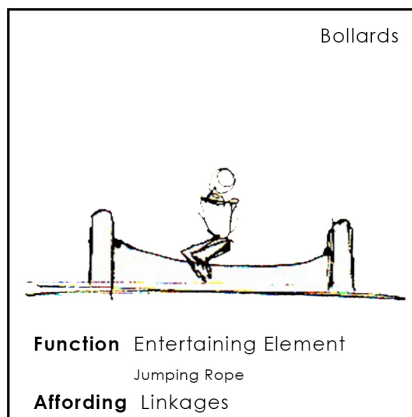
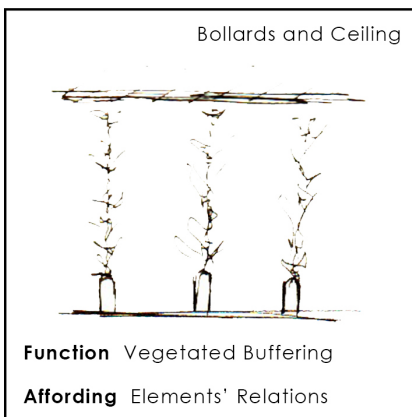
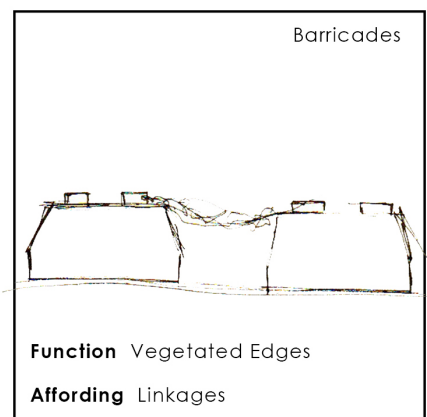
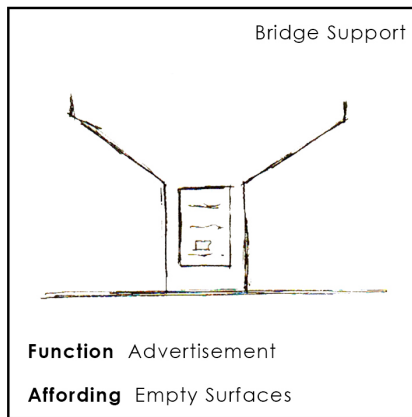
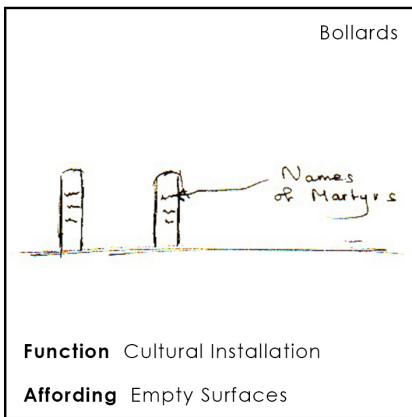
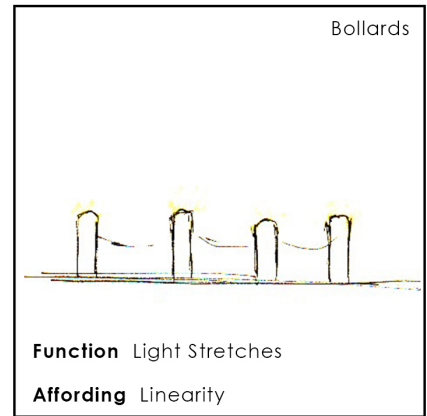
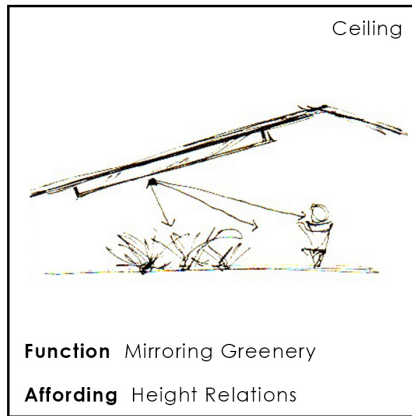
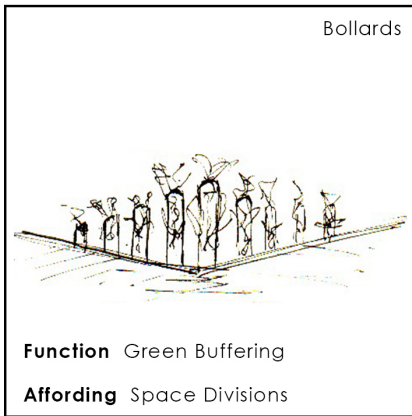
Schools // Universities // Children // Public Educational Events

Employees // Shop Owners // Security Men



**LANDSCAPE AFFORDANCES MANUAL**

The following manual is prepared to further understand practically samples of how elements on site can be afforded.



# CONCEPTUAL DESIGN APPROACHES AND PROGRAMMING

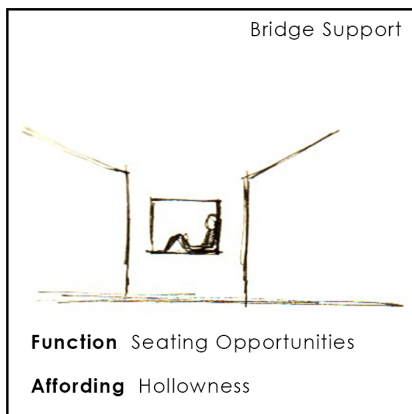
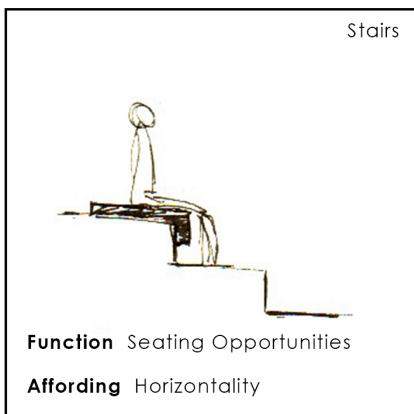
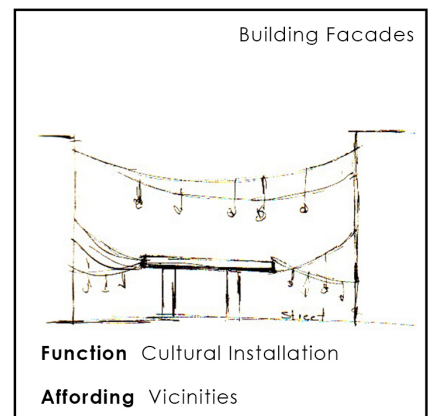
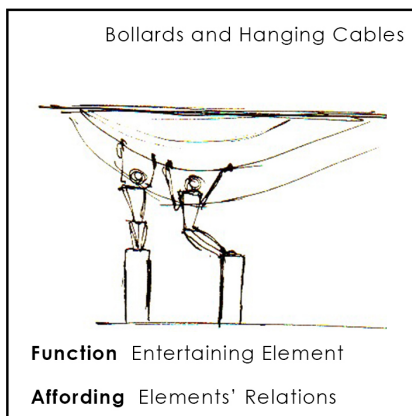
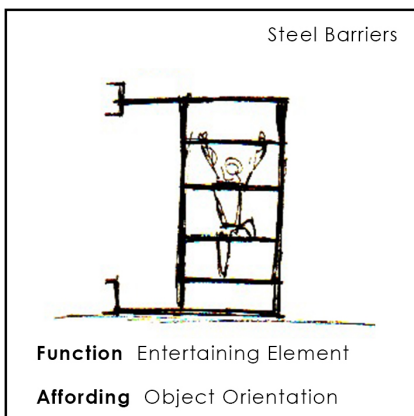
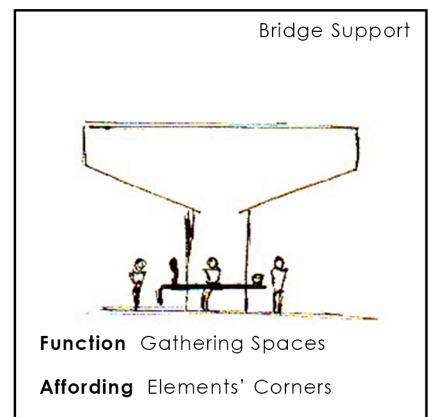
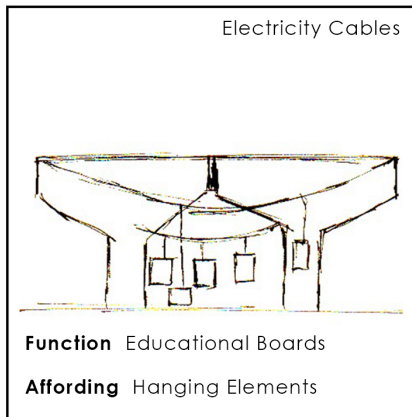
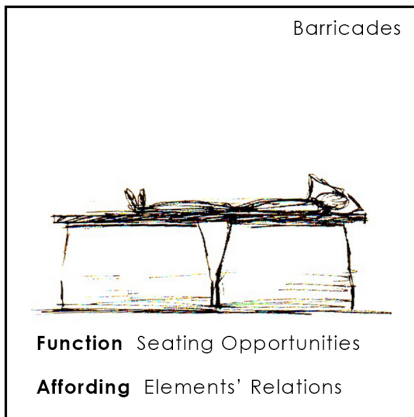
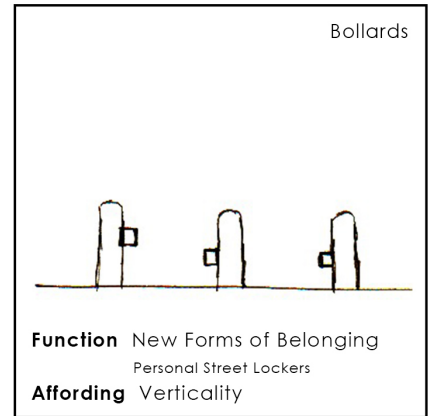
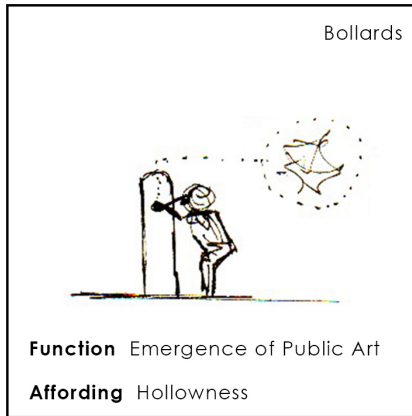
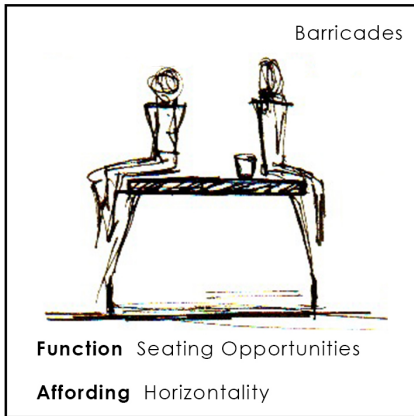


Fig.88 Sketches of Landscape Affordances Manual



# JURY COMMENTS ANALYSIS



During the final presentation of the research phase of the project for the fall semester of the Academic Year 2016 2015-, a number of experts in the domains of Landscape Architecture, Architecture, and Urban Planning attended the jury.

The jurors' critique was very appreciated and further considered and used for the advantage of this report and the upcoming work during the spring semester.

The comments of the jurors are stated below with a personal analysis of what has been said and advised.

### **Professor Mosbah Rajab**

An architect, urban planner, and professor in Urban Planning at the Lebanese University.

Rajab's comments were generally brief and abrupt, as he focused on advising me to consult the municipality of Haret Hreik and the area's stakeholders concerning the way they envision the space.

#### **Personal Analysis**

Though Rajab's advise is one of the most essential parts of any project and was not disregarded during my investigation, it is however, very difficult in the context of Dahiye to receive whatever needed information.

The fact that the area faces complex security and political issues makes it a barrier to any information seeker, whether a student or a researcher, to find answers to his/her questions.

This further reveals one of the challenges that faced me during the investigation phase. Nevertheless, I used to informally ask people living in the area about their future visions of the space. The same replicated answer was "The under bridge space is a passage and a shelter from rain, do you see it any differently?" -sarcastically-.

As for the municipality's opinion, which was also succinct and conservative, is turning the under bridge roundabout to a platform for a martyr statue.

Such a primitive and timid approach, though respected, triggered me to look further into the religious issues of the neighborhood in order to make it a symbolic abstracted layer of the design, rather than an explicit statement that might increase the intensity of Lebanese religious conflicts.

### **Professor Alexandra Jerioska**

Alexandra first started her critique by announcing that such a project is definitely a difficult subject to investigate and was, however, extensively analyzed and well graphically represented. Alexandra also questioned how would the project act as a public space through activating the under bridge stretch entirely. Moreover, Alexandra mentioned that she is still personally not sure whether it is better to tackle the project as micro interventions or as a focus on one node only.

#### **Personal Analysis**

Having the jurors see the project for the first time without witnessing its process and tiniest details, it was a bit difficult to make everything clear within a limited period of time. This acted as a barrier for them to see what was already presented on the sheets but not verbally mentioned. Personally, I think that Alexandra's first question about how the stretch will act as a public space was clearly answered during the presentation and discussion with jurors, however, maybe due to the large number of information stated, the level of prioritizing of data decreased and it mixed up a bit.

In any case, Alexandra's second personal questioning highlighted to me what shape will the project take in later stages. Eventually, the project will present a quick planning of the entire under bridge stretch (the three nodes and the spine) with a major focus on one context (node), as the final conceptual design approach has portrayed

### **Professor Mehran Madani**

A doctoral degree holder in Interdisciplinary Design with specializations in sustainable characteristics of urban landscape, social concerns of healthy community design, current theories in landscape architecture, innovative 2D3-D visual communication, and GIS data models. Currently a lecturer at the Department of Landscape Design and Ecosystem Management at the American University of Beirut.

Madani's only comment was the fact that I am not showing the final concept on the site plan. Moreover, Madani noted that there is no use of case study images to explain the program.

#### **Personal Analysis**

The first comment was, frankly, due to my personal shortage in productivity during that specific phase. This report, nevertheless, tries to compensate the inadequacy by presenting the final adopted concept as shown previously. As for the second comment, the sheets included various case studies and mood images to elaborate on how the design is envisioned, but maybe this was not noticed because these images were not posted in the PowerPoint visual presentation.



## Professor Souheir Mabsout

Urban Development Manager

Souheir's critique section was diverse, packed, and stimulating. To this extent, I will choose to list her comments rather than stuff them in a paragraph, in an aim to make them clearer, as follows:

- Good graphics, with good effort and very brave initiatives.
- The project shows wisdom in the way you consolidate it in specific areas.
- An advise to provide guidelines for the different nodes with a focus on one only.
- Keep in mind that this is an urban project, despite the fact that you are catering for one community, and thus needs to be economically viable and a solution to physical issues.
- Use the religious layer as a symbolic inspiration and as a layer that defines the relation between the neighborhood and the city.
- Look into how the area connects to the street network of the Beirut to be able bring people from other communities to this area.
- Look into how the space is used during different religious occasions such as Ashura.
- Look into the physical evolution of the site.

### Personal Analysis

It was evident that Souheir showed huge interest in the project especially when she was interrupting to ask about details while I was presenting. This gave me more confidence to explain more about the topic to her and to the whole audience.

I appreciate the fact that Souheir's field of expertise in urban planning and issues made me more focused on the essentiality of considering the project as an urban project despite its multilayered character.

Furthermore, I see adequacy in her comment about adopting the religious layer as an inspiration rather than an approach.

As for connecting the project to the larger Beirut, this was not considered during my investigation in terms of a large scale circulation layer since I was focusing on the stretch within its suburban context. However, this comment will definitely be taken into application during the spring semester, and as the final design approach briefly shows.

Concerning looking into the space during different religious ceremonies, this was fortunately taken into account in the religious/cultural design approach (concept 2) through a program that defines an event venue as part of the design.

Finally, regarding looking into the physical evolution of the site, I believe that despite being able to reach some information about the subject, the essential maps were still missing due to conservative cooperation of the municipality in sharing information.

## Professor Nayla Al-Akl

Holder of Masters degree in Landscape Architecture and a full-time lecturer at the Department of Landscape Design and Ecosystem Management at the American University of Beirut.

Nayla started her critique by mentioning that the presented sheets seem very interesting, with appealing graphics, and engaging approaches, and that the subject is new and not overdone. However, it would have been easier for them as guest jurors to see the presentation on the screen, instead of only presenting the history and video in the PowerPoint.

In addition, professor Akl stressed on working in multilayers and regarding all layers of the site instead of one. Akl also mentioned that representing religion should be in an abstracted conceptual manner in order to transform the notion into space making.

Moreover, Nayla stated that the first concept is successful in trying to prioritize and in trying to see how religion is integrated in culture and the society, however she thinks that it is too much of a project for a limited time (spring semester). This is why Nayla's advise was to study land use and circulation along the stretch and then focus on one area that deals with all these spaces but within one focused context. This leads to a prioritized space and issue, quick planning of a master plan and then a zoom in into a specific context without forgetting all the zoomed out layers, and here the trick underpins.

## Personal Analysis

Despite trying to be very interactive with the audience through the panels instead of the PowerPoint presentation, I do regret not posting the design approaches on the screen. I believe it was not the best decision I have taken back then, since I was asked about information that I have already investigated and represented but were not noticed because they were on the panels.

I furthermore appreciate the way professor Nayla has made things clearer in mind through her concise choice of words and understandable explanation.

It is fair to thus admit that her comments were very helpful in the process of reorganizing layers of the site in my mind in order to further prioritize the essentials during the spring semester.

**Professor Nahida Khalil**

Landscape Architecture consultant and former head of Landscape Architecture Department at Laceco Architects and Engineers.

Mrs. Khalil started her critique by praising the quality of the graphical presentation and the selection of the project's topic. Moreover, professor Nahida stated that the analysis is very good and that the topic is very challenging, daring, and difficult.

Mrs. Khalil seemed to be a bit confused at first concerning what the message of the project is about. This misunderstanding was further resolved by me trying to re-explain briefly the project statement.

In addition, professor Nahida stated that people are practicing their religions in their houses and mosques, and we as Lebanese have religious conflicts and separations. This is why she sees that the space should be a shared space that must belong to the government and must have a statement to resolve the issues in the country.

**Personal Analysis**

Based on professor Nahida's last comment, it is very interesting, I must say, to allow for such a project to initiate solutions to larger local conflicts.

Adding to this, I believe that the project will not shift its path from catering for the residents of the neighborhood to catering for the entire Lebanese community, and maybe outsiders. However, and to be a more challenging project, the trick will be in how to design a space that primarily caters for its people in a multilayered manner, and at the same time does not alter the rights and beliefs of other Lebanese communities.

Date	Week	Task
January 25th, 2016	1	Study of stretch within larger context
February, 2016	2	Study of stretch interior connections
	3	Looking into design of focus node (research design techniques)
	4	Looking into designs of highly stressed areas
	5	Working with sections to design
March, 2016	6	Formulation of conceptual design and line strategies for focus node
	7	Concept development of larger context
	8	Evaluation of the site planning and site design
	9	Concept development of site design context
April, 2016	10	Design development of site design context
	11	Design development of site design context
	12	Intensive production of graphical material
	13	Intensive production of graphical material
May, 2016	14	Final revision and submission

Ongoing zooming in and out into site contexts  
Ongoing graphical presentation production  
Ongoing deskrits and professional feedback

Fig.89 Table of Spring Semester Schedule



Fig.90 Image of Class Presentation of Fall Semester 2015-2016



# CONCEPT DESIGN



The essential strategy is thus to integrate the under-bridge and remnant spaces in a unique social and physical fabric through establishing axial links across the most strategic intersection, among the other two.

**SITE PROBLEMATICS**

**PRIMARY PROBLEMATIC**

LOCAL COMMUNAL DISCONNECTION



Fig.91 Eyebird View of Local Communal Disconnection Representation

INTERNAL PHYSICAL DISCONNECTION

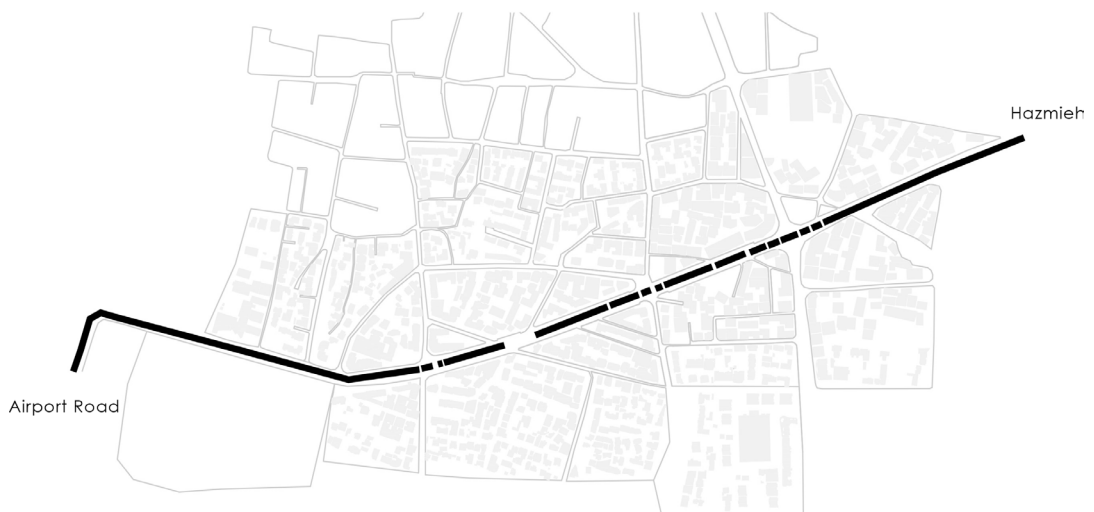


Fig.92 Diagram of Internal Physical Disconnection

1/20000

**SECONDARY PROBLEMATIC**

NEIGHBORHOOD ENCLOSURE AND MONO-IDENTITY



Fig.93 **Diagram of Neighborhood Enclosure and Mono-Identity**

## SITE OPPORTUNITIES

### SPACE SYNTAX - STREETS

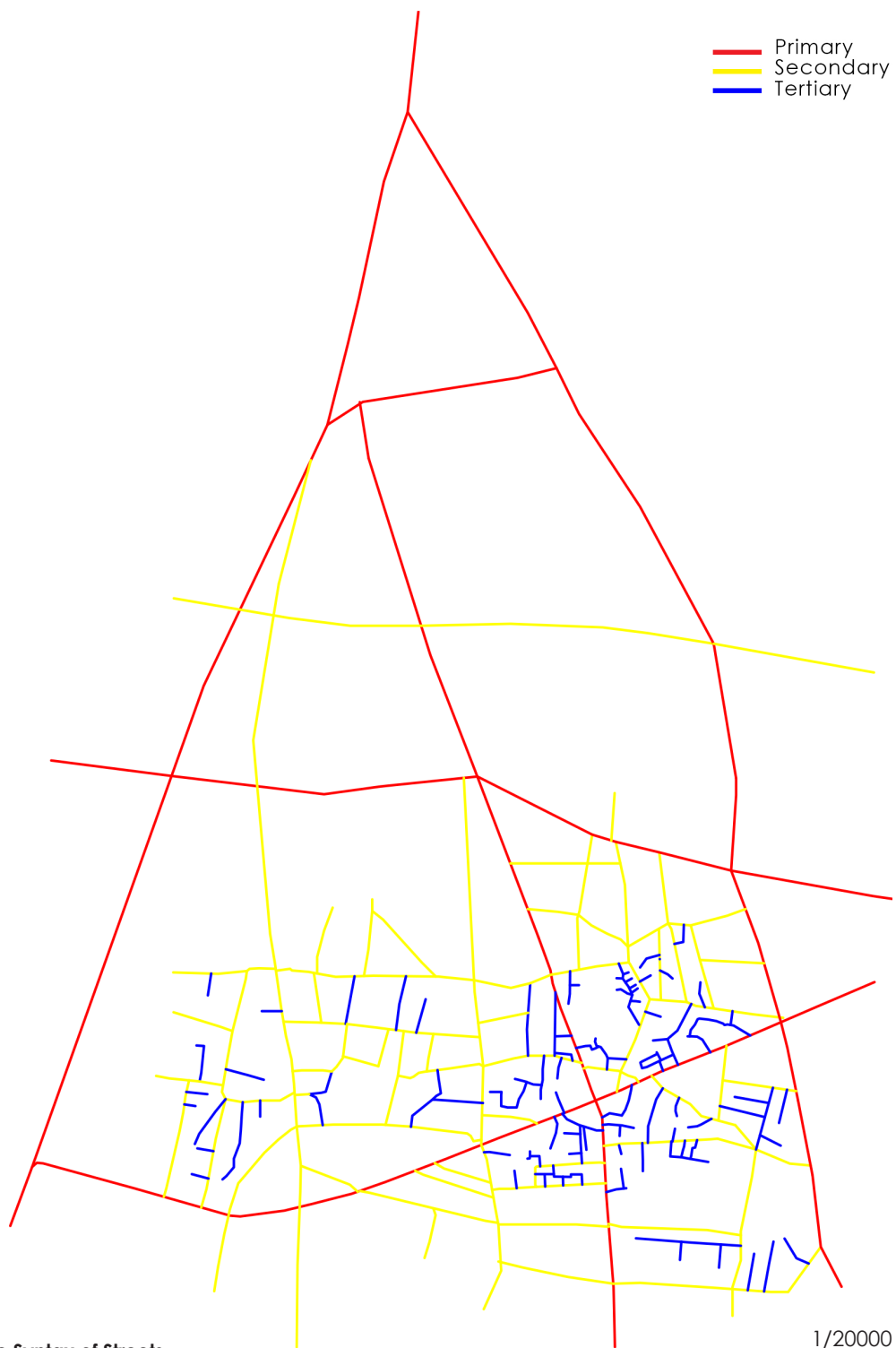


Fig.94 Diagram of Space Syntax of Streets

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REMNANT SPACES

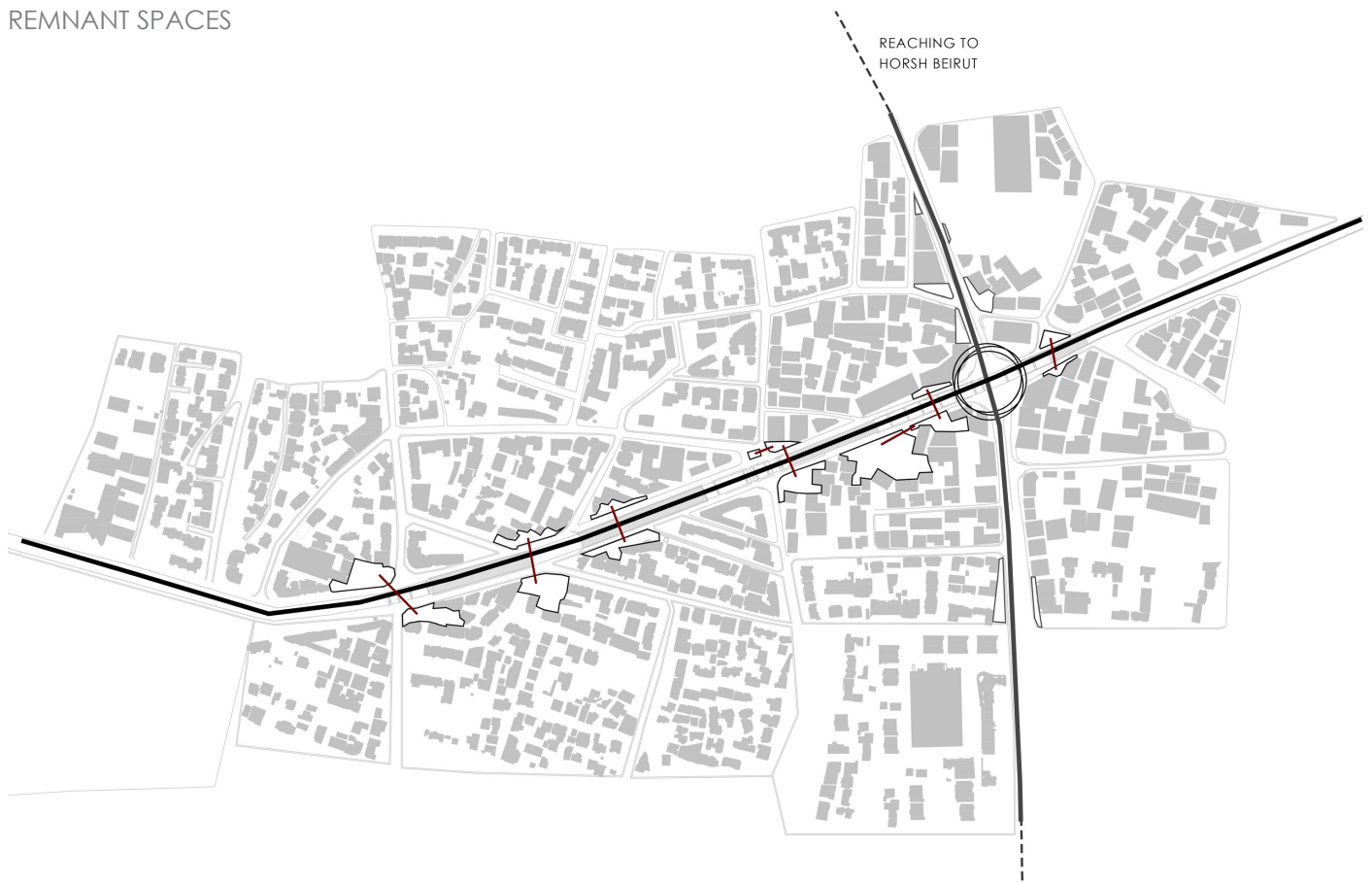


Fig.95 Diagram of Remnant Spaces

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## INTERVENTION FRAMEWORK

ON A CITY SCALE

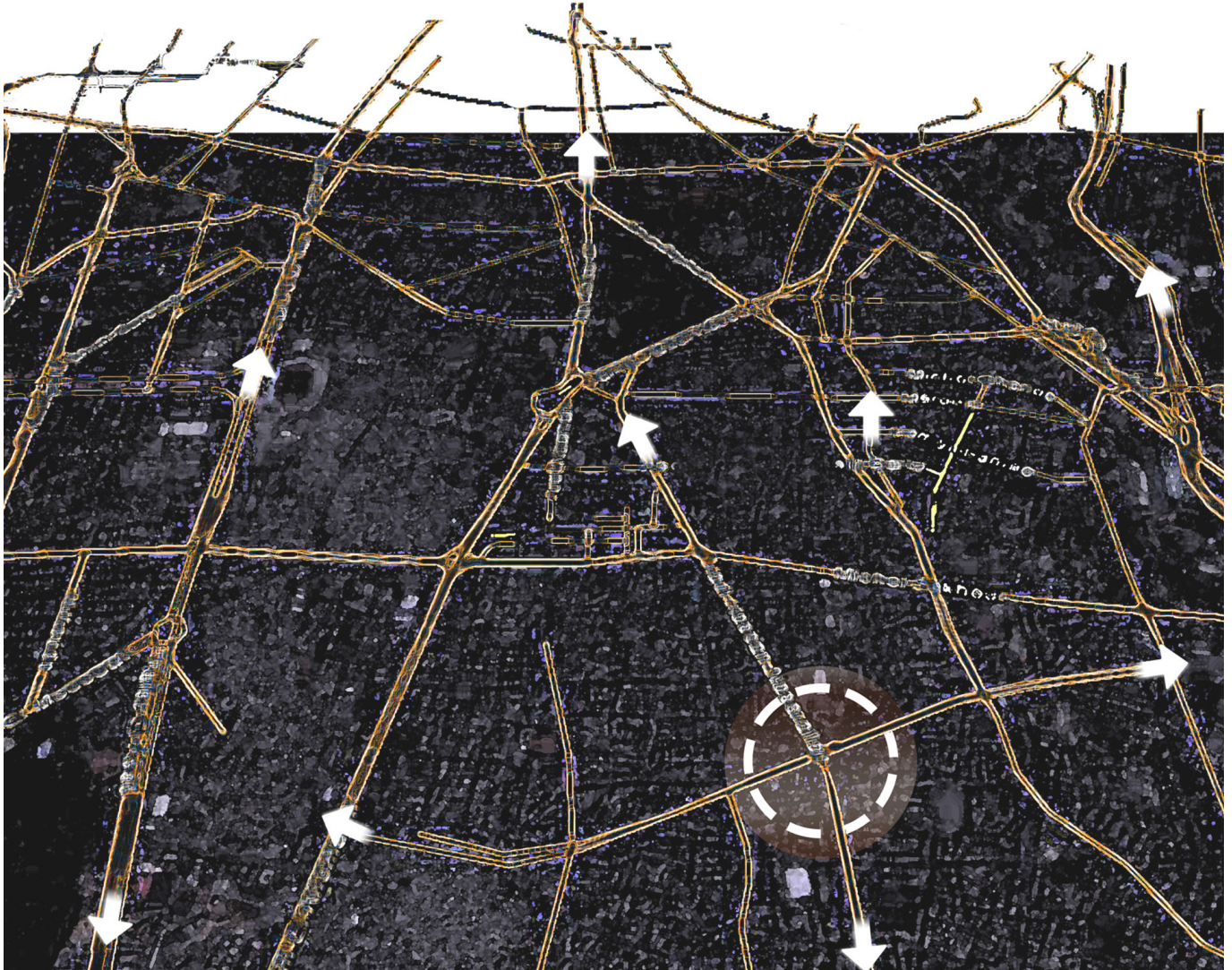


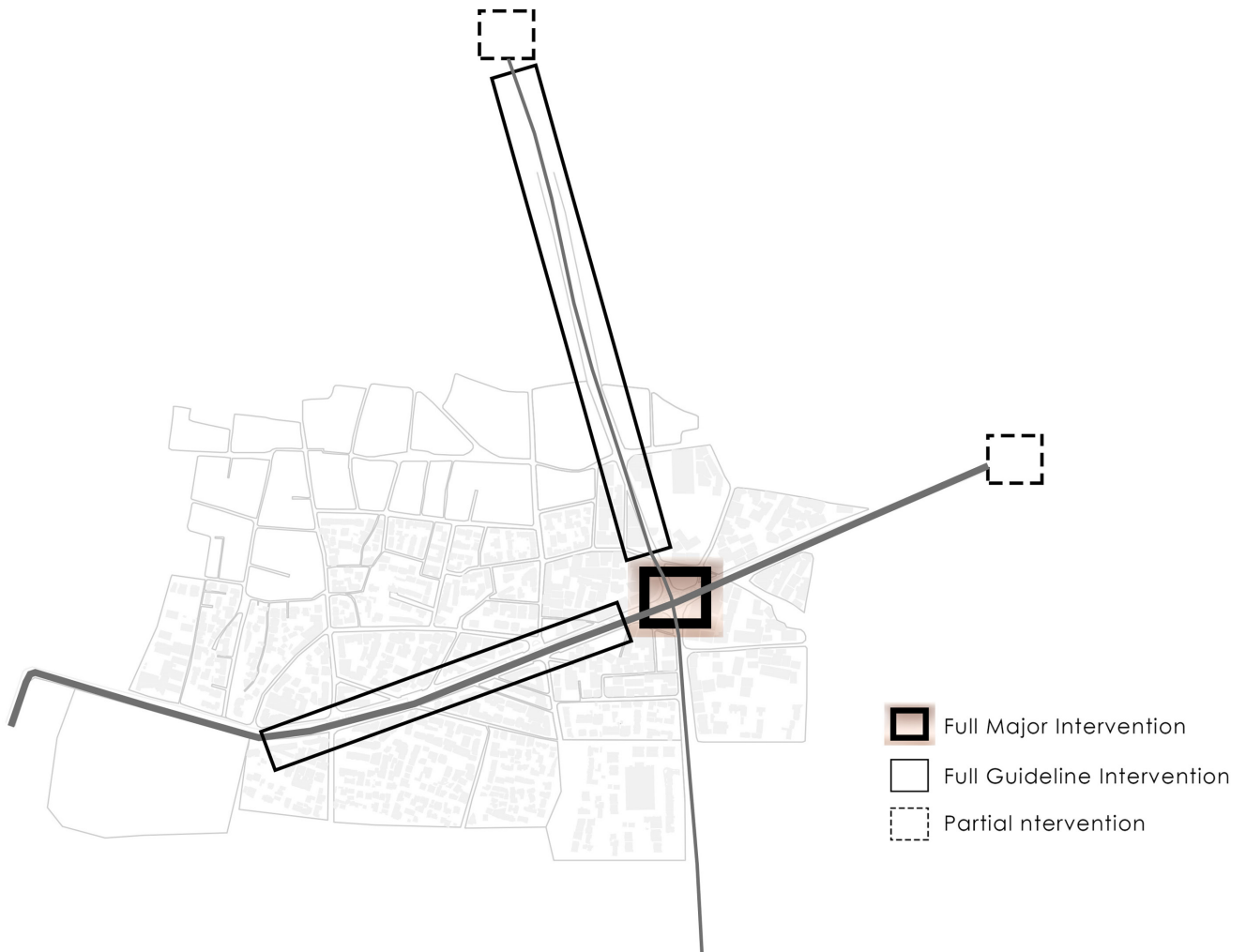
Fig.96 Diagram of City Scale Intervention Framework

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### FUTURE PROJECT EXPECTATIONS

- A first step in resolving Lebanese communal conflicts through an original spatial approach.
- An economic growth and revival that are both local and regional.
- Increased employment opportunities for all Lebanese seekers.
- Creation of a cutting-edge perception, on a local and national scale, for an area that has always been accompanied by notions of chaos, marginalization, and enclosure.

## LEVELS OF INTERVENTION

Fig.97 **Diagram of Levels of Intervention****DESIGN DECISIONS INVESTIGATIONS**

- What would cause visitors to feel spatial belonging to the area?
- How will the under bridge area be approached to solve the issue of physical disconnection?
- How will security measures be broken while considering the neighborhood's authorized need for maintaining security?
- How will locals maintain their sense of belonging with the huge proposed influx of visitors?
- How will visitors reach the project?



**CONCEPTUAL THOUGHTS**

LAND USE FRAMING - FOCUS AREA

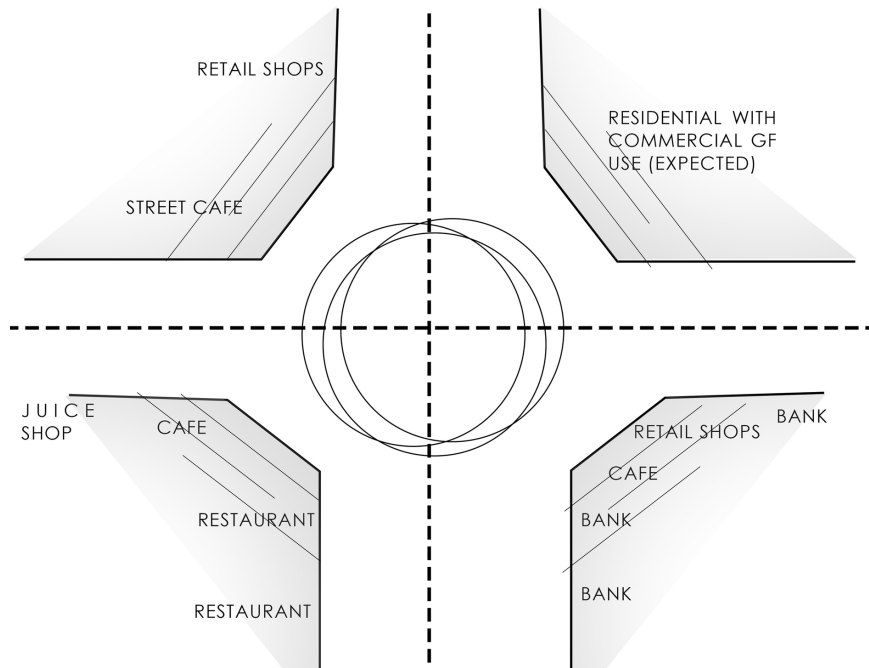


Fig.98 Diagram of Land Use Framing of Focus Area

APPROACH - FOCUS AREA

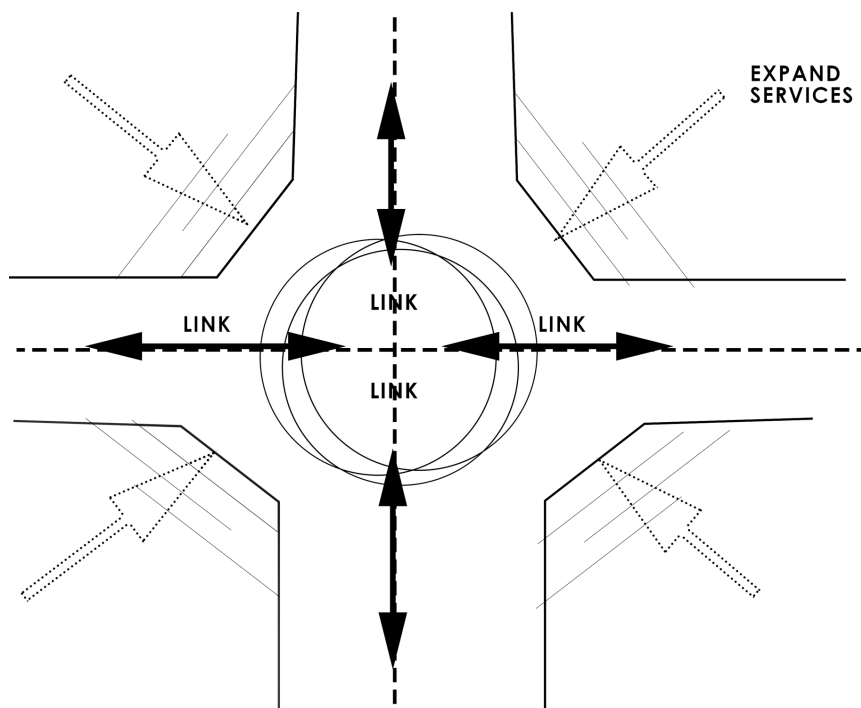


Fig.99 Diagram of Approach to Focus Area

DESIGN THROUGH CONCEPTUAL SECTION OF LANDSCAPE AFFORDANCES

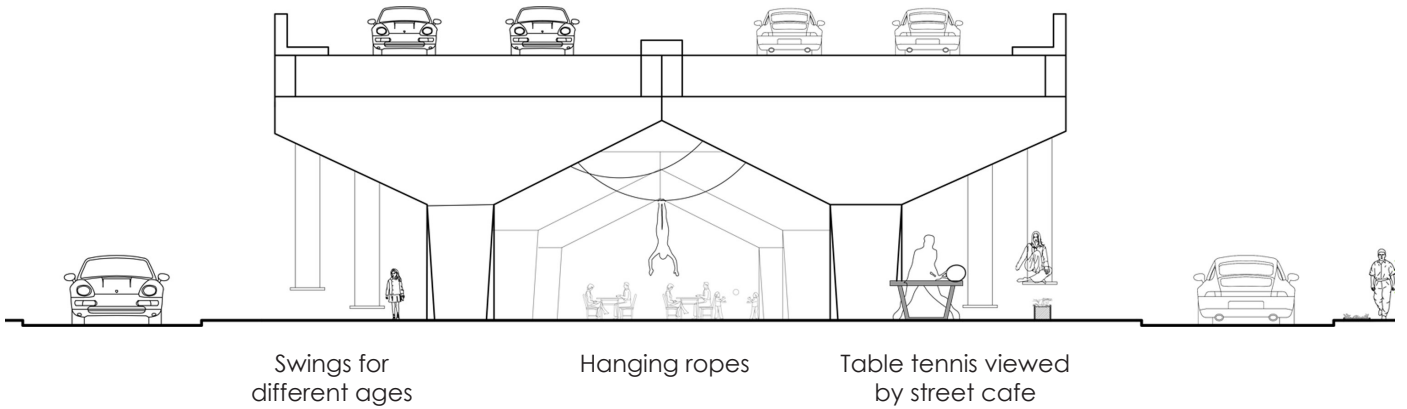


Fig.100 Conceptual Section of Landscape Affordances

DESIGN THROUGH ROUGH DIGITAL MODEL

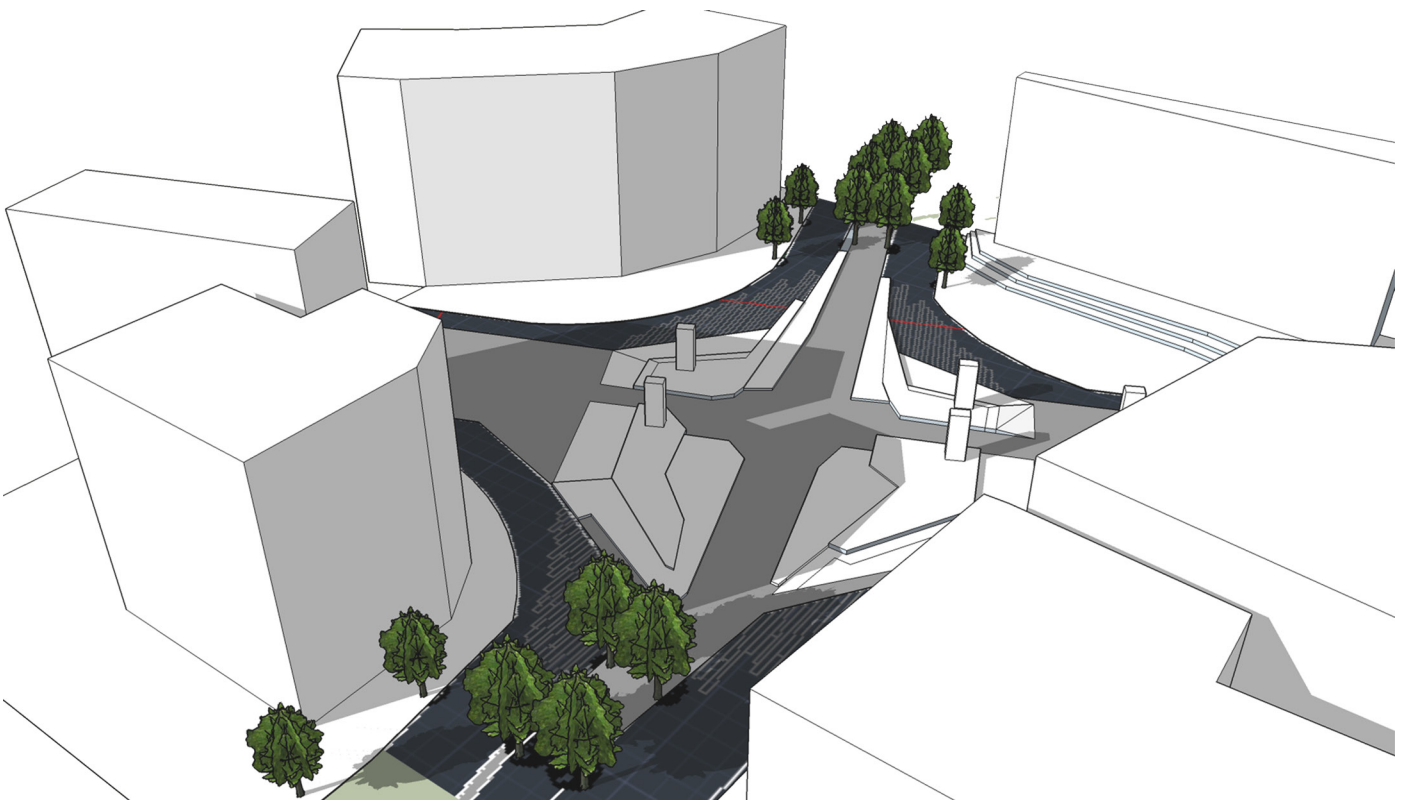
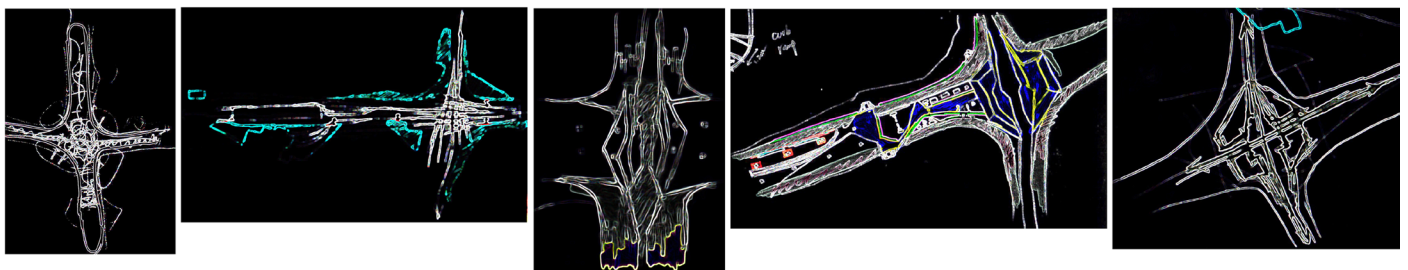


Fig.101 Image of Rough Digital Model



**PROJECT PROGRAM**

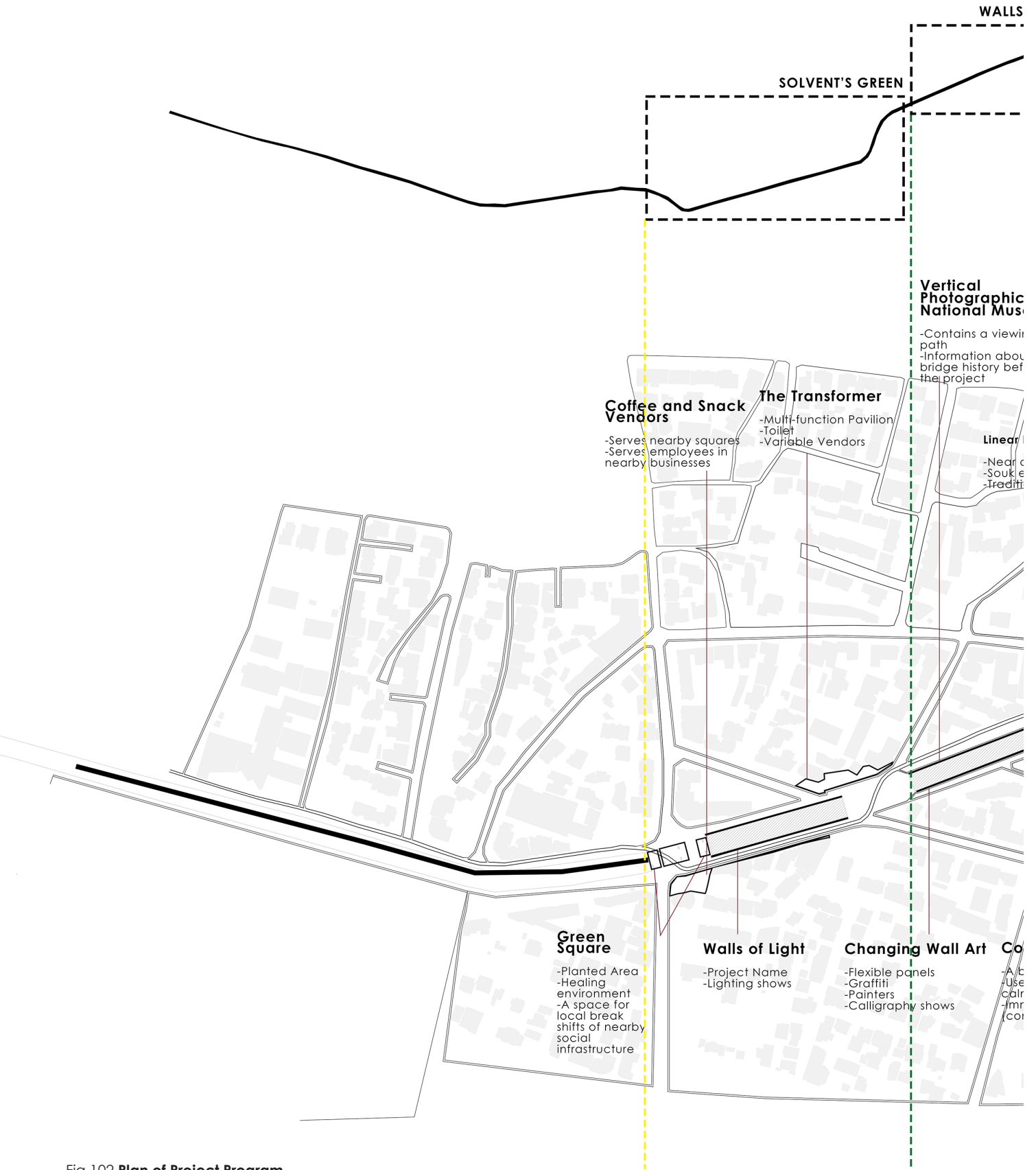
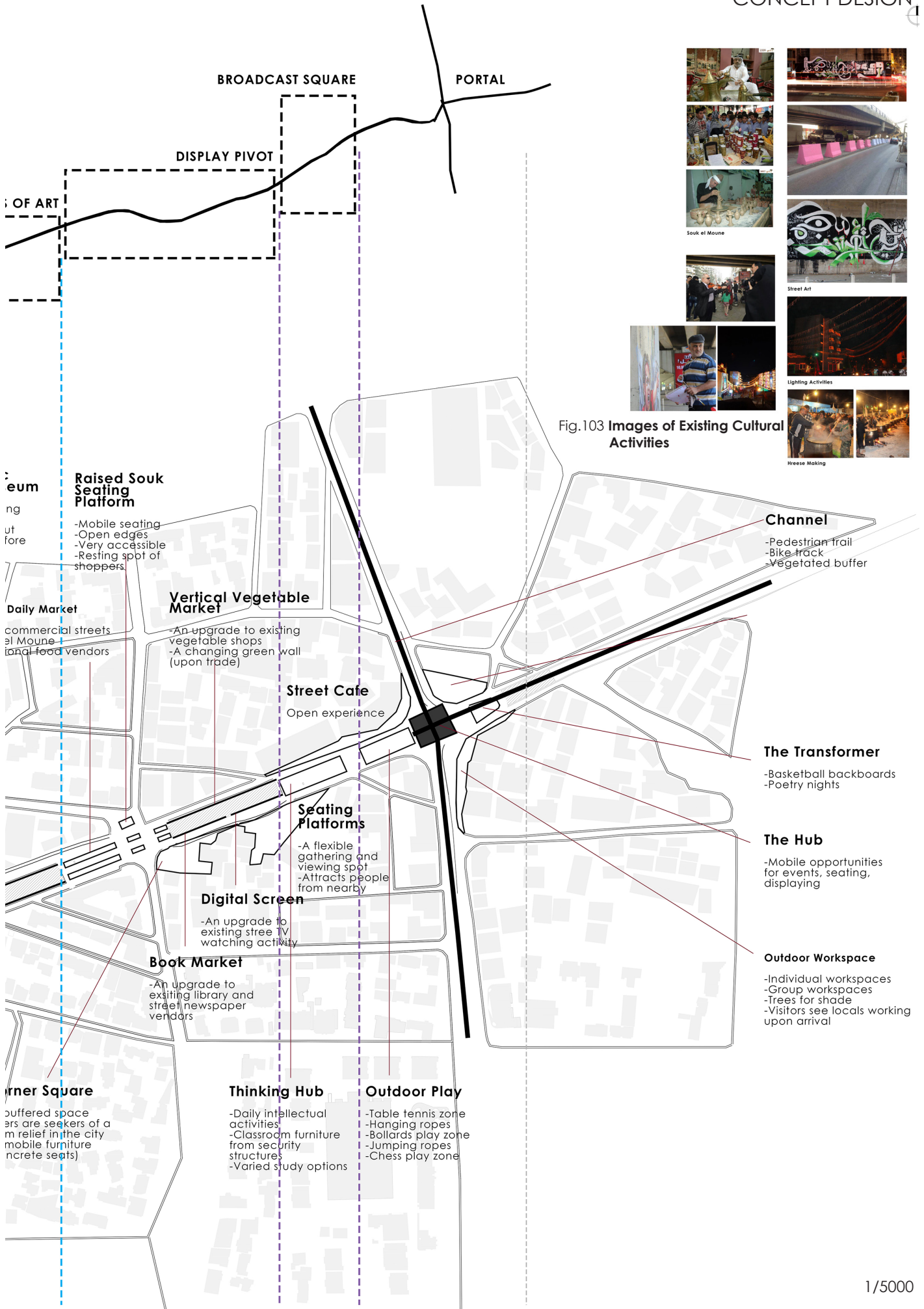


Fig.102 Plan of Project Program





# DESIGN DEVELOPMENT





DESIGN STRATEGY

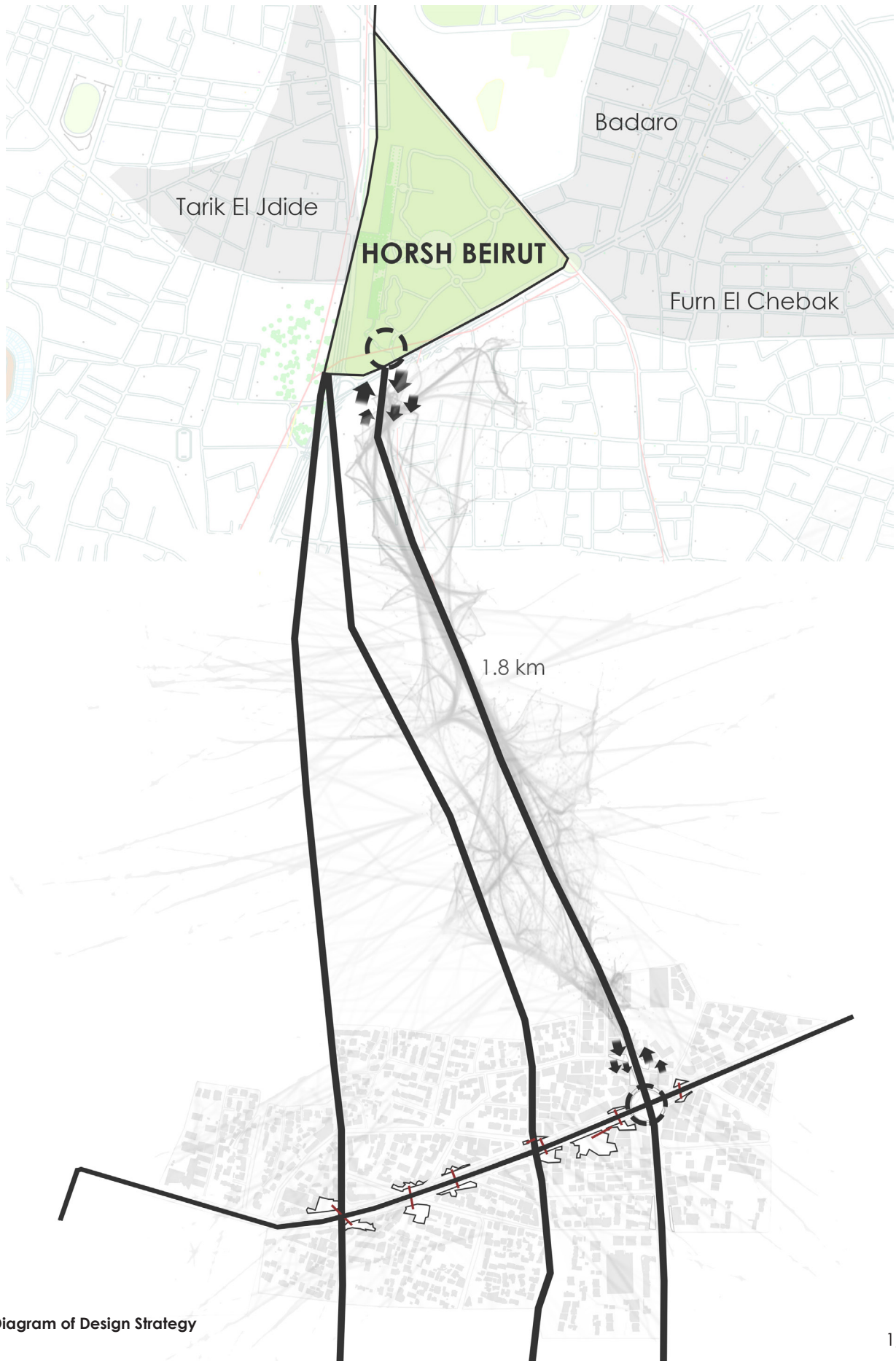


Fig.104 Diagram of Design Strategy

A CITY SCALE APPROACH

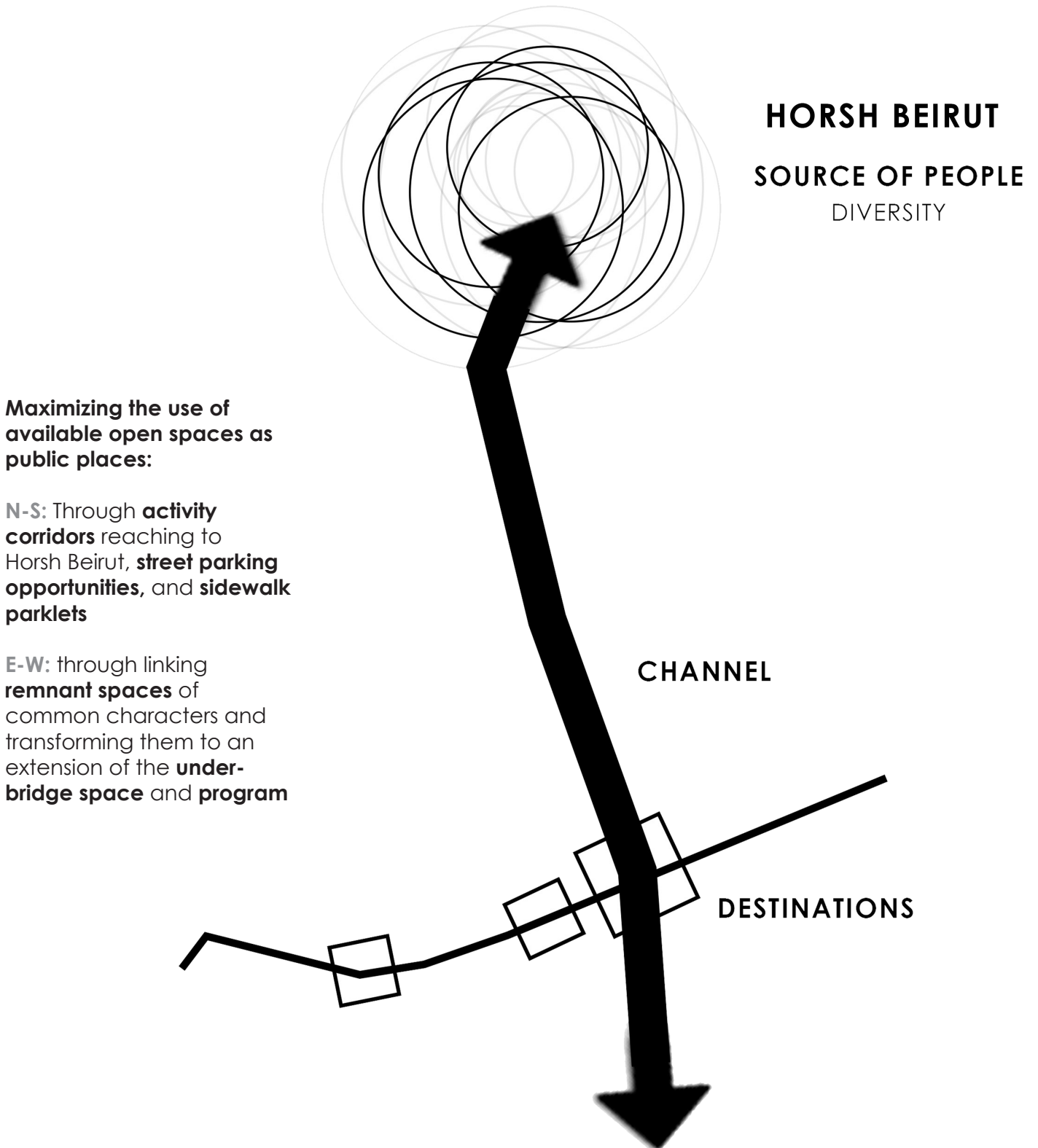


Fig.105 Diagram of City Scale Approach

MASTER PLAN



Fig.106 Master Plan





FOCUS AREA

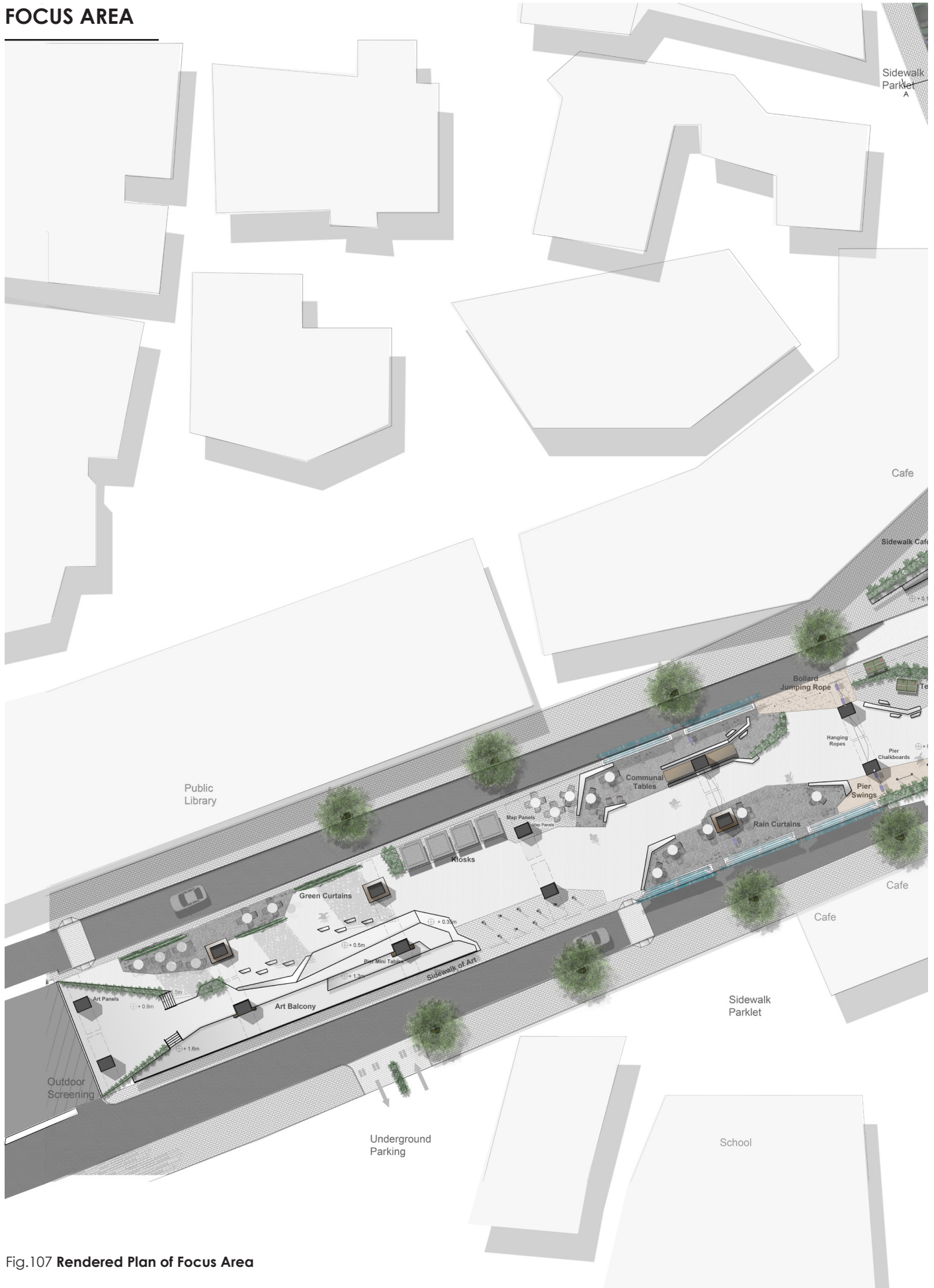


Fig.107 Rendered Plan of Focus Area







**HARDSCAPE**

**MATERIAL PALETTE**

- A** Concrete Tiles 50\*20 cm // Light Gray
- B** Poured Concrete // White
- C** Rugged Concrete // Gray
- D** Cobblestone Concrete 10\*10 cm // Gray
- E** Rubber Flooring // Light Beige
- F** Cedar Wood // Dark Brown
- G** Asphalt
- H** Crushed Stones // Very Fine particles

**LANDSCAPE USE**

- Promenade, sidewalks and under-bridge
- Platforms and seats
- E-W walkway, central portal, and programmatic transitions
- Pedestrian crossings and part of roads
- Bike trail and play spaces
- Seats and platforms
- Vehicular roads
- Under-bridge seating areas

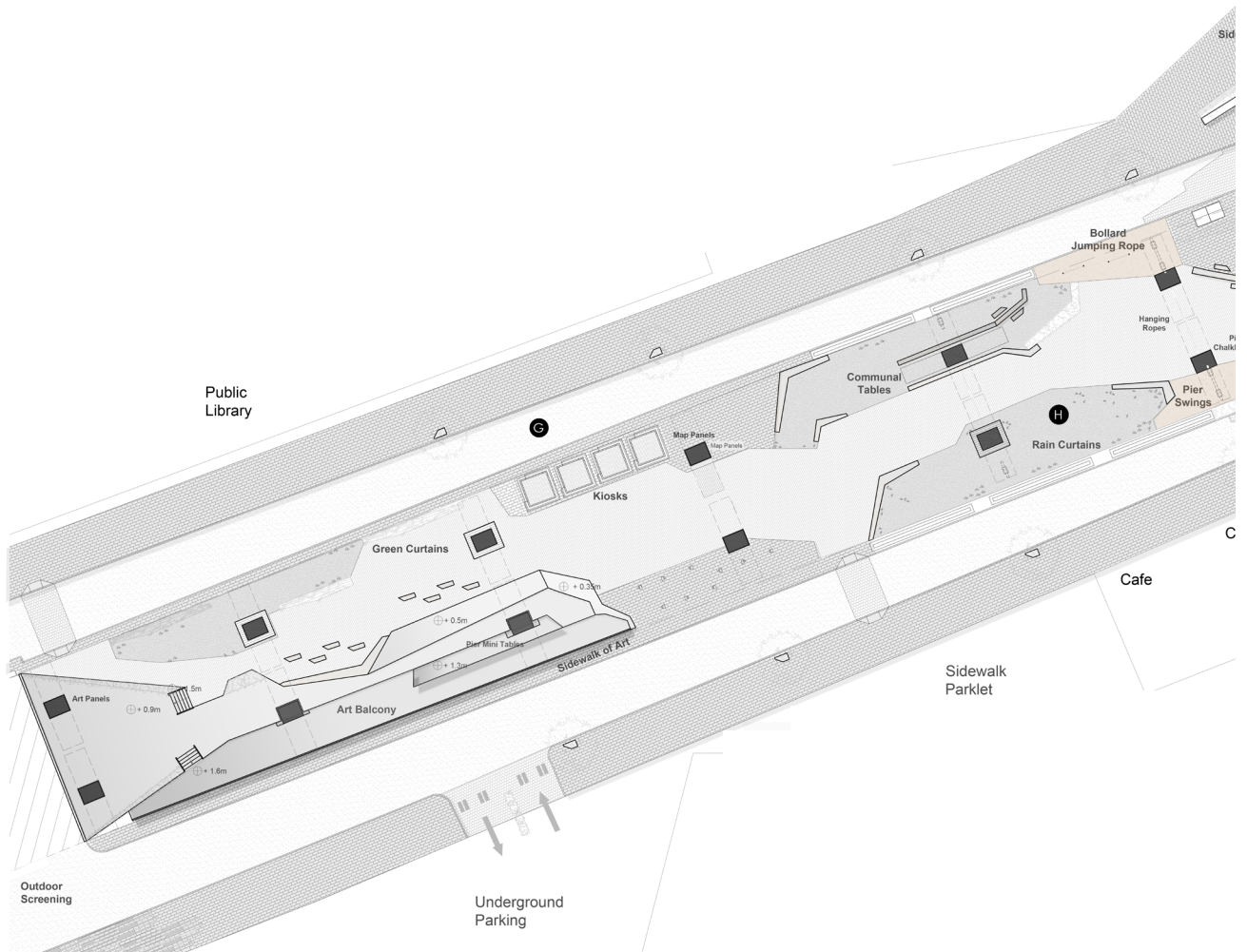
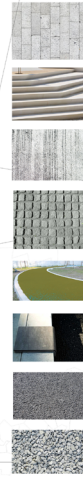
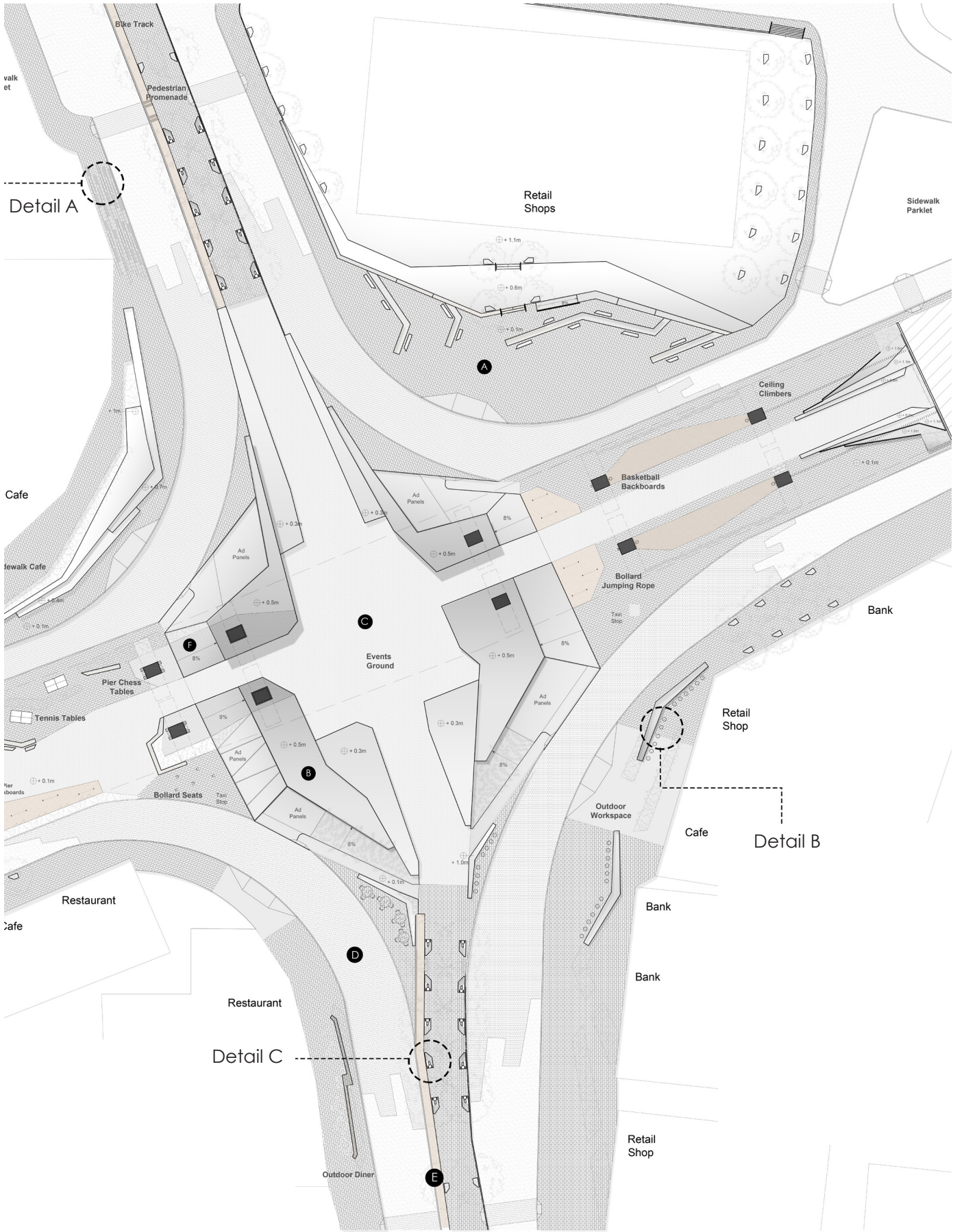


Fig.108 Hardscape Plan





HARDSCAPE DETAILS

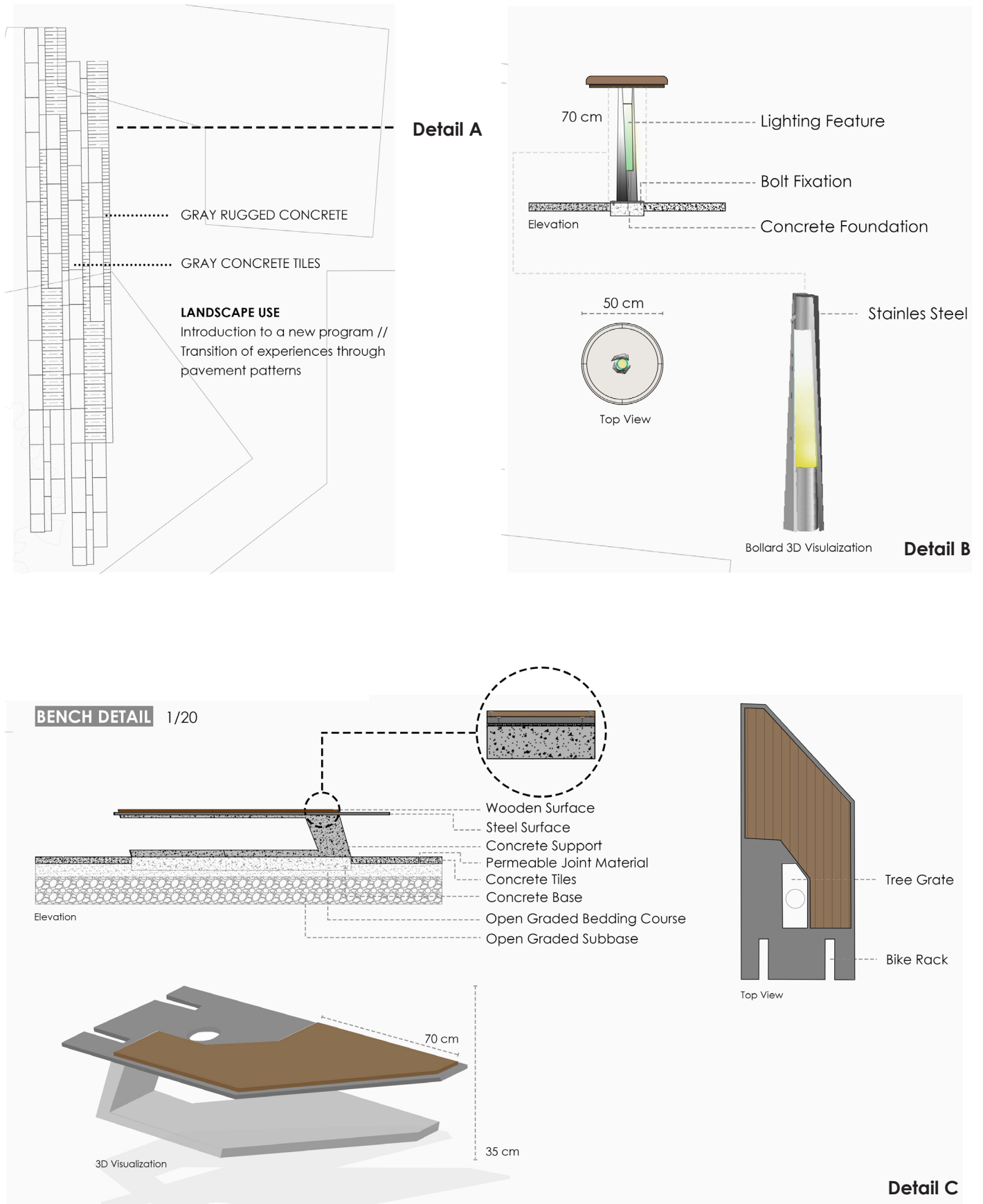
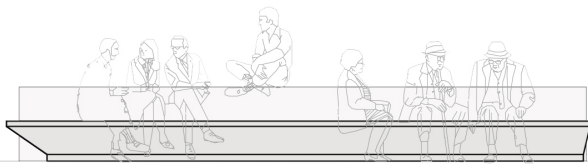


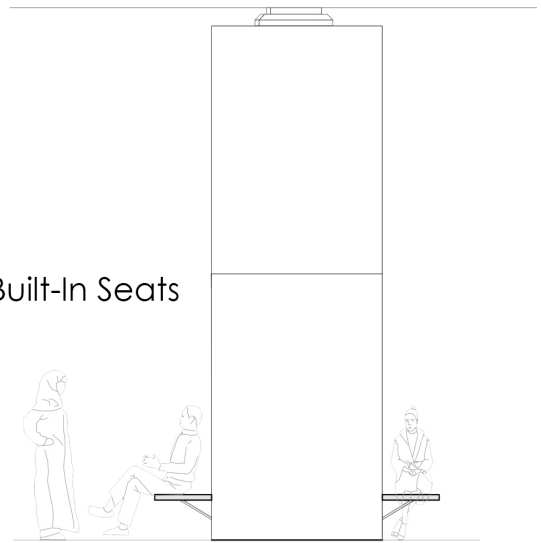
Fig.109 Details of Hardscape Elements

SEATING TYPES

Communal Tables



Column Built-In Seats



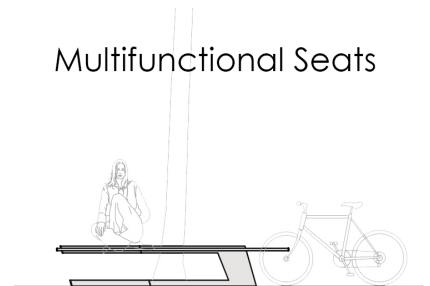
Mobile and Fixed Seating Combinations



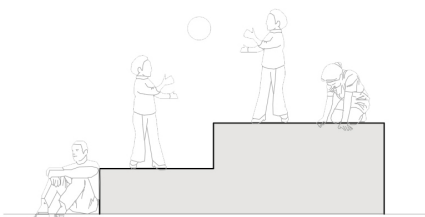
Chairs and Tables



Multifunctional Seats



Built-In Platforms



Bars and Stools



Individual Seats



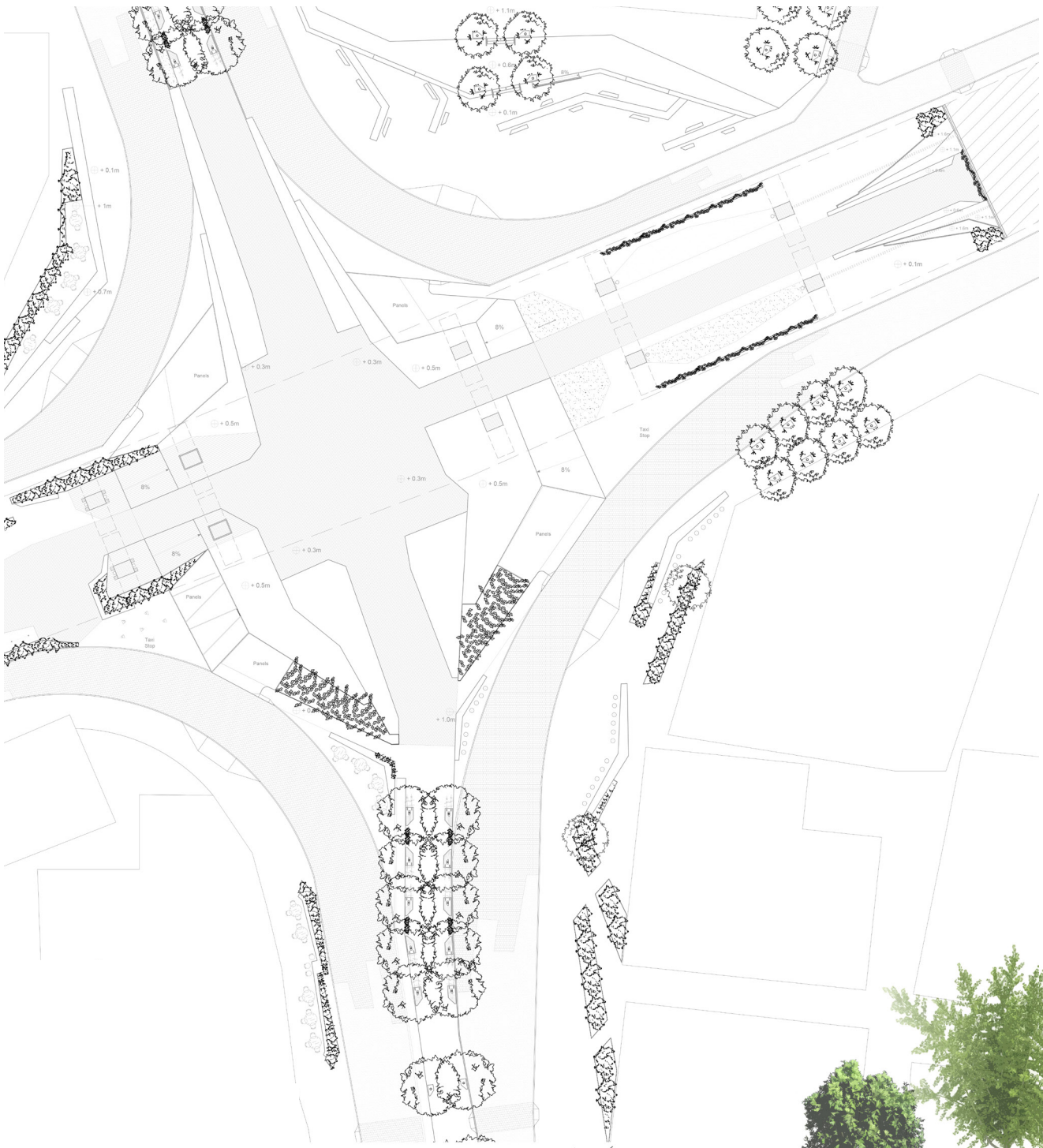
Fig.110 Sections of Seating Types

**SOFTSCAPE**





Fig.111 Softscape Plan





TREE PLANTING PALETTE

	SCIENTIFIC NAME	COMMON NAME	SHAPE	LANDSCAPE USE	SIZE
	Ginkgo biloba	Maidenhair Tree	Upright	Pollution tolerant, shade, specimen, and yellow litter in changing season	Spread: 8-10m Height: 15-23m
	Podocarpus macrophyllus	Japanese Yew	Round	Framing, pollution tolerant, litter pruning on sidewalks, and evergreen for a yearly experience	Spread: 4-6m Height: 6-8m

SHRUB AND VINE PLANTING PALETTE

	Adiantum sp.	Maidenhair Fern	Round	Softening effect, buffer, and partition	Spread: Up to 0.6m Height: 0.5m
	Ficus repens	Creeping Fig	Spreading	Vertical buffer and groundcover	Spread: 3-5m Height: 8-15m

Fig.112 Images of Planting Palette

CREEPING VEGETATION

A transition to a vegetation that is moving slowly, of functional effect, but barely noticed

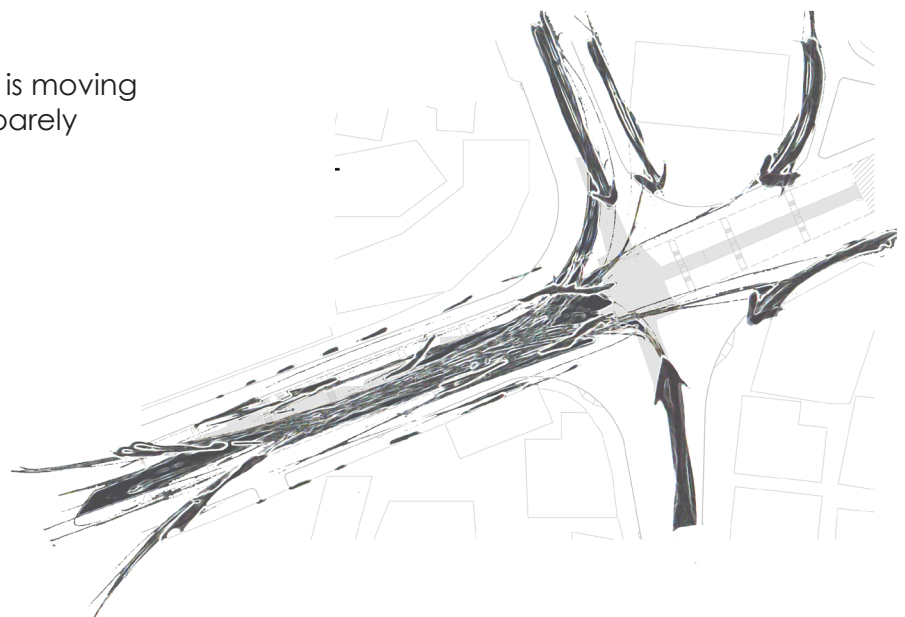


Fig.113 Diagram of Planting Concept





Fig.114 Images of Vegetative Inspiration Landscape Use



# DESIGN VISUALIZATION





PEDESTRIAN PROMENADE



**SIDEWALK PARKLET**

Activation of  
Remnant Spaces

**SIDEWALK PARKING**

Accommodation of  
Vehicular Influx

**PEDESTRIAN P**

Channeling of

Fig.115 Section Across Pedestrian Promenade-Channeling



A-A

**ROMENADE**

for pedestrians

**COMMERCIAL PLATFORM**

Reactivation of underutilized ground floor use

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PEDESTRIAN PROMENADE

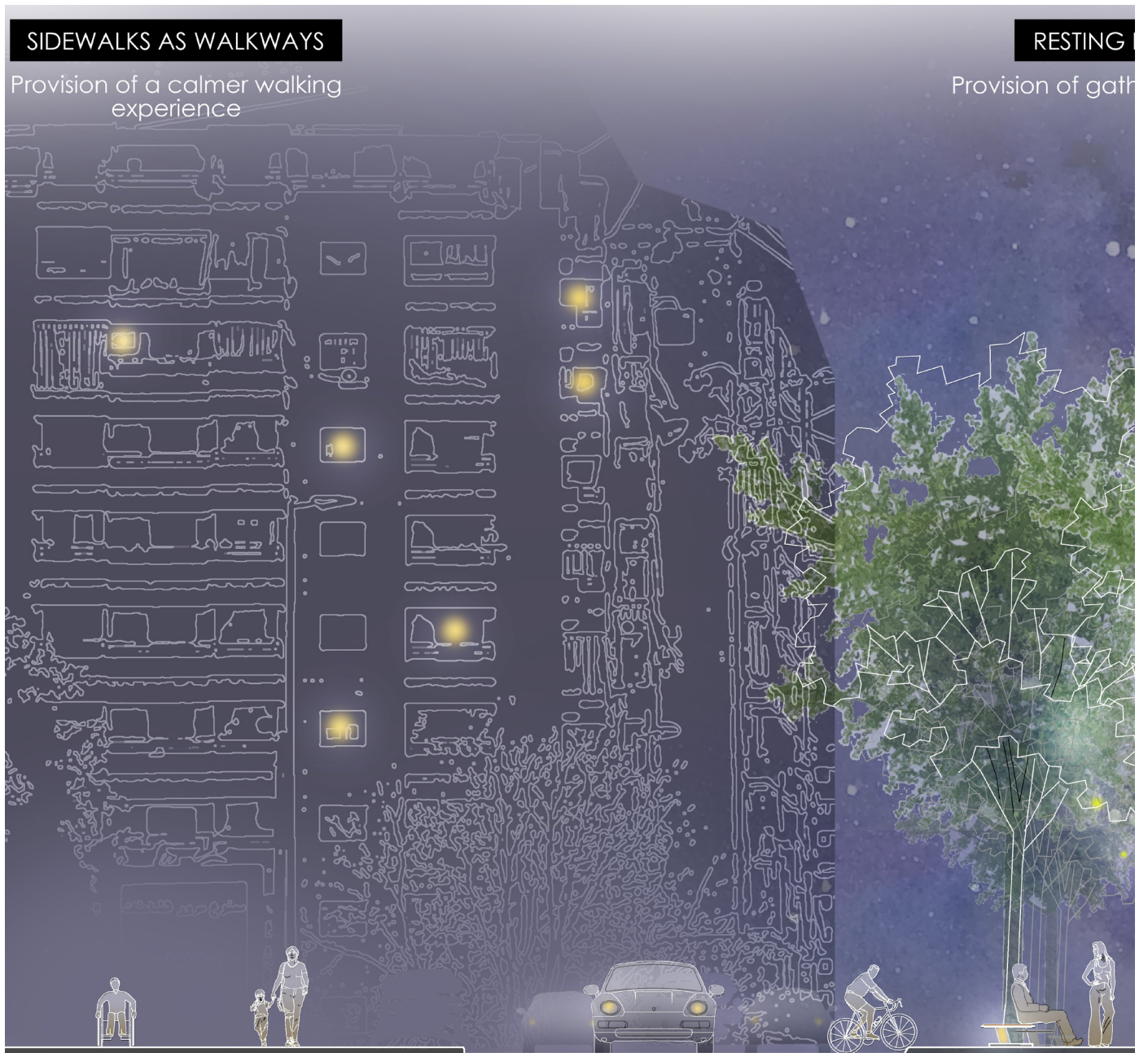


Fig.116 Section Across Pedestrian Promenade-Gathering

POINTS

gathering spaces

GRADUAL INTEGRATION

Integration of commerce  
with promenade



B-B

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PEDESTRIAN PROMENADE



Fig.117 Section of Pedestrian Promenade Elements Composition

C-C  
1/100

PEDESTRIAN PROMENADE DURING CHANGING SEASON



Fig.118 Visualization of Pedestrian Promenade During Changing Season





Fig.119 Visualization of Pedestrian Promenade Gathering Points

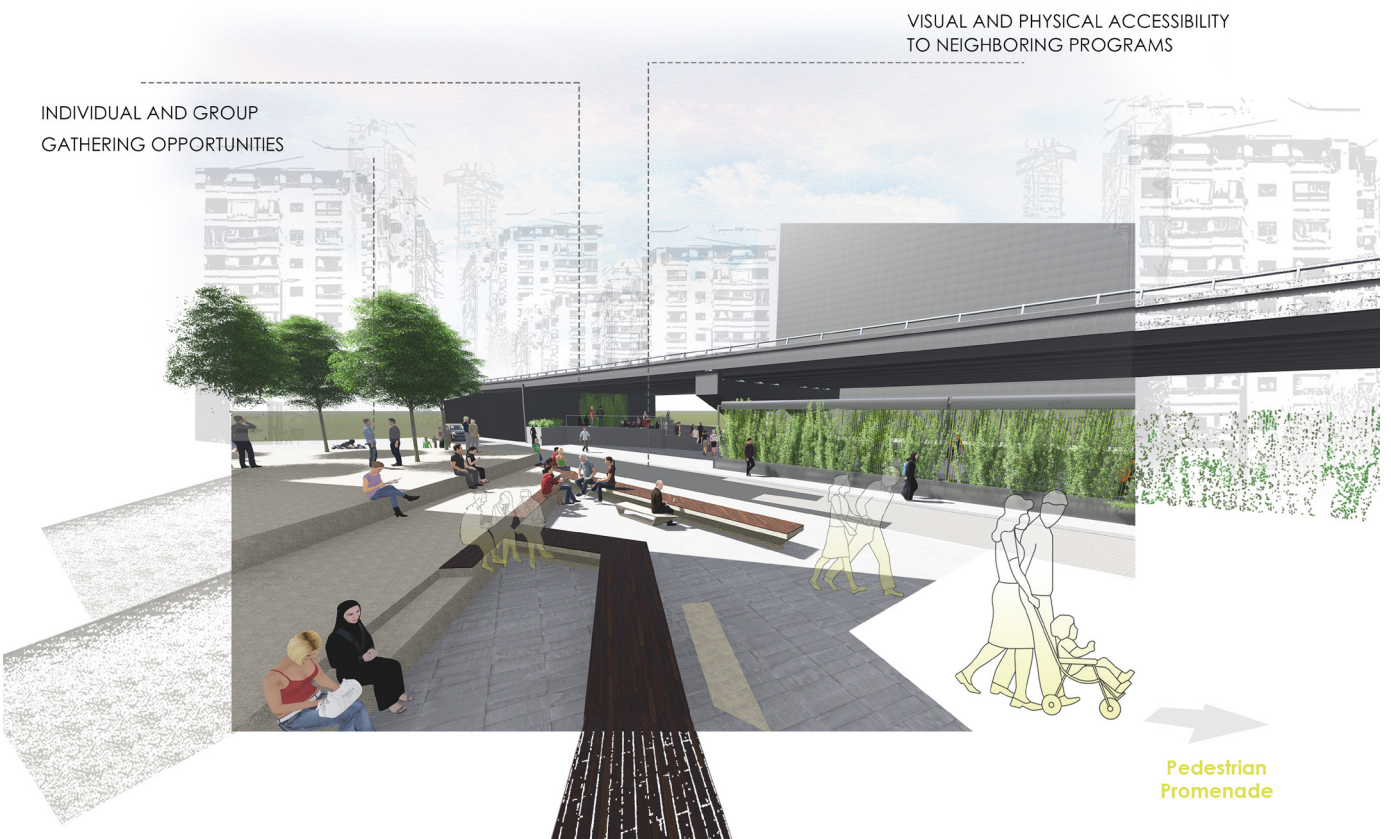


Fig.120 Visualization of Space Relations



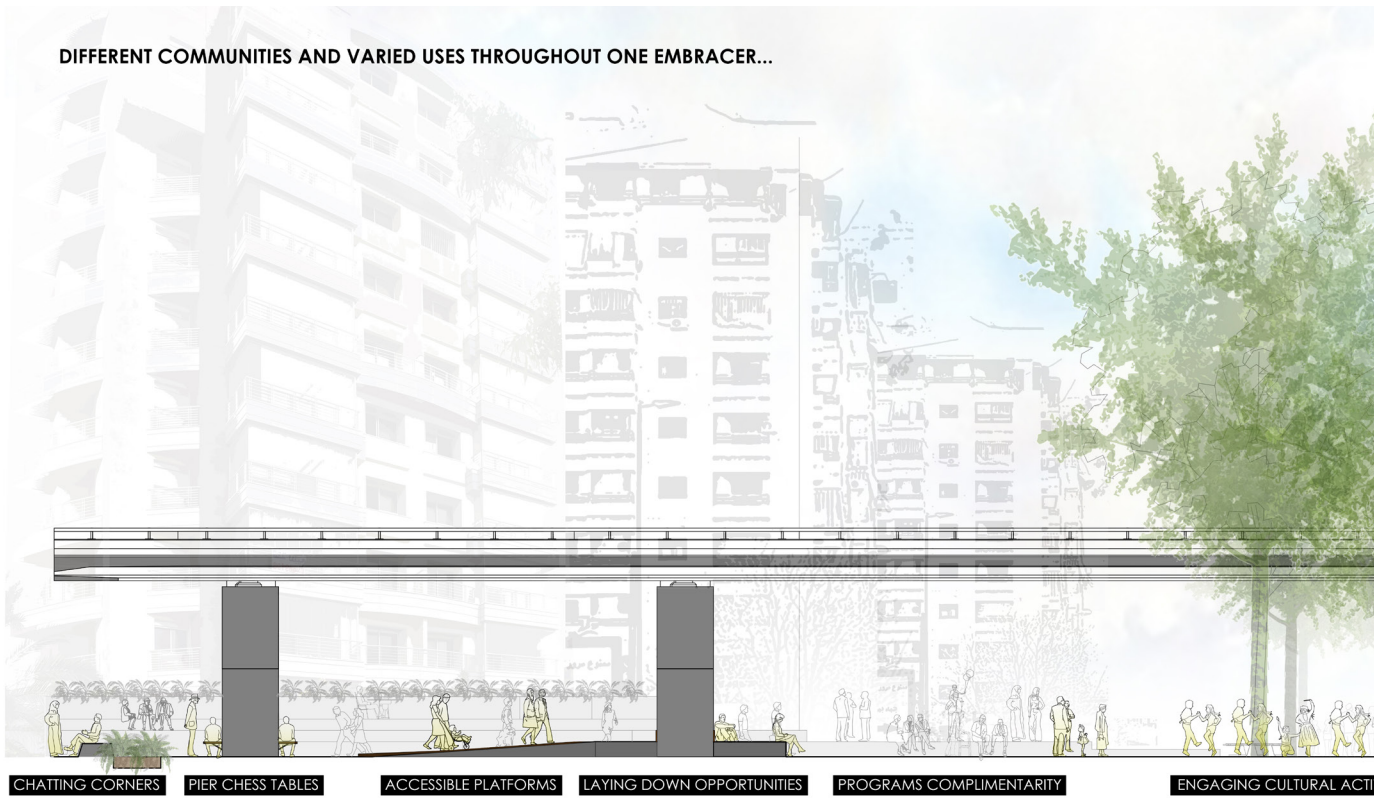


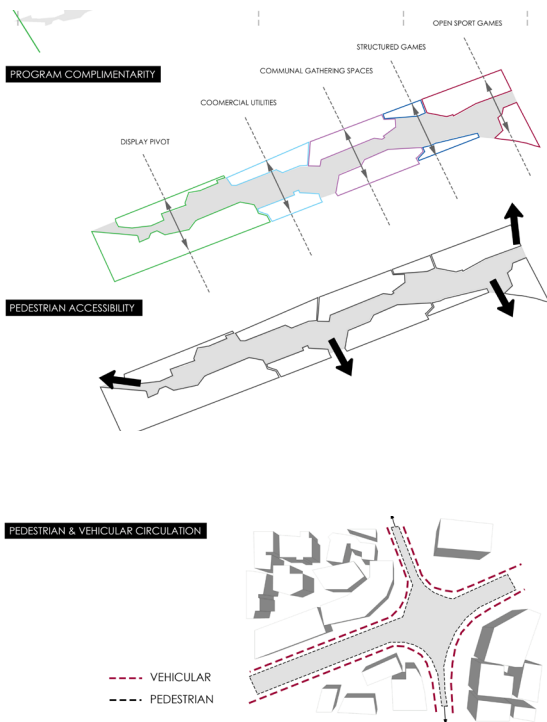
Fig.121 Section Across Portal



Fig.122 Visualization of Program Complementarity



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DESIGN ELEMENTS

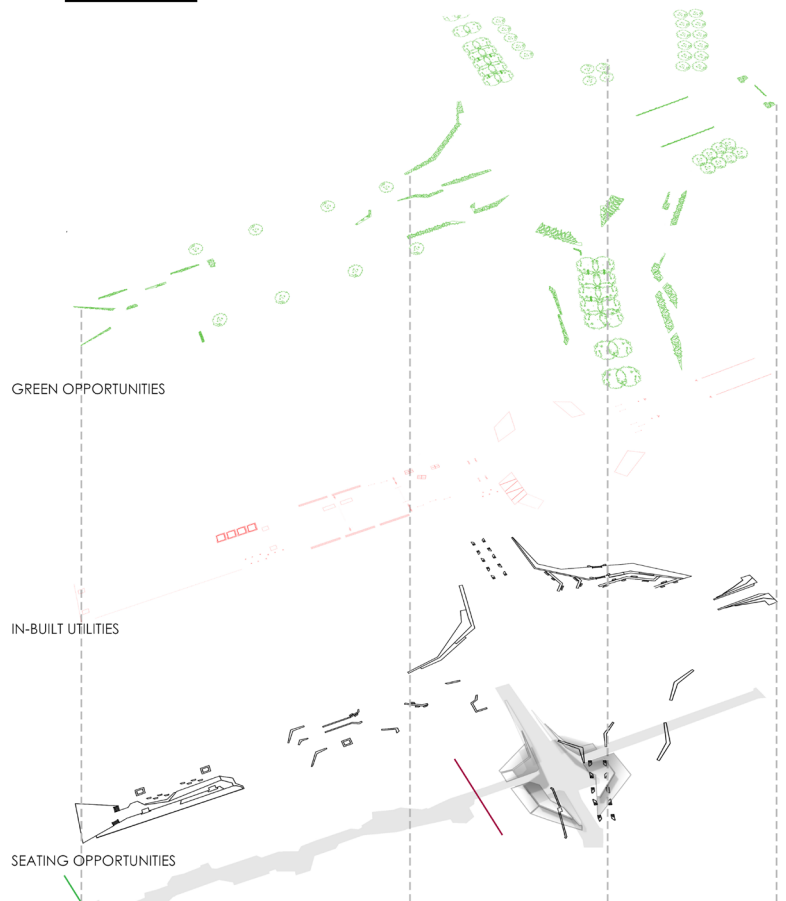
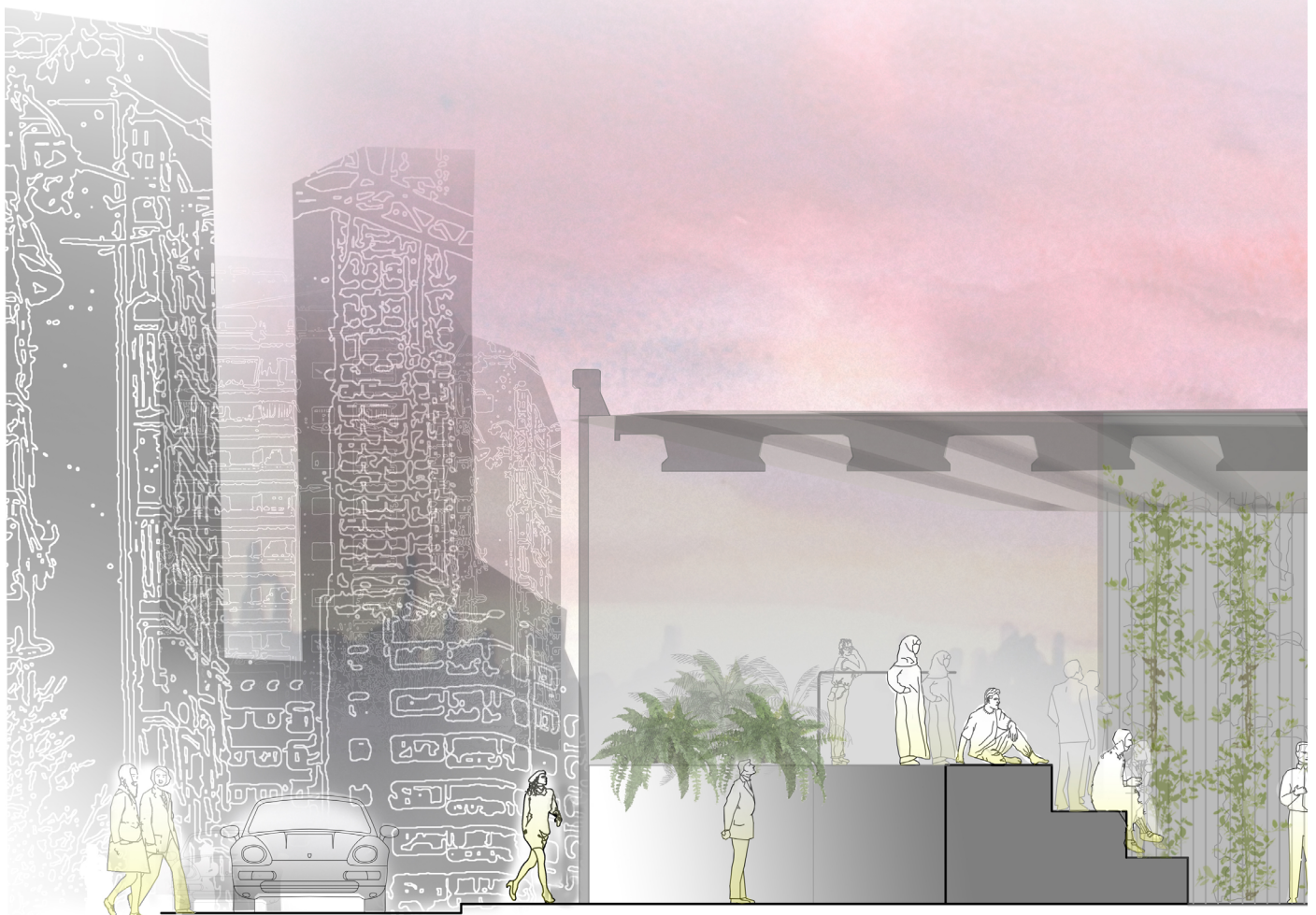


Fig.123 Design Diagrams



PEDESTRIAN PROMENADE

ONE SPACE AFFORDING RANGES OF ACTIVITIES...



PEDESTRIAN ACCESSIBILITY  
FROM CORNER SQUARE

PO

Fig.124 Section Across Under-Bridge Platforms



POETRY NIGHTS

INVITING BORDERS

D-D 1/100





Fig.125 Visualization of Under-Bridge Cultural Activities

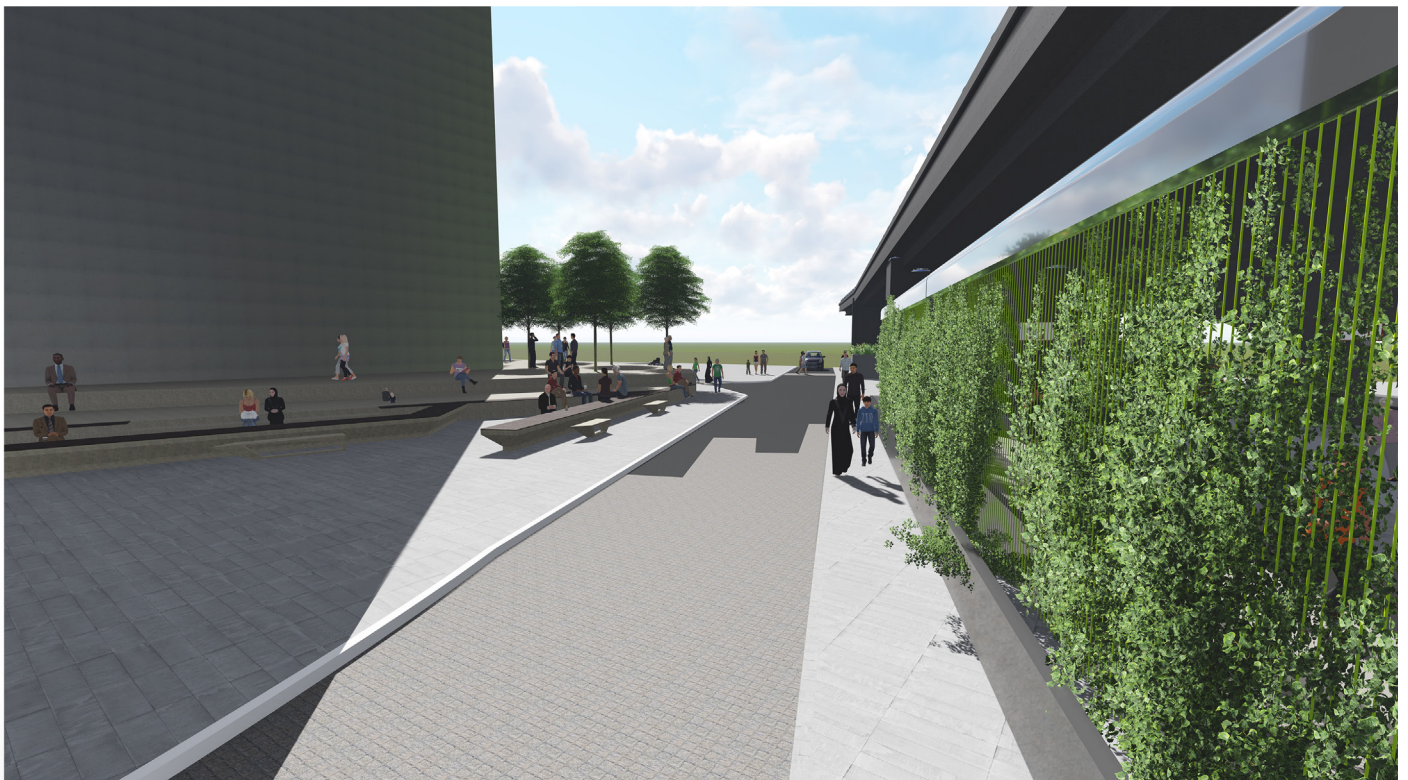


Fig.126 Visualization of Space Connections





Fig.127 Visualization of Under-Bridge Annual Cultural Activities

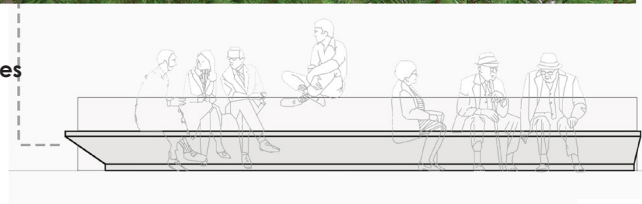


Fig.128 Visualization of Under-Bridge Basketball Areas





Fig.129 Visualization of Portal and Pedestrian Promenade



Fig.130 Visualization of Workspace Area



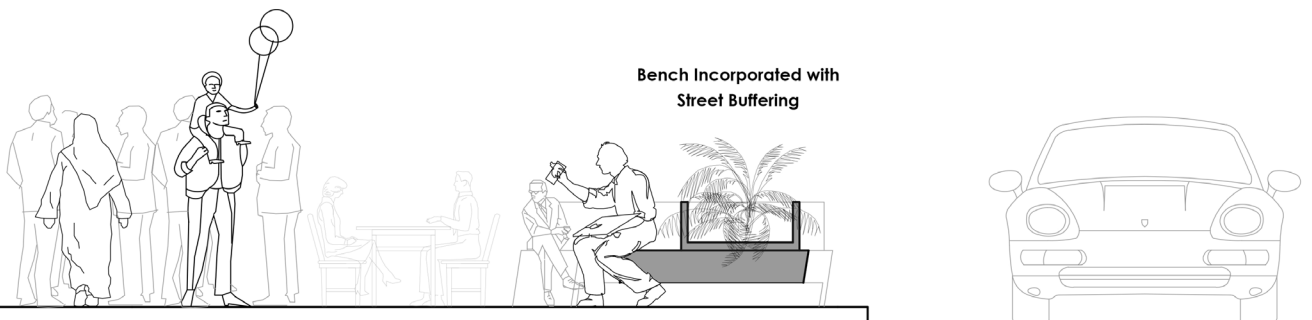
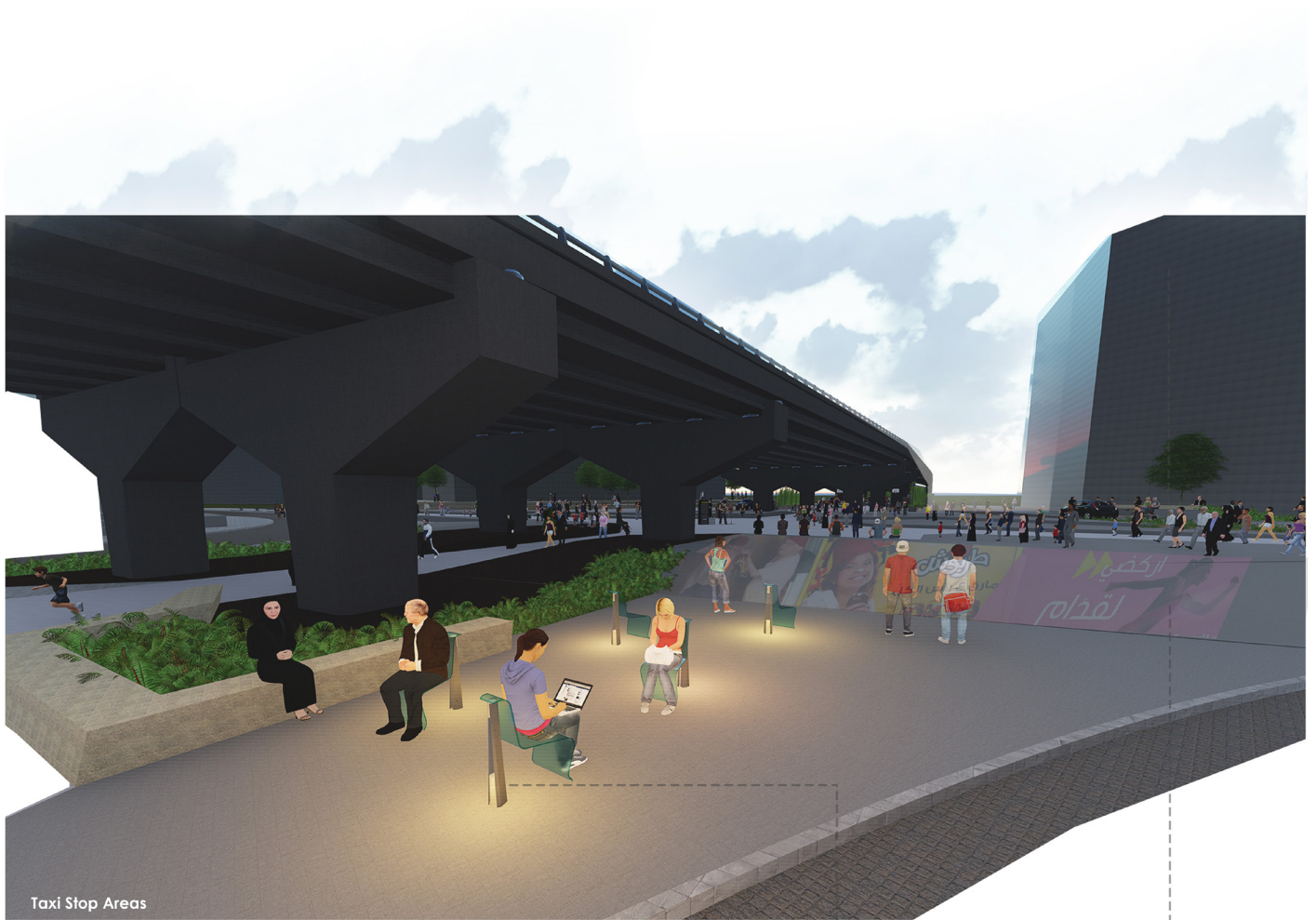


Fig.131 Visualization of Outdoor Diner



Fig.132 Visualization of Workspace Area at Night





Taxi Stop Areas

Bollard Incorporated Seats

Advertisement Panels

Fig.133 Visualization of Taxi Stop Areas



## REFERENCES

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### BOOKS

Fawaz, Mona and Ghandour, Marwan (2007). The Reconstruction of Haret Hreik: Design Options for Improving the Livability of the Neighborhood. American University of Beirut - Reconstruction Unit at ArD.

Gehl, Jan (2013). Cities for People. Island Press.

Gehl, Jan and Svarre, Birgitte (2013). How to Study Public Life. Island Press.

Knox, Paul and Pinch, Steve. Urban Social Geography (6th Edition). Pearson Education, 2006.

### ARTICLES

Gibson, James, J. (1986). The Theory of Affordances (ch.8). The Ecological Approach to Visual Perception. Lawrence Erlbaum Associates.

### FILMS

Niasari, Nora (2011). Beirut, Under the Bridge. Short Film. Directed by Nora Niasari. Produced by Nora Niasari.





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